Summons
Collective legal action under Section 3:305a of the Dutch Civil Code

Today, the twenty-first of April two thousand twenty-six (21-04-2026),

at the request of:

the association **Vereniging Milieudefensie**, having its registered office in Amsterdam and having its place of business at Willem Fenengastraat 23 in (1096 BL) Amsterdam (the Netherlands), referred to hereafter as: "Milieudefensie";

which is choosing domicile in this case at the office address of Paulussen Advocaten N.V. at Sint Pieterskade 26B in (6212 AD) Maastricht (the Netherlands); Mr R.H.J. Cox who works at this law-firm will act as counsel and will be appointed as such,

I,

SUMMONED:

the company incorporated under foreign law **Shell Plc**, having its registered office in London, United Kingdom, registered in the local Companies House register under registration number 04366849 and having its registered office at Shell Centre, London, SE1 7NA (referred to hereafter as: "Shell"), with no known place of residence or actual abode in the Netherlands.

With a view to this, I served my writ pursuant to Section 55(1) of the Dutch Code of Civil Procedure (referred to hereafter as "DCCP") on the public prosecutor's office at the District Court of Amsterdam, where I left two copies of this summons, provided with the translations of these documents into the English language, at the address IJdok 163 in (1013 MM) Amsterdam with:

who works and was present there.

The request was made to serve this writ, and the above-mentioned documents, including the translations of those documents into the English language, on the company incorporated under the law of the United Kingdom Shell plc, having its registered office at Shell Centre, London, SE1 7NA, United Kingdom, in accordance with Articles 3 up to and including 6 of the Convention on the Service Abroad of Judicial and Extrajudicial Documents in Civil or Commercial Matters of 15 November 1965 (the "**Hague Service Convention**") by the method prescribed by the internal law of the State addressed for the service of documents in domestic actions upon persons who are within its territory, and the (Central) Authority within the meaning of Article 6 of the Hague Service Convention was also requested to return a copy of this writ accompanied by the certificate within the meaning of the Hague Service Convention.

Furthermore, I immediately sent a copy of this writ accompanied by a translation into the English language as well as a USB stick with the Exhibits referred to in this summons by registered letter and UPS courier to the address of Shell, as mentioned above pursuant to Section 55(1) DCCP;

TO:

appear on Wednesday, the twenty-ninth of July two thousand twenty-six (29-07-2026) at 10:00 a.m., not in person, but represented by counsel, at the hearing of the District Court in Amsterdam in the courthouse at Parnassusweg 280 in (1076 AV) Amsterdam,

WHILE GIVING NOTICE THAT:

(a) if the defendant fails to appoint counsel or fails to timely pay the court fees referred to below, and the prescribed time-limits and formalities have been complied with, the District Court will grant leave to proceed in default of appearance against the defendant and award the demands described below, unless these appear to be unlawful or unfounded to the District Court;

(b) if the defendant appears in court, court fees will be charged that are payable within four weeks counted from the date of appearance;

(c) the amount of the court fees is set out in the most recent annex to the Dutch Court Fees (Civil Cases) Act ("*Wet griffierechten burgerlijke zaken*"), which can be found on the website:www.kbvg.nl/griffierechtentabel, among other places;

(d) for a person without means, the court fees for persons without means established by or pursuant to the law will be levied, if that person has submitted the following, at the time the court fees are levied:

- a copy of the decision to grant legal aid as referred to in Section 29 of the Dutch Legal Aid Act ("*Wet op de rechtsbijstand*"), or, if this is not possible due to circumstances that cannot reasonably be attributed to them, a copy of the application referred to in Section 24(2) of the Dutch Legal Aid Act; or

- a statement issued by the managing board of the Dutch Legal Aid Council ("*Raad voor rechtsbijstand*") as referred to in Article 7(3) under e of the Dutch Legal Aid Act, showing that their income does not exceed the incomes referred to in the order in council pursuant to Section 35(2) of that Act;

(e) the plaintiff and the defendant are required to fully and truthfully present the facts that are relevant to the Court's decision;

(f) the District Court is required to consider the facts or rights that have been asserted by one party without rebuttal, or sufficient rebuttal, by the other party as established facts, without prejudice to the District Court's power to require evidence to be produced whenever the acceptance of the assertions would lead to a legal consequence that the parties cannot freely determine;

(g) under Section 1018c(2) DCCP, the plaintiff is obliged, on pain of inadmissibility, to file the writ of summons with the court registry within two days of the date of the summons, with a simultaneous entry of the

summons in the central register for collective actions ("*centraal register voor collectieve acties*") within the meaning of Section 305a(7) of Book 3 of the Dutch Civil Code (hereafter: "**DCC**"). The entry must be accompanied by an excerpt from the summons;

(h) as a result of this entry, the Court will stay the proceedings - unless the Court immediately finds that the plaintiff lacks standing in accordance with Section 1018c(2) DCCP - until a period of three months after the entry in the central register has expired (Section 1018c(3) DCCP);

(i) after the expiry of this period, the hearing of the case will be continued in the state in which it is at that time, unless this period is extended under Section 1018d(2) DCCP or another collective legal action is brought for the same event (Section 1018c(3) DCCP);

(j) the cause-list date referred to in Section 128(2) DCCP for filing the Statement of Defence ("*conclusie van antwoord*") will be set by the District Court at six weeks after the expiry of the period referred to in Section 1018c(3) DCCP;

(k) in deviation from Section 128(3), the defendant may limit itself, in its Statement of Defence, to the defences relating to the defences referred to in Section 1018c(5) under a up to and including c DCCP, until a decision has been made on this matter.

FOR THE PURPOSE OF:

hearing the demands formulated hereafter being made against the defendant on the grounds set out in this summons.

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GLOSSARY

Assets	The assets and rights of a company that represent economic value.
AFOLU	Agriculture, Forestry and Other Land Use. In the context of national greenhouse gas inventories under the UNFCCC, AFOLU is the sum of the greenhouse gas inventory sectors Agriculture and Land Use, Land-Use Change and Forestry (LULUCF).
AMOC	Atlantic Meridional Overturning Circulation. The AMOC is a large-scale ocean current in the Atlantic Ocean that transports warm water to the north and cold water to the south. It plays a crucial role in the climate through heat distribution and influences weather patterns worldwide.
AR4	The Fourth Assessment Report (AR4) of the IPCC, published in 2007. Like every Assessment Report, it consists of the (working group) reports SYR, WGI, WGII and WGIII.
AR5	The Fifth Assessment Report (AR5) of the IPCC, published in 2013 and 2014. Like every Assessment Report, it consists of the (working group) reports SYR, WGI, WGII and WGIII.
AR6	The Sixth Assessment Report (AR6) of the IPCC, published between 2021 and 2023. AR6 is the most recent IPCC assessment report. Like every Assessment Report, it consists of the (working group) reports SYR, WGI, WGII and WGIII.
Asset	See Assets.
Carbon Credits	Negotiable certificates relating to the reduction, avoidance or removal of one tonne of carbon dioxide (CO_2) or its equivalent (CO_2e) from the atmosphere. In this way, a company pays for the reduction, avoidance or removal of another company's emissions. Such certificates are traded on voluntary carbon dioxide markets and are used by companies to "offset" emissions in their value chains (Scope 1, 2 or 3). In this summons, the term Carbon Credits does not refer to certificates for permanent CO_2 removal or certificates that have been institutionalised by means of a legal framework.
Carbon lock-in	The situation where a future quantity of greenhouse gas emissions is determined and its reduction is limited by the historical or current development of a system (including infrastructure, technologies, investments, institutions and behavioural norms), as a result of which a certain quantity of greenhouse gas emissions is "locked into" this system and is therefore difficult to reduce.
CBDR principle	The principle of Common But Differentiated Responsibilities and Respective Capabilities (CBDR). The CBDR principle is a legal principle enshrined in international climate policies (including in the UNFCCC and the Paris Agreement) meaning that all state actors are responsible for climate change, but not to the same extent. Developed countries bear greater responsibility because of their historical contributions to emissions, their institutional capabilities and their larger financial and technological resources to combat climate change. The CBDR principle is also relevant for non-state actors (NSAs), as follows from, among other things, the UN Race to Zero and the UN expert report.

CCS	Carbon Capture and Storage. A technology that captures carbondioxide (CO_2) at large industrial sources (such as plants and factories) before it enters the atmosphere. The captured CO_2 is then transported and permanently stored in geological, terrestrial or ocean reservoirs or in products.
CDP	Carbon Disclosure Project**.** The CDP is an international non-profit organisation that helps companies, cities, states and regions to report and manage their environmental data. CDP collects and analyses data on climate change, water security and deforestation, enabling investors, companies and policymakers to make informed decisions.
CDR	Carbon Dioxide Removal. CDR refers to anthropogenic activities that remove CO_2 from the atmosphere and store it permanently in geological, terrestrial or ocean reservoirs or in products. It includes the existing and potential anthropogenic enhancement of biological or geochemical CO_2 sinks, Bioenergy with Carbon Dioxide Capture and Storage (BECCS) and Direct Air Carbon Dioxide Capture and Storage (DACCS), but does not include the natural CO_2 uptake that is not directly caused by human activities.
Climate Ambition Alliance	An international coalition of countries, cities, companies and other actors committed to taking climate action to limit global warming to 1.5°C. The Climate Ambition Alliance was launched during the COP25 in 2019, as a result of the work of the UN Climate Change High-Level Champions appointed under the Paris Resolution. The state actors and non-state actors (NSAs) participating in the Climate Ambition Alliance have committed to achieving net-zero CO_2 emissions by 2050 in order to meet the climate target of the Paris Agreement.
CO_2	Carbon dioxide. CO_2 is a naturally occurring gas that is also a by-product of the combustion of fossil fuels (such as oil, gas and coal), the combustion of biomass, land use changes and industrial activities (such as cement production). It is the most important anthropogenic greenhouse gas (i.e. caused by humans) that affects the earth's radiation balance. CO_2 is the reference gas with which other greenhouse gases are compared.
CO_2-eq	CO_2 equivalent. CO_2-eq is a unit that expresses the quantity of carbon dioxide (CO_2) emitted over a given time horizon that would have an equivalent effect to an emitted quantity of another greenhouse gas or a mixture of other greenhouse gases.
COP	Conference of the Parties. The COP is the annual meeting of countries that are parties to the UNFCCC. The COP is the highest decision-making body under the UNFCCC and takes the decisions necessary to promote the implementation of the UNFCCC and the Paris Agreement.
Critical decade	The decade from 2020 to 2030, which is considered as the critical decade by the international community (including in the 2021 Glasgow Climate Pact). The reason for this is that climate action in this decade will largely determine the feasibility of the temperature target of the Paris Agreement.

CSDDD	Corporate Sustainability Due Diligence Directive, or Directive (EU) 2024/1760 of the European Parliament and of the Council of 13 June 2024 on corporate sustainability due diligence and amending Directive (EU) 2019/1937 and Regulation (EU) 2023/2859.
CSRD	Corporate Sustainability Reporting Directive or Directive (EU) 2022/2464 of the European Parliament and of the Council of 14 December 2022 amending Regulation (EU) No 537/2014, Directive 2004/109/EC, Directive 2006/43/EC and Directive 2013/34/EU, with regard to sustainability reporting by companies.
Cumulative emissions	The total quantity of greenhouse gases that has been and/or will be emitted into the atmosphere during a given period. The cumulative emissions of a reduction pathway determine whether a reduction pathway is compatible with a given carbon budget.
Final investment decision	The formal decision to implement and finance an investment taken by the authorised bodies following the completion of all relevant analyses and approval procedures.
Direct emissions	Emissions from sources owned or controlled by a company.
Divestment	The process whereby an investor or company sells assets such as shares or business units. It is the opposite of investing and is also sometimes referred to as disposal.
ECB	European Central Bank. The ECB is the central bank of the eurozone. The ECB is responsible for maintaining price stability within the eurozone and monitors purchasing power and inflation. The ECB also contributes to the supervision of banks and the stability of the financial system. Given that climate change poses major (financial) systemic risks, the ECB is also involved in managing climate risks and supporting the transition to a carbon-neutral economy, including promoting the development of sustainable finance and creating incentives for a greener financial system.
Emissions	Greenhouse gas emissions.
Emissions gap	The difference between the total emission reductions according to NDCs (or countries' current policies) and the emission reductions necessary at global level to prevent dangerous climate change.
EPA	Environmental Protection Agency (United States Federal Environmental Agency).
ESRS	European Sustainability Reporting Standards, or Commission Implementing Regulation (EU) 2021/637 of 15 March 2021 laying down implementing technical standards with regard to disclosures by institutions of the information referred to in Part Eight, Titles II and III of Regulation (EU) No 575/2013 of the European Parliament and of the Council and repealing Commission Implementing Regulation (EU) No 1423/2013, Commission Delegated Regulation (EU) 2015/1555, Commission Implementing Regulation (EU) 2016/200 and Commission

	Delegated Regulation (EU) 2017/2295.
GHG Protocol	The Corporate Accounting and Reporting Standard of the GHG Protocol and the associated Scope 3 Standard jointly. The GHG Protocol (in full: Greenhouse Gas Protocol) is a common, internationally recognised standard for calculating and reporting greenhouse gas emissions.
Governance gap	The absence of national or international legislation and regulations (or the possibility of such legislation and regulations) and enforcement mechanisms to effectively hold national and multinational companies accountable for their acts and omissions, in particular with regard to the fulfilment of their responsibilities under environmental and human rights law. The governance gap is a consequence of increased globalisation and the associated increased power of national and multinational companies, which means that national governments are not adequately able to regulate national and multinational companies. The existence of the governance gap was pointed out in 2008 by Professor John Ruggie (who was the UN Special Representative on Human Rights and Transnational Corporations and Other Business Enterprises at the time), which resulted, under John Ruggie's leadership, in the adoption of the UNGP and the responsibility for self-regulation by multinational and national companies laid down in them, among other documents. In this regard, see also the OECD Guidelines for Multinational Enterprises ("OECD Guidelines").
Gt	Gigatonne (equivalent to 1,000 Mt or 1,000,000,000 tonnes).
GTP Report	Global Tipping Points Report. The GTP Report is an authoritative scientific research report on tipping points in the climate system. The GTP Report was first published in 2023 by the Global Systems Institute of the University of Exeter. The most recent version followed in 2025, which was produced with the contributions of 160 authors and 87 institutions from 23 countries.
IEA	International Energy Agency. The IEA is an intergovernmental organisation established within the OECD in 1974. Today, the IEA provides authoritative analyses, data, policy recommendations and solutions to ensure energy security and help the world transition to clean energy.
Implementation gap	The difference between the total emission reductions according to NDCs and the projected emission reductions achieved by implemented policies.
Indirect emissions	Emissions resulting from a company's activities, but occurring at sources owned or controlled by third parties.
IPCC	Intergovernmental Panel on Climate Change (UN climate panel). The IPCC is a scientific body of the United Nations that assesses the most up-to-date knowledge on climate change. It was established in 1988 by the World Meteorological Organisation (WMO) and UNEP. The IPCC evaluates scientific information on climate change, its consequences and possible solutions. Among other things, it periodically publishes comprehensive Assessment Reports (ARs), which inform policymakers, governments, businesses and the public about climate change, climate risks and possible climate measures.

Tipping point	A tipping point at which a system reorganises itself, often abruptly and/or irreversibly. In the climate system, this involves (often relatively minor) changes that cause a sudden, often irreversible and large-scale shift. Examples include the melting of the Greenland ice sheet, the collapse of the Amazon rainforest and the stagnation of ocean currents such as the AMOC. Once a tipping point in the climate system has been passed, self-reinforcing processes that accelerate further climate change may occur.
KNMI	Royal Netherlands Meteorological Institute. The KNMI is the national meteorological and climatological institute of the Netherlands. The KNMI provides scientific insights and data to the government, businesses and the public and plays an important role in international climate studies, including through collaboration with the IPCC and other scientific organisations.
Carbon budget	A quantity (budget) of carbon dioxide (CO_2) that can still be cumulatively emitted before a temperature limit is exceeded (or before the chance of exceeding that temperature limit reaches a certain threshold value).
KR	Key Risk. The IPCC uses this term to refer to certain risks of climate change; what "risk" means here is the possibility of adverse consequences for human or ecological systems, taking into account the diversity of values and objectives associated with such systems. In the context of climate change, risks, according to the IPCC, can stem from both the potential consequences of climate change and human responses to climate change. Relevant adverse impacts include those on lives, livelihoods, health and well-being, economic, social and cultural assets and investments, infrastructure, services (including ecosystem services), ecosystems and species. According to the IPCC methodology, a "key risk" is a potentially serious risk that is therefore particularly relevant to the interpretation of "dangerous anthropogenic interference" (DAI) with the climate system; preventing this interference is the main objective of the UNFCCC (Article 2). Some risks are "potentially" serious because some of them can already cause dangerous interference, but may become more serious over time. The severity of a risk is a context-specific judgment based on a number of criteria, namely (i) the magnitude of the impact, (ii) the probability of the impact, (iii) timing characteristics, with risks occurring earlier, faster or more persistently being considered as more severe, and (iv) the ability to respond to the risk.
Mt	Megatonne (equivalent to 1,000,000 tonnes).
NAZCA	Non-State Actor Zone for Climate Action. The NAZCA was established in 2014 under the auspices of the UN to promote and showcase climate action by cities, companies, investors and others.
NDC	Nationally Determined Contribution. An NDC is a climate plan in which a country records its national targets and measures to reduce greenhouse gas emissions. The Paris Agreement requires signatory countries to submit a new or updated NDC every five years with increasingly ambitious climate targets.
Negative emissions	The removal of greenhouse gases from the atmosphere through deliberate human activities (CDR), in addition to the removal that occurs without human intervention through the natural carbon cycle or atmospheric chemical processes. The term is often used in the context of "net

	negative emissions", which refers to the removal of greenhouse gases from the atmosphere after achieving net zero emissions globally.
New oil and gas fields	Oil and gas fields for which the final investment decision was made after 1 January 2022 (or another date to be determined by the District Court.)
NSA	Non-State Actor. The term NSA is used by, for instance, UNEP, UN Race to Zero and the UN Expert Group to refer to the responsibility of non-state actors such as companies and financial institutions in combating climate change. Other NSAs include cities, regions and other sub-national governments.
NZE Scenario	The IEA's "Net Zero Emissions by 2050" scenario. The NZE Scenario is the IEA's normative scenario that shows a global pathway for achieving net zero CO_2 emissions by 2050. The NZE Scenario is a scenario aimed at maintaining a 50% chance of limiting the temperature increase in this century to 1.5°C (with an interim overshoot to 1.6°C). The NZE Scenario also meets key energy-related SDGs, in particular the goal of universal access to affordable energy by 2030.
OESO	See "OECD".
OESO Guidelines	See "OECD Guidelines".
OECD	The Organisation for Economic Co-operation and Development (OECD) is an international organisation comprising 38 member states that aims to promote and improve economic growth, employment, living standards and global trade.
OECD Guidelines	The OECD Guidelines for Multinational Enterprises on Responsible Business Conduct. The OECD Guidelines are recommendations addressed by governments to multinational enterprises. They are intended to encourage positive contributions by enterprises to economic, environmental and social progress and to minimise negative impact on matters covered by the guidelines that may be associated with their activities, products and services. The OECD Guidelines cover all important areas of corporate responsibility, including human rights, labour rights and the environment. The 2023 update of the OECD Guidelines provides revised recommendations for responsible business conduct in key areas such as climate change, biodiversity, technology, business integrity and supply chain due diligence as well as updated implementation procedures for the National Contact Points for Responsible Business Conduct.
Overshoot	An overshoot of the 1.5°C target (due to the overshoot of the carbon budget required for that purpose), followed by a decrease to the 1.5°C target (through the large-scale deployment of CDR).
Paris Agreement	The Paris Agreement of 2015.
Paris Climate Agreement	See "Paris Agreement".

PPM	Parts per million. PPM is a unit used to express the concentration of CO_2 (or another greenhouse gas) in the atmosphere. It indicates how many particles of CO_2 (or any other greenhouse gas) are present in every million particles in the atmosphere. Up to and including AR5, it was customary to express the global reduction target in terms of the concentration of greenhouse gases in the atmosphere (such as the need to limit it to 430 ppm CO_2-eq for a 50% chance of 1.5°C). Since the SR1.5, however, the IPCC has tended to mainly use carbon budgets to express how far the world still is from reaching temperature limits.
Reasons for Concern	See "RFCs".
Reduction pathway	The quantified trajectory by which an emission level in a base year decreases over time to a target level in a future target year. The same target level in a future target year can be achieved via multiple reduction pathways, with the possibilities of differences as far as the timing of the reductions is concerned. As a result, different reduction pathways can lead to different cumulative emissions, meaning that one reduction pathway will fit within a given carbon budget, while another will not.
RFCs	Reasons For Concern. The IPCC has used this term since the third Assessment Report in 2001 to identify the key risks associated with anthropogenic climate change ("Key Risks") and to divide them into five reasons for concern and, on that basis, to enable the COP to flesh out Article 2 of the UN Climate Convention and thus determine what "dangerous climate change" as referred to in that Article 2 should be understood to mean. Partly on the basis of the risks identified in the RFCs, the COP has set the global danger threshold for global warming at 1.5°C.
Scope 1 emissions	Direct greenhouse gas emissions from sources managed or owned by an organisation (e.g. emissions associated with the combustion of fuel in industrial installations, boilers or vehicles). Scope 1 emissions can be calculated by using the GHG Protocol.
Scope 2 emissions	The indirect greenhouse gas emissions associated with the purchase of electricity, steam, heat or cooling for an organisation's business activities. Although Scope 2 emissions physically occur at the facility where they are generated, they are included in the greenhouse gas inventory of the purchasing organisation because they result from that organisation's energy consumption. Scope 2 emissions can be calculated by using the GHG Protocol.
Scope 3 emissions	The remaining indirect greenhouse gas emissions of an organisation (not being Scope 2 emissions) that result from an organisation's activities, but arise from sources owned or controlled by third parties in the organisation's value chain, such as the organisation's business customers or consumers. Scope 3 emissions are the emissions in the value chain that the reporting organisation has an influence over, and these emissions often represent the largest part of an organisation's total greenhouse gas emissions. Scope 3 emissions are divided into 15 categories. Scope 3 emissions can be calculated by applying the GHG Protocol (more specifically the "Scope 3 Standard").
Scope 3 Standard	The Corporate Value Chain (Scope 3) Accounting and Reporting Standard forming part of the GHG Protocol. The Scope 3 Standard is a common, internationally recognised standard for calculating and reporting Scope 3 emissions.

SDGs	Sustainable Development Goals. The SDGs were adopted by the United Nations in 2015 as a universal call to action to end poverty, protect the planet and ensure that all people enjoy peace and prosperity by 2030. The SDGs consist of 17 goals, which are integrated - they recognise that action in one area will affect outcomes in others and that development must balance social, economic and environmental sustainability.
SPM	Summary for Policy Makers. In IPCC reports, an SPM is a summary of the main findings and recommendations, intended to provide policymakers, governments, businesses and the public with a simplified understanding of the main findings of the IPCC report in question.
SR1.5	The IPCC's Special Report on Global Warming of 1.5°C, which was published in 2018.
Sustainable Development Goals	See "SDGs".
SYR	Synthesis Report. Within each Assessment Report (AR), the SYR is the IPCC's summary report, which summarises the main findings of the various (part) reports of the AR (WGI, WGII and WGIII). The SYR is intended to make the most important findings in the AR clear to policymakers, governments, businesses and the public.
Critical threshold	See "Tipping point".
TS	Technical Summary. In IPCC reports, the TS is a comprehensive summary of the main findings of the AR. The TS provides a more detailed and technical overview than the SPM, but is less comprehensive than the full chapters of the report.
Emissions	Greenhouse gas emissions.
UN Climate Change High-Level Champions	Special representatives of the COP President whose mains tasks are to facilitate, through high-level engagement, the scaling up and strengthening of voluntary climate efforts, initiatives and coalitions of NSAs (such as the UN Race to Zero initiative), and to annually convene a high-level event together with the Executive Secretary and the incumbent and incoming COP Presidents.
Flywheel effect	The effect of climate measures taken by state actors and non-state actors (NSAs) that extends beyond the immediately intended effect of these climate measures. The flywheel effect includes strengthening mutual confidence between the above-mentioned actors that each actor will adequately fulfil their individual share of responsibility in solving the collective problem that climate change poses. It ensures that all actors in society will be able and dare to show greater climate ambition.
UNEP	United Nations Environment Programme. UNEP was established in 1972 during the UN Conference on the Human Environment in Stockholm, where climate change was first placed on the UN agenda. The UNEP promotes international environmental policy and sustainable

	development. The UNEP plays a central role in coordinating international environmental projects, supporting environmental legislation and promoting scientific research into environmental problems such as climate change. The UNEP works with governments, scientists, enterprises and civil society organisations. It is a co-founder of the IPCC and annually publishes the Emissions Gap Report.
UNFCCC	See “UN Climate Convention”.
UN Guiding Principles	The United Nations Guiding Principles on Business and Human Rights, as unanimously adopted by the UN Human Rights Council in 2011. The UN Guiding Principles are an authoritative normative framework for responsible business conduct and for preventing and addressing human rights violations caused by business activities.
UNGP	See "UN Guiding Principles".
UN Expert Group	The United Nations’ High-Level Expert Group on the Net Zero Emissions Commitments of Non-State Entities (HLEG). The UN Expert Group was appointed in 2022 by the UN Secretary-General. It is an independent expert group for developing stronger and clearer standards for NSAs' commitments to reduce emissions to net zero by 2050 at the latest and for accelerating their implementation. The result of the UN Expert Group is the UN Expert Report.
UN Expert Report	The report entitled “Integrity Matters: Net Zero commitments by Businesses, Financial Institutions, Cities and Regions” of the UN Expert Group. The report was launched in 2022 and welcomed by the COP during COP27, and formulates five principles and ten recommendations for integrity-based net-zero targets by NSAs.
UN Climate Convention	The United Nations Framework Convention on Climate Change of 1992.
UN Race to Zero	The UN's Race to Zero initiative. UN Race to Zero was launched in June 2020 and is coordinated by the UN Climate Change High-Level Champions. The aim of the UN Race to Zero is to mobilise non-state actors to take rigorous and immediate action to achieve that global emissions are halved by 2030, on the way to net zero by 2050.
WEO	The World Energy Outlook of the IEA. The WEO is an annual report by the IEA, in which it analyses global energy needs and trends, including the expected developments in the energy demand, energy production and emissions and the impact of policy measures. The report examines various scenarios for the energy transition, considering current developments in areas including climate change, energy markets, technological innovations and geopolitics. The WEO typically contains three types of scenarios, namely (i) the Stated Policies Scenario (STEPS), which is based on existing and announced government policies and assumes, from a “business as usual” approach, that not all commitments will be honoured (meaning that the 1.5°C target will not be achieved), (ii) the Announced Pledges Scenario (APS), which also starts out from existing and announced government policies, but assumes that all commitments will be honoured (meaning that the 1.5°C target will also be exceeded, but to a lesser extent than in STEPS) and (iii) the NZE scenario, which is the normative IEA scenario that shows a pathway whereby the world can achieve net zero CO_2 emissions by 2050 in order to limit global warming

	to 1.5°C by the end of the century. The NZE Scenario also meets key energy-related SDGs, in particular the goal of universal access to affordable energy by 2030.
WGI	Working Group I of the IPCC. WGI focuses on the scientific status quo regarding the physical understanding of the climate system and climate change. As part of each Assessment Report, WGI publishes a (part) report entitled "Climate Change: The Physical Science Basis". Unless otherwise indicated, references in this summons to "WGI" refer to the relevant WG (part) report from the edition of the Assessment Report referenced to.
WGII	Working Group II of the IPCC. WGII focuses on the scientific status quo regarding the impacts, adaptation and vulnerability relating to climate change of society, the economy and the environment. As part of each Assessment Report, WGII publishes a (part) report entitled "Climate Change: Impacts, Adaptation, and Vulnerability". Unless otherwise indicated, references in this summons to "WGII" refer to the relevant (WGII part) report from the edition of the Assessment Report referenced to.
WGIII	Working Group III of the IPCC. WGIII focuses on the scientific status quo regarding possible strategies for reducing greenhouse gas emissions into the atmosphere and combating climate change. As part of each Assessment Report, WGIII publishes a (part) report entitled "Climate Change: Mitigation of Climate Change". Unless otherwise indicated, references in this summons to "WGIII" refer to the relevant WGIII (part) report of the edition of the Assessment Report referenced to.
WHO	World Health Organisation. The WHO is a UN agency established on 7 April 1948. The goal of the WHO is to improve global health, combat disease and strengthen health systems. The WHO coordinates international health initiatives, develops guidelines, collects health data and supports countries in their efforts to improve healthcare.

1 INTRODUCTION AND SUMMARY

1.1 BACKGROUND

1. More than 30 years ago, almost all countries in the world agreed that dangerous climate change should be prevented. In the United Nations Framework Convention on Climate Change (the "UN Climate Convention"), almost all countries in the world acknowledged that change in Earth's climate and its adverse effects are a common concern of humankind[1] and that the climate system should be protected for the present and future generations[2].

2. Climate change can be limited in one way only: by reducing global CO_2 emissions to net zero. All countries have obligations in this regard, with the largest burden falling on the most prosperous (developed) countries and their economies. They must take the lead in tackling climate change because they have caused and are causing the largest part of the greenhouse gas emissions, and because they have the resources and capabilities to transform their economies more quickly.

3. However, over the past 30 years, global greenhouse gas emissions have continued to rise year on year[3] and even reached their highest level ever in 2024.[4] These emissions for the most part originate from the production and combustion of fossil fuels. Oil, coal and gas jointly account for more than 80% of total global emissions of CO_2 (the most important greenhouse gas).

4. While there is international consensus that average global warming must be limited to 1.5°C in order to be able to still mitigate the greatest risks and most serious consequences of climate change, the world is currently still heading for a 2.8°C temperature rise.[5] Due to the lack of adequate climate action, the world has now reached the point where the carbon budget – i.e. the maximum quantity (budget) of CO_2 that can still be emitted globally before the 1.5°C temperature limit is exceeded – will be exhausted within a few years and only a rapid phase-out of fossil fuels and immediate and very steep emission reductions can still ensure that we remain within the limits of the carbon budget.

5. The situation is therefore very urgent and there is a lot at stake. In the words of the International Court of Justice (hereafter: "**ICJ**"), climate change and the current situation constitute "*an existential problem of planetary proportions that imperils all forms of life and the very health of our planet*."[6]

6. We must conclude that an effective global climate approach has not gained sufficient traction yet. In this context, it should be noted that the failure of an effective global climate approach cannot be viewed in isolation from the actions of the Western oil and gas industry in particular – including Shell – and their interest

[1] UN Climate Convention, first recital of the preamble.
[2] UN Climate Convention, final recital of the preamble.
[3] Exhibit MD-001, IPCC 2023, AR6, SYR, p. 4, under A.1.4.
[4] World Meteorological Organisation, 19 November 2024, "Record carbon emissions highlight urgency of Global Greenhouse Gas Watch" (https://wmo.int/media/news/record-carbon-emissions-highlight-urgency-of-global-greenhouse-gas-watch).
[5] Exhibit MD-002, UNEP 2025, "Emissions Gap Report 2025", p. xx (second paragraph) and p. xi.
[6] International Court of Justice, 23 July 2025, "Advisory Opinion on the Obligations of States in respect of Climate Change", para. 456, available at https://www.icj-cij.org/sites/default/files/case-related/187/187-20250723-adv-01-00-en.pdf.

groups. Over the past decades, this industry has actively and intensively opposed climate legislation and regulations, cast doubt on the severity of the climate problem and structurally undermined political and public support for accelerated climate action. This has taken place (and continues to take place) in particular in the countries that should have taken the lead in tackling climate change. The inhibiting influence of the oil and gas industry and their interest groups on climate action and the sustainable energy transition is well known and is widely recognised by the IPCC, the UNEP and many other authoritative bodies, which have concluded, among other things, that the political activities of fossil-fuel companies constitute a "*major barrier to decarbonization*" and that *"a number of corporations that are involved in both upstream and downstream supply chains of fossil-fuel companies make up the majority of organisations opposed to climate action*".[7]

7. It is also widely recognised that the global goal of limiting global warming to the dangerous 1.5°C limit cannot be achieved without the appropriate contributions of non-state actors, including businesses and financial institutions. The need for non-state climate action has been recognised by, among others, all states within the UN climate regime, the UN Secretary-General, many UN Special Rapporteurs, the European Commission and the OECD. In this context, non-state actors must implement climate policies to reduce their CO_2 emissions to net zero as soon as possible, but no later than 2050, with corresponding short- and medium-term interim reduction targets; they must also stop developing and investing in new oil and gas fields and align their business models with the transition to a sustainable economy.

8. Against this background, this lawsuit concerns the responsibility of Shell, one of the world's largest emitters and one of the world's largest oil and gas companies, to make an appropriate contribution to limiting the comprehensive risks of climate change. This summons will explain that Shell has a legal duty to help limit the danger of climate change and Milieudefensie is seeking a court order requiring Shell to fulfil that legal duty by taking several climate measures. One of the crucial measures in this regard is to stop developing new oil and gas fields, as the continued development of new oil and gas projects is not in line with the above-mentioned carbon budget and also perpetuates dependence on fossil fuels and the fossil-fuel industry. The latter forms a huge barrier to tackling climate change and scaling up cleaner, cheaper and sustainable energy sources, as will be explained in detail in this summons.

9. Below, Milieudefensie will briefly explain why it is bringing this lawsuit and how it is related to the case against Shell that was brought by Milieudefensie and is still pending.

1.2 WHY THIS LAWSUIT?

10. In 2019, Milieudefensie, together with six other civil-society (environmental) organisations and more than 17,000 individual co-plaintiffs, already brought a climate lawsuit against Shell. That lawsuit concerned the question of whether Shell has an obligation and, if so, what obligation, to achieve percentage reductions in emissions in the period up to and including 2030.

11. As known, both the District Court and the Court of Appeal in The Hague ruled in that case that Shell has a societal duty of care to reduce its global CO_2 emissions by 2030 in line with the 1.5°C temperature target. The

[7] Chapter 8 of this writ specifically addresses the inhibiting influence of the oil and gas industry and Shell's role in this regard. These and other important findings will be discussed and explained there. The cited quotes were taken from The Production Gap Report of UNEP et al. and the WGIII report of IPCC AR6 respectively, as further clarified in Chapter 8.

District Court also attached a court order to this duty requiring Shell to reduce its CO_2 emissions by at least 45% by 2030 relative to the 2019 level[8].

12. In November 2024, the Court of Appeal ruled that (i) the climate problem is the greatest problem of our time, (ii) the danger posed by climate change is so great that it could be life-threatening in various places on earth and will have a profound and negative impact on the existence of humans and animals in many other places, (iii) the consumption of fossil fuels is to a large extent responsible for the occurrence of the climate problem and action to tackle climate change cannot be delayed, and (iv) everyone has a responsibility to combat the danger of climate change, in particular companies whose products have contributed to the climate problem and which have the power to contribute to its tackling.[9]

13. Against this background, it was found that companies such as Shell have a societal duty of care to limit CO_2 emissions in order to combat dangerous climate change.[10] However, the Court of Appeal did not issue an order, because it took as its starting point that setting a specific reduction percentage for individual companies or industries would only be possible if existing climate legislation provided for this or if there was consensus in climate science on the percentage to be set for the period up to and including 2030.[11]

14. Milieudefensie fundamentally disagrees with the standard of review used by the Court of Appeal as well as with the further arguments given by the Court of Appeal on the basis of which it denied the demanded reduction order. In short, Milieudefensie is of the opinion that the Court of Appeal is asking climate science to do much more than it will ever be able to deliver. Science identifies various reduction options, but is not aimed at reaching overwhelming scientific consensus on a reduction percentage to be applied to a specific company or specific industry. Moreover, with its chosen standard of review for determining the reduction percentage, the Court of Appeal is excluding all normative instruments which, also according to the Court of Appeal itself, are particularly relevant in determining the duty of care. Milieudefensie has therefore taken an appeal to the Dutch Supreme Court challenging the ruling of the Court of Appeal ("appeal in cassation"). In reaction to this, Shell filed a conditional incidental appeal in cassation. The appeal in cassation is currently pending before the Dutch Supreme Court ("*Hoge Raad*"), which is expected to give judgment in the first half of 2027.

15. Meanwhile, Milieudefensie is now bringing this new lawsuit against Shell for several reasons. Firstly, the Court of Appeal made other important findings regarding the measures that could possibly be expected of Shell, in addition to its general obligation to reduce its total CO_2 emissions by 2030 (by a percentage that is, admittedly, undefined). This concerns the conclusion – based on scientific and institutional findings – that oil and gas companies can be required to consider the negative consequences of a further expansion of the fossil-fuel supply for the energy transition when they invest in fossil-fuel production. After all, such investments have carbon lock-in effects, which prolong dependence on fossil fuels and constitute a barrier to further sustainability. In the words of the Court of Appeal, "the use of fossil fuels imposed from the supply side of the market [can] seriously delay the energy transition".[12]

[8] District Court of The Hague 26 May 2021, ECLI:NL:RBDHA:2021:5337, grounds 4.1.4, 4.4.39, 4.4.55, 5.3
[9] Court of Appeal of The Hague 12 November 2024, ECLI:NL:GHDHA:2024:2099, grounds 7.25-7.26
[10] Court of Appeal of The Hague 12 November 2024, ECLI:NL:GHDHA:2024:2099, ground 7.27.
[11] Court of Appeal of The Hague 12 November 2024, ECLI:NL:GHDHA:2024:2099, ground 7.67.
[12] Court of Appeal of The Hague 12 November 2024, ECLI:NL:GHDHA:2024:2099, ground 7.59. See also 7.58-7.61. The carbon lock-in effect is discussed in detail in Chapter 8.

16. The Court of Appeal also found that Shell's planned investments in new oil and gas fields could be at odds with the societal duty of care that can be expected of Shell.[13] Because Milieudefensie's demands in that lawsuit were aimed at emission reductions, this finding did not lead to the award of the relief sought (or any part of it) by Milieudefensie. In this new lawsuit, Milieudefensie is seeking an order forcing Shell to stop developing new oil and gas fields. Discontinuing the development of new oil and gas fields is the first substantive pillar of this lawsuit. Shell plans to spend more than half of its total planned USD 100 billion investments in oil and gas activities in the period 2023-2030 alone on the development of new oil and gas fields.[14] For the period after 2030, the investment plans have not been disclosed yet, but it is clear that Shell does not intend to stop developing new oil and gas projects by that time either.

17. A second important pillar concerns Shell's obligation to achieve emission reductions in the period *after* 2030. After all, companies such as Shell must clearly reduce their emissions to net zero by 2050, with a focus on limiting the total quantity of emissions in order to achieve the net-zero point. It is therefore also an established fact that Shell will have to set interim reduction targets. Shell itself has also stated that it wants to reduce its emissions to net zero by 2050, but it has no targets and no plan to work towards this goal. Its net-zero goal is in fact a marketing tool, with which Shell is suggesting it is prepared to make its own contribution to the global climate challenge. In reality, Shell is making every action dependent on the action of others. Shell merely follows the market, while it is also promoting and exerting a significant influence on that market and the demand for oil and gas; it is lobbying against legislation and regulations mandating Paris-aligned emission reductions and also undermining political and public support for accelerated climate action otherwise. It follows from Shell's policy and conduct that it will not take the necessary climate measures on its own initiative.

18. Given the urgency of taking climate action, which the Inter-American Human Rights Court described in 2025 as a "*climate emergency*"[15], Milieudefensie believes it is necessary to bring this lawsuit in parallel with the cassation proceedings pending before the Dutch Supreme Court. According to Milieudefensie, there can be no doubt about the fact *that* Shell has a legal duty to take appropriate climate measures in line with the 1.5°C target. The crucial question is what those appropriate measures should be, and that is what this lawsuit will further focus on.

19. The cassation proceedings before the Dutch Supreme Court and this new lawsuit can be conducted and heard concurrently. Milieudefensie's demand seeking to halt the development of new oil and gas fields builds on findings from the Court of Appeal's judgment. No similar relief is being sought in the cassation proceedings. As for the reduction claims, they concern a period different from the one covered by the cassation proceedings. Nevertheless, the Dutch Supreme Court's ruling could provide guidance as to how the (interim) reduction targets must be set.

20. In that regard, it is important to note that the cassation proceedings that are still pending will not impede the progress and substantive hearing of this case. Due to the bifurcated admissibility phase and the associated waiting period, and because Shell has already announced it will contest the jurisdiction of a Dutch court, the

[13] Court of Appeal of The Hague 12 November 2024, ECLI:NL:GHDHA:2024:2099, ground 7.61.
[14] Court of Appeal of The Hague 12 November 2024, ECLI:NL:GHDHA:2024:2099, ground 7.60 as well as grounds 3.49 and 3.51.
[15] Inter-American Court of Human Rights, "Advisory Opinion OC-32/25 of 29 May 2025, Climate Emergency and Human Rights", paras. 182-183. See also para. 1 of the decision: "*Pursuant to the best available science, the present situation constitutes a climate emergency due to the accelerated increase of global temperature, as a result of diverse activities of anthropogenic origin, produced in an unequal manner by the States of the international community, which are having incremental effects and represent a severe threat to humanity and, in particular, the most vulnerable*."

substantive hearing of Milieudefensie's demands is still some way off. In all likelihood, the decision of this District Court on the jurisdiction and admissibility will only be given after the Dutch Supreme Court has handed down its judgment, so that the findings based on that judgment can be fully taken into account both in Shell's statement of defence to this summons and when the substantive hearing of this case takes place.

21. Before explaining the structure of this summons, Milieudefensie believes it is useful to first provide a brief explanation relating to Shell and the Shell Group. That explanation will serve as introductory background information about Shell's activities, Shell's history and position in the oil and gas market, the reason for taking legal action against Shell (again), and the reason why this summons is issued to the parent company of the Shell Group.

1.3 ABOUT SHELL

22. Shell is a listed company and the parent company of the global Shell Group. Shell is the ultimate shareholder of approximately 1,100 different Dutch and foreign companies.[16] Shell and all companies belonging to the Shell Group will also be referred to below as "the Shell Group". The global Shell Group is a vertically integrated company, with activities at all levels of the value chain for oil and gas. The Shell Group has approx. 85,000 employees in more than 70 countries.[17] According to Shell itself, the Shell Group serves approx. 1 billion people per year, directly or indirectly.[18] Shell has approx. 40,000 petrol stations globally, some 30% of which are situated in the U.S.[19]

23. The Shell Group has a long history. Shell was formed almost 120 years ago from a merger between the British Shell Transport and Trading Company and NV Koninklijke Nederlandsche Petroleum Maatschappij. The British branch had already been a trading company for many years when, at the end of the 19thcentury, it became involved in oil export and, in the years that followed, arranged for the first fleet of steamships to be built that could transport oil in bulk. In a short period of time, the British trading house worked its way up to become the main competitor of the previously dominant Standard Oil (the legal predecessor of ExxonMobil). In 1901 – the start of the Texas oil boom – Shell Transport and Trading Company even acquired the transport and distribution rights for oil from Texas. The smaller Dutch branch had a history of oil production in the former Dutch East Indies and was the largest oil producer there. Additionally, this branch had started to build its own tankers and set up its own sales organisation in Asia. In 1907, the companies merged to form the Royal Dutch Shell Group. This cross-border merger and the rapid expansion of activities that followed made the company a highly influential player, with activities in exploration, production, transport, refining, trading and sales of oil across the globe.[20]

24. In 1928, on the initiative of Shell (or its legal predecessor), a cartel agreement was concluded with other major oil companies. This was in response to low oil prices and to curb the emergence of cheap oil from the Soviet Union and the Middle East. This cartel agreement was initially concluded by Shell with the legal predecessors of ExxonMobil and BP, but soon after four other American oil companies joined. The cartel was

[16] Court of Appeal of The Hague 12 November 2024, ECLI:NL:GHDHA:2024:2099, ground 3.22.
[17] Exhibit MD-003, Shell Annual Report 2025 (selected pages), p. 6.
[18] Ibid.
[19] Exhibit MD-003, Shell Annual Report 2025 (selected pages), p. 57. The website https://find.shell.com/ shows that Shell has 12,380 locations in the United States. See also https://www.shell.us/about-us/who-we-are/shell-usa-at-a-glance.html, which says that Shell has around 12,000 petrol stations in the United States and sells most of its petrol there.
[20] The above description is mainly based on Shell's own summary of its business history, see https://www.shell.com/who-we-are/our-history/our-company-history.html.

named the Achnacarry Cartel, after the Scottish Achnacarry Castle, where the agreement was concluded. The Achnacarry Cartel thus consisted of seven Western oil companies, which agreed to stop competing with each other and to start cooperating. They divided the market so that they could negotiate higher prices for oil. In the agreement, the seven companies declared that they would respect each other's market shares and that the existing relationships would be maintained in the mutual market division. They agreed that other parties would be excluded from the cartel and divided the world into regions, which they divided amongst each other. Furthermore, the seven companies made agreements to counter oil overcapacity as well as agreements on the use of each other's pipelines.[21]

25. The seven Western companies that formed the cartel subsequently dominated the global oil market for many decades. They were nicknamed “the Seven Sisters”. At that time, these companies had the largest oil reserves, extracted the lion's share of the world's oil and arranged for the refining, transport and sale of petrol and all other products made from crude oil. During this period, the oil reserves of Western countries were depleted at high speed, the oil-rich countries in the Middle East were obstructed and developing countries were denied the opportunity to gain an independent position in the oil market.[22]

26. One of the cartel agreements was also that the companies would collaborate more on oil projects and participate in joint ventures. The Dutch petroleum company NAM (Nederlandse Aardoliemaatschappij), founded in 1947 between Shell and ExxonMobil, is one of many examples of this.

27. The companies then usually met in the United States – where they were all very active – at the office of the American Petroleum Institute. This influential interest group is also known as the “switchboard” of the Seven Sisters.[23]

28. Thanks to this decade-long cartel and its success, Shell and the other oil companies were able to grow into “supermajors”, as they are known; the giants of the oil industry (and, from the 1960s onwards, also in the gas industry). Through mergers and acquisitions, the seven companies eventually merged into four remaining companies: Shell, ExxonMobil, Chevron and BP. Even today, these companies are still collaborating extensively in joint ventures.

29. Shell, ExxonMobil, Chevron and BP therefore have a history of cooperation that has been going on for almost 100 years. Together with a handful of other (American) companies, they are also the dominant players in the many dozens of industry and lobbying organisations of which they are members worldwide and in which they work together to influence politics and the public. Often, Shell is also part of the governing body of these organisations.[24] The above-mentioned American Petroleum Institute and the US Chamber of Commerce are among the largest and most important and influential organisations. Shell is also part of the governing body of these organisations and pays them a total of USD 7.5 to 12.5 million per year.[25] The main objective of these organisations is to protect the interests of the oil and gas industry.

30. Today, Shell is still one of the most important and influential companies in the oil and gas market. After

[21] Exhibit MD-005, R. Op het Veld, “*De Strijd om Energie*” (The Battle for Energy), 2023, pp. 98-99.
[22] Exhibit MD-005, R. Op het Veld, “*De Strijd om Energie”* (The Battle for Energy), 2023, p. 100.
[23] Ibid.
[24] Exhibit MD-004, “Shell Climate and Energy Transition Lobbying Report 2024”, pp. 34–35. Of the 49 organisations mentioned, Shell is part of the governing body in 36 cases, i.e. the body responsible for managing the organisation, such as the board of directors or the executive committee (see footnote 122 on p. 63).
[25] Ibid.

ExxonMobil, it is the largest private oil and gas company in the world. In terms of turnover, Shell ranks fifth in the top 100 largest oil and gas companies in the world. The Saudi state-owned company Saudi Aramco ranks first. Next come the two Chinese oil and gas companies, Sinopec and PetroChina, which are followed by ExxonMobil and Shell.[26] Of the hundreds of billions in turnover that Shell generates annually, Shell achieves a substantial part (around 23%) in the United States.[27] This means that Shell, in important respects, is not only a British company (with Dutch roots), but has also been one of the most important companies on the American market for more than 100 years.

31. Shell is also responsible for very high levels of greenhouse gas emissions. More than ten years ago, Rick Heede, with his Carbon Majors project, developed the methodology that makes it possible to attribute CO_2 emissions since 1854 to the production of the various fossil-fuel companies. This research was a major breakthrough in quantifying the climate impact of individual companies and its findings have already been taken as the starting point by several courts of law.[28] The database is managed by InfluenceMap, the world's leading NGO for data and analysis concerning the impact of trade and business and finance on the climate crisis. In April 2024, InfluenceMap published a comprehensive report showing that 70% of global CO_2 emissions since the Industrial Revolution can be traced back to just 78 companies.[29] According to the latest March 2025 update, Shell, with its production of oil and gas and their sale since 1854, has caused well over 2% of total global CO_2 emissions.[30] This puts Shell in 9th place among fossil-fuel producers with the largest historical emissions.[31] Having said that, it should immediately be noted that this analysis only identifies the emissions from oil and gas products produced by the companies themselves.[32] Shell's total emissions are much higher, as Shell also plays a central role in the trade of oil and gas products from other producers, which it sells globally through its own transport, storage and distribution network. These emissions are also part of the Shell Group Scope 3 emissions and are currently even (much) higher than the emissions associated with its own production.[33]

32. Today, Shell's emissions related to the sale of energy products, at 1.14 Gt, are still of an enormous magnitude.[34] That number is more than nine times the CO_2 emissions of the Netherlands.[35] When Shell's emissions are compared to those of countries, only China, the United States, India and Russia have higher CO_2 emissions than Shell.[36] In terms of emissions, Shell is therefore not only comparable to a country, but to

[26] https://companiesmarketcap.com/oil-gas/largest-oil-and-gas-companies-by-revenue/ (last accessed on 5 February 2026).
[27] According to Shell's Tax Contribution Report 2024, Shell generates a turnover ("*third-party revenues*") of nearly USD 66.5 billion in the United States, out of a total turnover of over USD 289 billion (https://www.shell.com/sustainability/our-approach/tax-transparency/tax-contribution-report/_jcr_content/root/main/section/promo/links/item0.stream/1763990740039/df0370cc593ce04ab58a54dc3300a51c3b285c71/shell-tax-contribution-report-2024.pdf). In no other country does Shell generate a higher turnover.
[28] See e.g. the Inter-American Court of Human Rights, "Advisory Opinion OC-32/25 of 29 May 2025, Climate Emergency and Human Rights", para. 54 (and footnote 64: *"The most used data source on historical GHG emissions by companies is the Carbon Majors database maintained by InfluenceMap, a British non-profit organization. The data is generated based on peer-review methods. Cf. "Carbon Majors", available at: https://carbonmajors.org/index.html*.").
[29] Exhibit MD-006, InfluenceMap 2024, "The Carbon Majors Database: Launch Report", p. 26. The same page also concludes that 80% of global CO_2 emissions associated with fossil fuels and cement in the period since the conclusion of the Paris Agreement in 2016 and 2022 can be traced back to just 57 companies. For that period, Shell ranks 13th with its oil and gas production, see p. 14.
[30] Exhibit MD-007, "Carbon Majors: 2023 Data Update", p. 10.
[31] Ibid, p. 25.
[32] Exhibit MD-006, InfluenceMap 2024, "The Carbon Majors Database: Launch Report", pp. 9–10.
[33] Chapter 7 will explain the distinction between the different categories of emissions in more detail (see the Box "What are Scope 1, 2 and 3 emissions?").
[34] Exhibit MD-003, Shell Annual Report 2025 (selected pages), pp. 89 and 91. Page 89 shows that Shell's Scope 1 and 2 emissions in 2025 amounted to 53 Mt. Page 97 shows that the Scope 3 emissions amounted to 1065 Mt (1.065 Gt). Approx. 95% of Shell's total emissions are Scope 3 emissions. This therefore includes the emissions caused by the use of products sold by Shell, including oil and gas products produced by Shell as well as oil and gas products purchased by Shell and traded and sold by Shell, whether or not after further processing.
[35] https://ourworldindata.org/grapher/annual-co2-emissions-per-country?country=~NLD, which shows that CO_2 emissions in the Netherlands amounted to 114.78 million tonnes (Mt) in 2024.
[36] https://ourworldindata.org/grapher/annual-co2-emissions-per-country?country=ALL~CHN~USA~IND~RUS~JPN, which shows the top 5 countries with the highest CO_2 emissions for the year 2023. Japan ranks fifth, with 988.78 Mt of CO_2 emissions, which is lower than Shell's emissions.

a sovereign superpower.

33. In the appeal proceedings of the earlier lawsuit, Shell stated at the hearing that its Scope 3 emissions would not decrease in the period left until 2030. For the period after 2030, Shell has not made any statements, but it is clear that for the foreseeable future Shell will focus on maintaining, and even arranging for an increase in, its production and sale of fossil fuels, particularly liquid fossil gas, including production from new oil and gas fields.

34. This lawsuit is directed at Shell because it is Shell, as the parent company of the global Shell Group, that determines the group's policies and strategies. Shell thus determines what the Shell Group energy portfolio will look like, how much oil and gas the Shell Group will produce, whether the Shell Group will continue to invest in new oil and gas projects and what emission targets the Shell Group will pursue. So these group policies of Shell will determine the Shell Group emission levels.[37]

35. In this lawsuit, Milieudefensie will argue that Shell is acting unlawfully, or at least threatens to act unlawfully, in relation to the persons whose (similar) interests are being represented by Milieudefensie, by pursuing an inadequate climate policy. After all, with its group policy and the associated investments and lobbying activities, Shell is causing excessive greenhouse gas emissions and is failing to make an appropriate contribution to achieving the Paris Agreement temperature target. In fact, Shell is an obstacle to achieving this global target. In light of this, Milieudefensie is seeking legal protection against Shell's major impact on the climate problem.

1.4 STRUCTURE OF THIS SUMMONS

36. In the following chapters, Milieudefensie will successively discuss the jurisdiction of the District Court, the applicable law and standing (chapters 2 and 3) and the factual basis for its demands (chapters 4 up to and including 8). This is followed by a discussion of the legal framework and the translation of the discussed facts and circumstances for Shell into their legal significance (chapters 9 up to and including 11). Also, chapter 11 will explain that Shell's climate policy means it is failing to comply with its legal duty. Finally, Milieudefensie will address the effectiveness of the demanded climate measures (chapter 12) and discuss the defences of Shell that are known to Milieudefensie (chapter 13). This summons is more than 25 pages long. That is necessary in view of the nature and complexity of this case, in which a multitude of factual, scientific, societal and legal elements play a part. Those elements, and the global developments in that connection, all need to be addressed in order substantiate Milieudefensie's claims and to sufficiently inform the District Court about this "*existential problem of planetary proportions*", as it was called by the International Court of Justice.

2 JURISDICTION OF THE DISTRICT COURT AND APPLICABLE LAW

[37] Exhibit MD-003, Shell Annual Report 2025 (selected pages), p. 104: *"The Board has primary oversight of the delivery of Shell's strategy and monitors performance against our longer-term business targets*." The same page states that the Board approved the 2024 energy transition strategy, including the climate targets and ambitions. Page 106 contains an organisational chart, which also shows the Board's responsibility for the sustainability strategy, including risk management for climate-related issues. That chart also shows that the Chief Executive Officer has delegated responsibility from the Board for Shell's strategy, including its implementation and the monitoring and implementation of progress and performance in the field of sustainability. See also District Court of The Hague 26 May 2021, ECLI:NL:RBDHA:2021:5337, grounds 2.3.3 and 2.5.1. See also Court of Appeal of The Hague 12 November 2024, ECLI:NL:GHDHA:2024:2099, grounds 3.22 and 3.23. Shell's control over the general policy of the Shell Group, including the climate policy, was no longer in dispute between the parties on appeal.

2.1 **JURISDICTION**

37. In 2022, Shell moved its head office from The Hague to London.[38] Unlike in the previous proceedings, Shell therefore is no longer domiciled in a Member State of the European Union within the meaning of Article 4(1) in conjunction with Article 63 of the Brussels I-bis Regulation.

38. Because Shell has its registered office in the United Kingdom, the jurisdiction of the District Court must be determined, in the absence of an applicable treaty or applicable regulation, on the basis of the common international rules of jurisdiction as laid down in Sections 1 up to and including 14 DCCP.[39]

39. In addition to the general ground of jurisdiction of Section 2 DCCP, which designates the court of the defendant's domicile, the DCCP provides additional grounds for jurisdiction that determine in which cases a foreign defendant can be summoned to appear before a Dutch court. Since Shell is no longer domiciled in the Netherlands, the jurisdiction of the Dutch court must be based on one of those additional grounds.

40. This case concerns Shell's civil liability based on an unlawful act ("*onrechtmatige daad*"). Pursuant to Section 6(e) DCCP, Dutch courts have jurisdiction to hear claims based on an unlawful act if the underlying harmful event occurred or may occur in the Netherlands. Under European law, this alternative ground for jurisdiction is based on the close connection between the court and the action or on the need to facilitate the sound administration of justice and an efficient and practical organisation of proceedings.[40]

41. When introducing and subsequently amending Sections 1 up to and including 14 DCCP, the Dutch legislature linked up with, among other things, the precursors to Brussels I-bis (Regulation 1215/2012). As a result, a Dutch court, when interpreting the rules on jurisdiction in the DCCP, will, as a matter of principle, link up with the case law of the Court of Justice of the European Union (CJEU) on Brussels I-bis (or its precursors)[41].

42. This is actually self-evident in the case of the interpretation of Section 6(e) DCCP, as its text corresponds almost literally with the text of Article 7(2) Brussels I-bis.[42] It should be noted here, however, that the

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[38] https://www.rtl.nl/economie/bedrijven/artikel/5267355/shell-na-115-jaar-wordt-de-schelp-weer-brits.

[39] See also Article 6(1) of Regulation 1215/2012 on jurisdiction and the recognition and enforcement of judgments in civil and commercial matters (Brussels I-bis): "*If the defendant is not domiciled in a Member State, the jurisdiction of the courts of each Member State shall, subject to Article 18(1), Article 21(2) and Articles 24 and 25, be determined by the law of that Member State*."

[40] Cf. Brussels I-bis, preamble 16: "*In addition to the defendant's domicile, there should be alternative grounds of jurisdiction based on a close connection between the court and the action or in order to facilitate the sound administration of justice. […]* See also (on Brussels I-bis) Asser/Vonken 10-I 2023/312: "The standard argument is always that the special jurisdiction rule of Article 7 under Brussels I-bis is based on the existence of a very close connection between the claim based on an unlawful act and the court for the place where the harmful event occurred; on this basis it is justified, for reasons relating to the sound administration of justice and an efficient and practical organisation of proceedings, that the latter court has jurisdiction. After all, the court for the place where the harmful event occurred will normally be best placed to rule on the matter, particularly because the distance is shorter and the presentation of evidence is easier, and the wrongdoer can reasonably expect to be sued before the court where their conduct/action violated the rules of law.

[41] Dutch Supreme Court 29 March 2019, ECLI:NL:HR:2019:443, ground 4.1.3. See also the Dutch House of Representatives, parliamentary year 1999/2000, 26855, no. 5, p. 18: "Section 1.1.5 is directly derived from Article 5 EEX (Regulation 1215/2012). […] The intention of Section 1.1.5 has always been to introduce a jurisdiction arrangement that is as identical as possible to that of the EEX and EVEX (the Lugano Convention). The jurisdiction arrangement set out in the EEX is generally accepted internationally. An identical jurisdiction arrangement for cases not covered by the EEX or EVEX will be accepted internationally in the same way. This will greatly promote the recognition and enforcement elsewhere of decisions of Dutch courts having jurisdiction under Section 1.1.5. The wording of Section 1.1.5, which is virtually identical to that of the EEX jurisdiction provisions, also aims to provide a uniform jurisdiction arrangement within and outside the EEX, which will increase legal certainty for citizens and legal practice. This objective means that it is desirable for the Dutch courts, even without a direct obligation to do so, to follow the case law of the CJEU, even in cases where an earlier Dutch interpretation deviates from that of the CJEU."

[42] Dutch House of Representatives, parliamentary year 2002/03, 28863, no. 3, p. 5: "The addition in part e (new) aims to adjust the jurisdiction provisions in the case of obligations arising from an unlawful act (currently Section 6(1) under d) to the broader wording - compared to Article 5(3) of the EEX Convention - of Article 5(3) of the EEX Regulation. Article 5(3) of the EEX Regulation clarifies that imminent damage also creates jurisdiction. It was, for that matter, generally assumed that this was also the case under Article 5(3) of the EEX Convention (cf. *Losbladige Rechtsvordering* (Loose-leaf comments on the Dutch Law of Civil Procedure), note 7 on Article 5 of the EEX

common Dutch rules on jurisdiction have a function that differs from the European rules on jurisdiction, which, among other things, seek to achieve an internal-regional division of jurisdiction. This is why the legislator, when introducing Sections 1 up to and including 14 DCCP, observed that the national rules on the granting of jurisdiction have, in general, become somewhat broader in scope.[43]

43. In order to determine the "place where the harmful event occurred" as referred to in Article 6(e) DCCP, the CJEU case-law on Article 7(2) Brussels I-bis (and its precursors) is taken as the starting point. It is established case law of the CJEU that the words "place where the harmful event occurred" refer both to the place where the damage occurred (the *Erfolgsort*) and to the place of the causative event (the *Handlungsort*). A plaintiff therefore has the choice of suing the defendant before the court for the place where the damage occurred (or threatens to occur) or before the court of the place of the harmful event that caused the (threatening) damage.[44]

44. In the present class action, Milieudefensie has decided to sue Shell before the court for the place where the damage threatens to occur (the *Erfolgsort*), namely the Netherlands. In this public-interest action, Milieudefensie is defending the interests of present and future generations of Dutch residents in preventing, or at least limiting, (threatening) climate damage to present and future generations of Dutch residents.[45]

45. The highest Italian court, the Italian Supreme Court (*La Corta Suprema di Cassazione)*, ruled along the same lines in a decision published on 21 July 2025 in the context of the application of Article 7(2) Brussels I-bis on the jurisdictional challenge made by oil and gas company Eni (and its shareholders) in a climate case brought by Greenpeace Italy, ReCommon and 12 citizens. The NGOs and citizens were holding Eni accountable – just like Milieudefensie is doing in the present case – for its inadequate climate policy and planned production of fossil fuels, which are at odds with global climate goals. Eni is thus contributing to a significant extent to global warming and the associated risks to health, safety, property and other fundamental human rights.

46. The Italian Supreme Court ruled that the alleged damage – the impairment of life, health and well-being as a result of climate impacts – occurred in Italy, where the plaintiffs were domiciled, even though the emissions were partly generated abroad. The Italian Supreme Court concluded that the Italian courts have jurisdiction to rule on the pending claims for damage suffered in Italy[46]. In other words: the jurisdiction can be based, among other things, on the *Erfolgsort*, and the *Erfolgsort* in this case was Italy.

47. On 18 March 2026, the Belgian *Tribunal de l'entreprise du Hainaut* also confirmed, in a climate case brought by a Belgian farmer against the French oil and gas company TotalEnergies, that the jurisdiction of the Belgian court of law can be based on the *Erfolgsort*.[47]

Convention). The wording of the EEX Regulation has been linked up with as closely as possible."

[43] Dutch House of Representatives, parliamentary year 1999-2000, 26855, no. 3, pp. 24-25.

[44] ECJ 30 November 1976, No. 21/76, ECLI:EU:C:1976:166, *Jur.* 1976, p. 1735; *NJ* 1977/494 (*Bier/Mines de potasse d'Alsace*). See also CJEU 6 October 2021, ECLI:EU:C:2021:800 (*Sumal, S.L. v Mercedes Benz Trucks España, S.L.*), paragraph 65: "*In addition, it follows from the consistent case-law of the Court concerning Article 7(2) of that regulation that the notion of 'place where the harmful event occurred' is intended to cover both the place where the damage occurred and the place of the event giving rise to it, meaning that the defendant may be sued, according to the applicant's choice, in the courts for either of those places (judgment of 29 July 2019, Tibor-Trans, C-451/18, EU:C:2019:635, paragraphs 24 and 25 and the case-law cited*)."

[45] See District Court of Amsterdam, 17 July 2024, ECLI:NL:RBAMS:2024:4255, paragraph 4.4.

[46] *La Corta Suprema di Cassazione* 18 February 2025 (published on 21 July 2025), *Greenpeace Italy & ReCommon v ENI S.p.A, the Ministry of Economy and Finance & Cassa Depositi e Prestiti S.p.A*, pp. 21-23, available at https://climatecasechart.com/non-us-case/greenpeace-italy-et-al-v-eni-spa-the-italian-ministry-of-economy-and-finance-and-cassa-depositi-e-prestiti-spa/.

[47] Press release of 18 March 2026, "The Farmer Case vs. Totalenergies: A First Admissibility Ruling that Strenghtens Climate Case Law", available via https://www.thefarmercase.be/en/2026/03/18/the-farmer-case-vs-totalenergies-a-first-admissibility-ruling-that-strengthens-climate-case-law/.

48. For the above reasons, a Dutch court has international jurisdiction to hear Milieudefensie's demands.

49. The following observation is made with regard to the relative jurisdiction. As opposed to Article 7(2) Brussels I-bis, the European counterpart of the applicable jurisdiction provision, Section 6(e) DCCP does not also determine the relative jurisdiction of the court.[48] In that case, the relative jurisdiction rules of Sections 99 et seq. DCCP apply.

50. Section 102 DCCP provides that the court for the place where the harmful event occurred has relative jurisdiction. Here too, that relative jurisdiction can therefore be based on the place where the (threatening) damage occurs. Seeing that Milieudefensie is defending the general interests of all present and future Dutch residents in preventing dangerous climate change, the (threatening) damage is occurring throughout the Netherlands, which means that every Dutch District Court is deemed to have relative jurisdiction. In that case, Milieudefensie can freely decide before which court it will sue Shell and file its demands.[49]

51. It follows from the above that the District Court of Amsterdam has relative jurisdiction to hear the present demands. This is in line with the relative jurisdiction if, instead of Section 102 DCCP, the safety net provision of Section 109 DCC would be applicable. After all, according to Section 109 DCCP, the court for the place where the plaintiff is domiciled has relative jurisdiction and Milieudefensie is domiciled in Amsterdam.

2.2 APPLICABLE LAW

52. Because the (threatening) damage is occurring or will occur in the Netherlands, Dutch law is applicable to Milieudefensie's demands. This will be explained below.

53. First of all, the applicable law must be determined on the basis of Regulation 864/2007 (the Rome II Regulation, or "**Rome II**").[50]

54. Article 7 Rome II provides that the law applicable to a non-contractual obligation arising out of environmental damage or damage sustained by persons or property as a result of environmental damage shall be the law determined pursuant to Article 4(1) Rome II (the law of the place where the damage occurred), unless the person seeking compensation for the damage, at least the person bringing a (preventive) claim in respect of (threatening) environmental damage, chooses the law of the country in which the event giving rise to the damage is occurring or has occurred.

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[48] See, among authors, M. Zilinsky in T&C Rv, "*Commentaar op art. 6 Rv*" (Commentary on Section 6DCCP), note 3 (updated until 1 April 2025), M.W.F. Bosters in "*Sdu Commentaar Burgerlijk Procesrecht*" (Sdu Commentary on Dutch Law of Civil Procedure), Section 6 DCCP, note 1 (published on 21 September 2023), P. Vlas in "*GS Burgerlijke Rechtsvordering*" (Green Series on Dutch Law of Civil Procedure), Section 6 DCCP, note 4 (updated until 27 March 2020) and Amsterdam District Court 27 December 2023, ECLI:NL:RBAMS:2023:8452, ground 5.15.

[49] See District Court of Gelderland 13 March 2024, ECLI:NL:RBGEL:2024:1419, ground 3.3: *"Philips has argued, without any rebuttal, that the products which it claims [the defendant] is infringing its copyright with are available via, among other places, the online shop www.bol.com. As this online channel is freely accessible in the Netherlands, damage has also been caused in the district of Gelderland ("Erfolgsort"). […] If it follows from the rules on relative jurisdiction that more than one District Court has relative jurisdiction, it is at the discretion of the claimant to bring the case before one of those District Courts*." See also District Court of The Hague, 11 February 2020, ECLI:NL:RBDHA:2020:1088, ground 4.2: "*As the parties have rightly recognised, the Netherlands is the locus damni in this case because Dominidesign's website(s) is/are accessible in the Netherlands. The preliminary relief judge also has relative jurisdiction, because the website(s) can be accessed in The Hague, among other places*." See, in the same sense, the recent CJEU judgment of 2 December 2025, case C-34/25 (*Stichting Right to Consumer Justice, Stichting App Stores Claims/Apple Distribution International Ltd, Apple Inc*.), grounds 62 to 68.

[50] This is based on Article 1(1) in conjunction with Article 2 Rome II. After all, damage is occurring (or threatens to occur) as a result of the non-performance of a non-contractual obligation in a civil or commercial matter. The alleged (threatening) harmful events also fall within the temporal scope of Rome II (Articles 31 and 32 Rome II).

55. Article 7 Rome II thus refers to the main rule of Article 4(1) Rome II, which provides that the law applicable to a tort/delict shall be the law of the country in which the damage occurs, irrespective of the country in which the event giving rise to the damage occurred and irrespective of the countries in which the indirect consequences of that event occur.

56. In the present case, the (threatening) environmental damage in the form of climate change and all resulting adverse (direct) consequences for the environment and humans occur in the Netherlands. The Netherlands must therefore be regarded as the *Erfolgsort.* As a result, Dutch law is applicable and the District Court must determine, on the basis of Dutch law, the basis and extent of liability as well as the measures that can be imposed to prevent or limit the damage or ensure for the provision of compensation (Article 15 Rome II).

57. In the first climate case against Shell, the District Court also already confirmed that the Netherlands must be regarded as the *Erfolgsort* insofar as Milieudefensie is representing Dutch residents.[51] In that case, the discussion about the applicable law mainly revolved around the question of whether the adoption of the group policy by Shell's head office, which was located in the Netherlands at the time, could also be regarded as the event giving rise to the damage. The District Court also answered that question in the affirmative.[52] In the most recent edition of the publication "Asser-deel10-III", the authors Kramer & Verhagen state that the Court's ruling seems to be correct, also in view of the protective objective of Article 7 Rome II (underlining added by counsel):

> *"In [933], it is indicated that the event giving rise to the damage is defined as the (threatening) event (act or omission) on which the injured party is relying in support of their claim based on an unlawful act. […] The adoption of the group policy of the Shell group is regarded as an independent cause of damage that may contribute to the (threatening) climate damage suffered by Dutch residents and must therefore be regarded as an event within the meaning of Article 7. To this, the Court adds that Article 4(1) would also result in Dutch law to the extent that the interests of Dutch residents are concerned. This finding seems to be correct, also in view of the protective objective of Article 7 Rome II, which is also cited by the District Court. The nature of this type of environmental damage, and especially insofar as it has not yet (fully) materialised, means that a policy that leads to such damage occurring can best be characterised as an event giving rise to damage (or a contribution to such event). This decision is also in line with liabilities based on corporate responsibility, where companies can also be held accountable for their policies and preparatory actions that lead or may lead to damage (elsewhere)*."[53]

58. Under Article 7 Rome II, Milieudefensie therefore has the option of choosing between the law of the *Erfolgsort* or the law of the *Handlungsort*, and has opted in this context for the application of Dutch law via the *Erfolgsort*.

3 ADMISSIBILITY OF COLLECTIVE DEMANDS

3.1 INTRODUCTION

59. Milieudefensie is an association[54] and established interest group that has been committed to environmental protection for over 50 years. Milieudefensie was at the forefront of the environmental movement in the Netherlands, which emerged almost simultaneously with the publication in 1972 of the Club of Rome report

[51] District Court of The Hague 26 May 2021, ECLI:NL:RBDHA:2021:5337, ground 4.3.7.
[52] District Court of The Hague 26 May 2021, ECLI:NL:RBDHA:2021:5337, grounds 4.3.3 up to and including 4.3.6. Shell initially raised a ground of appeal to challenge this finding, but dropped this ground of appeal in the course of the appeal proceedings.
[53] In Asser/Kramer & Verhagen 10-III 2022/1054a.
[54] Exhibit MD-008, Chamber of Commerce excerpt relating to Milieudefensie.

(entitled “Limits to Growth”). One of the Dutch members of the Club of Rome, Wouter van Dieren, became a co-founder of Milieudefensie.

60. Since its foundation in 1971, Milieudefensie has been committed to environmental protection and nature conservation and has taken action against (industrial) pollution. Since at least 1990, Milieudefensie has also focused with its activities on climate issues. In recent decades, Milieudefensie has grown into one of the best-known environmental and climate organisations in the Netherlands thanks to its many activities in this field. Milieudefensie now has 152 employees[55], more than 116,000 members and sponsors[56], 21 local departments[57] and many volunteers. Since 2015, the organisation has been led by director Donald Pols, who was previously Senior Manager of Global Sustainability at ECN (Netherlands Energy Research Centre) and head of the World Wildlife Fund Climate Programme.[58] Since 2022, Milieudefensie's executive board has consisted of two members. Since 1 July 2025, Jessica Mahn has been co-director of Milieudefensie.[59]

61. Since the 1970s, Milieudefensie has also been a member of Friends of the Earth International. This is the largest environmental network in the world, with organisations in 75 countries across all continents. Friends of the Earth International has a total of 5,000 local chapters. With 2 million members and sponsors all around the world, Friends of the Earth International is working towards making the world more sustainable and fairer.[60]

62. With this summons, Milieudefensie is calling Shell to account for the substantial climate impact it is causing with its continued investments in oil and gas. By doing so, Milieudefensie is defending the public interest of present and future generations of Dutch residents in limiting the major dangers and risks of climate change, to which Shell contributes in a legally relevant sense. The aim is to limit global warming to the universally and internationally recognised danger threshold of 1.5°C above the pre-industrial temperature.

63. In this chapter, Milieudefensie will substantiate, with a view to the District Court's decision pursuant to Section 1018c(5) DCCP, that all the applicable admissibility and standing requirements and provisions of Section 3:305a DCC and Title 14a DCCP have been complied with.

3.2 THE REQUIREMENTS OF SECTION 3:305A(1) AND (2) DCC

64. Pursuant to Section 3:305a(1) DCC, a foundation or association with full legal capacity may bring a legal action that serves to protect similar interests of other persons (the “similarity requirement”), insofar as it represents these interests pursuant to its articles of association (the “articles of association requirement”) and these interests are sufficiently safeguarded. According to Section 3:305a(2) DCC, the interests are sufficiently safeguarded if the legal entity is sufficiently representative (the “safeguarding requirement”, also called “representativeness requirement”). These three requirements will be successively discussed, starting with the articles of association requirement.

3.2.1 Section 3:305a(1) DCC – Milieudefensie’s objects according to the articles of association and *de facto*

[55] Exhibit MD-009, Milieudefensie Annual Report 2024, p. 45.
[56] Exhibit MD-009, Milieudefensie Annual Report 2024, p. 36.
[57] See https://www.datocms-assets.com/115430/1709816593-overzichtactieslokaleafdelingen2023.pdf.
[58] See https://milieudefensie.nl/over-ons/wie-is-donald-pols-de-directeur-van-milieudefensie.
[59] See https://milieudefensie.nl/actueel/jessica-mahn-versterkt-milieudefensie-als-co-directeur.
[60] See https://milieudefensie.nl/over-ons/ons-internationale-netwerk. See also https://www.foei.org/what-we-do/.

activities

65. Milieudefensie is an association with full legal capacity. Milieudefensie's objects are set out in article 3.1 of its articles of association and read as follows:

> "The association aims to contribute to solving and preventing environmental problems and preserving cultural heritage as well as working towards a sustainable society, all of this at global, national, regional and local level, in the broadest sense and all of this in the interests of the members of the association and in the interests of the quality of the environment, nature and the landscape in the broadest sense for present and future generations."[61] (underlining added by counsel)

66. Protecting the environment and nature both in the Netherlands and abroad, for both present and future generations, and working towards a sustainable society are therefore essentially the core objects that Milieudefensie seeks to achieve as an association. Article 3.2 of the articles of association sets out how the association tries to achieve these objects, viz. by conducting research, informing the public, influencing decision-making and litigating, among other things:

> "The Association seeks to achieve its objects by: critically monitoring all developments in society that have an impact in the area of the environment, nature, landscape and sustainability, influencing decision-making on these matters by using all appropriate and lawful means, conducting or commissioning research, disseminating and providing information in the broadest sense, obtaining court rulings and carrying out all acts and actions that the Association deems necessary to achieve its objects."[62]

67. To the articles of association requirement, another requirement is linked, viz. that the interest group must also *de facto* represent the interests set out in the articles of association. This is abundantly clear in the case of Milieudefensie, as it has championed the cause of environmental protection for more than 50 years, campaigned for sustainable energy for more than 40 years and has actively raised awareness about the seriousness of climate change and proposed solutions for making society more sustainable for more than 30 years.[63] In its actions, Milieudefensie explicitly focuses on the role of key system players, including governments and large companies as well as on the importance of climate justice. Climate justice means, among other things, that the costs, burdens and benefits of climate policy are distributed fairly, that the most vulnerable people who contribute least to the problem are supported and that the biggest polluters drastically reduce their emissions to combat climate change.[64,65]

68. In the legal proceedings that are still pending, Shell never disputed that Milieudefensie complies with the articles of association requirement and also undertakes *de facto* activities to achieve its objects according to

[61] Exhibit MD-010, Articles of Association of Milieudefensie, p. 2.
[62] Exhibit MD-010, Articles of Association of Milieudefensie, p. 2.
[63] See https://milieudefensie.nl/over-ons/onze-geschiedenis for a brief description
[64] See https://milieudefensie.nl/alles-wat-je-wil-weten-over-klimaatrechtvaardigheid.
[65] For a number of examples in the Dutch context, see: The calculation of a package of additional climate measures that will mean that almost all Dutch citizens, especially those earning the lowest incomes, will be better off financially, Milieudefensie and Kalavasta, 6 April 2025, "*Met deze eerlijke milieumaatregelen gaat bijna iedereen erop vooruit*" (With these fair climate measures, almost everyone will be better off financially), available at https://milieudefensie.nl/actueel/herverdeling_klimaatopgave_huishoudens_btm, and the launch of a new calculation model for a fairer climate policy on 8 November 2023, available at https://milieudefensie.nl/actueel/dit-nieuwe-rekenmodel-laat-zien-hoe-ons-klimaatbeleid-rechtvaardiger-kan. See also the letter to the Dutch House of Representatives dated 27 October 2021 from Milieudefensie, Woonbond and FNV: "*Laat kwetsbare huishoudens niet in de kou zitten*" (Don't leave vulnerable households out in the cold), available at https://milieudefensie.nl/actueel/20211025-brf-498-alternatief-voorstel-compensatie-stijgende-energieprijzen-en-isolatie-maatregelen.pdf. See also the launch of the Fair Climate Agenda on 9 June 2021, "*Brede coalitie lanceert klimaatplan voor lagere inkomens*" (Broad coalition launches climate plan for lower incomes), available at https://milieudefensie.nl/actueel/brede-coalitie-lanceert-klimaatplan-voor-lagere-inkomens. See also Milieudefensie 2 July 2020, "*Verruiming warmtefonds biedt miljoen huishoudens kans op kosteloos isoleren*" (Expansion of heat fund offers millions of households the opportunity for free insulation), available at https://milieudefensie.nl/actueel/verruiming-warmtefonds-biedt-miljoenen-huishoudens-kans-op-kosteloos-isoleren and Milieudefensie 24 June 2018, *"Visie: eerlijke verdeling van lusten en lasten*" (Vision: Fair distribution of benefits and burdens), available at https://milieudefensie.nl/actueel/eerlijke-verdeling-van-lusten-en-lasten.pdf.

the articles of association. For this reason, Milieudefensie will not provide another comprehensive overview in this summons of examples of the many activities it has undertaken in recent decades. For the sake of completeness, that overview is included in Exhibit MD-011.[66]

69. In addition, a number of further examples of recent activities are given below:

(i) In January 2022, Milieudefensie launched its climate plans campaign, calling on 29 large international companies and financial institutions to come up with good climate plans. Milieudefensie writes letters, holds discussions, commissions research into the climate plans and calls on politicians not to allocate money from the climate fund to companies that do not have a good climate plan.[67]

(ii) In 2022, Milieudefensie wrote letters to the major accountancy firms to draw their attention to the importance of adequate auditing of climate risk reporting in annual reports. And with success: the four major accountancy firms and NBA, their professional association, responded positively.[68]

(iii) In 2023, Milieudefensie co-organised the largest climate march in Dutch history. On 12 November 2023, some 85,000 people took part in the March for Climate and Justice.[69]

(iv) Over the past three years, Milieudefensie (including Milieudefensie Jong) attended the shareholder meetings of several large multinationals to draw attention to climate responsibility and the importance of a Paris-compliant climate plan.[70]

(v) With its Manifesto for Climate Justice, Milieudefensie is campaigning to draw attention to the need for large polluting companies to comply with the Paris Climate Agreement and for the government to stop fossil subsidies. In February 2026, the manifesto had been signed by more than 100,000 citizens.[71]

(vi) In September 2023, Milieudefensie Jong published a study on climate stress among young people, launched the podcast "*Radicale Hoop"* (Radical Hope) and organised workshops led by a climate psychologist.[72]

(vii) In 2023, Milieudefensie, together with 123 national and international civil-society organisations (in the area of the environment), wrote an urgent letter calling on private and public financial institutions to

[66] Exhibit MD-011, Non-exhaustive overview of Milieudefensie's activities, with reference to Exhibit MD-012, Milieudefensie 1988, "*Het gat in de Ozonlaag*" (The hole in the ozone layer) (selected pages); Exhibit MD-013, Milieudefensie 1986, "*Schoonstroomkrant*" (Green energy newspaper), p. 1; Exhibit MD-014, Albers et al. 1990, "*Het broeikaseffect: erop of eronder*" (The greenhouse effect, sink or swim) (website printout); Exhibit MD-015, Calmthout 1990, "*Het broeikasgaseffect*" (The greenhouse effect) (selected pages), pp. 1-6; Exhibit MD-016, Milieudefensie Annual Report 1990 (selected pages), p. 2 (foreword by the president). See also p. 4 ("*Broeikascampagne houdt sectie in haar greep*" (Greenhouse campaign grips the industry); Exhibit MD-017, Milieudefensie Annual Report 1991 (selected pages), pp. 1 and 3, under the boxed feature "*Broeikasgascampagne: het tij keren*" (Greenhouse campaign: turning the tide); Exhibit MD-018, Milieudefensie Annual Report 1994, pp. 12-13 ("*Energie*") and p. 17 ("Milieudefensie International"); MD-019, Buitenkamp 1992, "*Duurzame ontwikkeling in Nederland en Europa*" (Sustainable development in the Netherlands and Europe) (selected pages), pp. 83-96; MD-020, Milieudefensie 2006, "*Algemeen Beleidsplan 2006-2010: Uitzien naar 2010*" "General Policy Plan 2006-2010: Looking Ahead to 2010) (selected pages), pp. 18-19; MD-021, Milieudefensie Annual Report 2006 (foreword and summary), pp. 2-3 (foreword) and p. 8 (summary of environmental results); Exhibit MD-022, Milieudefensie Annual Report 2007 (foreword and chapter "*Klimaat en Energie*" (Climate and Energy)), pp. 25-27; Exhibit MD-023, Milieudefensie 2010, "*Algemeen Beleidsplan 2010:2015: Met draagvlak naar beweging*" (General Policy Plan 2010-2015: building momentum with support) (selected pages), pp. 3-4; Exhibit MD-024, Geurts et al. 2009, "*Versnelde Ontwikkeling van Duurzame energie in Nederland*" (Accelerated Development of Sustainable Energy in the Netherlands) (selected pages), pp. 1-2; Exhibit MD-025, Milieudefensie 2016, "*Algemeen Beleidsplan 2016-2025: Samenwerken aan een eerlijke transitie*" (General Policy Plan 2016-2025: Working Together on a Fair Transition) (selected pages), pp. 3-4.

[67] See https://milieudefensie.nl/actueel/alles-wat-je-moet-weten-over-onze-klimaatplannen-campagne.

[68] See https://milieudefensie.nl/actueel/onze-brief-aan-accountants-ook-jullie-hebben-een-verantwoordelijkheid-in-het-voorkomen-van-gevaarlijke-klimaatverandering.

[69] See https://milieudefensie.nl/actueel/bijna-verkiezingen-zo-kun-jij-het-klimaat-laten-winnen.

[70] See https://milieudefensie.nl/actueel/een-terugblik-op-een-spetterend-ava-seizoen. See also Exhibit MD-009, Milieudefensie Annual Report 2024, p. 21.

[71] See https://milieudefensie.nl/actie/manifest-klimaatrechtvaardigheid/teken.

[72] See https://milieudefensie.nl/actueel/20-procent-nederlandse-jongeren-ervaart-klimaatstress.

withdraw from a risky LNG project in Mozambique that is associated with violence and human rights violations.[73]

(viii) Through the Fair, Green and Global Alliance and the Green Livelihoods Alliance, Milieudefensie has been involved in supporting local communities in Honduras, Brazil, Colombia, Argentina, Bolivia and Togo in their campaigns against new fossil-fuel projects and for the protection of nature and the climate. [74]

(ix) In March 2025, Milieudefensie started a climate case against ING. For almost 20 years, Milieudefensie has focused on the important role of the financial sector in shifting investment flows towards a sustainable economy and sustainable energy. After years of trying to persuade ING, as a major international systemic bank, to adopt a better climate policy, Milieudefensie took legal action.[75]

70. Milieudefensie's multi-year strategy for the period 2025-2030 is entitled "*Alle bedrijven Parijs-proof*" (All companies Paris-proof), which means that Milieudefensie will continue to focus in the coming years on the acceleration of climate action by large companies through campaigns, petitions, demonstrations, public events, research reports, knowledge sharing and litigation.[76]

71. The above shows that Milieudefensie is committed to solving and preventing the climate problem, addressing environmental issues in general and making society more sustainable, at the global, national, regional and local levels and for both present and future generations worldwide. These are therefore interests that Milieudefensie takes to heart, in both word (also in its articles of association) and deed, and which it may count to be part of its interests. With its legal actions against Shell, Milieudefensie is defending these general (legal) interests as described in its articles of association for the protection of present and future generations of Dutch residents. The following section will explain that these interests are also sufficiently similar to be capable of being protected in this collective legal action.

3.2.2 **Section 3:305a(1) DCC (and Section 1018c(5)(b)) – the similar interests that Milieudefensie is defending**

72. In light of the rulings in the *Urgenda* case and the rulings in the first climate case against Shell, there can be no doubt that the interests that present and future generations of Dutch residents have in limiting climate change are sufficiently similar to be able to be protected in a collective action.[77] The importance of being able to stand up for future generations has also been explicitly recognised recently by the European Court of Human Rights in the *KlimaSeniorinnen* case.[78]

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[73] See https://milieudefensie.nl/actueel/gasproject-mozambique-oproep-financiers.

[74] See https://milieudefensie.nl/over-ons/jaarverslag-inclusief-jaarrekening-2023.pdf/@@download/file/Jaarverslag%20inclusief%20jaarrekening%202023.pdf, pp. 15-18.

[75] See https://milieudefensie.nl/actueel/hier-vind-je-alle-juridische-documenten-van-onze-klimaatzaak-tegen-ing.

[76] See https://milieudefensie.nl/actueel/vereniging/milieudefesie_meerjarenstrategie-2025-2030-def.pdf.

[77] District Court of The Hague 24 June 2015, ECLI:NL:RBDHA:2015:7145, grounds 4.6 up to and including 4.8, Court of Appeal of The Hague 9 October 2018, ECLI:NL:GHDHA:2018:2591, ground 37, Dutch Supreme Court 20 December 2019, ECLI:NL:HR:2019:1006, ground 5.9.2, District Court of The Hague 26 May 2021, ECLI:NL:RBDHA:2021:5337, ground 4.2.4, Court of Appeal of The Hague 12 November 2024, grounds 6.2 up to and including 6.5.

[78] ECHR 9 April 2024, ECLI:CE:ECHR:2024:0409JUD005360020, ground 420: *"the Court notes that, in the specific context of climate change, intergenerational burden-sharing assumes particular importance both in regard to the different generations of those currently living and in regard to future generations.* […] *it is clear that future generations are likely to bear an increasingly severe burden of the consequences of present failures and omissions to combat climate change* […] *By their commitment to the UNFCCC, the States Parties have undertaken the obligation to protect the climate system for the benefit of present and future generations of humankind (see paragraph 133 above; Article 3 of the UNFCCC). This obligation must be viewed in the light of the already existing harmful impacts of climate change, as well as the urgency of the situation and the risk of irreversible harm posed by climate change. In the present context, having regard to the prospect of aggravating consequences arising for future generations, the intergenerational perspective underscores the risk inherent in the relevant political decision-making processes, namely that short-term interests and concerns may come to prevail over, and at the expense of, pressing needs for sustainable policy-making, rendering that risk particularly serious and adding justification for the possibility of judicial* review."

73. In this case, Milieudefensie is defending the interests of present and future generations of Dutch residents and is thus satisfying the similarity requirement.

74. The similarity of the interests protected by Milieudefensie is also evident from the following.

75. In this case, Milieudefensie is seeking legal protection for present and future generations of Dutch residents against the comprehensive threat of climate change by demanding that Shell align its climate policy with the 1.5°C limit. This universal danger threshold, as laid down in the Paris Agreement, expresses the fact that dangerous climate change will have serious consequences for all people on earth and that it is therefore, by definition, in everyone's interest to defend that danger threshold by means of the necessary emission reductions.

76. This is also evident as such from the UN Climate Convention, which recognises, already in the preamble to the first recital, that climate change and its adverse effects are a common concern of humankind, which is followed by the finding that the parties are determined to protect the climate system for present and future generations:

> *"Acknowledging that change in the Earth's climate and its adverse effects are a common concern of humankind, […] Determined to protect the climate system for present and future generations"*

77. The objective of the UN Climate Convention to prevent dangerous climate change is based, among other things, on the principle that the climate system must be protected for the benefit of present and future generations, "*on the basis of equity and in accordance with their common but differentiated responsibilities and respective capabilities*" (Article 3(1) UN Climate Convention).

78. The Paris Agreement reaffirms this, while also placing additional emphasis on the importance of protecting the most vulnerable groups in society as well as on the importance of intergenerational equity:

> *"Acknowledging that climate change is a common concern of humankind, Parties should, when taking action to address climate change, respect, promote and consider their respective obligations on human rights, the right to health, the rights of indigenous peoples, local communities, migrants, children, persons with disabilities and people in vulnerable situations and the right to development, as well as gender equality, empowerment of women and intergenerational equity."*

79. In the *KlimaSeniorinnen* case, the ECtHR also refers to the many international (legal) sources that recognise the importance of protecting the global climate system for present and future generations of mankind, including the numerous resolutions of the United Nations General Assembly.[79]

80. As a result, the public interest in preventing dangerous climate change is, by definition, an indivisible and universal interest. And, as said, there is also a specific limit value – limiting global warming to 1.5°C – that must be observed in order to prevent this danger, which is recognised by the international community of states. Milieudefensie's demands are aimed at achieving and protecting this global limit and promoting a

[79] ECHR 9 April 2024, ECLI:CE:ECHR:2024:0409JUD005360020, para. 148 (with reference to more than 30 UN resolutions). From paragraph 50 up to and including paragraph 106, the judgment provides a summary of important international sources that recognise the importance of environmental protection, a healthy living environment and protection of the climate system for the benefit of present and future generations.

sustainable society, in line with the objects of Milieudefensie as formulated in its articles of association.[80] All present and future Dutch residents have a sufficiently similar interest in achieving these objects and, therefore, in the relief sought by Milieudefensie in this legal action.

81. In this context it should be noted that the requirement of a sufficiently similar interest does not extend to the point where all interested parties must be in an identical position and have exactly the same wishes. In this case, the legal and factual questions involved in the dispute do not have to be answered differently for every individual. For answering the legal questions before this Court, protecting the 1.5°C limit and dealing with Milieudefensie's demands in this lawsuit, the particularities of individual cases can be abstracted from. This means that the interests are sufficiently similar and therefore lend themselves to be combined, and efficient and effective legal protection can be promoted for the benefit of the interested parties. This means that the requirement of Section 1018c(5)(b) has als been complied with.

82. All in all, it can be established that the interests of present and future generations of Dutch residents in preventing dangerous climate change are sufficiently similar to be protected in this collective action.

3.2.3 Section 3:305a(2) DCC – interests sufficiently safeguarded: the representativeness requirement

83. Pursuant to Section 3:305a(1) DCC, the interests represented by Milieudefensie must be sufficiently safeguarded. Paragraph 2 provides that this is the case if the interest group is sufficiently representative, given its constituency and the magnitude of the represented claims. This latter addition originates from the Dutch Resolution of Mass Damage in Collective Action Act (hereafter: "**WAMCA**"), which tightened the representativeness requirements for interest groups, partly to prevent that any random organisation could present itself as a defender of the interests of injured parties.[81]

84. According to the wording of the law and the legislative history, the legislator, when tightening the representativeness requirements, was primarily thinking of group actions in which the interested parties can be clearly individualised.[82] In this case against Shell, general interests are being represented which, by their nature, cannot be individualised. The essence of a collective public-interest action is precisely that the interest group does not represent the combined interests of a determined or determinable number of individuals, but rather the general interest of protecting the rights of a much larger group of individuals, which is diffuse and indeterminate.

85. This makes it difficult to establish the representativeness of the interest group on the basis of "the magnitude of the represented claims".[83] What constitutes a sufficiently representative organisation in a specific case must be determined on the basis of the nature and circumstances of the case.[84] In public-interest actions, lower courts have applied the criterion that the interest group must demonstrate that it serves as an

[80] Exhibit MD-010, Milieudefensie's articles of association, article 2.
[81] Dutch Parliamentary Records II 2016/17, 34608, no. 3, pp. 18 and 19.
[82] As already discussed above in Chapter 3.1, the legislator expressly did not intend to make purely idealistic actions more difficult than before the introduction of the WAMCA.
[83] Cf. Stolk, R. (2024) in "*Representativiteitsvereiste bij belangenorganisaties: onnodige drempel of onmisbare waarborg*? *Over het civielrechtelijke aansprakelijkheidsvereiste en het ontbreken daarvan in het bestuursrecht*" (Representativeness requirement for interest groups: unnecessary barrier or indispensable safeguard? On the civil-law representativeness requirement and its absence in administrative law). Government & Liability, 2024(3), p. 81.
[84] See also Dutch Parliamentary Records II 2003/04, 29414, 3, p. 15: "The representativeness of an organisation can be inferred from various pieces of information, and it is not advisable in this context to consider one or more pieces of information to be decisive. It is therefore difficult to provide a clearly defined interpretation of this requirement, as this would do injustice to other information that could also indicate that an organisation is representative. After all, various pieces of information may be relevant, either individually or in combination with each other."

adequate voice for the group it represents.[85]

86. The detailed description given in chapter 3.2.1 of Milieudefensie's actual activities at national and international level, its track record in other collective actions, its support for and cooperation with other established interest groups, its global network and the more than 100,000 members and sponsors in addition to tens of thousands of other people who actively support its actions each year make it clear that Milieudefensie can be regarded as an adequate voice when it comes to protecting people against dangerous climate change.

87. In addition, Milieudefensie had received more than 20,000 endorsements for this specific case against Shell in February 2026.[86] In November 2024, more than 400 companies and organisations supported Milieudefensie in calling on large polluting companies to green up more quickly and halve their CO_2 emissions by 2030.[87]

88. In this context, Milieudefensie also notes that the legislator has recognised that non-governmental organisations occupy a special position from the perspective of international and European law when it comes to representing idealistic interests.[88] Specific reference was made in this context to the Aarhus Convention concerning environment-related issues.

89. Although it cannot be required for an interest group to be representative that the collective action can count on the support of a significant portion of the population[89], it may nevertheless be interesting to draw attention to the opinion poll conducted by Ipsos I&O on behalf of Milieudefensie, which shows that eight out of ten (81%) Dutch people believe that companies should comply with the Paris Climate Agreement.[90]

90. Global support for climate action is also strong. In 2024, the renowned journal "Nature Climate Change" published the results of a survey of 300,000 people from 125 countries, which shows that "*the overwhelming majority* [of the global population, addition by counsel] *demands political action and supports pro-climate norms*."[91] The investigation thus indicates that the majority of the world's population is aware of the great importance of preventing dangerous climate change and supports measures that can contribute to this.

91. This is also confirmed by what is known as the Peoples' Climate Vote 2024 as conducted by the United Nations Development Programme (UNDP) and the University of Oxford. This survey of 73,000 people from 77

[85] Amsterdam District Court 2 October 2025, ECLI:NL:RBAMS:2025:7253 (*Bits of Freedom v Facebook & Meta*), ground 4.8; District Court of The Hague 25 September 2024, ECLI:NL:RBDHA:2024:14834 (*Klimaatzaak Bonaire*), ground 3.11; District Court of Amsterdam 17 July 2024, ECLI:NL:RBAMS:2024:4255 (*Farma ter Verantwoording v AbbVie*), grounds 5.7.3 – 5.7.6; District Court for the Middle of the Netherlands 17 July 2024, ECLI:NL:RBMNE:2024:4106, ground 4.21; District Court of The Hague 15 November 2023, ECLI:NL:RBDHA:2023:17145, ground 5.18, and District Court of Amsterdam 7 June 2023, ECLI:NL:RBAMS:2023:3499, grounds 4.16-4.17.

[86] See https://milieudefensie.nl/nieuwezaak.

[87] See https://milieudefensie.nl/doe-mee/bondgenoten/deze-organisaties-ondertekenen-de-oproep-aan-grote-bedrijven.

[88] Dutch Parliamentary Records II 2022/23, 36169, no. 39, Letter from the former Minister for Legal Protection F.M. Weerwind: "Access to the courts is of great importance. […] The right of an interest group to represent the interests of other persons in a collective action has been enshrined in the Dutch Civil Code (Section 3:305a DCC) since 1994. […] The "interests of other persons" include the interests of a particular group of persons, such as victims of unfair commercial practices, but also interests that affect society as a whole, such as the interest in having clean drinking water. From the perspective of international and European law, non-governmental organisations (NGOs) also occupy a special position when it comes to representing voiceless interests."

[89] On the contrary, according to the legislative history, the fact that the interests an organisation wishes to protect in a legal action conflict with the ideas and opinions of other groups in society does not in itself preclude a collective action.

[90] See https://milieudefensie.nl/actueel/rapport-klimaatmaatregelen-ipsos-sep25.pdf, p. 4 and p. 6.

[91] Andre, P., Boneva, T., Chopra, F. et al., "Globally representative evidence on the actual and perceived support for climate action". Nat. Clim. Chang. 14, 253–259 (2024), available at https://doi.org/10.1038/s41558-024-01925-3 (Open Access), p. 257 (under "Discussion"). See also p. 254: *"we document widespread approval of pro-climate social norms in almost all countries. Overall, 86% of respondents state that people in their country should try to fight global warming (Fig. 1c). In 119 of 125 countries, the proportion of supporters exceeds two-thirds*." And pp. 254-255: *"we identify an almost universal global demand for intensified political action. Across the globe, 89% of respondents state that their national government should do more to combat global warming (Fig. 1e)*."

countries shows that 80% of people are calling for stronger climate measures.[92]

3.2.4 Section 3:305a(6) DCC – applicability of a lighter admissibility regime

92. Milieudefensie's demands do not serve to obtain a monetary compensation. The demands are being made for an idealistic purpose, namely to contribute to the protection of present and future generations against the adverse effects and major risks of climate change above 1.5°C. The people Milieudefensie is representing obviously have no direct financial interest in the case.[93] The case is therefore ideally suited to the application of the light admissibility regime.

93. The nature of Milieudefensie's demands and the interests they seek to protect also give rise to the application of the light admissibility regime of Section 3:305a(6) DCC.

94. In this context, Milieudefensie points to the many examples in which the lighter admissibility regime was declared applicable.[94] Milieudefensie asserts on this basis that this is common practice in public-interest actions. The conclusion is that Section 3:305a(2) under (a) up to and including (e) and Section 3:305a(5) DCC do not have to be applied. Nevertheless, it will be explained below that Milieudefensie also meets these additional requirements regarding transparency, governance and representativeness.

3.2.5 Section 3:305a(2)(a) up to and including (e) and (5) – additional requirements regarding transparency, governance and representativeness

Sub-paragraph a: a supervisory body

95. Milieudefensie has a Supervisory Board, which is tasked with supervising the policy of the board and the general course of events within the association and the organisation connected with the association (article 11.1 and 11.8 of the articles of association),[95]

Sub-paragraph b: appropriate and effective mechanisms for participation or representation in decision-making of the persons whose interests the legal action seeks to protect

96. Sub-paragraph b concerns the possibility of participation by the constituency. Since Milieudefensie is an association, its members participate through the General Members' Meeting ("GMM").[96] The GMM takes

[92] Exhibit MD-026, UNDP 2024, Peoples' Climate Vote 2024 (Executive Summary), p. 4 and p. 13. See also p. 14, which shows that people are not convinced that companies are contributing sufficiently to climate action: *"People are unconvinced by big businesses' climate efforts. Just over one in three people (39 per cent) globally said they think big businesses are doing well on addressing climate change*."

[93] It should be noted for the sake of completeness that the fact that admitting claims brought in an idealistic action could have major financial consequences for the party against whom the action is brought does not preclude the application of the light admissibility regime, see Court of Appeal of The Hague 19 March 2024, ECLI:NL:GHDHA:2024:363 (the case about the right to drinking water), ground 6.4.

[94] See, among other judgments: Court of Appeal of The Hague 19 March 2024, ECLI:NL:GHDHA:2024:363 (case about the right to drinking water), ground 6.4; District Court of The Hague 6 March 2024, ECLI:NL:RBDHA:2024:3007 (nitrogen case), grounds 5.19 and 5.20; District Court of East Brabant, 3 January 2024, ECLI:NL:RBOBR:2024:5, grounds 6.2 up to and including 6.7 (flexitime scheme case), Court of Appeal of The Hague 12 February 2024, ECLI:NL:GHDHA:2024:191, ground 5.2, and District Court of The Hague 15 December 2023, ECLI:NL:RBDHA:2023:19744, ground 4.2 (F-35 case); District Court of The Hague 15 November 2023; ECLI:NL:RBDHA:2023:17145 (aircraft noise case), grounds 5.21 and 5.22; District Court of The Hague 26 September 2023, ECLI:NL:RBDHA:2023:14320 (traveller case), grounds 4.17 up to and including 4.20; District Court of Amsterdam 7 June 2023, ECLI:NL:RBAMS:2023:3499 (KLM greenwashing case), ground 4.10.s

[95] Exhibit MD-010, Milieudefensie's articles of association.

[96] "*T&C BW"* (Text and commentary on the Dutch Civil Code), commentary on Section 3:305a DCC, note 3 under b: "*If the interest group is organised as an association, representation in decision-making can be arranged through the members' meeting.*"

place twice a year and can also be attended online.[97] Voting can also take place online (in advance). In addition, Milieudefensie organises a pre-GMM, where questions can be asked and business on the agenda can be discussed.[98]

97. Also, members and sponsors of Milieudefensie are informed about and involved in Milieudefensie's activities (also about this legal case) in various ways, including through newsletters[99], information on its website, via events (such as Milieudefensie on Tour[100] or campaign days[101]), its international network[102] and through other forms of online knowledge sharing.[103] The board of directors also involves the association and its members in various ways in idea generation and evaluations, for example through surveys, meetings, panels or advisory councils.[104]

Sub-paragraph c: sufficient resources and sufficient control over those resources

98. Milieudefensie has sufficient resources to pursue this legal action.[105] The vast majority of Milieudefensie's revenues – namely 86% of its total revenues – comes from donations from private individuals and other non-profit organisations. Milieudefensie can use these revenues to achieve its objects.

Sub-paragraph d: publicly accessible internet page

99. Milieudefensie has a publicly accessible website in both the Dutch and the English language (www.milieudefensie.nl and https://en.milieudefensie.nl/). The following can be found on that website:

(i) 1° the articles of association of the legal entity;[106]

(ii) 2° the governance structure of the legal entity;[107]

(iii) 3° the most recently adopted annual outline account by the supervisory body regarding the supervision performed by it;[108]

(iv) 4° the most recently adopted report of the board of directors;[109]

(v) 5° the remuneration of directors and members of the supervisory body;[110]

(vi) 6° the objects and working methods of the legal entity;[111]

[97] See https://milieudefensie.nl/actueel/vereniging/veelgestelde-vragen-algemene-ledenvergadering.
[98] Ibid.
[99] See https://milieudefensie.nl/over-ons/nieuwsbrief.
[100] For example: https://milieudefensie.nl/doe-mee/nazittingshell.
[101] For example: https://veranderaars.milieudefensie.nl/agenda/2024-02-24-campagnedag/ and https://veranderaars.milieudefensie.nl/agenda/campagnedag-2024/.
[102] For example: https://www.foei.org/?s=shell.
[103] For example: https://en.milieudefensie.nl/news/unlock-our-shell-and-ing-climate-cases-with-our-new-climate-case-tool.
[104] See https://milieudefensie.nl/over-ons/onze-vereniging#directie-bestuur.
[105] Exhibit MD-009. Milieudefensie Annual Report 2024 (including the annual accounts), pp. 36-37. See also pp. 48-49 (which are p. 2 and p. 3 of the annual accounts).
[106] See https://milieudefensie.nl/actueel/statuten-juli-2022.
[107] See https://milieudefensie.nl/over-ons/onze-vereniging.
[108] See https://milieudefensie.nl/over-ons/jaarverslag, pages 11 up to and including 13 includes the account rendered by the Supervisory Board.
[109] Exhibit MD-009, Milieudefensie Annual Report 2024, pp. 5 up to and including 20.
[110] Exhibit MD-009, Milieudefensie Annual Report 2024, p. 39 (on the remuneration of the board of directors). The Supervisory Board works without pay (see p. 13 of the annual report as well as article 11.6 of the articles of association).
[111] See https://milieudefensie.nl/over-ons/onzeaanpak and https://milieudefensie.nl/actie/ons-verhaal/hoe-geef-jij-onze-aarde-door.

(vii) 7° an overview of the status of pending legal actions and their results;[112]

(viii) 8° if a contribution is requested from the persons whose interests the legal action seeks to protect: insight into the calculation of this contribution: this is not applicable because no contribution is being requested;[113]

(ix) 9° an overview of how the persons whose interests the legal action seeks to protect can join and leave the legal entity.[114]

Sub-paragraph e: sufficient experience and expertise in the area of initiating and pursuing the legal action

100. Milieudefensie's extensive track record shows that it has sufficient experience and expertise to pursue this legal action. As an organisation, Milieudefensie has experience in pursuing legal actions in the public interest and defending vulnerable environmental interests and human rights, including the previous collective actions brought against Shell.[115]

101. In this case, Milieudefensie is being assisted by the same lawyers who handled the first climate case against Shell. Finally, Milieudefensie has an extensive network of external experts who are willing to support the case, where necessary. As in the first climate case against Shell, Milieudefensie can rely on the assistance of renowned climate scientists, transition experts and economic experts.

Sub-paragraph f: not applicable

102. Sub-paragraph f is not applicable because Milieudefensie's legal action does not serve to protect an interest as referred to in Article 2(1) of Directive (EU) 2020/1828 of the European Parliament and of the Council of 25 November 2020 on representative actions for the protection of the collective interests of consumers.

Section 3:305a(5) DCC: annual accounts and board report

103. The requirement of Section 3:305a(5) DCC means that a report of the board of directors and annual accounts must be prepared in accordance with the requirements of Book 2, Title 9 DCC, which reports must be published on the website within eight days. Milieudefensie complies with these requirements:

(i) Section 2:49(1) and (3) DCC: within six months of the end of the financial year (31 December 2024), the board of directors prepared the annual accounts and the board report and made them available for review by the members. On 14 June 2025, the annual accounts and the annual report were adopted by

[112] Regarding this case: https://milieudefensie.nl/nieuwezaak/info/veelgestelde-vragen-over-onze-nieuwe-klimaatzaak. For other cases, see https://milieudefensie.nl/actueel/hier-vind-je-alle-juridische-documenten-van-onze-klimaatzaak-tegen-ing, see https://milieudefensie.nl/actueel/hier-vind-je-alle-juridische-documenten-van-onze-klimaatzaak-tegen-shell, and, as an example of a concluded case, https://milieudefensie.nl/actueel/alles-wat-je-wil-weten-over-de-rechtszaak-tegen-shell- in-nigeria.

[113] People can support the cause via https://milieudefensie.nl/nieuwezaak/supporter, but no financial contribution is attached to support. Any donation given is voluntary.

[114] See https://milieudefensie.nl/actie/lidworden/word-lid, where the options for cancelling the membership are also listed.

[115] Court of Appeal of The Hague, 29 January 2021, ECLI:NL:GHDHA:2021:133 (*Dooh and Milieudefensie v Shell*) and District Court of The Hague, 26 May 2021, ECLI:NL:RBDHA:2021:5337 (*Milieudefensie v Shell*). See also https://milieudefensie.nl/actueel/shell-betaalt-15-miljoen-euro-schadevergoeding-vanwege-olievervuiling-in-nigeria.

the General Meeting of Members;[116]

(ii) Section 2:49(2) DCC: the annual accounts were signed by the board and the supervisory board members;[117]

(iii) Milieudefensie has published the annual accounts (including the report of the board of directors) on its website.[118]

3.3 THE REQUIREMENTS OF SECTION 3:305A(3)(A) AND (B) DCC

104. According to Section 3:305a(3)(a) DCC, a legal entity as referred to in Section 3:305a(1) 1 DCC will only have standing if the directors involved in the incorporation of the legal entity, and their successors, have no direct or indirect profit motive that is realised through the legal entity. This requirement has been met. Milieudefensie does not have a profit motive.[119] Its directors do not have a profit motive either. According to article 10.1 of the articles of association, Milieudefensie's directors receive a remuneration determined by the Supervisory Board. Pursuant to the articles of association, allowance must be made, when the amount and structure of the remuneration are determined, for the idealistic nature of the association and the required professionalism and the Dutch remuneration arrangement for directors of charitable organisations ("*regeling beloning directeuren van goededoelenorganisaties*"), or a substituting scheme, must be linked up with.[120] The 2024 Annual Report provides further details on the remuneration of management/directors, referencing to the remuneration arrangement of industry association *Goede Doelen Nederland* (Charities Netherlands) and the Code of Good Governance (*Code Goed Bestuur*) for charities. The remuneration of the two managers/directors is considerably lower than the maximum applicable to a charity organisation of Milieudefensie's size and complexity.[121]

105. Section 3:305a(3)(b) DCC also requires the legal action to be sufficiently closely connected with the Dutch legal system. To comply with this, one of the requirements under 1, 2 or 3 must be met. By imposing these requirements, the legislator wanted to prevent Dutch collective damage actions from being used in cases where, *de facto*, there is no or an insufficiently close connection between the collective claim and the Dutch legal system.

106. A sufficiently close connection with the Dutch legal system will exist, among other situations, if sufficient evidence is provided that the majority of the persons whose interests the legal action seeks to protect are habitually resident in the Netherlands (see Section 3:305a(3)(b)(1)). This is the case here, as the collective action is intended to protect present and future generations of Dutch residents.

3.4 THE CONSULTATION REQUIREMENT OF SECTION 3:305A(3)(c) DCC

107. Section 3:305a(3)(c) provides that a legal entity that wishes to bring a legal action against another party under

[116] See https://milieudefensie.nl/over-ons/jaarverslagen/jaarverslag.
[117] Exhibit MD-009, Milieudefensie Annual Report 2024 (including the annual accounts), p. 67. Milieudefensie's annual accounts have been prepared in accordance with the requirements of Directive 650 Fundraising Organisations and have also been audited as such by an independent auditor; see pp. 68-70 for the audit opinion of dubois + co registeraccountants.
[118] See https://milieudefensie.nl/over-ons/jaarverslagen/jaarverslag.
[119] Exhibit MD-010, Milieudefensie's articles of association, article 3.1 ("The Association is a non-profit organisation").
[120] Exhibit MD-010, Milieudefensie's articles of association, article 10.8.
[121] Exhibit MD-009, Milieudefensie Annual Report 2024, p. 39.

Section 3:305a DCC will only have standing if, in the circumstances, it has made sufficient efforts to achieve the relief sought by consulting with the defendant.

108. In order to comply with this obligation, Milieudefensie reached out to Shell's board of directors by letter dated 13 May 2025.[122]

109. In this letter, Milieudefensie explained, among other things, why – in addition to the pending case before the Dutch Supreme Court – Milieudefensie wishes to take legal action against Shell again. After all, as also discussed in the introduction, the Court of Appeal made it clear in that case that Shell's planned investments in new oil and gas fields could be at odds with the societal duty of care that may be expected of fossil-fuel producers. In this letter, Milieudefensie also pointed to the many other developments in law and science that show that there is no room, and also no need, for new oil and gas fields. Furthermore, Milieudefensie substantiated that Shell has a legal duty to reduce its CO_2 emissions to net zero by 2050 and, to that end, will also have to set adequate emission reduction targets after 2030 (the period at issue in the cassation proceedings).

110. Shell responded to the letter more than four weeks later, but did not, or only minimally, address its substance. Shell considers Milieudefensie's proposed action to be premature, reiterates a number of its own policy objectives and further emphasises its view that only governments are authorised and able to shape the energy transition.[123] In chapter 13, Milieudefensie will refute these defences of Shell.

111. Prior to issuing this summons, Milieudefensie once again approached Shell in a letter dated 20 February 2026.[124] In this letter, Milieudefensie once again presented its concrete demands to Shell. By letter dated 12 March 2026, Shell once again rejected all liability.[125] The defences that were raised by Shell (but for which hardly any substantiation was provided) in this connection will be revisited by Milieudefensie in chapter 13.

112. In light of the above facts and circumstances, Milieudefensie believes that it has made sufficient efforts to achieve what it is demanding by consulting with Shell.

3.5 THE APPLICATION OF TITLE 14A DCCP

113. In addition to the substantive admissibility/standing requirements of Section 3:305a DCC, Title 14A DCCP contains further (procedural) provisions concerning collective actions. It should be noted in this context that not all provisions of Title 14A DCCP are applicable in a public-interest action, because the requirements were actually formulated with class actions in mind. This has now also been recognised in various court rulings. In the following, Milieudefensie will explain which requirements of Title 14A DCCP are applicable, and that they are met.

Section 1018c(1) DCCP: contents of the summons

114. Section 1018c(1) under (a) up to and including (d) DCCP imposes certain substantive requirements for the

[122] Exhibit MD-027, Letter from Milieudefensie to Shell dated 13 May 2025.
[123] Exhibit MD-028, Letter from Shell to Milieudefensie dated 13 June 2025.
[124] Exhibit MD-029, Letter from Milieudefensie to Shell dated 20 February 2026.
[125] Exhibit MD-030, Letter glofrom Shell to Milieudefensie dated 12 March 2026.

contents of the summons. This summons clearly meets those requirements.

115. Section 1018c(1) under (a) DCCP requires a description of the event or events to which the collective action relates. This case is a public-interest action relating to Shell's inadequate and unlawful climate policy, with which it is breaching, or at least threatens to breach, its societal duty of care (see, inter alia, chapters 10 and 11).

116. Section 1018c(1) under (b) and (c) DCCP requires a description of the persons whose interests the collective action seeks to protect and a description of the degree of commonality of the factual and legal questions to be answered. This case, as stated, concerns a public-interest action, which, by its very nature, concerns non-individualisable interests; it is about the public interest of protecting the rights of a much larger group of persons, which is diffuse and undefined, in this case all present and future generations of Dutch residents. This means that the factual and legal questions to be answered are also common questions. It was also explained, including in chapter 3.2.2, that the interests of present and future generations of Dutch residents in preventing dangerous climate change are sufficiently similar.

117. Section 1018(1) under (d) DCCP requires a description of how the standing requirements of Section 305a(1)-(3) of Book 3 DCC have been met or of the grounds to which paragraph (6) of that Section applies. This description was provided in chapters 3.2 and 3.3.

118. Section 1018c(1) under (e) in conjunction with Section 1018e DCCP is not applicable, as explained below. Nevertheless, this summons also contains the information that will enable the District Court to appoint an Exclusive Representative for this collective action.

119. Section 1018c(1) under (f) has been complied with, as evidenced by the notifications under (g) up to and including (k) in the preamble to this summons.

Section 1018c(2) DCCP: formalities relating to the central register

120. As required by Section 1018c(2) DCCP, Milieudefensie will file the writ of this summons with the court registry within two days, with a simultaneous entry of the summons in the central register for collective actions within the meaning of Section 3:305a(7) DCC. The entry must be accompanied by an excerpt from the summons.

Section 1018e(1) DCCP: Exclusive Representative

121. Section 1018e(1) DCCP contains the rules for designating an exclusive representative. The provision applies in particular if it appears, during the three-month period of Section 1018c(3) DCCP, that one or more other interest groups wish to bring a collective action for the same event or events concerning similar factual and legal questions. The Court must then designate from their number the most suitable organisation as the "Exclusive Representative" for all injured parties. This arrangement prevents competition between collective (group) actions and gives rules for situations where different organisations represent different groups of injured parties. Although the appointment of the exclusive representative is motivated by the idea that several interest groups each bring a collective action individually, an exclusive representative is also appointed in practice if several interest groups jointly bring one collective action, or if only one interest group

does so.[126]

122. The designation of an exclusive representative is intended to make it clear which of the interest groups that have brought a collective action for a particular event will take the lead in, and be responsible for, the proceedings. The exclusive representative is also the person with whom a defendant can reach a settlement for the entire group. After all, from that moment on, the interests of the entire group will be represented by the designated exclusive representative. Also, injured parties can still opt out after the designation of the exclusive representative. Against this background, Section 1018f DCCP also provides for extensive publication rules (more on this will follow).

123. The above makes it clear that Section 1018e(1) DCCP was written for class actions, not for public-interest actions. This is also evident from the circumstances to be taken into account as mentioned in Section 1018e(1) DCCP, such as the reference to "the size of the group of persons on whose behalf the plaintiff is acting" and "the magnitude of the financial interest represented by this group".

124. In a public-interest action, there is no question of a potential (competitive) situation where multiple interest groups represent a part of the injured parties. After all, the interest that is represented is an indivisible public interest. Nor will the interest group negotiate a settlement (compensation) on behalf of a specific group of persons. Milieudefensie therefore requests the District Court not to apply this provision in this case.[127]

125. In case this Court should designate an exclusive representative nevertheless, this summons contains all the information showing that Milieudefensie should be designated as such, including relevant information about its actual activities, expertise and experience, including experience with similar collective actions.

Section 1018e(2) DCCP and Section 1018f DCCP: no need to define a narrowly defined group and no reason to apply the opt-out/opt-in rules.

126. The aim of the requirements of Section 1018e(2) and Section 1018f DCCP is to make it possible to determine exactly whose interests are being represented and to offer interested parties the possibility of making use of the opt-out option. For interested parties who are not domiciled in the Netherlands but who wish to have their interests represented in the proceedings, an opt-in arrangement applies. In this context, Section 1018e(2) DCCP requires the identification of the narrowly defined group whose interests the interest group is representing. Section 1018f DCCP provides detailed rules on, in short, opt-ins and opt-outs and the associated publicity.

127. The idealistic nature of Milieudefensie's case means that, in this case, the identification of a narrowly defined group and an opt-out/opt-in procedure should not take place. After all, in this legal action, it is actually not possible to identify a specific group, because the action does not serve individualised, combined interests, but general interests in order to protect the rights of a very large group of persons, which is diffuse and undefined.[128] This means that in a public-interest action, the situation where some people will be bound by

[126] Knigge, Dröge and Hoogervorst in "*Sdu Commentaar Burgerlijk Procesrecht*" (Sdu Commentary on Dutch Law of Civil Procedure), on Section 1018e DCCP (October 2022).
[127] See, in the same sense, e.g., District Court of Amsterdam 7 June 2023, ECLI:NL:RBAMS:2023:3499 (KLM greenwashing), ground 4.29 as well as the District Court of The Hague 25 September 2024, ECLI:NL:RBDHA:2024:14834 (Bonaire climate case), ground 3.24.
[128] See also the opinion of deputy Procurator General Langemeijer and Advocate General Wissink in the *Urgenda* case (ECLI:NL:PHR:2019:887) under 2.4.

the ruling and others will not cannot arise: the essence is precisely that it is not possible to opt out of a public-interest action.

128. This important difference between a group action and a public-interest action was also reflected in Section 3:305a(5) (old). That Section read as follows:

> "A court ruling shall have no effect in respect of a person whose interests the legal action seeks to protect and who opposes the effect of the ruling in relation to them, unless the nature of the ruling entails that the effect cannot be excluded in relation to this person only." (underlining added by counsel).

129. With the last part of the above paragraph, "*unless the nature of the ruling entails that the effect cannot be* excluded *in relation to this person only*," the legislator has clarified that it is impossible, in the case of an indivisible collective interest (so in the case of a public-interest action), for anyone to opt out. If this were possible, one individual could frustrate a public-interest action. This is undesirable and has therefore been ruled out by the legislator.

130. When the WAMCA was introduced, insufficient attention was actually paid to public-interest actions. Meanwhile, it has frequently been recognised in court judgments that the special procedural requirements are not suitable for application in idealistic cases, and several courts have therefore rightly not required these procedural steps to be followed.[129]

131. The then Minister of Legal Protection also recognised all of this at the beginning of 2024 and indicated that this should be taken into account in the assessment of the WAMCA:

> *"In some idealistic actions, incidentally, the nature of the relief sought makes it impossible to make the ruling binding on only part of the constituency. The ban on discharging waste water in a nature reserve, for example, is, by its nature, "indivisible": it can only apply to everyone or to no one. Section 3:305a DCC, which was in force until 2020, allowed for this situation in paragraph 5. […] The WAMCA system does include the possibility of withdrawing from the procedure by means of an opt-out (Section 1018f DCCP). In this context, no consideration was had for the situation where an opt-out is not meaningful if the nature of the relief sought means that the decision to grant or deny the relief sought also applies to everyone by its nature. In practice, therefore, courts sometimes do not apply the opt-out period in such cases. This is an element that should certainly be addressed in the assessment*."[130]

132. The WAMCA is now being assessed. Within the scope of that assessment, research reports appeared, including in November 2025, that confirm the above findings and also include recommendations regarding the adjustment of specific procedural requirements in idealistic actions.[131]

133. It is therefore expected that the legislator will make the necessary amendments in this regard. As this has not

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[129] See District Court of Amsterdam 7 June 2023, ECLI:NL:RBAMS:2023:3499 (KLM greenwashing), ground 4.32, District Court of The Hague 6 March 2024, ECLI:NL:RBDHA:2024:3007 (*Greenpeace/Dutch State*), ground 5.24, District Court of The Hague 8 March 2023, ECLI:NL:RBDHA:2023:2657 (*Vereniging Republiek and Stichting de Republikein v. the Dutch State*), ground 2.28, District Court of The Hague 6 September 2023, ECLI:NL:RBDHA:2023:14320 (*St. Sinti, Roma and Reizigers*), grounds 4.36-4.38, District Court of The Hague 15 November 2023, ECLI:NL:RBDHA:2023:17145 (right to protection against aircraft noise), grounds 5.25-5.28, District Court of The Hague 17 January 2024, ECLI:NL:RBDHA:2024:355 (*Privacy First*), grounds 5.20-5.23, District Court of The Hague 25 September 2024, ECLI:NL:RBDHA:2024:14834 (*Bonaire Climate Case*), grounds 3.23-3.24.

[130] Dutch *Parliamentary Records II* 2023-2024, 36169, pp. 8-9.

[131] "*Vijf jaar WAMCA. Evaluatie Wet afwikkeling massaschade in collectieve acties* (2020-2025)" (Five years of WAMCA. Assessment of the Dutch Resolution of Mass Damage in Collective Action Act (2020-2025)), report from September 2025 (published in November 2025), available at https://www.tweedekamer.nl/downloads/document?id=2025D47140.

yet taken place, Milieudefensie requests this Court to not apply the provisions of Section 1018e(2) DCCP and Section 1018f DCCP.

Section 1018g DCCP: no reason for testing a settlement

134. In light of the foregoing and given the nature of a public-interest action, which is not aimed at obtaining compensation, Milieudefensie believes there is no reason to set a time limit for testing an agreement as referred to in Section 1018g DCCP.

3.6 CONCLUSION

135. The conclusion of all of the foregoing is that Milieudefensie has standing and that the requirements of Section 1018c(5) DCCP are met.

4 IMPORTANT CLIMATE SCIENCE EVIDENCE

4.1 INTRODUCTION

136. In this chapter, Milieudefensie will provide an explanation to important findings from climate science.

4.2 THE EARTH IS WARMING DUE TO THE HUMAN (ANTHROPOGENIC) GREENHOUSE GAS EMISSIONS

137. It is scientifically unequivocal that the earth is warming *and* that this is caused by human (i.e. anthropogenic) activity. In a report from 2013, Planbureau voor de Leefomgeving (the Netherlands Environmental Assessment Agency, which is the Dutch Institute for strategic policy analysis in the fields of the environment, nature and spatial planning, hereafter "**PBL**") concluded:

> "It has been conclusively established that since the industrial revolution, the earth has been warming up, land and sea ice are melting and sea levels are rising. It is a certainty that the CO_2 concentration has increased by almost 40% since the beginning of the industrial revolution. It is also a certainty that this CO_2 increase is caused by human activities. Physics show that greenhouse gases, including CO_2, are causing the earth to warm up."[132]

138. PBL based this conclusion on the findings of the fifth Assessment Report (AR5) from 2013 of the UN climate panel, formally known as the Intergovernmental Panel on Climate Change (IPCC) Change, hereafter: "**IPCC**").

139. In its most recent Assessment Report (AR6) from 2023, the IPCC (once again) confirmed that it is scientifically unequivocal that human influence has caused the earth to warm and that the scale and speed of recent changes in the climate system are unprecedented compared to the state of the climate over many centuries to many thousands of years:

> *"It is unequivocal that human influence has warmed the atmosphere, ocean and land. Widespread and rapid changes in the atmosphere, ocean, cryosphere and biosphere have occurred. The scale of recent changes across the climate system as a whole and the present state of many aspects of the climate system are unprecedented over many centuries to many thousands of years.*[133] (underlining added by counsel)

[132] Exhibit MD-034, PBL 2013, "*De achtergrond van het klimaatprobleem"* (The background to the climate problem), p.1.
[133] Exhibit MD-001, IPCC 2023, AR6, SYR, par 2.1.2, p.46. See also IPCC 2013, AR5, WGI, SPM, p.4 (see https://www.ipcc.ch/site/assets/uploads/2018/02/WG1AR5_all_final.pdf.

140. According to the IPCC, the earth is warming as a result of the increased atmospheric concentration of greenhouse gases from human activities, with the current atmospheric CO_2 concentration being higher than at any time in at least the last 2 million years:

> *"Observed increases in well-mixed GHG concentrations since around 1750 are unequivocally caused by GHG emissions from human activities over this period. Historical cumulative net CO_2 emissions from 1850 to 2019 were 2400 ± 240 $GtCO_2$, of which more than half (58%) occurred between 1850 and 1989, and about 42% occurred between 1990 and 2019 (high confidence). In 2019, atmospheric CO_2 concentrations (410 parts per million) were higher than at any time in at least 2 million years (high confidence), and concentrations of methane (1866 parts per billion) and nitrous oxide (332 parts per billion) were higher than at any time in at least 800,000 years (very high confidence)."*[134] (underlining added by counsel.)

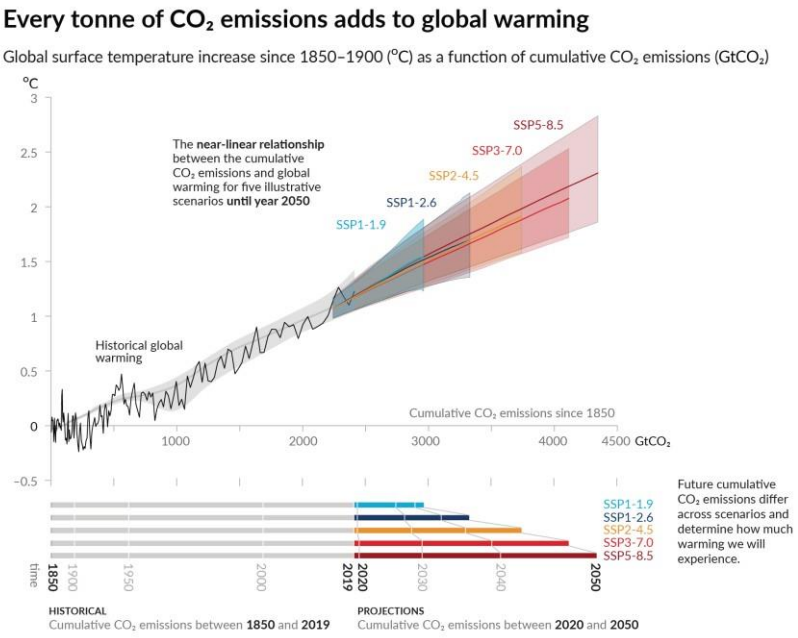
141. This enormous increase in atmospheric greenhouse gases is mainly due to the fact that since the industrial revolution, humans have burnt fossil fuels (oil, coal and gas) and due to human land use, e.g. as a result of deforestation:

> *"The main human influence on the climate is via combustion of fossil fuels and CO_2 emissions related to land-use change: the principal causes of increased CO2 concentrations since the pre-industrial period."* [135] (underlining added by counsel)

142. The characteristic feature of greenhouse gases such as CO_2 is that they trap heat in the atmosphere and give off this absorbed heat in all directions.[136] As the concentration of CO_2 in the atmosphere increases, the atmosphere, the land (the biosphere), the ice masses (the cryosphere) and the oceans will slowly warm up and the average temperature on earth will rise.

143. The relationship between cumulative anthropogenic CO_2 emissions and the global average temperature rise is, according to the IPCC, nearly linear.[137] The IPCC illustrates this in its latest Assessment Report (AR6) with the following figure.[138]

[134] Exhibit MD-001, IPCC 2023, AR6, SYR, A.1.3 SPM, p.4. See also IPCC 2013, AR5, WGI, SPM, p. 11 and p. 15 (see https://www.ipcc.ch/site/assets/uploads/2018/02/WG1AR5_all_final.pdf).
[135] IPCC 2021, AR6, WGI, p. 163 (see https://www.ipcc.ch/report/ar6/wg1/downloads/report/IPCC_AR6_WGI_FullReport.pdf). See also IPCC 2013, AR5, WGI, p. 11 (see https://www.ipcc.ch/site/assets/uploads/2018/02/WG1AR5_all_final.pdf).
[136] Exhibit MD-001, IPCC 2023, AR6, SYR, p. 124.
[137] Exhibit MD-031, IPCC 2021, AR6, WGI, SPM, D.1.1, p.28: *"This Report reaffirms with high confidence the AR5 finding that there is a near-linear relationship between cumulative anthropogenic CO2 emissions and the global warming they cause. Each 1000 GtCO2 of cumulative CO2 emissions is assessed to likely cause a 0.27°C to 0.63°C increase in global surface temperature with a best estimate of 0.45°C."* See also MD-032, IPCC 2021, AR6, WGI, TS, TS.3.3, p. 97.
[138] Exhibit MD-031, IPCC 2021, AR6, WGI, SPM, Figure SPM.10, p. 28.



144. This figure shows the cumulative CO_2 emissions since 1850 on the horizontal axis and the average global temperature increase on the vertical axis. Via the black line and the table below it, the figure shows that until 2019, approx. 2,400 gigatonnes of CO_2 had been emitted and that global warming had reached 1.1°C. The future emissions are demonstrated in five different scenarios, ranging from low future emissions (SSP1-1.9) to high future emissions (SSP5-8.5). In the figure, an almost straight line can be seen going from the bottom left to the top right, which means that both in the past and in the future, the rise in global temperature is almost linearly related to cumulative CO_2 emissions, according to the IPCC.

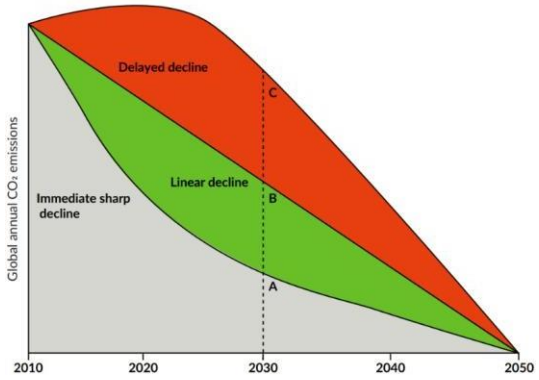
145. This near-linear relationship between the cumulative CO_2 emissions and the temperature rise has two important consequences.

146. Firstly, it means that as long as humans continue to add CO_2 to the atmosphere (on a net basis), the earth will continue to warm. Stabilising the global human-induced temperature rise therefore requires that net anthropogenic CO_2 emissions become zero.[139] As a result, it is not possible to halt further warming and stabilise the temperature increase by merely mitigating the CO_2 emissions: the CO_2 emissions must be reduced to net zero worldwide.

147. Secondly, this relationship entails that what is needed to limit global warming to a specific temperature level can be expressed with a "carbon budget",[140] viz. a maximum quantity of CO_2 (the carbon budget) that can still be emitted before a temperature limit is exceeded. The exact magnitude of the remaining carbon budget for a 50% probability of limiting the temperature increase to the globally agreed target of 1.5°C will be discussed in more detail in chapter 11.2.

[139] Exhibit MD-031, IPCC 2021, AR6, WGI, SPM, D.1.1 SPM, p. 28, and Exhibit MD-032, IPCC 2021, AR6, WGI, TS, TS.3.3, pp. 97 and 98.
[140] Exhibit MD-031, IPCC 2021, AR6, WGI, SPM, D.1.1 SPM, p. 28, and Exhibit MD-032, IPCC 2021, AR6, WGI, TS, TS.3.3, pp. 97 and 98.

148. For now, it is already important to emphasise that on the road to net zero emissions, global cumulative CO_2 emissions must therefore remain within this 1.5°C carbon budget. This can only be achieved if substantial emission reductions are made in the short term. Otherwise, the carbon budget will be used up too quickly and too many emissions will be released on the way to net zero. This means that it is not only the ultimate goal – achieving net zero emissions – that is important, but that the reduction path towards this ultimate goal is also of great importance. The following figure from Milieudefensie illustrates this clearly:



149. The point illustrated by the above figure is that the chosen path of emission reductions to net zero in 2050 is crucial for the total quantity of cumulative emissions until 2050. The three illustrative scenarios all lead to zero emissions in 2050, but the reductions achieved by 2030 (points A, B and C, respectively) will essentially determine what the total cumulative emissions in 2050 will be. According to the grey scenario (immediate sharp decline), the cumulative emissions will be equal to the grey area. According to the green scenario (linear decline), the cumulative emissions will be equal to the grey and green areas combined. According to the red scenario (delayed decline), the cumulative emissions are equal to the grey, green and red areas combined.

150. This makes it clear that preventing dangerous climate change is not just about the ultimate goal in 2050, but that achieving the required interim reduction targets, such as those for 2030 and 2035, is also crucial. Only if the interim targets are (also) achieved will we be able to stay within the remaining carbon budget. For example, the grey and green scenarios are still in line within the remaining carbon budget, but the red scenario is not.

151. This shows that the reduction path followed in the coming years will be crucial in determining how much CO_2 will still be emitted by the world on the way to net zero. Given the linear relationship between the increase in emissions and global warming, short-term action (drastic reductions or no drastic reductions) will therefore determine how much further the earth will warm up.

152. The more CO_2 we cumulatively emit into the atmosphere, the higher its concentration in the atmosphere will become, the more the earth will warm up and the more disastrous the consequences will be at global, regional and local levels. These consequences will be discussed separately in this case (chapter 5) because of the danger they pose to human society and the ecosystems on which humans depend for their lives and well-being.

4.3 THE UNPRECEDENTED INCREASE IN THE CONCENTRATION OF ATMOSPHERIC GREENHOUSE GASES

153. Since the industrial revolution, humans have been using the fossil fuels oil, coal and gas. The large-scale use of fossil fuels has created a new (previously non-existent) source of large-scale greenhouse gas emissions, particularly CO_2. By burning enormous quantities of fossilised plant remains – which is essentially what coal, natural gas and petroleum are – humanity has gained influence over the concentration of atmospheric CO_2. These fossilised plant remains which are now burned as fuel removed CO_2 from the atmosphere millions of years ago through the process of photosynthesis and have been transformed into compressed carbon compounds due to the high pressure and temperature deep in the earth's crust. This storage of carbon in the earth is part of the natural carbon cycle on the very long geological timescale of tens to hundreds of millions of years.

154. Because humans began burning these carbon reserves stored in the earth some 200 years ago, concentrated carbon compounds from the earth's distant history are now entering the present atmosphere as CO_2. This addition to the atmosphere of carbon that had been stored in the earth crust for millions of years is causing the atmospheric CO_2 concentration to increase, as a direct result of human activity, at an unnatural and unprecedented rate.

155. The reason for burning the fossil fuels that are found is the energy that is released during the combustion process, which is used, for example, to generate electricity (energy sector), to power machines (industry) or means of transport (mobility) or to heat spaces (built environment).
This means that the combustion of fossil fuels and the associated CO_2 emissions are linked to activities in almost all sectors of society and the economy.

156. For the most part, the CO_2 emitted through the combustion of fossil fuels cannot be broken down chemically in the atmosphere. It has been scientifically established that CO_2 molecules for the most part only disappear from the atmosphere after many hundreds of years and for another part only after thousands of years, but in the meantime, they retain their warming properties.[141] Of all anthropogenic CO_2 emissions, approx. 50% is, on balance, absorbed by the biosphere and the oceans within a number of decades. However, this biosphere and ocean absorption capacity decreases if CO_2 emissions (and the corresponding warming) continue and if processes such as deforestation go on. Of the remaining CO_2 added to the atmosphere, 15% to 40% will continue to act as a greenhouse gas for more than a thousand years and 10% to 25% for approx. ten thousand years. A small part of the anthropogenic CO_2 emissions will only disappear from the atmosphere after several hundred thousand years.[142]

157. Due to the long atmospheric lifetime of CO_2, the current CO_2 concentration is largely the sum total of anthropogenic CO_2 emissions since the beginning of the industrial revolution. In 2013, the concentration of atmospheric CO_2 was already 40% higher than the pre-industrial level,[143] and this percentage had already risen to 50% in 2023 (and is still increasing every year).[144]

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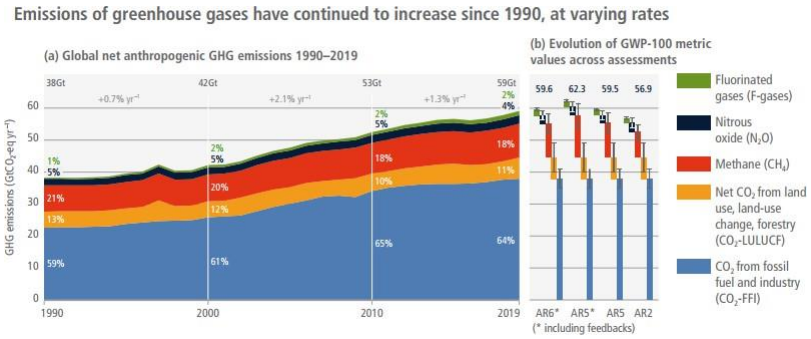
[141] IPCC 2021, AR6, WGI, H.4, p. 642 (see https://www.ipcc.ch/report/ar6/wg1/downloads/report/IPCC_AR6_WGI_FullReport.pdf. See also ibid, H.6., p. 544 and p. 545.
[142] Ibid, p. 2237 and H6, Box 6.1, p. 472. See also Exhibit MD-031, IPCC 2021, AR6, WGI, SPM, p. 20, regarding the declining share of the CO_2 emissions absorbed by the oceans and biosphere in scenarios with high CO_2 emissions.
[143] Exhibit MD-034, PBL 2013, "*De achtergrond van het klimaatprobleem*" (The background to the climate problem), p. 1.
[144] Exhibit MD-Forster et al. 2025, "Indicators of Global Climate Change 2024: annual update of key indicators of the state of the climate system and human influence", p. 2667. The 422.8-ppm CO_2 concentration in 2024 is more than 50% higher than the 280-ppm CO_2 concentration at the start of the industrial revolution.

158. In addition to CO_2, there are also other greenhouse gases that contribute to the process of anthropogenic climate change. The most important of these is methane (CH_4). Methane is a hydrocarbon that is also the main component of natural gas. It is the second most common greenhouse gas emitted by humans after CO_2 and was responsible for approximately 18% of global greenhouse gas emissions (expressed in CO2-eq) in 2019, as shown in the graph below (in which methane is shown in red and CO_2 in blue and orange).[145]



159. Methane is emitted by, for instance, the oil and natural gas industry, landfills, agricultural activities, coal mining, wastewater treatment and certain industrial processes. Methane is at least 84 times more potent than CO_2 in trapping heat in the atmosphere (on a 20-year timescale).[146] Although methane is a very powerful greenhouse gas, it is also a relatively short-lived gas in the atmosphere, as it breaks down in the atmosphere (into CO_2 and water) in twelve years on average. Partly because of this short lifetime in the atmosphere, a significant reduction in methane emissions would have a rapid and significant effect on the warming potential of the atmosphere.[147] However, over the past two centuries, the concentration of methane in the atmosphere has more than doubled, largely due to human activities.[148]

160. The following chapter will discuss the increasing concentration of greenhouse gases in the atmosphere due to human activities, with a focus on CO_2 as the most important greenhouse gas.

4.4 THE INCREASING CONCENTRATION OF GREENHOUSE GASES IN HISTORICAL PERSPECTIVE

161. Based on measurements in the Greenland and Antarctica ice caps, which were formed over millions of years, scientists know that the CO_2 concentration at the start of the industrial revolution was around 280 ppm, meaning that out of every 1,000,000 molecules in the atmosphere, 280 consisted of CO_2. In the 8,000 years prior to the industrial revolution, i.e. the period after the last ice age (from the Mid-Holocene onwards), the atmospheric CO_2 concentration was not lower than 260 ppm and not higher than 280 ppm, according to the IPCC; so a range of only 20 ppm over 8,000 years. In the words of the IPCC:

[145] IPCC 2022, AR6, WGIII, H2, p. 229, available at https://www.ipcc.ch/report/ar6/wg3/downloads/report/IPCC_AR6_WGIII_FullReport.pdf).
[146] If the impact of methane is considered over a period of twenty years, one tonne of methane can be considered equivalent to 84 to 87 tonnes of CO_2. If the impact is considered over a period of 100 years, methane is 28 to 36 times more potent than CO_2. See Exhibit MD-038, IEA 2021, "Methane Tracker 2021, Methane and climate change" (selected pages, website printout, 13 March 2025), p. 3.
[147] The IPCC concludes: *"As methane has a short lifetime but is a potent GHG, strong, rapid and sustained reductions in methane emissions can limit near-term warming"* and "*The level of peak warming depends on cumulative CO2 emissions until the time of net zero CO2 and the change in non-CO2 climate forcers by the time of peaking. Deep GHG emissions reductions by 2030 and 2040, particularly reductions of methane emissions, lower peak warming, reduce the likelihood of overshooting warming limits and lead to less reliance on net negative CO2 emissions that reverse warming in the latter half of the century.*" See Exhibit MD-001, IPCC 2023, AR6, SYR, para. 4.2, p. 95 and Exhibit MD-036, IPCC 2022, AR6, WGIII, SPM, C.2, p. 23.
[148] Exhibit MD-039, US EPA, "The Importance of Methane" (website printout, 26 February 2025), p. 1.

"The concentration of atmospheric CO_2 has increased from a pre-industrial value of about 280 ppm to 379 ppm in 2005. Atmospheric CO_2 concentration increased by only 20 ppm over the 8000 years prior to industrialisation."[149]

162. Because the atmospheric CO_2 concentration fluctuated between 260 and 280 ppm (the natural variation) in the 8,000 years prior to the industrial revolution, the climate has been fairly stable over the past 8,000 years. That stable and moderate climate over the past 8,000 years has created relatively stable living conditions for the planet's current ecosystems and biodiversity. These ecosystems and biodiversity are optimally adapted to, but are therefore also highly dependent on, these stable climatic conditions.

163. In that stable climate with a CO_2 concentration of between 260 and 280 ppm over the past 8,000 years, humans, who, until then, had been nomadic hunters and food gatherers, "discovered" agriculture in the form of crop farming and livestock farming. These food supplies, which are all tied to and benefit from the stability of the climate system, have made it possible for the world population to grow to billions of people.

164. All climatic changes that took place prior to the industrial revolution, including the (locally) warmer periods around the year 900 (when, for example, wine was produced in England) and the (locally) colder periods in the 16th and 17th centuries (at the time of the winter scenes depicted in the paintings of the Dutch masters) occurred within that range of 20 ppm (i.e. between 260-280 ppm).

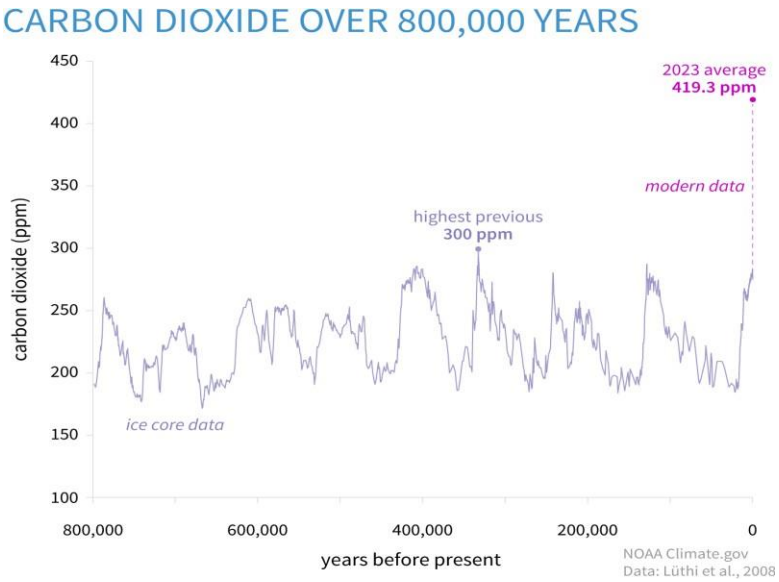
165. Not only did the range remain limited to these 20 ppm in the 8,000 years prior to the industrial revolution, but the range also remained limited over the past 800,000 years, according to the IPCC. The concentration level of CO_2 in the atmosphere during those 800,000 years did not exceed 300 ppm (the warmest periods) and did not fall below 174 ppm (the ice ages), according to the IPCC. This is demonstrated by scientific research based on drillings in the above-mentioned historical ice layers of Greenland and Antarctica.

"Before industrialisation, atmospheric CO_2 concentrations varied between 174 ppm and 300 ppm, as measured directly in air trapped in ice at Dome Concordia, Antarctica (Bereiter et al., 2015; Nehrbass-Ahles et al., 2020).[150]

166. In 2015, the global annual average CO_2 concentration rose above the level of 400 ppm for the first time. By 2024, the global annual average had risen to 422 ppm.[151] This CO_2 concentration is higher than at any other time in at least the last 2 million years[152] and no less than 122 ppm higher than the highest concentration values of the past 800,000 years. We are even 142 ppm above the maximum CO_2 value of the past 8,000 years, the period in which human civilisation has been able to develop.

167. Graphically represented, this looks as follows over the past 800,000 years, which clearly shows how extraordinary the increase in CO_2 concentration has been in the recent period compared to the 800,000 years before:[153]

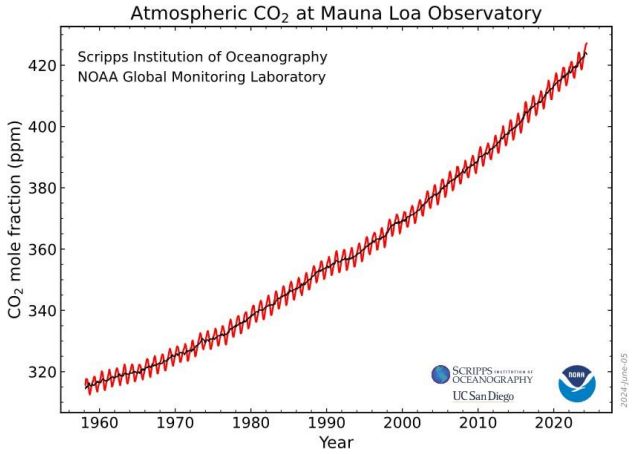
[149] IPCC 2007, AR4, WGI, TS, p.25 (see https://www.ipcc.ch/site/assets/uploads/2018/05/ar4_wg1_full_report-1.pdf). See also IPCC 2021, AR6, WGI, H2, pp. 299-301, including Table 2.1 and Figure 2.4 shown on these pages (see https://www.ipcc.ch/report/ar6/wg1/downloads/report/IPCC_AR6_WGI_FullReport.pdf).
[150] IPCC 2021, AR6, WGI, H1, p. 160 (see https://www.ipcc.ch/report/ar6/wg1/downloads/report/IPCC_AR6_WGI_FullReport.pdf).
[151] Exhibit MD-035, Forster et al. 2025, "Indicators of Global Climate Change 2024: annual update of key indicators of the state of the climate system and human influence", p. 2667.
[152] Exhibit MD-001, IPCC 2023, AR6, SYR, par. A.1.3 SPM, p. 4 and Exhibit MD-031, IPCC 2021, AR6, WGI, SPM, par. A.2.1, p. 8, and Exhibit MD-032, IPCC 2021, AR6, WGI, TS, TS.2.2, pp. 67 and 68.
[153] Exhibit MD-040, NOAA 2024, "Climate Change: Atmospheric Carbon Dioxide" (website printout, 26 February 2025), p. 3. The NOAA (National Oceanic & Atmospheric Administration) is an agency of the US federal government that is comparable to the Dutch KNMI.



168. The speed and ultimate extent to which humanity has been changing the chemical composition of the atmosphere since the industrial revolution is enormous, as the graph clearly shows. Climate reconstructions show that the speed of the current CO_2 increase is many times greater than for all known natural climate changes over the past 56 million years.[154]

169. Perhaps the most striking and worrying comparison is that since the 1980s, man has added an average of about 20 ppm of CO_2 per decade to the atmosphere (see the figure below from NOAA).[155] This means that since 1980, the increase in the CO_2 concentration due to human activity every decade is equal to what used to form the maximum natural range over the 8,000 years prior to industrialisation. Humans are therefore having an extremely profound impact on the chemical composition of the atmosphere with the CO_2 emissions caused by them. As will be explained in more detail below, this is causing global warming to increase by 0.2°C per decade (and, according to a more recent study, even by as much as 0.27°C per decade), according to the IPCC.

[154] Exhibit MD-032, IPCC 2021, AR6, WGI, TS, TS.2.2, p. 69: *"The centennial rate of change of CO2 since 1850 has no precedent in at least the past 800,000 years (Figure TS.9), and the fastest rates of change over the last 56 million years were at least a factor of four lower (low confidence) than over 1900–2019."* See also IPCC 2021, AR6, WGI, figure 5.3, p. 683 (see https://www.ipcc.ch/report/ar6/wg1/downloads/report/IPCC_AR6_WGI_FullReport.pdf), Exhibit MD-042, Ciu et al. 2011, *"Slow release of fossil carbon during the Palaeocene-Eocene Thermal Maximum"* and Exhibit MD-041, Barras 2015, "When global warming made our World super-hot" (website printout).
[155] See also IPCC 2021, AR6, WGI, H2, Table 2.1, p. 299 (see https://www.ipcc.ch/report/ar6/wg1/downloads/report/IPCC_AR6_WGI_FullReport.pdf). This table shows the average change in the CO_2 concentration per century for different periods of time.



170. If greenhouse gas emissions develop in the way they are expected to do based on the current national policies, this will result in a warming of 3.2°C above the pre-industrial level in this century (alone), according to the latest Assessment Report (AR6) of the UN Climate Panel.[156] The national emission reduction targets (known as NDCs) announced by countries ahead of the 2021 climate summit (COP26 in Glasgow) could, if implemented, result in a slightly lower warming of 2.8°C, but have not yet been translated into actual policies. This is why the UN Climate Panel speaks of an *"implementation gap"*.[157]

171. Other organisations have reached similar conclusions. More recently, the United Nations Environment Programme (UNEP) concluded that the earth will warm by 2.8°C this century (with a 66% probability)[158] if countries continue with their current policies. If the unconditional and conditional NDCs are implemented, this will result in a slightly lower temperature increase of 2.3°C (with a 66% probability), according to UNEP.[157] Therefore UNEP also believes there is a significant implementation gap.

172. As things stand, the world is heading for a climate change that will be catastrophic for people and the environment.

4.5 GLOBAL WARMING TO DATE AND DELAY IN THE CLIMATE SYSTEM

173. It has been known for a very long time that the earth is warming due to increased CO_2 levels in the atmosphere. This raises the question of how much the average temperature of the earth has risen since the start of the industrial revolution, when the average temperature on earth was approximately 14°C, as a result of the increased CO_2 concentration.

174. According to the IPCC's most recent Assessment Report (AR6), the average global temperature during the

[156] Exhibit MD-001, IPCC 2023, AR6, SYR, A.4.4 SPM, p. 11: "*Without a strengthening of policies, global warming of 3.2 [2.2 to 3.5]°C is projected by 2100 (medium confidence).*"

[157] Exhibit MD-001, IPCC 2023, AR6, SYR, A.4.3 and A.4.4 SPM, p. 11: *"Modelled pathways that are consistent with NDCs announced prior to COP26 until 2030 and assume no increase in ambition thereafter have higher emissions, leading to a median global warming of 2.8 [2.1 to 3.4] °C by 2100 (medium confidence). Many countries have signalled an intention to achieve net zero GHG or net zero CO2 by around mid-century but pledges differ across countries in terms of scope and specificity, and limited policies are to date in place to deliver on them. […] Policy coverage is uneven across sectors (high confidence). Policies implemented by the end of 2020 are projected to result in higher global GHG emissions in 2030 than emissions implied by NDCs, indicating an 'implementation gap' (high confidence).*"

[158] Exhibit MD-002, UNEP 2025, "Emissions Gap Report 2025", p. xx (second paragraph) and p. xi.

period 2011-2020 is already 1.1°C higher (range 0.95 to 1.20°C) than the pre-industrial temperature level (from the period 1850-1900):

> "*Human activities, principally through emissions of greenhouse gases, have unequivocally caused global warming, with global surface temperature reaching 1.1°C above 1850-1900 in 2011-2020.*"[159]

175. According to the IPCC, this warming is increasing by an average of 0.2°C per decade:

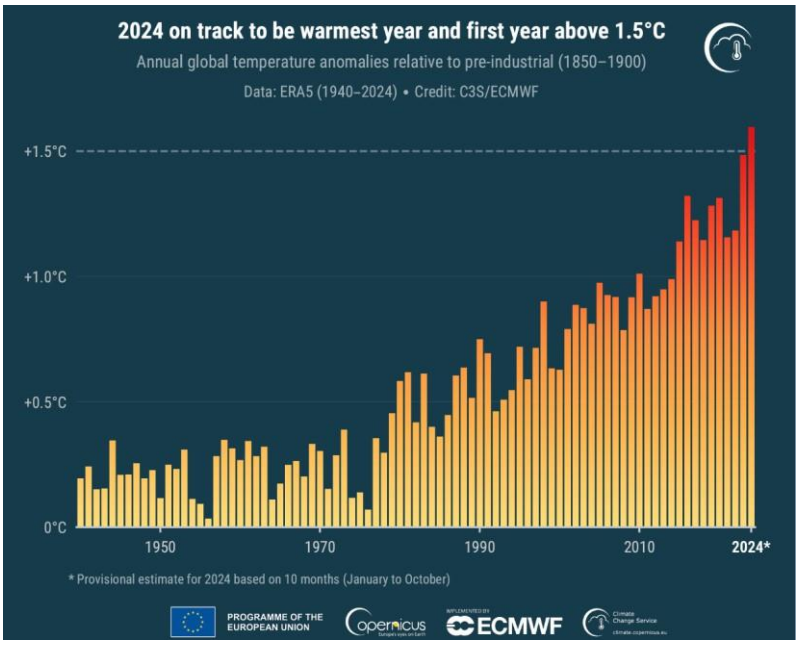
> *"Anthropogenic global warming was estimated to be increasing at 0.2 ± 0.1°C per decade (high confidence)"*[160]

176. However, the IPCC's Sixth Assessment Report presents the *average* warming during the period 2011-2020 and is therefore somewhat outdated. A study by more than 50 scientists published in June 2025, using the same methodology as the IPCC, concluded that the average anthropogenic warming had already reached 1.22°C in the period 2015-2024 and that the global surface temperature for 2024 was 1.52°C. This study also concluded that warming over the period 2015-2024 had increased by an unprecedented 0.27°C per decade, so even faster than before:

> *"The indicators show that human activities are increasing the Earth's energy imbalance and driving faster sea-level rise compared to the AR6 assessment. For the 2015–2024 decade average, observed warming relative to 1850–1900 was 1.24 [1.11 to 1.35] °C, of which 1.22 [1.0 to 1.5] °C was human-induced. The 2024-observed best estimate of global surface temperature (1.52 °C) is well above the best estimate of human-caused warming (1.36 °C) […] Human-induced warming has been increasing at a rate that is unprecedented in the instrumental record, reaching 0.27 [0.2–0.4] °C per decade over 2015–2024."*[161]

177. The European Copernicus Climate Change Service has established that the average global temperature in 2024 was 1.6°C higher than in the period 1850-1900, when the burning of fossil fuels for industrial purposes began.[162] The figure below from the Copernicus Climate Change Service illustrates this and shows how warming has progressed over recent decades relative to the reference period 1850-1900 (shown as zero in the figure):[163]

[159] Exhibit MD-001, IPCC 2023, AR6, SYR, SPM, A.1, p. 4.
[160] IPCC 2021, AR6, WGI, H1, p. 187 (see https://www.ipcc.ch/report/ar6/wg1/downloads/report/IPCC_AR6_WGI_FullReport.pdf).
[161] Exhibit MD-035, *Forster et al. 2025, "Indicators of Global Climate Change 2024: annual update of key indicators of the state of the climate system and human influence",* p. 2642. Page 2643 explains that IPCC reports are published with long intervals between them, which can lead to an information gap between report cycles. However, empirically based decision-making must be based on up-to-date and timely information on key indicators of the state of the climate system and of human influence on the global climate system. Given that the IPCC's seventh Assessment Report is not expected until the end of this (critical) decade, and given the speed of recent changes and the need for updated climate knowledge to substantiate fact-based decision-making, the "Indicators of Global Climate Change (IGCC)" project has been set up to provide policymakers with annual updates on the latest scientific insights into the state of selected key indicators of climate change. In this context, use is made in the research of the methodologies used by the IPCC in its Sixth Assessment Report as much as possible.
[162] See the Copernicus website and the article published there on 10 January 2025, "*Copernicus: 2024 is the first year to exceed 1.5°C above pre-industrial level*", available at https://climate.copernicus.eu/copernicus-2024-first-year-exceed-15degc-above-pre-industrial-level. It is important to clarify that if the 1.5°C is exceeded in one year, this does not mean that the average warming has then overshot the 1.5°C target. Because annual figures fluctuate (as also shown in the graph), a long-term average is used to estimate the average warming.
[163] See https://climate.copernicus.eu/copernicus-2024-virtually-certain-be-warmest-year-and-first-year-above-15degc. In this figure, Copernicus still estimated that the average global temperature rise, based on the first ten months of 2024, was 1.55° C, which was slightly lower than the final 1.6° C.



178. The current warming is already having a major impact on important ecosystems, is being felt in all the regions of the world and has led to widespread adverse impacts and related losses and damages to nature and people:

> *"Widespread and rapid changes in the atmosphere, ocean, cryosphere and biosphere have occurred.*
> *Human-caused climate change is already affecting many weather and climate extremes in every region across the globe. This has led to widespread adverse impacts and related losses and damages to nature and people (high confidence)."*[164]

179. According to the IPCC, climate and weather-related extremes such as heat waves, droughts, heavy precipitation, cyclones and forest fires have increased in frequency and intensity and have resulted in widespread, ubiquitous impacts on ecosystems, people, infrastructure and human settlements. This shows that many human and natural systems are vulnerable to global warming and its consequences. The IPCC attributes the fact that climate and weather extremes occur with an increasing frequency and intensity to human-induced climate change:

> *"Widespread, pervasive impacts to ecosystems, people, settlements, and infrastructure have resulted from observed increases in the frequency and intensity of climate and weather extremes, including hot extremes on land and in the ocean, heavy precipitation events, drought and fire weather (high confidence). Increasingly since AR5, these observed impacts have been attributed to human-induced climate change, particularly through increased frequency and severity of extreme events."*[165]

180. The consequences of global warming to date are therefore already very significant and should not be underestimated (see chapter 5 below for more details). It is also important to emphasise that certain parts

[164] Exhibit MD-001, IPCC 2023, AR6, SYR, A.2, p.5.
[165] Exhibit MD-043, IPCC 2022, AR6, WGII, SPM, B.1.1, p. 9. For a summary of the consequences, see section B.1, p. 9-11 for more detail.

of the climate system are slow to respond to greenhouse gas emissions.[166] This means that the climate impacts caused in the Netherlands and globally by the current atmospheric CO_2 concentration are already greater than can be observed at present. After all, some effects of the current greenhouse gas concentration will continue to intensify for many decades or even hundreds to thousands of years. Even in the theoretical situation where anthropogenic CO_2 emissions were to cease completely tomorrow, the climate impacts would continue to worsen for a very long time. In this context, it concerns the ongoing and persistent melting of ice masses (glaciers and ice caps) over these timescales, the thawing of permafrost, the acidification and warming of the oceans and the sea level rise resulting from the warming of the water and the melting of the Greenland and Antarctic ice caps, among other things.

181. It will take millennia for warming to reach the deeper oceans and for the ice caps to fully adapt to the higher temperature. As a result, the sea level will continue to rise for thousands of years after the anthropogenic greenhouse gas emissions have stopped globally.[167] Global glaciers, which are a critical source of water for approximately 1.9 billion people, are responding to the current warming with a delay. A comprehensive study based on two decades of satellite data from all 215,000 glaciers worldwide shows that even in the most optimistic scenario, in which warming is limited to 1.5°C, about half of all glaciers and 26% of the total volume of glacier ice will disappear as early as this century.[168]

182. Many climate effects will therefore continue to worsen for a very long time, even after anthropogenic greenhouse gas emissions have stopped. This means that the effects we are seeing today are only a glimpse of the much more serious future impacts that have already been unavoidably caused by the current CO_2 concentrations; impacts that the world will inevitably face. In this context, it is relevant to note that more than 40% of the total cumulative quantity of anthropogenic CO_2 emissions has been emitted relatively recently, after 1990[169], as the figure below from the IPCC also shows:[170]

[166] Exhibit MD-032, IPCC 2021, AR6, WGI, TS, Box TS.9, p. 106: *"The present rates of response of many aspects of the climate system are proportionate to the rate of recent temperature change, but some aspects may respond disproportionately. Some climate system components are slow to respond, such as the deep ocean overturning circulation and the ice sheets (Box TS.4). It is virtually certain that irreversible, committed change is already underway for the slow-to-respond processes as they come into adjustment for past and present emissions*."

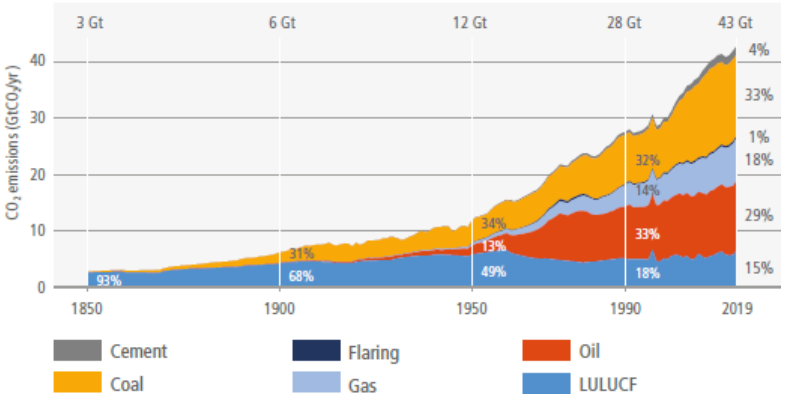
[166] Exhibit MD-001, IPCC 2023, AR6, SYR, B.3.1 SPM, p. 18: *"Limiting global surface temperature does not prevent continued changes in climate system components that have multi-decadal or longer timescales of response (high confidence). Sea level rise is unavoidable for centuries to millennia due to continuing deep ocean warming and ice sheet melt, and sea levels will remain elevated for thousands of years (high confidence)*." See also Exhibit MD-032, IPCC 2021, AR6, WGI, TS, Box TS.9, p. 106: *"The increase in global ocean heat content (Section TS.2.4) will likely continue until at least 2300 even for low emissions scenarios, and global mean sea level will continue to rise for centuries to millennia following cessation of emissions (Box TS.4) due to continuing deep ocean heat uptake and mass loss of the Greenland and Antarctic ice sheets (high confidence)."*

[168] Exhibit MD-001, IPCC 2023, AR6, SYR, para. 3.1.2, p. 71 and Exhibit MD-045, Rounce et al. 2023, "Global glacier change in the 21st century: Every increase in temperature matters", pp. 1 and 6.

[169] Exhibit MD-001, IPCC 2023, AR6, SYR, par. 2.1, p. 44. This is based on data up to and including 2019.

[170] Exhibit MD-037, IPCC 2022, AR6, WGIII, TS, Figure TS.3, p. 62.

(a) Long term trend of anthropogenic CO_2 emissions sources



183. This figure clearly illustrates how much CO_2 has been emitted annually since 1850.[171] The figure shows that the cumulative amount of anthropogenic CO_2 emissions from 1850-1950 is clearly only a fraction of the increase in emissions since 1950 and that CO_2 emissions have still grown explosively, particularly from 1990, to the present day. The fact that global warming has been progressing so rapidly – and at an accelerating pace – in the past decades is therefore caused by the fact that it was precisely in recent decades that a very large proportion of emissions since the industrial revolution has taken place, and that the annual emissions have continued to increase to this day.

184. The serious consequences of global warming to date, combined with the slow response of certain climate system components to greenhouse gas emissions and the very high CO_2 emissions in recent years, are cause for very serious concern. This is partly because it is inevitable that until global CO_2 emissions have been reduced to net zero (which, as things stand today, will in any event not be before 2050), a lot of extra CO_2 will continue to be emitted, with all the additional dangers and risks this entails.

185. After all, even if the energy transition would accelerate dramatically now, the current CO_2 concentration level will continue to rise, given that the phase-out of the fossil-fuel infrastructure and fossil-fuel production and consumption has not yet begun; ending the use of fossil fuels cannot happen overnight. The transformation of a global society that still largely runs on the combustion of fossil fuels today into a society that will have to be (almost) entirely powered by alternative sustainable energy can therefore not take place in just a few years. This means that there will be no choice but to continue burning fossil fuels during this transition phase towards a sustainable energy supply. The extra greenhouse gas emissions caused by this will contribute to further global warming. This inevitable further global warming in the coming decades will lead to greater climate risks around the world:

> *"Global warming will continue to increase in the near term (2021–2040) mainly due to increased cumulative CO_2 emissions in nearly all considered scenarios and pathways. In the near term, every region in the world is projected to face further increases in climate hazards (medium to high confidence, depending on region and hazard), increasing multiple risks to ecosystems and*

[171] The figure also shows that, in 1850, virtually all human CO_2 emissions were attributable to the LULUCF sector (Land Use, Land-Use Change and Forestry), i.e. emissions resulting mainly from deforestation and agriculture. Subsequently, and gradually, first more coal was burned and, after the Second World War, the share of petroleum increased steadily; in the last few decades we have seen natural gas become an increasingly significant contributor to global CO_2 emissions.

humans (very high confidence).”[172]

186. This means that in the event of systemic changes (such as the change in the energy system), society will, as it were, experience a delay in responding to the changing input that is comparable to the slow response that is inherent in certain climate system components. As a result, it is likely, in the absence of very steep emission reductions, that future warming will go (far) beyond the critical 1.5°C threshold.

187. The IPCC recognises the risk of a transition going too slowly and the fossil-fuel infrastructure (supply and demand) being allowed to further grow in the meantime and the associated lock-in. For example, the IPCC states that continuing on the same path and following the current national climate plans until 2030[173] will make it impossible to limit the temperature increase to 1.5°C. But that is not all. The IPCC also warns that in that case it will become even much harder to limit global warming to 2°C, precisely because of the further expansion of, and continued investment in, the fossil-fuel infrastructure that will take place between now and 2030.[174] Therefore in the absence of adequate climate action until 2030, even the possibility of still limiting global warming to 2°C is virtually out of sight. The carbon lock-in and its adverse effects on the energy transition will be discussed in more detail in chapters 8.2 and 8.3.

188. The foregoing makes it clear that the coming years will be critical in halting dangerous climate change. For this reason, the IPCC and the international community have for years referred to the period up to 2030 in the annual UN climate conference resolutions (see chapters 6.7 up to and including 6.8.4) as the critical decade for global climate action. Today's action dictates what future awaits the world and the Netherlands. Unfortunately, part of that changing future has already been decided by the increased concentration of greenhouse gases that we have in the atmosphere today. The other part of that changing future is already determined by the inevitable increase in the CO_2 concentration, because we are still a long way from net zero emissions. However, the worst consequences can still be avoided by reaching that zero point as quickly as possible. How much greater global warming will be will depend on the speed at which the transition to an alternative sustainable energy supply will take place and, therefore, on how quickly the CO_2 emissions (and other greenhouse gases) that are added to the atmosphere every day can be reduced. Limiting further risks depends on limiting the total amount of emissions – the cumulative emissions – on the way to the global zero point, so that the cumulative emissions remain within the carbon budget for 1.5°C. As already mentioned at the end of chapter 4.4, if the current global emission trend continues, a catastrophic warming of around 3°C is expected within this century.

189. The speed of the transition to a sustainable energy supply will therefore ultimately determine the nature and severity of the climate change and thereby also shape our future. It is therefore not surprising that the IPCC states that:

"*The choices and actions implemented in this decade will have impacts now and for thousands of years (high confidence)*."[175]

5 THE CONSEQUENCES OF GLOBAL WARMING

[172] Exhibit MD-001, IPCC 2023, AR6, SYR, par. 4.3, p. 98.
[173] In this analysis, the IPCC includes the national climate plans as announced for COP26 in Glasgow in 2021.
[174] IPCC 2022, AR6, WGIII, H3, p. 298 (see https://www.ipcc.ch/report/ar6/wg3/downloads/report/IPCC_AR6_WGIII_FullReport.pdf).
[175] Exhibit MD-001, IPCC 2023, AR6, SYR, C.1, SPM, p. 24.

5.1 INTRODUCTION

190. In this chapter, the consequences of global warming, including the dangers of warming above the danger threshold of 1.5°C, will be discussed based on climate science.

5.2 THE SERIOUS GLOBAL CONSEQUENCES

5.2.1 Major global dangers and the five reasons for concern

5.2.2.1 Five reasons for concern

191. Since its third Assessment Report in 2001 (IPCC TAR), the IPCC has divided the important risks associated with anthropogenic climate change ("the key risks") into five reasons for concern ("the five reasons for concern"). The aim was - and is - to enable the Conference of the Parties (COP) to implement Article 2 of the UN Climate Convention on the basis of scientific data and thus to determine what is meant by dangerous climate change as referred to in that Article 2.[176]

192. The IPCC considers risks as *"key*" because of their high hazard or because of the high vulnerability of societies and/or ecosystems to these risks. Factors that play a role here include the large magnitude of the risk, high probability, irreversibility of impacts or limited potential to reduce risks through adaptation and mitigation.[177]

193. These IPCC criteria to characterise risk also play a central role in Dutch law when it comes to the societal duty of care and the doctrine of unlawful hazardous negligence, as will be discussed further in chapter 8. Partly for this reason, this identification of key risks is important for determining Shell's legal obligations.

194. It is also important to know what specific types of risks the IPCC refers to when discussing the five "Reasons for Concern" (abbreviated hereafter to "RFCs") in order to gain a good understanding of the consequences and impacts of climate change. These five reasons for concern (RFC1 up to and including RFC5) will be briefly explained below.

(i) *RFC1: "unique and threatened systems"* – This RFC focuses on the potential increase in the damage to or irreversible loss of a wide range of physical, biological and human systems that are unique (i.e. that have restricted geographic ranges and have high endemism or other distinctive properties) and are threatened by climate change. Global temperature rise will require certain human systems to adapt significantly or cause ecosystems as we know them today to disappear. Examples of systems that are already facing a very high risk of severe degradation at 1.5°C to 2°C of warming include ecosystems in the Arctic (the North Pole), coral reefs in tropical waters, glaciers in mountainous areas and biodiversity hotspots. Even at the current temperature, there is already massive tree mortality in several unique

[175] IPCC 2007, AR4, SYR, p.64 (https://www.ipcc.ch/site/assets/uploads/2018/02/ar4_syr_full_report.pdf).

[177] IPCC 2014, AR5, WGII, SPM, pp. 11 and 12: *"Key risks are potentially severe impacts relevant to Article 2 of the [UNFCCC], which refers to "dangerous anthropogenic interference with the climate system". Risks are considered key due to high hazard or high vulnerability of societies and systems exposed, or both. Identification of key risks was based on expert judgement using the following specific criteria: large magnitude, high probability, or irreversibility of impacts; timing of impacts; persistent vulnerability or exposure contributing to risks; or limited potential to reduce risks through adaptation or mitigation. Key risks are integrated into five complementary and overarching reasons for concern (RCF's)*[..]" (see https://www.ipcc.ch/site/assets/uploads/2018/02/WGIIAR5-PartA_FINAL.pdf). This is also the conclusion (in summary) of Exhibit MD-043, IPCC 2022, AR6, WGII, SPM, p.5: *"Key risks have potentially severe adverse consequences for humans and social-ecological systems resulting from the interaction of climate related hazards with vulnerabilities of societies and systems exposed*".

forest ecosystems around the world as well as massive decline and extinction of various animal and insect species in various land and marine ecosystems and large-scale coral mortality (up to 70-90% of all coral worldwide at 1.5°C). In addition, the sea level rise, even in low-emission scenarios, will render certain areas uninhabitable or cause them to disappear entirely, such as small island states. If warming reaches levels above 1.5°C, several unique systems will reach adaptation limits, such as areas that depend on glaciers and snowmelt for their drinking water. In these and other ways, areas and ecosystems are under threat and, with them, the cultures that depend on these areas and systems.[178]

(ii) *RFC2: "extreme weather events" (extreme weather conditions)* – This RFC focuses on the risks to human health, livelihoods, assets and ecosystems from extreme weather events such as heatwaves, heavy rain, drought and associated wildfires, and coastal flooding. These extreme weather conditions are increasing in both frequency and intensity due to climate change. With the current warming and warming up to 1.5°C, there is already increased heat mortality, along with forest fires (due to drought/heat), floods (due to extreme precipitation and storms), agricultural and other ecological droughts and water scarcity. The extreme weather conditions also lead to food shortages and consequences for food security, safety and spikes in food prices, putting the nutrition and livelihoods of millions of people at risk. Between 1.5°C and 2°C, all these risks increase rapidly and disproportionately, and at (a median of) 2°C, there is a risk of global crop failure in what is known as the "breadbasket regions" (the regions suitable for agriculture that are responsible for global grain production), irreversible impacts due to weather extremes (e.g. major damage to ecosystems and severe coastal storms) and increasing risks of disease.[179]

(iii) *RFC3: "distribution of impacts"* – RFC3 reflects how significant risks are unevenly distributed across regions and different population groups as a result of the non-uniform spatial distribution of physical hazards of climate change, exposure and vulnerability across regions. It shows how risks have a disproportionately large impact on particularly vulnerable societies and socio-ecological systems. In this context, the IPCC indicates that even within countries (regardless of the country's state of development as such), it is particularly the groups who are already weaker and marginalised that will be disproportionately affected by the impact of climate change. Climate risks are also strongly related to inequality, often, but not always, in combination with poverty, geographical location and political and socio-cultural aspects. For example, countries where inequality is high are more vulnerable and exposed to climate hazards. Areas in the global South and less developed areas are generally at greater risk than areas in the global North and more developed countries, also in terms of food and health-related risks.[180] The IPCC observes the following on this subject:

> *"Adverse effects of climate change on food production are projected to become much more severe […] when global temperatures rise more than 2°C globally, but there are predicted to be much more negative impacts experienced sooner on food security in low to mid-latitudes."*[181]

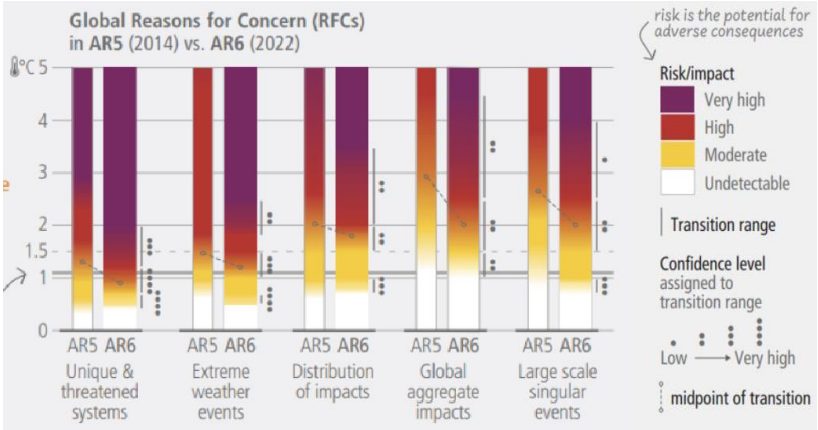
[178] Exhibit MD-044, IPCC 2022, AR6, WGII, TS, Table TS.1, p. 69. See also Chapter 16, para. 16.6.3.1, pp. 2485-2488, for a detailed description of the risks associated with RFC1 and the consequences of different temperature levels.
[179] Exhibit MD-043, IPCC 2022, AR6, WGII, SPM, Table TS.1, p. 70. See also Chapter 16, para. 16.6.3.2, pp. 2488-2490, for a detailed description of the risks associated with RFC2 and the consequences of different temperature levels (available at https://www.ipcc.ch/report/ar6/wg2/downloads/report/IPCC_AR6_WGII_FullReport.pdf).
[180] Exhibit MD-043, IPCC 2022, AR6, WGII, SPM, Table TS.1, p. 70. See also Chapter 16, para. 16.6.3.3, pp. 2490-2492, for a detailed description of the risks involved in RFC3 and the consequences of different temperature levels, available at https://www.ipcc.ch/report/ar6/wg2/downloads/report/IPCC_AR6_WGII_FullReport.pdf.
[181] Ibid, Chapter 16, para. 16.6.3.3, p. 2492.

(iv) *RFC4: "global aggregate impacts"* – This RFC considers the impacts on socio-ecological systems that can be aggregated globally into a single metric, such as monetary damage, lives affected, species lost or ecosystem degradation on a global scale. RFC4 shares underlying key risk components with other RFCs (e.g. RFC1 and RFC2), but focuses on impacts that reach worrying levels on a global scale. It also weighs up the combined impacts of various risks that reinforce each other mutually, ranging from economic to biodiversity aspects, in conjunction with each other. This can be explained with an example. Through various complex mechanisms, climate change leads to biodiversity loss, in a relationship where biodiversity loss increases in line with the extent of global warming. This biodiversity loss not only has major (direct) consequences for ecology, but also major (indirect) economic consequences because humans depend on this biodiversity. Consider, for example, fishing (if species become extinct or populations decline, this affects fishing and thus an important part of the human food supply) or crop pollination in agriculture (if the population of bees and other pollinating insects declines, this leads to less pollination and possibly lower crop yields). According to the IPCC, regions that are heavily dependent on climate-sensitive livelihoods, such as agriculture, fisheries and forestry, can suffer serious consequences, even in the case of slight warming, if they have limited adaptive capacity. From 1.5°C onwards, around 200 million people who depend on small-scale fisheries for their livelihoods will be at serious risk, given the sensitivity of marine life to ocean warming, its acidification and the loss of coral reefs. Warming between 1.5°C and 2°C could expose 330-396 million people to lower agricultural yields and the associated consequences for their livelihoods, as livelihoods worldwide are heavily dependent on agriculture. At 2°C, a relative decline in effective labour of 10% is expected, which would have far-reaching economic consequences. Environmental damage thus also causes economic damage. The IPCC therefore expects economic damage from environmental degradation to increase at an accelerated rate as the temperature continues to rise.[182]

(v) *RFC5: "large-scale singular events"* – According to this RFC, large-scale singular events (also known as "tipping points") are abrupt, drastic and sometimes irreversible changes in physical, ecological or social systems that have very large and often lasting consequences. Due to the comprehensive nature of this danger, this risk will be discussed separately in more detail in the following chapter.

195. As explained, the IPCC uses the reasons for concern described above to identify the global risks associated with climate change in order to enable the Conference of the Parties (COP) to flesh out the notion of dangerous climate change in Article 2 UN Climate Convention based on scientific data. In this context, the IPCC has used a risk scale since 2001. The risk scale used in the recent IPCC AR6 report is shown below.[183]

[182] Exhibit MD-043, IPCC 2022, AR6, WGII, SPM, Table TS.1, p. 70. See also chapter 16, para. 16.6.3.4, pp. 2492-2494, for a detailed description of the risks associated with RFC4 and the consequences of different temperature levels, available at https://www.ipcc.ch/report/ar6/wg2/downloads/report/IPCC_AR6_WGII_FullReport.pdf.
[183] Exhibit MD-001, IPCC 2023, AR6, SYR, H.3, p. 75. See also p. 24 of the Summary for Policymakers and pp. 46 and 68.



196. The above IPCC risk scale therefore shows the five RFCs. From left to right, they are further referred to as RFC1 up to and including RFC5. This risk scale clearly shows where, for each of the five reasons for concern, the tipping point lies from a moderate to a high risk level (the transition range between yellow and red) and from a high risk level to a very high risk level (the transition range between red and purple). The scale shows that the differences between the dangerous consequences of warming at 1.5°C and 2°C are considerable.

197. The graph also demonstrates what the risk scale looked like at the time of the fifth Assessment Report (AR5) from 2013/2014 compared to the recent findings from AR6. This shows that the risk level for RFCs becomes high to very high at (significantly) lower levels of global warming relative to the AR5 assessment. The increased risks since AR5 can therefore be characterised as very alarming:

> *"For a given level of warming, many climate-related risks are assessed to be higher than in AR5 (high confidence). Levels of risk for all Reasons for Concern (RFCs) are assessed to become high to very high at lower global warming levels compared to what was assessed in AR5 (high confidence). This is based upon recent evidence of observed impacts, improved process understanding, and new knowledge on exposure and vulnerability of human and natural systems, including limits to adaptation. Depending on the level of global warming, the assessed long-term impacts will be up to multiple times higher than currently observed (high confidence) for 127 identified key risks, e.g., in terms of the number of affected people and species. Risks, including cascading risks (see 3.1.3) and risks from overshoot (see 3.3.4), are projected to become increasingly severe with every increment of global warming (very high confidence)."*[184]

198. This increased risk assessment stems from recent observations, improved process understanding and new knowledge on the exposure and vulnerability of human systems and ecosystems, including the limits to adaptation, according to the IPCC. The risks, including cascading risks, also known as domino effects, and the risks from the (temporary) overshooting of the 1.5°C danger threshold will become increasingly severe with every increment of further warming.

199. The disastrous consequences and risks of climate change have, of course, been known for a long time and form the basis of the international political consensus that global warming must be limited to 1.5°C. However, the most recent insights show that the consequences of climate change are manifesting themselves more

[184] Exhibit MD-001, IPCC 2023, AR6, SYR, H.3, p. 71. See also p. 24 of the Summary for Policymakers and pp. 46 and 68.

rapidly and that it must be concluded increasingly often that certain risks are even greater than previously thought.[185]

200. One of the things shown by the risk scale is that climate-related risks to natural and human systems are greater at 1.5°C of warming than at the current temperature, but (significantly) smaller than at 2°C. For example, the risk level for unique and endangered (eco) systems (RFC1) is already high to very high at 1.5°C of warming (and also at the current warming level of more than 1.3°C). The risk level for extreme weather events such as heat, drought, heavy rainfall and storms (RFC2) is also already high at 1.5°C. For the other three reasons for concern – RFC3 (distribution of impacts), RFC4 (global aggregate impacts) and RFC5 (large-scale singular events) – the risk scale clearly shows that the risks are moderate at 1.5°C of warming:

> *"Limiting global warming to 1.5°C would ensure risk levels remain moderate for RFC3, RFC4 and RFC5 (medium confidence), but risk for RFC2 would have transitioned to a high risk at 1.5°C and RFC1 would be well into the transition to very high risk (high confidence)."*[186]

201. At 2°C of warming, all risk levels become significantly higher and RFC3, 4 and 5 transition to high risk. RFC1 and 2 even transition to very high risk at 2°C:

> *"At 2°C of global warming, overall risk levels associated with the unequal distribution of impacts (RFC3), global aggregate impacts (RFC4) and large-scale singular events (RFC5) would be transitioning to high (medium confidence), those associated with extreme weather events (RFC2) would be transitioning to very high (medium confidence), and those associated with unique and threatened systems (RFC1) would be very high (high confidence)"* [187]

202. In this context, it is important to note that the IPCC uses the term *"*high risk*"* if there are serious and widespread impacts that are judged to be high on the basis of one or more criteria for assessing *"*key risks" (see paragraph 190). The IPCC only speaks of *"*very high risk" if there is both a very high risk of severe impacts and the presence of significant irreversibility or the persistence of climate-related hazards, combined with limited human or natural ability to adapt to the nature of the hazard or impacts.[188] In view of this, the risks described above in the event of a 2°C rise in temperature are, without exaggeration, very worrying.

203. The risk scale demonstrates that the greater the warming, the greater the risks associated with the five reasons for concern. Climate risks therefore increase in all categories as temperatures rise further. The IPCC therefore concludes:

> *"Risks and projected adverse impacts and related losses and damages from climate change will escalate with every increment of global warming (very high confidence). They are higher for global warming of 1.5°C than at present, and even higher at 2°C (high confidence)."*[189] (underlining added by counsel)

204. Since the IPCC first introduced its risk scale in its third Assessment Report (AR3) in 2001, the risks identified

[185] Exhibit MD-044, IPCC 2022, AR6, WGII, TS, p. 43: *"Since AR5, climate risks are appearing faster and will get more severe sooner (high confidence). Impacts cascade through natural and human systems, often compounding with the impacts from other human activities*." See also Exhibit MD-001, IPCC 2023, AR6, SYR, H3, p. 89: *"Observed adverse impacts and related losses and damages, projected risks, trends in vulnerability, and adaptation limits demonstrate that transformation for sustainability and climate resilient development action is more urgent than previously assessed (very high confidence)*."

[186] Exhibit MD-001, IPCC 2023, AR6, SYR, H.3, p. 71. See also Exhibit MD-044, IPCC 2022, AR6, WGII, TS, C.12.2, pp. 68–69.

[187] Exhibit MD-001, IPCC 2023, AR6, SYR, H.3, p. 71.

[188] Exhibit MD-001, IPCC 2023, AR6, SYR, SPM, p. 15, note 37: *"high risk indicates severe and widespread impacts that are judged to be high on one or more criteria for assessing key risks; and very high risk level indicates very high risk of severe impacts and the presence of significant irreversibility or the persistence of climate-related hazards, combined with limited ability to adapt due to the nature of the hazard or impacts/risks*."

[189] Ibid, B.2.2 SPM, p. 15.

by the IPCC have become increasingly larger. For example, the fourth IPCC Assessment Report (AR4) from 2007 states that the five reasons for concern have increased compared to the third report from 2001, that the risks have increased and that there is greater clarity about the vulnerability of systems, sectors, groups and regions to the effects of climate change.[190] A similar observation is made in the fifth IPCC Assessment Report (AR5) from 2013/2014 relative to the fourth report from 2007.[191] The IPCC Special Report (SR1.5) from 2018 subsequently noted that the risks have become even greater compared to the fifth report[192] and, as explained above, the sixth IPCC Assessment Report (AR6) from 2021-2023 found that the risks had even increased compared to AR5 and SR1.5.[193]

5.2.1.2 The risk of tipping points

205. Of the five reasons for concern, the fifth (the risks of "large-scale singular events") deserves special attention because it refers to the most comprehensive, drastic and abrupt dangers of climate change. It concerns the “tipping points” in the climate system:

> *"large-scale singular events (sometimes called tipping points or critical thresholds), considers abrupt, drastic and sometimes irreversible changes in physical, ecological or social systems in response to smooth variations in driving forces (accompanied by natural variability)"*[194]

206. Tipping points in the climate system refer to a situation in which a critical threshold is exceeded, causing a change in components of a climate system that becomes self-perpetuating, even if the underlying causes are removed. Tipping points lead to substantial, widespread, frequently abrupt and often (at least on human timescales) irreversible impacts. Much scientific attention is paid to the extensive risks and possible consequences of passing tipping points. In recent years, important (scientific) reports have been published on this subject. These include the report “State of the Cryosphere 2025”, the OECD report “Climate Tipping Points: Insights for Effective Policy Action” from 2022 and – as the most recent report – the “Global Tipping Points Report 2025” (referred to hereafter as: the "**GTP Report**").[195] A number of important findings from these reports will be explained below.

207. With regard to the GTP Report, the following should be noted. Some 160 authors and 87 institutions from 23 countries collaborated on this international research report, which is considered to be the most comprehensive study of tipping points in our climate system undertaken to date. The list of references to related publications alone is more than 80 pages long. The GTP Report complements the findings of the IPCC in its Sixth Assessment Report (AR6), both because it contains the most up-to-date findings and because it discusses, in much more detail, climate tipping points and the negative social, economic and political disruption they could potentially cause. The GTP Report was specifically released prior to COP30 to inform policymakers and society about the status quo of scientific knowledge and the prospects for action to be taken in order to be able to still mitigate major climate risks.

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[190] IPCC 2007, AR4, SYR, p. 64 (see https://www.ipcc.ch/site/assets/uploads/2018/02/ar4_syr_full_report.pdf).
[191] IPCC 2014, AR5, WGII, H.19, pp. 1075-1079 (see https://www.ipcc.ch/site/assets/uploads/2018/02/WGIIAR5-PartA_FINAL.pdf).
[192] Exhibit MD-101, IPCC 2018, SR1.5, SPM, p. 10 (B.5.7).
[193] Exhibit MD-044, IPCC 2022, AR6, WGII, TS, C.12.1, p.68: "*Compared to AR5 and SR15, risks increase to high and very high levels at lower global warming levels for all five RFCs (high confidence), and transition ranges are assigned with greater confidence*."
[194] IPCC AR6 WGII, H.16, p.2494, available at https://www.ipcc.ch/report/ar6/wg2/downloads/report/IPCC_AR6_WGII_FullReport.pdf.
[195] Exhibit MD-033, Lenton et al. 2025 “Global Tipping Points Report 2025”. On p. 48, a tipping point is defined as follows: *“a tipping point is defined as occurring when change in part of a system becomes self-perpetuating beyond a threshold, leading to substantial, widespread, frequently abrupt and often irreversible impact(s)*.”

208. The report analyses 20 tipping points in (i) the cryosphere, (ii) the biosphere and (iii) the ocean currents and atmospheric circulation. The cryosphere comprises the frozen parts of the earth, such as the ice caps, glaciers, sea ice and permafrost. The tipping points include the melting of the West Antarctic ice sheet and the Greenland ice sheet, the melting of other glaciers worldwide and permafrost thawing. The biosphere comprises natural ecosystems such as tropical rainforests, boreal forests, tundras, lakes, coral reefs and fish stocks, with the degradation of these important ecosystems being identified as a tipping point. Oceanic and atmospheric circulation refers, among other things, to the warm Gulf Stream in the North Atlantic Ocean (AMOC) and the subpolar gyre ("SPG"). These global circulation currents are essential for the transport of heat, oxygen, CO_2 and nutrients in the oceans (and thus for life in the oceans), and also determine regional weather conditions and food production in large parts of the world.

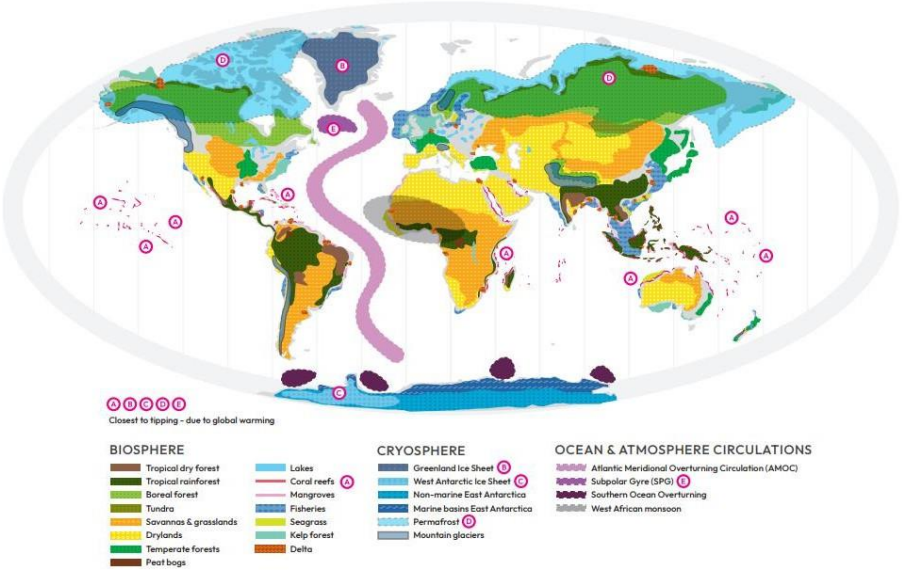
209. The GTP Report shows that at the current level of warming – reaching 1.35°C to 1.4°C in 2025 – the tipping point that will cause the death of coral reefs will most likely already have been reached.[196] Four other vulnerable tipping points may already occur at warming below 1.5°C: the melting of the Greenland and West Antarctic ice sheets (which could cause a total sea level rise of 12 metres[197]), the collapse of the Subpolar Gyre (a circular ocean current at the ocean surface south of Greenland) and the (further) thawing of the permafrost.[198] The image below shows the components of the climate system for which tipping points have been identified, indicated by colours. Letters A up to and including E indicate which of these climate system components are closest to tipping.[199]

[196] Exhibit MD-033, Lenton et al. 2025, "Global Tipping Points Report 2025", p. 42.

[197] Ibid, p. 148: *"Ice sheet loss threatens over 2 billion people in coastal areas globally, with potential for multi-metre sea level rise over centuries creating permanent displacement pressures. The combination of Greenland and West Antarctic Ice Sheet collapse could contribute up to 12+ metres of sea level rise, with severe impacts on coastal infrastructure and agriculture, particularly threatening small island developing states with complete uninhabitability*."

[198] Exhibit MD-033, Lenton et al. 2025, "Global Tipping Points Report 2025", p. 24. See also 141: "*five (the warm-water coral reefs, the land permafrost, the Greenland and the West Antarctic Ice Sheets and the North Atlantic subpolar gyre) systems of the Earth system may reach their tipping points below 1.5°C of global warming, and up to eight (in addition: the mountain glaciers, the boreal forests and the AMOC) below 2.0°C of global warming*." See also Exhibit MD-046, OECD 2022, "Climate Tipping Points: Insights for Effective Policy Action", p. 3: *"There is indisputable evidence that the planet is approaching tipping points*". See also Exhibit MD-033, Lenton et al. 2025, "Global Tipping Points Report 2025", pp. 113-114 (on the Greenland and West Antarctic ice sheets), pp. 127-128 (on the Subpolar Gyre), p. 117 (on permafrost) and pp. 125-126 and pp. 255-256 (on coral reefs). The large-scale mortality of coral reefs leads to the loss of ecosystems and biodiversity (almost 1 million species are dependent on coral reefs to some extent), the loss of coastal protection and the loss of fish stocks (coral reefs are vital to a billion people). The consequences of various other tipping points will be discussed in more detail below.

[199] Ibid, p. 24.



210. According to the best estimates, warming of less than or around 2°C will also result in the danger zone being reached for three additional tipping points: the boreal forest (the forests in Alaska, Russia, Canada and Scandinavia), the glaciers and the AMOC.[200] From 2°C onwards, the danger zone for various other tipping points will be reached, including those for the Amazon rainforest and the marine basin in East Antarctica.[201]

211. The GTP Report contains many important warnings that underscore the extreme urgency of accelerated climate action. According to the GTP Report, crossing tipping points poses profound systemic risks across nine critical domains – including food security, energy infrastructure and economic stability – threatening billions of people worldwide. Tipping points constitute a pressing national and global security concern:

> *"Our assessment finds that crossing Earth system tipping points poses profound systemic risks across nine critical domains - including food security, energy infrastructure, and economic stability - threatening billions of people worldwide. Tipping points constitute a pressing national and global security concern, as cascading stresses on food, water, and health systems could drive mass mortality, large-scale displacement, and severe economic losses if climate change remains unchecked."*[202]

212. Milieudefensie draws particular attention to the advancing insights regarding the crossing of a tipping point in the warm Gulf Stream in the North Atlantic Ocean and its consequences for Western Europe: "*Advances in observations and modelling show that the Atlantic Meridional Overturning Circulation (AMOC) could be at risk of collapse below 2°C, which would radically undermine global food and water security and plunge north-western Europe into severe winters.*"[203] The GTP Report even warns that it cannot be excluded that an AMOC tipping point has already been passed.[204]

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[200] Ibid, p. 24. See also pp. 120-121 and 146 (on the boreal forest) and pp. 43, 116 and 146 (on glaciers). Tipping points in the boreal forest (dieback in the south and expansion to the north) could lead to an increased risk of forest fires and change regional weather and precipitation patterns.

[201] Ibid, pp. 118–120 (for the Amazon rainforest) and p. 114 (for the marine basin in East Antarctica). See also Exhibit MD-047, ICCI 2025, "State of the Cryosphere 2025", p. 5 (regarding East Antarctica). Amazon rainforest drying would have enormous local and regional consequences, including for the health and well-being of the millions of people who live there and for many hundreds of thousands of animal, plant and tree species. Drought in the Amazon will also disrupt food and transport systems. At the global level, however, there could also be major consequences for global precipitation patterns.

[202] Exhibit MD-033, Lenton et al. 2025 "Global Tipping Points Report 2025", p. 164.

[203] Exhibit MD-033, Lenton et al. 2025, "Global Tipping Points Report 2025", p. 45.

[204] Exhibit MD-033, Lenton et al. 2025, "Global Tipping Points Report 2025", p. 41 (*"The conditions under which SPG and AMOC can tip remain uncertain […] but we cannot exclude that an AMOC tipping point may already have been passed."*) and p. 243. See also Exhibit MD-046, ", p. 28: *"current early-warning signals are consistent with the AMOC losing stability and being close to a critical transition*".

213. The collapse of the AMOC would significantly alter regional climate conditions worldwide, especially in Europe, affecting vegetation and crop productivity in large parts of the world, with far-reaching consequences for food security.[205] However, even a further weakening of the AMOC would already have profound implications, "*essentially a scaled-down version of those resulting from a complete collapse*," according to the OECD.[206]

214. Due to growing evidence that the AMOC could already seriously weaken or collapse within a few decades, and due to the truly catastrophic consequences this would have, 44 of the most prominent climate scientists explicitly warned of this risk in an open letter in October 2024. Mindful of this risk, the scientists urge policymakers in the letter to take the risks of an AMOC collapse seriously and emphasise that it is extremely important to achieve the goals of the Paris Agreement and limit global temperature rise to 1.5°C.[207]

215. The collapse of the Subpolar Gyre (the circular ocean current south of Greenland) could in part lead to consequences similar to those of the collapse of the warm Gulf Stream, albeit smaller in scale, yet still with unimaginable impact.[208] The collapse of this ocean current could, moreover, also happen very abruptly, and could already occur at 1.5°C of warming.[209]

216. What the above examples also illustrate, and what science has also made clear, is that the components of climate systems do not operate independently of each other, but interact with or influence each other.[210] This means that the tipping of one subsystem can lead to the destabilisation or even collapse of another subsystem.[211] In this context, the terms “cascading risks” or “domino effects” are also used (see also paragraph 197 above and paragraph 221 below).

217. This interaction between different systems could effectively lower the thresholds for triggering tipping events (which would therefore increase the likelihood of tipping points being passed).[212] In addition, tipping points can themselves activate natural processes that lead to additional emissions of CO_2 and other greenhouse gases. In science, these self-reinforcing processes are referred to as positive feedback loops. The thawing of permafrost and large-scale tree mortality (with an increased risk of forest fires) are examples of such self-

[205] Exhibit MD-033, Lenton et al. 2025, “Global Tipping Points Report 2025”, p. 6: *“a collapse of the Atlantic Meridional Overturning Circulation (AMOC) that would radically undermine global food and water security and plunge northwest Europe into prolonged severe winters*.” Pages 247-250 contain a detailed description of the serious consequences of the collapse of the AMOC and/or the SPG. See also Exhibit MD-046, OECD 2022, “Climate Tipping Points: Insights for Effective Policy Action”, p. 27, where the collapse of the AMOC is described as *a “critical threat to global food security*” as well as pp. 28-30: *“Beyond impacts on agriculture, a serious weakening or collapse of the AMOC would have profound implications for ecosystems, human health, livelihoods, food security, water supply and economic growth, especially in the regions around the North Atlantic*.”

[206] Exhibit MD-046, OECD 2022, “Climate Tipping Points: Insights for Effective Policy Action”, p. 28.

[207] Exhibit MD-048, “Open Letter by Climate Scientists to the Nordic Council of Ministers 2024”. See also Exhibit MD-033, Lenton et al. 2025, “Global Tipping Points Report 2025”, p. 41.

[208] Exhibit MD-033, Lenton et al. 2025, “Global Tipping Points Report 2025”, p. 57: *“While smaller in scale, a collapse of deep-water formation in the SPG would have similar—though more geographically concentrated—consequences, particularly for European and North Atlantic climates. Impacts could include regional cooling, changes in storm tracks and disruptions to marine ecosystems with consequences for agriculture and food security, fisheries, infrastructure and public health*.”

[209] Ibid, p. 247: *“The different impacts between an SPG collapse and an AMOC collapse result from the former evolving much faster and abruptly, within one or two decades due to local convective feedbacks*” and p. 252: *“there is an immediate need to assess and respond to the impacts of potential tipping dynamics in the North Atlantic Ocean. This is particularly important for the SPG, which has a tipping threshold close to 1.5°C, could be triggered within a few years, and would unfold in less than a decade, i.e. before 2040.”*

[210] Ibid, pp. 132-134 (par. 2.2.8 Interactions between tipping systems)

[210] Ibid, p. 141 and Exhibit MD-046, OECD 2022, “Climate Tipping Points: Insights for Effective Policy Action”, pp. 22-26 (Chapter 2.2, Potential cascading impacts of climate system tipping points).

[212] Exhibit MD-033, Lenton et al. 2025, “Global Tipping Points Report 2025”, p. 141.

reinforcing processes that can lead to the release of greenhouse gases previously stored in nature.[213] These self-reinforcing processes cannot yet be accurately predicted and modelled. This means that the risks and consequences of these processes may still be (seriously) underestimated, especially since they are not yet fully considered in many models used to estimate climate change impacts. On this subject, the IPCC's Sixth Assessment Report (AR6) notes, among other things:

> *"Additional ecosystem responses to warming not yet fully included in climate models, such as GHG fluxes from wetlands, permafrost thaw, and wildfires, would further increase concentrations of these gases in the atmosphere (high confidence)*.[214]

218. The GTP Report endorses these major dangers of not yet anticipating the above-mentioned positive feedback loops in model calculations, or of only anticipating them to a very limited extent.[215]

219. With regard to the thawing of permafrost (permanently frozen ground in which greenhouse gases are stored), even a warming of 1.2°C will cause so much permafrost to thaw that it will result in annual emissions equivalent to the emissions of Japan, one of the 10 largest emitters in the world.[216] The State of the Cryosphere 2025 report points to estimates that this will result in additional annual emissions of 2.5 $GtCO_2$-eq until 2100 (150 GtCO2-eq in total).[217] Emissions of 2.5 $GtCO_2$-eq per year are equivalent to the annual emissions of India, which we may therefore already be stuck with, even if global warming is limited to 1.5°C. That is an alarming conclusion. If one realises that, given the above, these estimates may still underestimate the risks of (abrupt and gradual) thawing processes, then the threat this poses is imaginable.

220. In AR6 SYR, the IPCC makes it clear that the chance of feedback loops (and/or an underestimation of climate sensitivity) means that temperature increases of more than 4°C cannot be ruled out, even in lower-emission scenarios and when countries' climate commitments are met.[218]

221. The above leads to a disturbing conclusion. As said, we already find ourselves in the danger zone where individual tipping points can be passed. Given the possibility that certain positive feedback loops cause additional greenhouse gas emissions, this increases the chance of passing tipping points in the climate system. And, worse still, given the climate system's delayed response to CO_2 emissions discussed earlier (a delay of decades or even of centuries to millennia), we may reach a point of no return for certain tipping points without the world realising that the moment where intervention was still possible has passed.

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[213] Ibid.

[214] Exhibit MD-001, IPCC 2023, AR6, SYR, p. 82. See also Exhibit MD-044, IPCC 2022, AR6, WGII, TS, p. 69 (TS.C.13.2): *"Complex interactions of climate change, land use change, carbon dioxide fluxes and vegetation changes, combined with insect outbreaks and other disturbances, will regulate the future carbon balance of the biosphere, processes incompletely represented in current Earth system models*."

[215] Exhibit MD-033, Lenton et al. 2025, "Global Tipping Points Report 2025", p. 117 (on permafrost). See also, in a more general sense, p. 100: *"Widely used economic assessments of climate impacts show relatively benign economic impacts which are inconsistent with science as they exclude tipping points, nature risks, and risk cascades such as displacement and conflict, thereby significantly understating risks. Policymakers who use these model outputs to guide decisions may therefore be implicitly accepting far higher levels of risk than they think"* and *"For assessing Earth system tipping points (ESTPs), we adopt and build on the IPCC's understanding of risk complexity, particularly the AR6 framework's recognition that climate responses can themselves become sources of risk and that feedback loops and cascading impacts are central to comprehensive risk assessment* […] *The framework addresses a critical gap in current climate-society-economy models, which often inadequately represent the feedback mechanisms and system interactions that are crucial for understanding tipping point risks*."

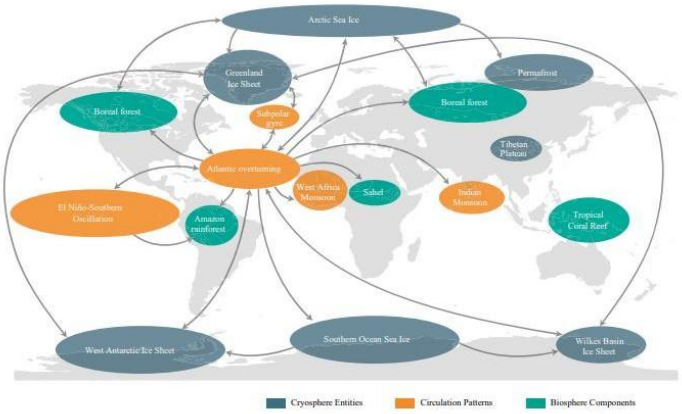
[216] Exhibit MD-047, ICCI 2025, "State of the Cryosphere 2025", p. 34: *"Today at 1.2°C of warming above pre-industrial, annual permafrost emissions are already about the same as Japan's, currently one of the top 10 greenhouse gas emitters."*

[217] Exhibit MD-047, ICCI 2025, "State of the Cryosphere 2025", p. 34: *"If warming is limited to 1.5°C, annual permafrost emissions this century will be about as large as those from India today (2.5Gt per year), totalling around 150Gt CO2-equivalent (CO2-eq) by 2100. At 2°C, annual permafrost emissions will about equal those of OECD Europe (3–4Gt per year), resulting in an additional 200Gt CO2-eq by 2100*."

[218] Exhibit MD-001, IPCC 2023, AR6, SYR, p. 63 (footnote 106).

222. Given the insights described above, i.e. that we are already in the danger zone where individual tipping points can be reached (or have already been reached), it is becoming increasingly important to have a good understanding of the interaction between different tipping points, positive feedback loops and their often destabilising effects for other tipping points. It can lead to domino effects or chain reactions ("tipping cascades"), with the collapse of one system repeatedly triggering the collapse of the next system.[219]

223. The possible interaction between different tipping systems is illustrated in the following figure:



Note: Global map of candidate tipping elements of the climate systems and potential tipping cascades. Arrows show the potential interactions among the tipping elements that could generate tipping cascades, based on expert elicitation.
Source: (OECD, 2021[5]); (Kriegler et al., 2009[6]; Cai, Lenton and Lontzek, 2016[7]; Wunderling et al., 2021[4])

224. This figure[220] shows how different tipping points can interact with each other and how this can lead to "tipping cascades". An example will help to illustrate this. There are many potential interactions between the AMOC and the West Antarctic and Greenland ice sheets. The melting of the Greenland ice sheet leads to an influx of fresh water into the North Atlantic Ocean, which can weaken and destabilise the AMOC. The collapse of the AMOC could (in addition to influencing various other tipping systems) subsequently lead to an increase in the sea surface temperature in the southern hemisphere, resulting in the further destabilisation and melting of the West Antarctic ice sheet.[221] In this way, the passing of one tipping point can lead to the passing of one or more other tipping points, with all the disastrous consequences that entails.

225. There is still uncertainty about the precise thresholds for passing the tipping points and the worst-case scenario of "tipping cascades", but the catastrophic consequences associated with tipping points call for appropriate (precautionary) measures, as emphasised by the GTP Report as well as the OECD in its latest report with policy-relevant insights into the risks of tipping points.[222]

5.3 THE SERIOUS CONSEQUENCES FOR EUROPE AND THE NETHERLANDS

[219] Exhibit MD-033, Lenton et al. 2025, "Global Tipping Points Report 2025", p. 52: *"Crossing one ESTP can also contribute to triggering another, causing a cascade of accelerating and compounding damage (Wunderling et al., 2024)."* See also p. 102: *"For example, the melting of the Greenland Ice Sheet could lead to increased heat absorption by the darker ocean surface, accelerating regional warming. This, in turn, could trigger further tipping points such as permafrost thaw or changes in atmospheric circulation patterns. Each step in this cascade can exacerbate the original impact and potentially push other systems closer to their own tipping points (Wunderling et al, 2024)."*

[220] The figure is taken from Exhibit MD-046, OECD 2022, "Climate Tipping Points: Insights for Effective Policy Action", p. 19. See also pp. 19-26.

[221] Ibid, pp. 25-26.

[222] Exhibit MD-033, Lenton et al. 2025, "Global Tipping Points Report 2025", pp. 49, 54; Exhibit MD-046, OECD 2022, "Climate Tipping Points: Insights for Effective Policy Action", p. 58.

5.3.1 **Introduction**

226. Below, we will discuss the (direct) consequences of climate change in the Netherlands as well as the (indirect) consequences the Netherlands will experience as a result of the climate impacts elsewhere in the world. These latter (indirect) impacts will be discussed first.

5.3.2 **The indirect impacts of global warming for the Netherlands**

227. Due to the international dimension of the consequences of global warming, the Netherlands is not only exposed to the dangers that occur within its borders, but also to those that occur outside its borders. In a globalised world in which food supplies and raw materials are purchased all over the world, Dutch society will be affected by, for example, declining food production or crop failures in other parts of the world. The IPCC also points this out:

> ***"Interconnectedness and globalisation establish pathways for the transmission of climate-related risks across sectors and borders, through trade, finance, food and ecosystems (high confidence).*** *Flows of commodities and goods, as well as people, finance and innovation, can be driven or disrupted by distant climate change impacts on rural populations, transport networks and commodity speculation (high confidence). For example, Europe faces climate risks from outside the area due to global supply chain positioning and shared resources (high confidence). Climate risks in Europe also impact finance, food production and marine resources beyond Europe (medium confidence)."*[223]

228. The Netherlands is therefore also exposed to the impacts of climate hazards in other countries and regions of the world.

229. The fact that climate impacts in other parts of the world pose risks for the Netherlands has actually long been recognised and flagged up, for example in the letter from the State Secretary for Infrastructure and the Environment dated 17 June 2014, in which the Dutch House of Representatives gives a reaction on behalf of the Dutch government to the IPCC's Fifth Assessment Report (AR5):

> *"This report illustrates how the world is changing as a result of climate change. The effect on food production may be more severe than previously thought, especially in Africa. Although there are many opportunities to improve this productivity, this will not be easy to achieve. Water scarcity and food shortages are increasing in many parts of the world. Extreme weather is becoming more frequent and causing more damage, also because people increasingly start to live in vulnerable areas. This poses risks to our trade, food security, conflicts and possible migration flows."*[224] (underlining added by counsel)

230. Further on in the letter, the impacts for the Netherlands of climate change abroad are re-emphasised by the government:

> *"The climate problem is a global problem, with effects in other parts of the world that can also have consequences in the Netherlands. For example, climate change can affect our food and energy security and lead to global instability and refugee flows."*[225]

231. Global climate impacts will also affect the Netherlands economically, in the same (comparable) way that the credit crisis in the United States in 2008 and the resulting banking crisis and Euro crisis affected the

[223] Exhibit MD-044, IPCC 2022, AR6, WGII, TS, TS.C.11.6, p. 68.
[224] Exhibit MD-049, Dutch Parliamentary Records II 2013/14, 31793, no. 91, "International climate agreements", p. 2.
[225] Ibid, p. 6.

Netherlands. After all, the IPCC indicates that climate change will reduce economic growth worldwide (and is already doing so now) and that this will also affect the Netherlands:

> *"A growing range of economic and non-economic losses has been detected and attributed to climate extremes and slow-onset events under observed increases in global temperatures in both low- and high-income countries (medium confidence). Extreme weather events, such as tropical cyclones, droughts and severe fluvial floods, have reduced economic growth in the short term (high confidence) and will continue to reduce it in the coming decades (medium confidence) in both developing and industrialised countries."*[226]

232. In this context, the loss of ecosystems and ecosystem services due to climate change not only has consequences in terms of human suffering and impact on public health and food security, but also in terms of economic damage. For instance, more than half of global GDP depends on nature and the services it provides, according to the European Union.[227] In addition, more than 75% of global food crops rely on pollination by animals, whose populations are under severe pressure from climate change and other human activities.[228, 229]

233. It is therefore not surprising that the IPCC emphasises that the protection of biodiversity and ecosystems is fundamental to sustainable and climate-resilient development. However, biodiversity and ecosystem services have only limited capacity to adapt to increasing global warming levels, particularly if warming goes beyond the 1.5°C limit.[230] Quite apart from the intrinsic and priceless value of ecosystems, an overshoot of the 1.5°C limit will therefore cause considerable economic and other damage in all regions of the world, including Europe and the Netherlands.

234. Furthermore, climate change can have major consequences for the global financial system and as a result, of course, for Europe and the Netherlands. Studies show that climate-related damage will have an impact on the stability of the global financial system, particularly when tipping points are passed.[231] The insurance industry can also be taken off guard by climate extremes and tipping points. Today, even at the current warming level, we are already seeing insurers excluding coverage or withdrawing from certain areas altogether.[232] As if all this were not bad enough, climate damage, and, with it, the consequences of climate change for the financial sector, is probably still being severely underestimated.[233]

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[226] Exhibit MD-044, IPCC 2022, AR6, WGII, TS, TS.B.9.2, p. 54.

[227] Communication from the European Commission, 20 May 2020, COM(2020) 380, EU Biodiversity Strategy for 2030, pp. 1–3 (see https://eur-lex.europa.eu/resource.html?uri=cellar:a3c806a6-9ab3-11ea-9d2d-01aa75ed71a1.0008.02/DOC_1&format=PDF.

[228] Communication from the European Commission, 20 May 2020, COM(2020) 380, EU Biodiversity Strategy for 2030, p. 2 *("For instance, more than 75% of global foodcrop types rely on animal pollination 8*"). See also Exhibit MD-044, IPCC 2022, AR6, WGII, TS, p. 48 (TS.B.3.2), p. 61 (TS.C.3.5), p. 69 (Table TS.1), p. 109 (TS.E.4.1: *"Species extinction levels that are more than 1000 times natural background rates as a result of anthropogenic pressures, and climate change will increasingly exacerbate this (high confidence)*.

[229] Exhibit MD-001, IPCC 2023, AR6, SYR, A.2.3 SPM, p. 5: *"Climate change has caused substantial damages, and increasingly irreversible losses, in terrestrial, freshwater, cryospheric, and coastal and open ocean ecosystems (high confidence). Hundreds of local losses of species have been driven by increases in the magnitude of heat extremes (high confidence) with mass mortality events recorded on land and in the ocean (very high confidence). Impacts on some ecosystems are approaching irreversibility such as the impacts of hydrological changes resulting from the retreat of glaciers, or the changes in some mountain (medium confidence) and Arctic ecosystems driven by permafrost thaw (high confidence)*."

[230] Exhibit MD-001, IPCC 2023, AR6, SYR, AR6, SYR, H3, p. 89: "*Safeguarding biodiversity and ecosystems is fundamental to climate-resilient development, but biodiversity and ecosystem services have limited capacity to adapt to increasing global warming levels, making climate-resilient development progressively harder to achieve beyond 1.5°C warming (very high confidence).*"

[231] Exhibit MD-033, Lenton et al. 2025 'Global Tipping Points Report 2025', p. 153.

[232] Ibid See also Exhibit MD-050, United Nations University 2023, "Interconnected Disaster Risks: Risk Tipping Points", p. 43: *'Climate change is dramatically shifting the landscape of risks, with the number of severe and frequent disasters forecast to double globally by 2040, causing insurance prices to rise. In places where extreme weather events increasingly wreak havoc, homeowners have seen prices climb by as much as 57 per cent since 2015, and people are struggling to afford coverage. Meanwhile, in the face of rising losses, some insurance companies in at-risk areas have decided to limit the amount or type of damages they can cover, cancel policies or leave the market altogether*". See also Exhibit MD-051, Blood 2023, "California insurance market rattled by withdrawal of major companies" (website printout, 27 February 2025), pp. 1-4.

[233] Exhibit MD-033, Lenton et al. 2025, "Global Tipping Points Report 2025", p. 153: *"current damage functions systematically underestimate tipping point impacts by ignoring critical Earth system feedbacks*". See also p. 79 (Box 1.3.6: ESTPs and financial risk management).

235. In 2024, the European Environment Agency (EEA) conducted the first European Climate Risk Assessment. This analysis identifies 36 climate risks that pose a threat to European energy security, food security, ecosystems, infrastructure, water resources, financial stability and human health.[234] Some climate risks have already reached a critical level, and without urgent action, most of the identified risks could reach a critical or even catastrophic level this century.[235] The EEA also warns of the domino effects of climate risks:

> *"Climate impacts can cascade from one system or region to another, including from the outside world to Europe and from Europe to the outside world. Cascading climate risks can lead to system-wide challenges affecting whole societies, with vulnerable social groups particularly implicated."*[236]

236. In view of the above, it is evident that the Netherlands is not an island that can isolate itself from international climate change impacts. The impacts of climate change abroad must therefore be considered when determining the severity and extent of climate change impacts and dangers for the Netherlands and its inhabitants and future generations of Dutch people.

237. This brief explanation of the international impacts of climate change alone already shows that it poses a threat to food supplies, sustainable economic growth and security, and to the ecosystems on which all of humanity depends. This is precisely why Article 2 of the UN Climate Convention, in formulating the central objective of the Convention to prevent dangerous anthropogenic global warming, refers, among other things, to the need to timely stabilise greenhouse gas concentrations at a level and within a time-frame sufficient to ensure that food production is not threatened, to enable economic development to proceed in a sustainable manner and to allow ecosystems to adapt naturally to climate change.[237]

5.3.3 **The direct impacts for the Netherlands and Europe**

238. In addition to the many indirect consequences, the Netherlands is now, of course, also experiencing the direct consequences of increasingly severe global warming, which it will continue to experience in the coming decades. The increase in the spells of hot weather in the Netherlands, for example, is evidence of this. From the IPCC findings and the scientific literature, it follows that there is a relationship between climate change, spells of hot weather and health complaints and deaths in society.[238] A peer-reviewed study shows that already 31% of deaths caused by heat in the Netherlands between 1991 and 2018 were caused by climate change. This amounts to approximately 250 additional deaths per year.[239] According to a study performed by PBL, the Netherlands Environmental Assessment Agency, a single heatwave in July 2019 led to as many as 400 additional deaths.[240] In Europe as a whole, more than 61,000 people died during the extremely hot

[234] Exhibit MD-052, EEA, "European Climate Risk Assessment", Executive summary (2024), pp. 3-4.
[235] Ibid, p. 3. See also p. 10: *"More than half (21 out of the 36) major climate risks for Europe identified in this report need more action now, with eight of them being particularly urgent. Urgent action is needed for risks from all policy clusters, indicating that policies need to increase in ambition, scope and implementation*." The EEA also identifies low-lying coastal areas in particular as "climate hotspots" because some risks with a high severity and urgency are concentrated there, see pp. 10-11.
[236] Ibid, p. 8.
[237] Exhibit MD-083, UN Climate Convention (consolidated English version), Article 2 ("Objective").
[238] Exhibit MD-043, IPCC 2022, AR6, WGII, SPM, B.1.4: *"In all regions extreme heat events have resulted in human mortality and morbidity (very high confidence)*." See also, for example, Exhibit MD-054, Garssen et al. 2005, "The effect of the summer 2003 heat wave on mortality in the Netherlands", which refers to a possible 1,400 to 2,200 deaths in the Netherlands in the summer of 2003 as a result of heat stress, the majority of whom were elderly.
[239] Exhibit MD-055, RIVM (Dutch national Institute for Public Health and the Environment 2021), "*Klimaatverandering leidt nu al tot meer sterfte door hitte*" (Climate change is already causing more heat-related deaths" (website printout, 27 February 2025), with reference to Exhibit MD-056, Vicedo-Cabrera et al. 2021, "The burden of heat-related mortality attributable to recent human-induced climate change".
[240] Exhibit MD-057, PBL 2024, "*Klimaatrisico's in Nederland*" (Climate risks in the Netherlands), p. 6.

summer of 2022 as a direct result of the persistent, exceptionally high temperatures.[241] There is also a large group of people whose health and quality of life are affected by heat stress. This concerns consequences such as sleep disturbance, behavioural changes (increased aggression) and reduced labour productivity, but also serious heat-related illnesses such as strokes, kidney failure, respiratory problems, skin rashes, cramps and fatigue.[242]

239. However, heat stress is only one of the consequences of climate change that the Netherlands is experiencing and will increasingly experience in the future, according to, for instance, the PBL report "*Klimaatrisico's in Nederland, de huidige stand van zaken*" (Climate risks in the Netherlands, status quo), published on 14 May 2024.[243] Other health problems associated with climate change in the Netherlands, in addition to heat stress, include increasing allergies, increasing infectious diseases, health problems due to deteriorating air quality, skin cancer due to increased UV exposure and mental health problems, according to the PBL. This causes serious harm to human health and significant economic damage in the form of healthcare costs and labour productivity losses.[244] The other climate risks the Netherlands is currently already facing are largely related to water problems in the form of flooding from the sea, rivers or lakes, or other excess water. The potential impact of flooding and excess water is enormous. In coastal areas and along major rivers, hundreds of thousands of people are affected, with billions in economic damage and irreversible damage to nature and the environment[245]. Flooding from regional waters or flooding caused by extreme rainfall also causes considerable damage. In 2021, for example, flooding in Limburg[246] caused more than 430 million euros worth of damage. Other climate risks already affecting the Netherlands include water shortages and (extreme) drought, causing damage to building foundations, harm to nature in the form of a loss of biodiversity and ecosystem services, wildfires, crop yield losses and inland shipping restrictions due to low river flows.[247]

240. PBL has made it clear that these current climate risks for the Netherlands have increased and are occurring earlier, more frequently and with greater impacts than it had estimated in an earlier risk analysis from 2015. Among other things, health risks are now more prevalent[248] and dry periods with considerable damage are occurring earlier and more frequently.[249] PBL also explicitly warns – just like the IPCC – of the risk of chain reactions ("cascades") and the accumulation of risks, with risks reinforcing each other and causing new risks. The sum of multiple risks can in that case turn out to be greater than anticipated, with significant consequences for society and the economy. PBL points out that citizens and businesses have become increasingly dependent on electricity, ICT and logistics networks and other vital infrastructure, which in turn have become increasingly interconnected at national and international level. According to PBL, these developments could increase the Netherlands' vulnerability to climate change. It is difficult to provide a

[241] Exhibit MD-058, NOS (Dutch Broadcasting Foundation) 2023, "*61.000 hittedoden in Europa door hete zomer van 2020*" (61,000 heat-related deaths in Europe due to hot summer of 2022) (website printout, 27 February 2025), with reference to Exhibit MD-059, Ballester et al. 2023, "Heat-related mortality in Europe during the summer of 2022".
[242] Exhibit MD-060, TNO (Netherlands Organisation for Applied Scientific Research), "Factsheet Heat Stress".
[243] Exhibit MD-057, PBL 2024, "Klimaatrisico's in Nederland" (Climate risks in the Netherlands).
[244] Ibid, p. 15.
[245] Ibid, p. 16.
[246] Ibid, p. 6.
[247] Ibid, pp. 16-17.
[248] Ibid, p. 18: "According to the estimates in 2015, between 10,000 and 100,000 people would be affected by allergies such as hay fever in this decade. The number is now estimated to be more than 100,000 people annually. The economic impact of higher medical costs and labour productivity losses due to poor air quality, allergies and UV radiation, among other things, is also estimated to be higher: now more than 100 million euros, compared to 10 to 100 million euros in 2015. The impact on mental health was not considered in 2015, but concerns about climate change in society, and particularly among young people, are now seen as a serious problem."
[249] Ibid, p. 18: "For example, the consequences of crop damage exceeding 100 million euros due to successive periods of drought were still estimated in 2015 as "likely in this century". Such periods of drought have already occurred repeatedly in recent dry years. The extent of the damage to arable farming is now also estimated to be higher, at more than €100 million, compared to €10-100 million in 2015. The disruption of habitats, soils and archaeology due to drought is already taking place, and not only at the end of this century, as we estimated in 2015."

complete overview of complex risks, according to PBL, due to the large number of possible combinations, the accumulations, the chain effects and the (unintended) negative side effects of adaptation ("maladaptation").[250]

241. The direct and indirect consequences the Netherlands will experience can also be deduced from studies into the climate impacts in Europe, as climate change impacts are also becoming increasingly apparent in Europe.

242. In the report State of the European Climate 2022, the Copernicus Climate Change Service provides insights into the climate conditions and weather extremes in 2022. During the summer months of 2022, heatwaves struck across Europe and temperatures rose to 10°C above the average summer temperature. In the United Kingdom, temperatures exceeded 40°C for the first time. The surface temperature of the ocean reached a record high. Extreme marine heatwaves hit the Mediterranean Sea.[251] Southern Europe saw a record number of days with extreme heat stress, glaciers lost record quantities of ice and a large area of land was destroyed by wildfires.[252] The year was also drier than average, with soil moisture reaching its second-lowest level in 50 years and river discharge also reaching its second-lowest level.[253]

243. In 2023, even more records were broken. As also established by COP28, this year was by far the warmest year ever recorded globally (although that record was broken again in 2024).[254] In seven months of 2023, the average temperature was the highest ever recorded for the month concerned.[255] The year saw a record number of days with extreme heat stress (days with a perceived temperature of over 46°C) and a record across European territory, which was simultaneously subjected to severe heat stress (13% of the entire continent).[256] The surface temperature of the sea water in the North Atlantic Ocean reached a record high (again) in 2023.[257] The water in the Mediterranean Sea reached a temperature of 30°C in several places.[258] The Wadden Sea reached 21°C, the highest temperature ever recorded.[259] Greece was struck by wildfires and then by storms, extreme rainfall and flooding.[260] The wildfires were the largest ever recorded in Europe.[261] Across Europe, a total of 5000 km^2 went up in flames caused by wildfires in 2023, an area the size of London, Paris and Berlin combined.[262] Following record losses in 2022, glacier mass loss continued in 2023, with

[250] Ibid.
[251] Exhibit MD-061, Copernicus 2023, "European State of the Climate 2022", p. 7 and para. 176.
[252] Ibid, pp. 8, 10 and 12. See also Exhibit MD-062, WMO 2023, "State of the Global Climate 2022", pp. 24-27.
[253] Exhibit MD-061, Copernicus 2023, "European State of the Climate 2022", pp. 9 and 10.
[254] Exhibit MD-063, Copernicus 2024, "European State of the Climate 2023", p. 8: for Europe as a whole, incidentally, it was the second warmest year ever recorded, with the three warmest years ever occurring since 2020 and the ten warmest years since 2007. Several European countries saw their warmest year ever.
[255] Exhibit MD-064, Tensen 2024, *"Dit zijn de extremen van 2023, het warmste jaar sinds mensenheugenis"* (These are the extremes of 2023, the warmest year in living memory), p. 5.
[256] Exhibit MD-063, Copernicus 2024, "European State of the Climate 2023", p. 8.
[257] Ibid, p. 7. p. 9. See also Exhibit MD-064, Tensen 2024, "*Dit zijn de extremen van 2023, het warmste jaar sinds mensenheugenis*" (These are the extremes of 2023, the warmest year in living memory). See also NOS, 2 July 2023, "*Sterke opwarming Atlantische oceaan werpt licht op tekortkomingen meetsysteem*" (Strong Atlantic Ocean warming highlights shortcomings in measurement system) (https://nos.nl/collectie/13871/artikel/2481180-sterke-opwarming-atlantische-oceaan-werpt-licht-op-tekortkomingen-meetsysteem).
[258] The Guardian, 21 July 2023, "Soaring temperatures may signal the decline of summer holidays to the Mediterranean" (https://www.theguardian.com/travel/2023/jul/21/soaring-temperatures-may-signal-the-decline-of-summer-holidays-to-the-mediterranean).
[259] NOS, 3 July 2023, "*Water Waddenzee nog nooit zo warm: gevolgen klimaatverandering spelen zich voor onze ogen af*") (Wadden Sea water warmer than ever: climate change consequences are unfolding before our eyes) (https://nos.nl/regio/friesland/artikel/412922-water-waddenzee-nog-nooit-zo-warm-gevolgen-klimaatverandering-spelen-zich-voor-onze-ogen-af).
[260] NOS, 30 September 2023, "*Grootste bos van Europa in brand: zonder hulp gaat niemand het redden*") (Europe's largest forest on fire: without help, no one will survive) (https://nos.nl/video/2492414-grootste-bos-van-europa-in-brand-zonder-hulp-gaat-niemand-het-redden). See also NOS, 24 August 2023, "*Eurocommissaris: natuurbrand in noorden van Griekenland is grootste ooit*") (European Commissioner: wildfires in northern Greece are 'largest ever in the EU') (https://nos.nl/artikel/2487861-eurocommissaris-natuurbrand-in-noorden-van-griekenland-is-grootste-ooit-in-eu) and NOS, 5 September 2023, "*Na bosbranden kampt deel van Griekenland nu met overstromingen*" (After forest fires, part of Greece now faces flooding) (https://nos.nl/artikel/2489351-na-bosbranden-kampt-deel-van-griekenland-nu-met-overstromingen).
[261] Exhibit MD-063, Copernicus 2024, "European State of the Climate 2023", p. 9.
[262] Ibid, p. 10.

glaciers in the Alps losing approximately 10% of their total volume over these two years combined.[263] Furthermore, in 2023, 1.6 million people in Europe were hit by floods and 550,000 people by extreme weather in the form of storms. The Copernicus Climate Change Service estimates the total economic damage at €13.4 billion, 81% of which can be attributed to flooding.[264]

244. For the Netherlands specifically, 2023 was both the warmest and the wettest year ever recorded. Spring was exceptionally dry, with a large precipitation deficit halfway through the growing season. In the second half of the year, however, prolonged and heavy rainfall resulted in excess water.[265] As already indicated, the highest water temperature ever recorded was measured in the Wadden Sea in 2023. Also, major climate change impacts became more visible. The warming of the Wadden Sea is impacting fish stocks and also has other negative implications for biodiversity.[266] The mudflats, which are indispensable as breeding and wintering grounds for millions of migratory birds, are also at risk of being flooded due to accelerated sea level rise.[267]

245. In 2024, the harmful climate effects continued unabated. New heat records were set, there were severe floods, a third of the European river network exceeded the thresholds for high flood risk during the year and storms caused extensive damage throughout Europe.[268]

246. In its Sixth Assessment Report (AR6), the IPCC paid specific attention to the climate impacts for Europe in the event of a 1.1°C temperature rise.[269, 270] Bearing in mind the climate impacts of recent years as described above, it will come as no surprise that the IPCC observed that current warming is already affecting natural and human systems, including through extreme weather events:

> *"Our current 1.1°C warmer world is already affecting natural and human systems in Europe (very high confidence). Since AR5, there has been a substantial increase in detected or attributed impacts of climate change in Europe, including extreme events (high confidence).*[…] *Climate change has resulted in losses of and damages to people, ecosystems, food systems, infrastructure, energy and water availability, public health, and the economy (very high confidence)."*[271]

247. The IPCC expects that further warming will reduce the available habitat space for current terrestrial and marine ecosystems in Europe and irreversibly change their composition, with increasing severity of the damage above 2°C. In addition, the fire-prone areas will expand across Europe, threatening biodiversity and carbon sinks, i.e. the nature that is currently absorbing CO_2 from the atmosphere:

> *"KR1: Warming will decrease suitable habitat space for current terrestrial and marine ecosystems and irreversibly change their composition, increasing in severity above 2°C GWL (very high confidence). Fire-prone areas are projected to expand across Europe, threatening biodiversity and carbon sinks (medium confidence)."*[272]

248. Furthermore, food production is projected to decrease substantially for most European areas due to a

[263] Ibid, p. 14.
[264] Ibid, pp. 4, 11 and 12.
[265] Exhibit MD-065, KNMI 2024, "*De staat van ons klimaat 2023*" (The state of our climate 2023), pp. 3–11.
[266] Exhibit MD-066, Schuttenhelm 2024*, "Wadplaten verdrinken, schelpen leggen het loodje: opwarming bedreigt waddennatuur*" (Mudflats are drowning, shellfish are dying: global warming threatens Wadden nature) (website printout, 27 February 2025), pp. 1–3.
[267] Ibid.
[268] Exhibit MD-070, Copernicus 2025, "State of the European Climate 2024 (Executive Summary)", pp. 3–6. See also KNMI, 30 January 2025, "*Staat van ons klimaat 2024: weer een recordwarm jaar*" (The state of our climate 2024: another record warm year), https://www.knmi.nl/over-het-knmi/nieuws/de-staat-van-ons-klimaat-2024.
[269] Being the average warming over the period 2011-2020. Meanwhile, mean warming over the period 2014-2023 is even 1.19°C, and warming reached 1.31°C in 2023. See chapter 4.5 in this context.
[270] IPCC 2022, AR6, WGII, H13 (see https://www.ipcc.ch/report/ar6/wg2/downloads/report/IPCC_AR6_WGII_FullReport.pdf).
[271] Ibid, p. 1819.
[272] Ibid. The abbreviation "KR" stands for Key Risk.

combination of heat and drought:

> *"KR2: Due to a combination of heat and drought, substantial agricultural production losses are projected for most European areas over the 21st century, which will not be offset by gains in Northern Europe (high confidence)."* [273]

249. Water scarcity will also affect Europe and even already poses a high risk at a warming of 1.5°C:

> *"KR3: Risk of water scarcity will become high at 1.5°C and very high at 3°C GWL in Southern Europe (high confidence), and increase from moderate to high in Western Central Europe (medium confidence)."* [274]

250. In general, urban areas in Europe are also exposed to risks of extreme heat, drought and flooding:

> *"European cities are hotspots for multiple risks of increasing temperatures and extreme heat, floods and droughts (high confidence). Warming beyond 2°C GWL is projected to result in widespread impacts on infrastructure and businesses (high confidence). These impacts include increased risks for energy supply (high confidence) and transport infrastructure (medium confidence), increases in air conditioning needs (very high confidence) and high water demand (high confidence)."*[275]

251. In addition, the IPCC (once again) explicitly notes that Europe also faces risks from climate impacts outside Europe and that climate impacts within Europe in turn also cause risks beyond Europe:

> *"Climate risks from outside Europe are emerging due to a combination of the position of European countries in the global supply chain and shared resources (high confidence). There is emerging evidence that climate risks in Europe may also impact financial markets, food production and marine resources beyond Europe."*[276]

252. Other major threats to Europe are the sea level rise and the changes in precipitation patterns, which increase the risk of flooding in coastal and river areas, with partly existential consequences:

> *"KR4: Due to warming, changes in precipitation and sea level rise (SLR), risks to people and infrastructures from coastal, riverine and pluvial flooding will increase in Europe (high confidence).*
> *Risks of inundation and extreme flooding will increase with the accelerating pace of SLR along Europe's coasts (high confidence). [..] Coastal flood damage is projected to increase at least tenfold by the end of the 21st century, and even more or earlier with current adaptation and mitigation (high confidence). Sea level rise represents an existential threat for coastal communities and their cultural heritage, particularly beyond 2100."*[277]

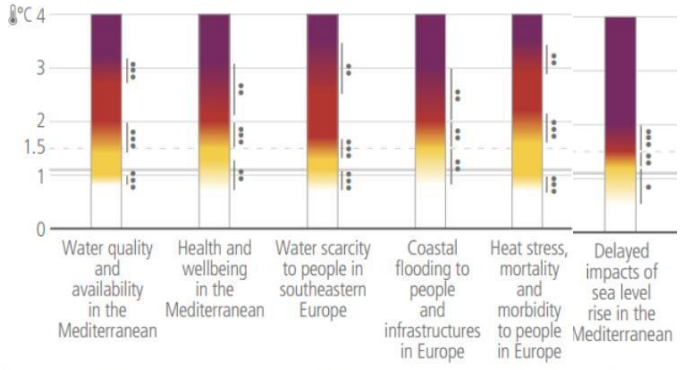
253. In this context, it is important to note that nearly 50 million Europeans live less than 10 metres above sea level. The risk of flooding along Europe's low-lying coasts will increase due to the rising sea level, combined with storm surges, rainfall and high river levels. According to the IPCC, from 2040 onwards, the proportion of the European population affected by severe coastal flooding (the "100-year flood events") will increase rapidly and even in low-emission scenarios more than 5 million people will be affected. In high-emission scenarios, this figure will rise to more than 10 million people[278]. In this context, the IPCC also indicates that UNESCO World Heritage sites in Europe's coastal areas are threatened by sea level rise, coastal erosion and flooding, as are other important infrastructures in Europe.[279]

[273] Ibid.
[274] Ibid.
[275] Ibid.
[276] Ibid.
[277] Ibid.
[278] Ibid, p. 1827. See also figure 13.5 on p. 1831.
[279] Ibid.

254. The IPCC expects (direct) annual damage caused by coastal flooding to rise from €1.3 billion today to €13-39 billion in 2050 at 2°C-2.5°C of warming. At higher warming levels of between 2.5°C and 4.4°C, the IPCC projects the annual damage to be between €93 billion and €960 billion by 2100.[280] It is worth recalling here that, according to the UNEP, based on the policies currently in place in countries across the globe, we are heading to 2.8°C of warming, and that, even if all unconditional and conditional national emission reduction pledges are successfully achieved, warming would still be 2.3°C.[281]

255. In the figures mentioned above, the damage caused by river flooding and other excess water is not included, even though they, too, cause considerable damage and will also occur more frequently and with greater intensity due to climate change. The IPCC indicates that this flooding, which also occurred simultaneously in Belgium and Germany, caused more than 200 deaths, damage to thousands of homes and disruption to water and electricity supplies.[282]

256. The IPCC has also presented some of the risks for Europe described above – just like the global Reasons for Concern (RFCs) – in a risk scale:[283]



257. This risk indicator clearly illustrates that the risks for Europe are significantly higher at 2°C of warming than at 1.5°C. Whereas at 1.5°C most risk categories still show a moderate risk or are in transition to high risk, at 2°C (almost) all risk categories show a high risk (and in one case even very high risk). Given the current expected temperature rise, this can be said to be very worrying and emphasises the great importance of limiting the temperature rise to 1.5°C, also for Europe (and the Netherlands).

258. Back to the Netherlands. In October 2023, KNMI published new climate scenarios for the first time since 2014. These scenarios show (once again) that climate change is causing the Netherlands to experience more heat waves, extreme precipitation and prolonged drought increasingly often, and that these changes affect our

[280] Ibid.
[281] Exhibit MD-002, UNEP 2025, "Emissions Gap Report 2025", p. xx (second paragraph) and p. xi.
[282] IPCC 2022, AR6, WGII, p. 1827 (see https://www.ipcc.ch/report/ar6/wg2/downloads/report/IPCC_AR6_WGII_FullReport.pdf).
[283] Exhibit MD-001, IPCC 2023, AR6, SYR, H3, p. 76.

safety, health and nature.[284] In addition, the sea level is rising, both in the European and the Caribbean part of the Netherlands. On Sint Eustatius and Saba, the likelihood of severe hurricanes with heavy rainfall will increase in the future.

259. KNMI works with the following scenarios: a low-emission scenario in which global warming is limited to 1.7°C and a high-emission scenario in which the earth warms by up to 4.9°C this century. Further warming means that, either way, Dutch summers will become drier and the winters will become wetter. The extent to which this will happen may vary. That is why KNMI uses a wet variant within the low-emission and high-emission scenarios, with a sharp increase in precipitation in winter and slight drying in summer, and a dry variant, with significant drying in summer and slightly wetter winters.[285] KNMI uses the same method for the BES islands (Bonaire, Saint Eustasius, Saba), but looks at the wet and dry seasons, rather than summer and winter. As for the BES islands, the temperatures and wind speeds will increase and precipitation will decrease in all scenarios.[286]

260. The high-emissions scenario proceeds on the assumption that emissions continue to rise at the current rate until 2080 and will only level off afterwards. KNMI acknowledges that this probably overestimates the CO_2 emissions (given the current climate plans of various countries). However, KNMI observes (just like the IPCC) that it is still possible that this high temperature increase will occur with lower emissions, for example because the climate sensitivity proves to be high or feedbacks in the climate system cause additional natural emissions as a result of, for example, deforestation, reduced ocean absorption of greenhouse gases or greenhouse gas releases caused by permafrost thawing. KNMI also observes – in line with the findings already described above – that climate models still fail to sufficiently consider these positive feedback loops.[287]

261. The potential consequences of various processes that result in tipping points are not included in the climate models used by KNMI for its climate scenarios, because these processes are difficult to simulate and therefore difficult to express in numerical terms. Examples of such processes include the accelerated calving of the West Antarctic ice sheet, changes in large-scale ocean currents such as the North Atlantic Gulf Stream and permafrost thawing.[288] It is precisely these tipping points that could have major consequences for the sea level rise and the future climate in the Netherlands (including the Caribbean part of Netherlands). For this reason, KNMI has also included important findings on this subject, which will be set out below.

262. The KNMI'23 scenarios look further ahead than the scenarios published in 2014 (to 2150 instead of 2085 and, for the sea level rise, to 2300). Due to the improved insights into Antarctica's contribution to the sea level rise in the Netherlands, KNMI now, as opposed to in 2014, also provides a projection of the highest possible sea level in the future in its scenarios.[289] Regarding the West Antarctic ice sheet, the KNMI notes that "in the distant future, the sea level in our region will be almost entirely determined by the speed with which the Antarctic ice sheet loses mass. According to the high-emissions scenario, the sea level rise around 2300 will be 2 to 6 metres. If uncertain ice sheet processes in Antarctica are also taken into account, the sea level rise could exceed 17 metres."[290] In that scenario, the upper limit of the sea level rise could already reach 2.5

[284] Exhibit MD-067, KNMI 2023, "KNMI'23 klimaatscenario's voor Nederland in het kort" (KNMI'23 climate scenarios for the Netherlands in brief), p. 1.
[285] Exhibit MD-068, KNMI 2023, "KNMI'23 klimaatscenario's voor Nederland in het kort", p. 9.
[286] Ibid, p. 36.
[287] Ibid, p. 59.
[288] Ibid.
[289] Ibid, p. 55.
[290] Ibid, p. 33.

metres in this century.[291] In the Caribbean Netherlands (particularly Bonaire), it could even reach 3.4 metres.[292]

263. In the low-emissions scenario (excluding tipping points), the projected sea level rise in this century is significantly lower, but nevertheless impactful (*"*In the low emissions scenario, the sea level rise until 2100 will be fairly significant (26-73 cm)".[293] In this context, it is useful to note that a sea level rise of only 10 cm generally increases the frequency of flooding by a factor of approximately 10, according to the European Environment Agency. Floods that historically occurred with a probability of 1% per year (the above-mentioned 1-in-100-year coastal floods) will increase, according to the European Environment Agency, by factor 10 before 2050, even in a low-emissions scenario, in many locations along the Atlantic coast, including some locations in the Netherlands (and by 2100, this tenfold increase will also apply to almost all remaining European coasts). In a high-emissions scenario, such coastal floods will occur at least once a year along most European coasts before 2050.[294]

264. Because ice caps respond slowly, the sea level will continue to rise throughout this century and even hundreds of years beyond, even if greenhouse gas emissions were reduced to zero tomorrow.[295] The speed and extent of the further sea level rise in the future will depend on the extent to which the climate and land ice are destabilised over the coming century. "The total quantity of greenhouse gases emitted will play a decisive role here," according to KNMI. [296]

265. Shortly after the publication of the KNMI climate scenarios, a sensational new study appeared in the renowned scientific journal Nature Climate Change, entitled *"*Unavoidable future increase in West Antarctic ice-shelf melting over the twenty-first century". This study examines how quickly the floating ice shelves that hold back the glaciers of the West Antarctic ice sheet could melt in different emission scenarios. The conclusion is that the "point of no return" may already have been passed: even if warming is limited to 1.5°C, the ocean is predicted to warm significantly, causing the floating ice shelves to melt faster and the glaciers behind them to flow into the sea at an accelerated rate.[297]

266. A worrying conclusion, according to KNMI. In a press release issued specifically in response to this study, KNMI stated that it makes the scenarios with low sea levels less likely and that further research will demonstrate whether KNMI's scenarios need to be updated as a result.[298] It shows that climate science is developing very rapidly, meaning that scenarios that were previously considered unlikely (but not excluded either) can suddenly appear to be dangerously close (or have even already materialised). It demonstrates once again the importance of applying the precautionary principle and the extreme urgency that is required

[291] Ibid, p. 32.
[292] Ibid, p. 39.
[293] Ibid, p. 32. In Bonaire, the rise will be 31-78 cm at the end of the century in the low-emission scenario (p. 39). Due to the significant risks of climate change for the inhabitants of Bonaire, including the major risks to the island's liveability and the survival of its cultural heritage, Greenpeace Netherlands brought a legal action against the Dutch government, see https://www.greenpeace.org/nl/klimaatverandering/klimaatrechtvaardigheid/61952/eisers-klimaatzaak-bonaire, which was decided by the District Court of The Hague on 28 January 2026 (ECLI:NL:RBDHA:2026:1344). In the judgment given by the Court, the danger of the sea level rise for Bonaire was established and was one of the reasons why the District Court found that the Dutch State is not doing enough to protect Bonaire's inhabitants and must pursue a better climate policy (both in terms of mitigating national greenhouse gases and in terms of adaptation measures to better protect Bonaire's inhabitants against the climate change that is already inevitable).
[294] Exhibit MD-069, EEA 2024, "Extreme sea levels and coastal flooding in Europe" (website printout, 27 February 2025), pp. 1 and 2.
[295] Exhibit MD-068, KNMI 2023, "KNMI'23 klimaatscenario's voor Nederland", p. 32.
[296] Ibid.
[297] Exhibit MD-071, Naughten et al. 2023, "Unavoidable future increase in West Antarctic ice-shelf melting over the twenty-first century", pp. 5-6 (under "Implications").
[298] Exhibit MD-072, KNMI 2023, "Valt de West-Antarctische IJskap nog te redden?" (Can the West Antarctic ice sheet still be saved?) (website printout, 27 February 2025).

to achieve maximum emission reductions to mitigate the greatest risks, insofar as this is still possible.

267. (Future) Dutch citizens and other (Western) Europeans are exposed to the many direct and indirect dangers of climate change as described above. In addition to the material damage this will cause, these dangers also threaten the right to life, health and undisturbed family life as referred to in the ECHR (see chapter 9.2.4).

268. Finally, it follows from the foregoing that if tipping points in the climate system are passed, this will also have consequences for the Netherlands and its inhabitants. The likelihood of consequences for the Netherlands as a result of tipping points already occurs with the current temperature rise and with 1.5°C of warming (as explained above), but will increase further if this temperature limit is exceeded, with the risks increasing with every increment of further warming. This once again underlines the vital importance of limiting warming to the danger threshold of 1.5°C identified by the international community.

269. In short, everything that was discussed in this chapter regarding the impacts of global warming shows that global warming is changing the climate and the living environment everywhere in the world, including in Europe and the Netherlands. Global warming, according to science, therefore poses a major threat to people, their lives and health, their property and their family life. It also poses a major threat to the ecosystems on which humanity depends for its life and well-being. Every increment of a degree of further warming will cause an increase in the material and immaterial damage and in climate-related risks, such as health, food security and water supply risks. Moreover, it makes these risks more difficult to manage – and, at some point, unmanageable – and limits the possibilities for sustainable development and for people and ecosystems to adapt to the consequences of climate change.

6 INTERNATIONAL CLIMATE POLICY AND THE GLOBAL TEMPERATURE TARGET

6.1 INTRODUCTION

270. Given that climate change caused by changes in the composition of the earth's atmosphere due to CO_2 emissions and other greenhouse gases is a global and therefore international problem, it was only natural that the subject of “climate change” would be discussed within the context of the United Nations.

271. This is also what has happened since 1972. This chapter will briefly explain how international climate policies have developed over the years and resulted in a global climate target, meaning that countries have committed themselves under treaty law to limit global warming to 1.5°C. The International Court of Justice (“ICJ”) reaffirmed this in its Advisory Opinion of 23 July 2025.

6.2 THE RUN-UP TO THE UN CLIMATE CONVENTION

272. Climate change first appeared on the United Nations agenda in 1972, during the UN Conference on the Human Environment in Stockholm. During that conference, the parties decided to establish a special UN organisation for climate change and other international environmental issues. To implement that decision, the United Nations Environment Programme, or UNEP for short, was set up.[299]

[299] For the history of UNEP and the link with the UN conference in 1972, see Exhibit MD-073, Wikipedia, “United Nations Environment Programme” (website printout, 26 February 2025).

273. Subsequently, in 1979, the first climate conference was held in Geneva, Switzerland, organised by UNEP and another UN organisation, the World Meteorological Organisation (WMO). The conference called on the countries of the world to take preventive measures against potential anthropogenic climate changes that might be adverse to the well-being of humanity (*"to foresee and to prevent potential man-made changes in climate that might be adverse to the well-being of humanity*").[300]

274. In 1985, UNEP and WMO organised a conference in Villach, Austria, in which 29 countries participated. At the end of this conference, scientists formulated a consensus message to politicians stating that, due to the increase in CO_2 and other greenhouse gases, allowance had to be made for a historically large rise in global temperature:

> *"As a result of the increasing concentrations of greenhouse gases, it is now believed that in the first half of the next century a rise in global mean temperature could occur which is greater than any in man's history*."[301]

275. The statement further clarifies that further warming is already inevitable due to historical emissions, but that human beings can still limit the climate change they have already set in motion by taking measures to reduce emissions.

> *"While some warming of climate now appears inevitable due to past actions, the rate and degree of future warming could be profoundly affected by governmental policies on energy conservation, use of fossil fuels, and the emission of some greenhouse gases*." [302]

276. In 1988, a new conference was held in Toronto, Canada, which was attended not only by more than 300 scientists, but also by politicians and policymakers from 48 countries.[303] The joint final statement is very forceful and calls for urgent action to prevent the major threat of serious anthropogenic climate change:

> *"Humanity is conducting an unintended, uncontrolled, globally pervasive experiment whose ultimate consequences could be second only to a global nuclear war. The Earth's atmosphere is being changed at an unprecedented rate by pollutants resulting from human activities* […] *These changes represent a major threat to international security and are already having harmful consequences over many parts of the globe.*
>
> *Far-reaching impacts will be caused by global warming and sea level rise, which are becoming increasingly evident as a result of continued growth in atmospheric concentrations of carbon dioxide and other greenhouse gases* […] *The best predictions available indicate potentially severe economic and social dislocation for present and future generations, which will worsen international tensions and increase risk of conflicts among and within nations. It is imperative to act now* [...]"[304](underlining added by counsel)

277. The 1988 conference therefore called on governments, but also on industry and non-governmental organisations, to take immediate action to combat the (impending) climate crisis.[305] The Conference Statement then went on to discuss the expected consequences of growing greenhouse gas emissions and the

[300] Exhibit MD-074, WMO 1979, "Proceedings of the World Climate Conference: A Conference of Experts on Climate and Mankind", p. 713.
[301] Exhibit MD-075, UNEP/WMO/ICSU 1985, "Statement by the UNEP/WMO/ICSU International Conference on The UNEP/WMO/ICSU 1985, "Statement by the UNEP/WMO/ICSU International Conference on The Assessment of the Role of Carbon Dioxide and of Other Greenhouse Gases in Climate Variations and Associated Impacts", (Villach), p. 1.
[302] Exhibit MD-075, UNEP/WMO/ICSU 1985, "Statement by the UNEP/WMO/ICSU International Conference on The Assessment of the Role of Carbon Dioxide and of Other Greenhouse Gases in Climate Variations and Associated Impacts" (Villach), p.2.
[303] Exhibit MD-076, WMO 1988, "Conference Proceedings of the World Conference on The Changing Atmosphere: Implications for Global Security" (selected pages) (Toronto), p. 292.
[304] Ibid. p. 292.
[305] Ibid. p. 292. See also Exhibit MD-077, "A history of climate activities" in the WMO bulletin, which contains a report by the WMO, which includes a report of the WMO on the 1988 conference.

ubiquitous threat they pose:

> "*Continuing alteration of the global atmosphere threatens global security, the world economy, and the natural environment [..] These changes will:*
> *1 Imperil human health and wellbeing;*
> *2 Diminish global food security, through increased soil erosion and greater shifts and uncertainties in agricultural production, particularly for many vulnerable regions;*
> *3 Change the distribution and seasonal availability of fresh water resources;*
> *4 Increase political instability and the potential for international conflict;*
> *5 Jeopardise prospects for sustainable development and reduction of poverty;*
> *6 Accelerate extinction of animal and plant species upon which human survival depends;*
> *7 Alter yield, productivity and biological diversity of natural and managed ecosystems, particularly forests* […]"[306] (underlining added by counsel)

278. The statement also addressed the expected rise in temperature, warning that it would be unprecedented and disruptive:

> *"The accelerating increase in concentrations of greenhouse gases in the atmosphere, if continued, will result in a probable rise in the mean surface temperature of the Earth of 1.5 to 4.5 degrees Celsius before the middle of the next century […] If current trends continue, the rates and magnitude of climatic change in the next century may substantially exceed those experienced over the last 5000 years. Such high rates of change would be sufficiently disruptive that no country is likely to benefit in total from climatic change."*[307]

279. It was also clarified that the climate reacts slowly and that further global warming is already inevitable:

> *"There can be a time lag of the order of decades between the emission of gases into the atmosphere and their full manifestation in atmospheric and biological consequences. Past emissions have already committed planet Earth to significant warming.*"[308]

280. According to the 1988 final statement, the transition to a sustainable future would also require a shift towards investments in non-fossil fuels and greater energy efficiency:

> *"The transition to a sustainable future will require investments in energy efficiency and non-fossil energy sources [...]*"[309]

281. The statement therefore recommended that governments and industry, among others, should immediately proceed with (i) directing investment flows on a large scale towards research and development of sustainable energy, (ii) achieving significant emission reductions, (iii) setting energy efficiency targets, and (iv) informing consumers about the CO_2 pollution caused by the production and use of fossil products by means of product labels:

> *"Actions by Governments and Industry*
> *[…] Energy research and development budgets must be massively directed to energy options which would eliminate or greatly reduce CO_2 emissions […] Reduce CO_2 emissions by approximately 20% of 1988 levels by the year 2005 as an initial global goal. […] Set targets for energy efficiency improvements that are directly related to reductions in CO_2 and other greenhouse gases. […] Label products to allow consumers to judge the extent and nature of the atmospheric contamination that arises from the manufacture and use of the product."*[310]

[306] Exhibit MD-076, WMO 1988, "Conference Proceedings of the World Conference on The Changing Atmosphere: Implications for Global Security" (selected pages) (Toronto), pp. 292 and 293.
[307] Ibid. p. 293
[308] Ibid. p. 294.
[309] Ibid. p. 295.
[310] Ibid. pp. 296 and 297.

282. This call from the 1988 climate conference to governments and industry for an energy transition and concrete measures can rightly be called a historic event: for the first time, a scientific conference called on the major contributors to the climate problem to take urgent action. It demonstrates the concern that already existed within the scientific community and the international community at that time. In this context, the final statement called on the UN to establish a treaty to combat climate change and protect the atmosphere (which would come into existence in 1992 in the form of the United Nations Framework Convention on Climate Change (UNFCCC)), and to further support the work of the UN scientific climate panel IPCC, which was established in that year (1988).

6.3 ESTABLISHMENT OF THE IPCC (1988) AND ITS WORKING METHODS

283. Since 1988, scientific knowledge about the causes and consequences of climate change has been regularly compiled and assessed by the Intergovernmental Panel on Climate Change (IPCC), an intergovernmental and scientific organisation established in that year by the United Nations Environment Programme (UNEP) and the World Meteorological Organisation (WMO). The IPCC reports form the scientific basis for international intergovernmental cooperation to combat climate change. In 1990, the IPCC published its first Assessment Report ("AR"). In this report, the IPCC concluded that emissions from human activities were causing a substantial increase in the concentration of greenhouse gases in the atmosphere and that this was intensifying the greenhouse effect, resulting in additional global warming. The IPCC therefore called for cooperation between countries in order to conclude an international climate agreement to prevent anthropogenic climate change that is dangerous to people and the environment.

284. After the first Assessment Report in 1990, new editions followed in 1995, 2001, 2007 and 2013/2014. The sixth IPCC Assessment Report (abbreviated as AR6) was published between 2021 and 2023: the part of Working Group I ("WGI") appeared in 2021, the parts of Working Groups II and III ("WGII" and "WGIII") in 2022 and the Synthesis Report ("SYR") in 2023.[311] In addition to the Assessment Reports, the IPCC also regularly publishes Special Reports that deal with a specific topic or methodology. In 2018, the IPCC published the Special Report entitled "Global warming of 1.5°C" (abbreviated as SR1.5), which examines the differences between warming of 1.5°C and 2°C. More and more scientific knowledge has become available on the topics covered by the IPCC, resulting in reports that are increasingly extensive and in-depth.

285. The IPCC is divided into three working groups, which assess the scientific state of affairs regarding:

(i) the existing scientific expertise on historical, current and future climate change (Working Group I);

(ii) the impacts of, and adaptation and vulnerability to, climate change for the environment, the economy and society (Working Group II); and

(iii) possible strategies for reducing emissions into the atmosphere and combating climate change (Working Group III).[312]

286. The IPCC reports form the basis for international intergovernmental cooperation to combat climate change,

[311] See Exhibit MD-078, IPCC, "Reports" (website printout, 27 February 2025).
[312] See Exhibit MD-079, IPCC, "Structure" (website printout, 26 February 2025).

which gives these reports a special status. These reports are produced with utmost care, which further justifies their special status. A draft IPCC report (and the individual documents forming part of it) is reviewed by both experts and the countries that have joined the IPCC before it can be adopted, as demonstrated by the "Principles Governing IPCC Work"; Principle 3 states:

> "*IPCC documents should involve both peer review by experts and reviews by governments*."[313]

287. All IPCC reports undergo a rigorous process of scoping, drafting and review.[314] Within that process, essentially all available relevant scientific, technical and socio-economic information is considered, with priority given to peer-reviewed literature; however, other relevant publications, including government and industry reports, are also taken into account.[315] Draft reports undergo multiple review stages, with hundreds of reviewers and government-appointed experts scrutinising the accuracy and completeness of the scientific assessment in the drafts.[316] In practice, the draft report is first submitted to external experts (not involved in the IPCC). Once the draft has passed the scrutiny of these external experts, it must be submitted in a second review round to both experts and the 197 countries that are parties to the UN Climate Convention. The countries themselves often forward the draft to a group of national scientists and (national) non-governmental organisations for a second opinion. This gives countries the opportunity to make recommendations or give comments on the draft report. The feedback obtained in the second round must then be studied and assessed again by the IPCC so that, where necessary, the report can be amended before it can be adopted in a plenary meeting (third round) (Principle 11):

> *"Conclusions drawn by IPCC working groups and any task forces are not official IPCC views until they have been accepted by the Panel in a plenary meeting."*[317]

288. The way in which the IPCC reports are produced is very similar to the "*audi alteram partem*" principle that we know from the legal world. After all, in the end, a three-tier "*audi alteram partem*" review of scientific views will have taken place, which is why the IPCC's findings enjoy a special status. The IPCC reports are always a reflection of the best available science on climate change at that time. They serve as a basis for treaties, government policies, policies of other public and private institutions, and also as crucial facts that have been taken into account by the Dutch District Court, Court of Appeal and Supreme Court in the *Urgenda* case and by the Dutch District Court and Court of Appeal in the *Shell* case, and also in climate change court cases across the globe, in which decisions were taken about the responsibility of states and non-state actors for preventing dangerous climate change.[318]

289. The special status of IPCC reports is, of course, also evident from the special position given to them in the UN Climate Convention, which will be discussed below.[319]

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[313] Exhibit MD-080, IPCC 2013, "Principles Governing IPCC Work".
[314] Exhibit MD-081, IPCC 2015, "IPCC Factsheet: How does the IPCC review process work?" on the extensive and careful process of producing IPCC reports, pp. 1 and 5.
[315] Ibid, pp. 5-6.
[316] Exhibit MD-082, IPCC, "Preparing Reports" (website printout, 26 February 2025) contains a more detailed explanation of the IPCC's process for reviewing draft reports.
[317] Exhibit MD-080, IPCC 2013, "Principles Governing IPCC Work".
[318] It is also significant in this context that the International Bar Association stipulates, in its Model Statute for Proceedings Challenging Government Failure to Act on Climate Change, that the IPCC findings must be regarded as prima facie evidence and that leave is required to challenge those findings (see Article 6).
[319] Article 21(2) of the UN Climate Convention provides that the IPCC must provide the Parties with objective scientific and technical advice and that the Secretariat established under the Convention must facilitate this. Article 21 clarifies that the Secretariat may also consult other relevant scientific bodies for this purpose. In practice, it has become apparent that the Secretariat makes use of, among other things, reports and advice from the two founding parties of the IPCC (WMO and UNEP), which is why this summons will also rely on the reports of these institutions.

6.4 THE 1992 UN CLIMATE CONVENTION

6.4.1 Central objective of the Convention

290. The UN Climate Convention, or United Nations Framework Convention on Climate Change (UNFCCC), dates back to 1992 (more than 30 years ago) and came into force on 21 March 1994. Currently, 197 countries and one regional organisation (the EU) are signatories.[320]

291. The central objective of the UN Climate Convention is to prevent dangerous man-driven climate change. This must be achieved by stabilising greenhouse gas concentrations in the atmosphere at a level that would prevent dangerous anthropogenic interference with the climate system. According to the Convention, this level must be achieved within a timeframe that is sufficient to allow ecosystems to adapt naturally to climate change, to ensure that food production is not threatened and to enable economic development to proceed in a sustainable manner. The literal text of Article 2 of the Climate Convention reads as follows:

> *"The ultimate objective of this Convention and any related legal instruments that the Conference of the Parties may adopt is to achieve, in accordance with the relevant provisions of the Convention, stabilisation of greenhouse gas concentrations in the atmosphere at a level that would prevent dangerous anthropogenic interference with the climate system. Such a level should be achieved within a time frame sufficient to allow ecosystems to adapt naturally to climate change, to ensure that food production is not threatened and to enable economic development to proceed in a sustainable manner."*[321]

6.4.2 The protection of present and future generations (intergenerational justice)

292. The Convention clarifies that climate change and its adverse effects are a "common concern of humankind" and subsequently defines adverse effects as consequences having significant deleterious effects on ecosystems, socio-economic systems or human health and welfare.[322]

293. The UN Climate Convention then clarifies in its recitals that preventing dangerous climate change is in the interests of both present and future generations (*"Determined to protect the climate system for present and future generations"*[323]). The principle of intergenerational justice is therefore one of the legal principles that underlies and is also explicitly included in the Convention. The fact that this principle is taken as the starting-point is formulated in Article 3(1) as an instruction to and obligation for the Parties:

> *"The Parties should protect the climate system for the benefit of present and future generations of humankind, on the basis of equity"*[324]

6.4.3 The CBDR principle and the precautionary principle

294. The Convention then addresses, in the second part of Article 3(1), one of the other legal principles to be observed by the Parties in their actions, namely the principle of Common but Differentiated Responsibilities and Respective Capabilities (referred to hereinafter as: the "CBDR principle").

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[320] See https://unfccc.int/process-and-meetings/united-nations-framework-convention-on-climate-change.
[321] Exhibit MD-083, UN Climate Convention (consolidated English version), Article 2.
[322] Ibid, the first recital of the Convention and Article 1 (definitions) respectively.
[323] Ibid, last recital preceding the Articles of the Convention.
[324] Ibid, Article 3(1).

295. This principle on the basis of equity expresses that all Parties bear a shared and common responsibility for addressing anthropogenic climate change, but that this responsibility is distributed unequally among the Parties, due to their different contributions to the causes of climate change and their different (economic and institutional) capabilities to address it. The CBDR principle takes this into account and therefore places higher demands on the more industrialised developed countries[325] compared to developing countries.[326] The CBDR principle is thus related to the well-known environmental law principle that "the polluter pays", meaning that the historical and current contributions to climate change and the respective ability to combat climate change are criteria for allocating responsibility for climate action.

296. On this basis, the contracting parties have therefore agreed in Article 3(1) of the Convention that developed countries should take the lead in combating climate change and its adverse effects.[327] This principle is further operationalised in, for instance, Article 4 of the UN Climate Convention, in which developed countries (once again) commit themselves to taking the lead in addressing the climate challenge and, among other things, to limiting their own national greenhouse gas emissions to this end.[328]

297. Another important principle imposed on all countries in Article 3(3) is the precautionary principle, which requires States to take precautionary measures to minimise or prevent the causes of climate change and to mitigate its adverse effects.[329] The Convention clarifies that where there are threats of serious or irreversible damage, lack of full scientific certainty should not be used as a reason for postponing precautionary measures.[330]

298. The precautionary principle is not only laid down in the UN Climate Convention, but is also a frequently found principle in international (environmental) treaties and is also included in the Treaty on the Functioning of the European Union (TFEU). This principle will be revisited later in the summons, along with the CBDR principle and the principle of intergenerational justice, where the relevance of these legal principles to what may be demanded of Shell will be explained.

6.4.4 **The Conference of the Parties (COP) as the supreme body**

299. Article 7 of the UN Climate Convention establishes the Climate Conference, officially known as the Conference of the Parties ("COP"). Article 7 provides that the COP is the supreme decision-making body of the UN Climate Convention and that the COP takes the decisions necessary to promote the implementation of the Convention.[331] The decisions taken by the COP must be viewed in this context. These usually contain a series of findings, acknowledgements and decisions in order to thereby promote the effective achievement of the objectives of the UN Climate Change Convention (and the Paris Agreement).

300. The first COP took place in 1995 and is referred to as COP1. The numbering continues in this way, so that the COP in 2010, for example, is referred to as COP16. The most recent COP was that of 2025, COP30, which took

[325] "Developed country Parties" in the words of the Convention.
[326] "Developing country Parties" in the words of the Convention.
[327] Exhibit MD-083, UN Climate Change Convention (consolidated English version), Article 3(1).
[328] Ibid, Article 4(2).
[329] Ibid, Article 3(3).
[330] Ibid.
[331] Ibid, Article 7(2). The COP is also the supreme decision-making body of the Paris Agreement. In that capacity, the COP also takes the decisions to promote the effective implementation of the Paris Agreement, see Exhibit MD-084, Paris Agreement (original English version), Article 16(4).

place in Belém, Brazil. The next chapter will discuss in more detail a number climate conferences and the decisions taken there that are relevant to this case.

6.5 THE RUN-UP TO THE PARIS AGREEMENT

301. As described above, the central objective of the UN Climate Convention is to prevent dangerous human-induced climate change. In their approach to climate change, the signatory states must base their actions on the best available scientific knowledge and make use of the scientific insights of the IPCC and other relevant scientific bodies. Below, it will be explained that, since 2009, important scientific evidence has been produced that indicates that global warming should be limited to 1.5°C, and that the global community has also rallied behind this global objective in the years that followed, particularly with the conclusion of the Paris Agreement and the subsequent decisions of the Conference of the Parties.

302. This will also provide a clear picture of what Shell already knew or should have known in recent years based on scientific findings and the associated decisions of the Conference of the Parties. Chapter 8.4.1 will then provide evidence of what Shell has actually and specifically known about the climate problem in recent decades and about the consequences this should have for the world and also for Shell's business operations. This will then be placed in a legal context in order to substantiate Milieudefensie's demands.

303. Back to the temperature target and the establishment of the 1.5°C target. In 2009, the Copenhagen Accord was reached during COP15, which confirmed that, in order to achieve the central objective of Article 2 of the UN Climate Convention (i.e. preventing dangerous anthropogenic climate change), scientific insights show that global temperature rise must remain below 2°C:

> *"To achieve the ultimate objective of the Convention to stabilise greenhouse gas concentration in the atmosphere at a level that would prevent dangerous anthropogenic interference with the climate system, we shall, recognising the scientific view that the increase in global temperature should be below 2 degrees Celsius, on the basis of equity and in the context of sustainable development, enhance our long-term cooperative action to combat climate change.* […][332] (underlining added by counsel.)

304. With the above, the Copenhagen Accord was referring to a specific recommendation from the special 2009 IPCC update report, which added more recent climate science evidence to an earlier synthesis from IPCC AR4 from 2007. According to this update report, recent observations had shown that ecosystems and societies are highly vulnerable to even modest levels of climate change and that this century and beyond, major societal and environmental disruptions were to be expected in the case of temperature rises above 2°C:

> *"Recent observations show that societies and ecosystems are highly vulnerable to even modest levels of climate change [...] Temperature rises above 2°C will be difficult for contemporary societies to cope with, and are likely to cause major societal and environmental disruptions through the rest of the century and beyond."* [333]

305. The update report then pointed out that severe impacts were even to be expected with climate change associated with 1 to 1.5°C and an environmental catastrophe if global warming exceeded 2°C:

> *"The impacts on water resources in many parts of the world will be severe with climate change associated with only 1.0 to 1.5°C*

[332] Exhibit MD-090, UNFCCC COP15 2009 (Copenhagen), "Copenhagen Accord", paragraph 1.
[333] Exhibit MD-091, Richardson et al. 2009, "Climate Change - Global Risks, Challenges & Decisions: Synthesis Report" (update report AR4/2007), Executive Summary, Key Message 2, p. 6.

rises in temperature[334] […] There is a looming biodiversity catastrophe if global mean temperature rises above the 2°C guardrail, ocean acidification spreads and sea-level rise accelerates"[335]

306. The report then summarised that a 2°C scenario therefore carries significant risks to people and the environment:

> *"In summary, although a 2°C rise in temperature above pre-industrial remains the most commonly quoted guardrail for avoiding dangerous climate change, it nevertheless carries significant risks of deleterious impacts for society and the environment."[336]*

307. Since there was already clear scientific evidence prior to the UN Climate Conference in Copenhagen that the 2°C limit was not safe, the Copenhagen Accord stated that a further assessment of a 1.5°C limit as the ultimate objective of the UN Climate Convention was called for:

> *"We call for an assessment of the implementation of this Accord to be completed by 2015, including in light of the Convention's ultimate objective. This would include a consideration of strengthening the long-term goal referencing various matters presented by the science, including in relation to temperature rises of 1.5 degrees Celsius*."[337] (underlining added by counsel.)

308. The following year, the COP in Cancun (COP16, 2010) highlighted, in the Cancun Agreements, the need to reconsider and possibly tighten the 2°C target and to adjust it to 1.5°C:

> *"Also recognizes the need to consider, in the context of the first review, as referred to in paragraph 138 below, strengthening the long-term global goal on the basis of the best available scientific knowledge, including in relation to a global average temperature rise of 1.5 °C"*[338] (underlining added by counsel.)

309. It is also important to note that the Cancun Agreements refer to Resolution 10/4 of the UN Human Rights Council from 2009, according to which climate change is a threat to human rights around the world, including the right to life, and even more so for people in vulnerable positions.[339] To quote Resolution 10/4 of 2009 of the UN Human Rights Council:

> *"Noting that climate change related impacts have a range of implications, both direct and indirect, for the effective enjoyment of human rights including, inter alia, the right to life, the right to adequate food, the right to the highest attainable standard of health, the right to self-determination* [and] *recognizing that while these implications affect individuals and communities around the world, the effects of climate change will be felt most acutely by those segments of the population who are already in vulnerable situations* […]."[340]

310. At COP17 in Durban in 2011, in Decision 1/CP.17[341], the parties to the agreement jointly agreed, among other things:

    (i) to recognise that climate change represents an urgent and potentially irreversible threat to human societies and the planet and thus requires to be urgently addressed by all Parties:

[334] Exhibit MD-091, Richardson et al. 2009, "Climate Change - Global Risks, Challenges & Decisions: Synthesis Report" (update report AR4/2007), p. 13.
[335] Exhibit MD-091, Richardson et al. 2009, "Climate Change - Global Risks, Challenges & Decisions: Synthesis Report" (update report AR4/2007), p. 14.
[336] Exhibit MD-091, Richardson et al. 2009, "Climate Change - Global Risks, Challenges & Decisions: Synthesis Report" (update report AR4/2007), p. 16.
[337] Exhibit MD-090, UNFCCC COP15 2009 (Copenhagen), "Copenhagen Accord", paragraph 12.
[338] Ibid, p.3 under 4.
[339] The preamble to the Cancun Agreements states: *"Noting resolution 10/4 of the United Nations Human Rights Council on human rights and climate change, which recognizes that the adverse effects of climate change have a range of direct and indirect implications for the effective enjoyment of human rights* […]" etc.
[340] Exhibit MD-093, UN Human Rights Council, Resolution 10/4.
[341] Exhibit MD-094, UNFCCC COP17 2011 (Durban), "Decision 1/CP.17".

"Recognizing that climate change represents an urgent and potentially irreversible threat to human societies and the planet and thus requires to be urgently addressed by all Parties…"[342] (underlining added by counsel.)

(ii) and to note with grave concern the significant gap between the mitigations pledged by individual countries for the year 2020 on the one hand and the actual emission reductions needed globally to keep warming below 2°C or 1.5°C on the other:

"Noting with grave concern the significant gap between the aggregate effect of Parties' mitigation pledges in terms of global annual emissions of greenhouse gases by 2020 and aggregate emission pathways consistent with having a likely chance of holding the increase in global average temperature below 2 °C or 1.5 °C above pre-industrial levels."[343] (underlining added by counsel)

311. The gap between the emission reductions pledged by individual countries and the reductions needed at global level to prevent dangerous climate change is often referred to with the term "emissions gap". The UN Environment Programme (UNEP) reports annually on this emissions gap in its Emissions Gap Report, which contains analyses by the world's leading climate scientists on various topics, including trends in greenhouse gas emissions, implications of present and proposed climate policies and solutions to the climate problem. The report is published each year before the Conference of the Parties is held.

312. With regard to the emissions gap, UNEP had already concluded in its first Emissions Gap Report[344] in 2010 that even if all the pledges made by the countries in Copenhagen and Cancun and the announced reduction measures were implemented, the global reduction target for 2020 deemed necessary by scientists would fall far short of being achieved.

313. This message was repeated in the run-up to COP17, in the 2011 Emissions Gap Report (and has been repeated many times since):

"*Although the country pledges help in reducing emissions to below a business-as-usual level in 2020, they are not adequate to reduce emissions to a level consistent with the 2°C target, and therefore lead to a gap*."[345]

314. This 2011 UNEP report clarifies that there is a large gap between what needs to be done in terms of emission reductions prior to 2020 and what is actually happening and is a cause for concern. This is why the above-mentioned quote from the COP17 resolution uses the wording *"Noting with grave concern the significant gap..."* etc.

315. Based on the Conference of the Parties in 2012 in Doha (COP18), a process of expert dialogues, called the Structured Expert Dialogue, abbreviated as SED, was initiated in the period 2013-2015 under the auspices of the UNFCCC in preparation for the climate summit in Paris (COP 21, 2015).

316. One of the objectives of the SED was to examine whether, given the ultimate objective of the UN Climate Convention to prevent dangerous climate change, the target set in Copenhagen and Cancun to limit global warming to below 2°C was sufficient, particularly in light of the possible need to limit global warming to 1.5°C, as already discussed in Copenhagen and Cancun.

[342] Ibid, p.2.
[343] Ibid.
[344] Exhibit MD-095, UNEP 2010, "Emissions Gap Report 2010" (Technical Summary).
[345] Exhibit MD-096, UNEP 2011, "Emissions Gap Report 2011" (Executive Summary), p. 8.

317. These dialogues naturally also took into account the findings of the more recent IPCC AR5 report published in 2013 and 2014. The final conclusions of the expert dialogues were recorded in an SED final report published by the UNFCCC in 2015.[346.]

318. Based on the latest scientific findings, this final report concluded that the 2°C target should no longer be considered safe. Some messages from the SED report:

> *"Climate change impacts are hitting home. Significant climate impacts are already occurring at the current level of global warming and additional magnitudes of warming will only increase the risk of severe, pervasive and irreversible impacts. Therefore, the 'guardrail' concept, which implies a warming limit that guarantees full protection from dangerous anthropogenic interference, no longer works."*[347]

> *"The 2°C limit should be seen as a defence line […] The 'guardrail' concept, in which up to 2 °C of warming is considered safe, is inadequate and would therefore be better seen as an upper limit, a defence line that needs to be stringently defended, while less warming would be preferable."*[348]

> *"[L]imiting global warming to below 1.5 °C would come with several advantages in terms of coming closer to a safer 'guardrail'. It would avoid or reduce risks, for example, to food production or unique and threatened systems such as coral reefs or many parts of the cryosphere, including the risk of sea level rise* […] *Parties may wish to take a precautionary route by aiming for limiting global warming as far below 2°C as possible, reaffirming the notion of a defence line or even a buffer zone keeping warming well below 2°C."*[349]

319. Because the 2°C target is clearly considered inadequate and unsafe by scientists, according to the above quotations, this SED report regarded it at the time as a "*defence line that needs to be stringently defended*" (as evidenced by the above quotation) and indicated that a target of 1.5°C would be a better line of defence and that global warming should in any case be kept "*well below 2°C*".

320. The SED report also clarified, among other things, that in order to keep warming below 2°C, nothing less than a radical transition was immediately needed:

> *"Limiting global warming to below 2 °C necessitates a radical transition (deep decarbonisation now and going forward), not merely a fine tuning of current trends."*[350]

6.6 THE 2015 PARIS AGREEMENT

6.6.1 The Paris Agreement

321. The scientific findings from the SED report cited above were incorporated in the Paris Agreement, which was concluded in Paris during COP21 in December 2015. The Paris Agreement fleshes out and updates the 1992 UN Climate Convention. Both treaties exist side by side. The Paris Agreement entered into force on 4 November 2016 following the completion of the necessary national ratification processes.[351]

[346] Exhibit MD-097, UNFCCC 2015, "Report on the structured expert dialogue on the 2013–2015 review".
[347] Ibid, Message 4, p.15.
[348] Ibid, Message 5, p.18.
[349] Ibid, Message 10, p.33.
[350] Ibid, Message 2, p.11.
[351] Exhibit MD-098, UNFCCC, "Status of Ratification of the Paris Agreement" (website printout, 8 February 2026).

322. The Paris Agreement emphasises the urgent threat posed by the climate problem and the need to tackle it on the basis of the best available climate science, also to protect human rights, safeguard future generations and limit the damage caused by climate change. The central objective of the UN Climate Convention (as further elaborated in Bali, Copenhagen and Cancun) has therefore been further tightened by the Paris Agreement. The objective of the Paris Agreement is to keep global warming *"well below 2°C*" and preferably limit it to 1.5°C. With this goal in mind, all countries that are party to the UN Climate Change Convention have submitted (self-determined) national emission reduction targets (known as National Determined Contributions (NDCs)), to the Secretariat, which they must have achieved by 2030.

323. The above is expressed in the Paris Agreement as follows:

> *"PARIS AGREEMENT*
> *The Parties to this Agreement,* […]
> *In pursuit of the objective of the Convention, and being guided by its principles, including the principle of equity and common but differentiated responsibilities and respective capabilities, in the light of different national circumstances,*
> *Recognizing the need for an effective and progressive response to the urgent threat of climate change on the basis of the best available scientific knowledge* […]
> *Acknowledging that climate change is a common concern of humankind, Parties should, when taking action to address climate change, respect, promote and consider their respective obligations on human rights* […] *and intergenerational equity,* […]
>
> *Have agreed as follows:* […]
> *Article 2*
> *1. This Agreement* […] *aims to strengthen the global response to the threat of climate change*
> […] *including by:*
> *(a) Holding the increase in the global average temperature to well below 2°C above pre-industrial levels and pursuing efforts to limit the temperature increase to 1.5°C above pre-industrial levels, recognizing that this would significantly reduce the risks and impacts of climate change;* […]
> *Article 3*
> *As nationally determined contributions to the global response to climate change, all Parties are to undertake and communicate ambitious efforts as defined in Articles 4, 7, 9, 10, 11 and 13 with the view to achieving the purpose of this Agreement as set out in Article 2."*[352] (underlining added by counsel.)

324. An important point to note in this regard is that Article 2(1)(c) of the Paris Agreement also explicitly states and formulates as an objective that financial flows must be made consistent with the (global) pathway towards low emissions and climate-resilient development:

> *Article 2*
> *1. This Agreement […] aims to strengthen the global response to the threat of climate change*
> […] *including by:* […]
> *(c) Making finance flows consistent with a pathway towards low greenhouse gas emissions and climate-resilient development.* (underlining added by counsel)

325. The wording of Article 2(1)(c) expresses that the overarching objective of the Paris Agreement, "to strengthen the global response to climate change", requires a structural transformation of the economy in the form of a redirection of financing from unsustainable to sustainable infrastructure and trade practices. Bearing in mind the signatories' call to companies to pursue better climate policies in the Decision accompanying the Paris Agreement (see chapter 7.2.1 for more details), Article 2(1)(c) Paris Agreement is also a call to the private sector to shift financing flows.[353]

[352] Exhibit MD-084, Paris Agreement (original English version), recital and Article 2.
[353] Exhibit MD-108, Klein et al. 2017, "The Paris Agreement on Climate Change. Analysis and Commentary! (selected pages), p. 128.

326. The Paris objective as set out in Article 2 is then further operationalised in Article 4. Article 4 makes it clear that the parties to the agreement undertake to reach global peaking of greenhouse gas emissions as soon as possible, to undertake rapid reductions thereafter in accordance with the best available science so as to achieve net zero emissions (balance between anthropogenic greenhouse gas emissions and removals) in the second half of this century.[354]

327. As for the manner in which the contracting parties must achieve this goal, the equity principle[355], the CBDR principle[356] and the principle of intergenerational justice[357] play a major role, as they also do in the UN Climate Convention. The fourth paragraph of Article 4 reaffirms that developed countries must continue taking the lead in addressing the climate challenge. Developed countries commit themselves to economy-wide absolute emission reduction targets. Developing countries have lighter obligations under the Paris Agreement. They must continue to enhance their mitigation efforts and are encouraged to gradually move towards economy-wide emission reduction targets.

328. Finally, the Paris Agreement systematically refers to the need to be guided by the best available climate science when implementing the agreements made (in the same way that the UN Climate Convention does).[358] The development outlined above, in which the climate target was tightened to limit global warming to 1.5°C, must be viewed in this light and is rooted in the (very significant) risks identified by climate science in the event of warming of 2°C compared to 1.5°C.

6.6.2 **The COP21 Decision on the necessary emission reductions**

329. The COP Decision[359], which adopts and therefore further elaborates the Paris Agreement, states that the aggregate national reduction contributions (NDCs) submitted by countries is far from sufficient to achieve the Agreement's central objective of preventing dangerous climate change. Bearing in mind the best available scientific findings, the COP Decision indicates that the aggregate national pledges for 2030 will still lead to global emissions of 55 $GtCO_2$-eq in 2030, while global emissions must already have been reduced to 40 $GtCO_2$-eq in 2030 for a realistic chance of keeping global warming below 2°C.

330. Because the 1.5°C target set out in the Paris Agreement requires a reduction in 2030 that goes even beyond the above-mentioned 40 Gt, the COP Decision stipulated that a special report had to be available in 2018 to determine how much further emissions must have been reduced by 2030 beyond the above-mentioned 40 Gt in order to achieve this target of the Agreement after all. The elements of the COP Decision that are most important for now are quoted below:

> **"Adoption of the Paris Agreement**
> *The Conference of the Parties*,
> […]
> *12. Welcomes the intended nationally determined contributions that have been communicated by Parties […];*
> *16. Takes note of the synthesis report on the aggregate effect of intended nationally determined contributions […];*
> *17. Notes with concern* […] *that the aggregate greenhouse gas emission levels in 2025 and 2030 resulting from the intended*

[354] Ibid, Article 4(1).
[355] Ibid, Article 2(2), Article 4(1) and Article 14(1).
[356] Ibid, Article 2(2), Article 4(3) and Article 4(19).
[357] Ibid, recitals, as well as the recitals of COP Decision 1/CP.21 adopting the Paris Agreement.
[358] See, inter alia, Articles 4(1), 7(5) and 14(1) of the Paris Agreement. See also the recitals: *"Recognizing the need for an effective and progressive response to the urgent threat of climate change on the basis of the best available scientific knowledge*." See also Article 4(2)(c) and (d) and Article 7(2)(a) of the UN Climate Convention.
[359] Exhibit MD-100, UNFCCC COP21 2015 (Paris), "Decision 1/CP.21".

nationally determined contributions […] *lead to a projected level of 55 gigatons in 2030 and also notes that much greater emission reduction efforts will be required than those associated with the intended nationally determined contributions in order to hold the increase in the global average temperature to below 2 °C above pre-industrial levels by reducing emissions to 40 gigatonnes or to 1.5°C above pre-industrial levels by reducing to a level to be identified in the special report referred to in paragraph 21 below;*

[…]

21. Invites the Intergovernmental Panel on Climate Change to provide a special report in 2018 on the impacts of global warming of 1.5 °C above pre-industrial levels and related global greenhouse gas emission pathways;" (underlining added by counsel.)

6.7 THE IPCC REPORT ON THE 1.5°C TARGET REQUESTED BY COP21

331. As stated above in paragraph 21 of the cited COP Decision, a special report was issued in 2018 at the request of the 197 member countries concerning the Paris target of preferably limiting global warming to 1.5°C. This special report (known as IPCC SR1.5) concludes that warming above 1.5°C will cause significant damage and that there is a big difference in the climate change consequences of 1.5°C and 2°C of warming respectively. According to the report, annual global emissions must be reduced to well below 35 $GtCO_2$-eq by 2030 in order to limit global warming to 1.5°C. The IPCC points out in this context that half of the models used even show that global emissions must already have been reduced to between 25 $GtCO_2$-eq and 30 $GtCO_2$-eq by 2030.[360]

332. The 2018 IPCC SR1.5 report then indicates that, as a result of these findings, limiting global warming to 1.5°C requires that global CO_2 emissions must have been reduced by net 45% by 2030 (40-60% range) and to net zero by 2050 (2045-2055 range). From 2050 onwards (2045-2055 range), no net atmospheric CO_2 emissions may therefore take place anymore.[361] If this emission reduction pathway is followed, the probability of staying below 1.5°C is 50% or more and the probability of staying below 2°C is 85%.[362] In other words, even with this sharp reduction in emissions by 2030 and the achievement of zero CO_2 emissions by 2050, there is a 50% probability that the 1.5°C limit is exceeded and a 15% probability that global warming will exceed 2°C nevertheless. Chapter 11.2 will further discuss the global reduction to be achieved, the associated reduction percentages and the chance they offer of limiting the temperature increase to 1.5°C.

333. This 2018 IPCC SR1.5 report also re-affirms, and in line with the UNEP Emissions Gap Report findings at the time (2017, 2018), that the aggregate national reduction pledges for 2030 made by the 194 countries in Paris will be far from sufficient to achieve the Paris targets. The 2018 calculations show that even if all these pledges are met, the IPCC expects the earth to warm by 3°C this century alone, with even further warming to follow.[363]

334. The 2018 SR1.5 report also makes it clear once again that limiting global warming requires limiting the total cumulative global anthropogenic CO_2 emissions, which means that these total cumulative emissions must stay within a certain carbon budget:

"*Limiting global warming requires limiting the total cumulative global anthropogenic emissions of CO_2 since the pre-industrial*

[360] Exhibit MD-101, IPCC 2018, SR1.5, SPM, p. 18.

[361] Ibid, C1 SPM, p. 12: "*In model pathways with no or limited overshoot of 1.5°C, global net anthropogenic CO2 emissions decline by about 45% from 2010 levels by 2030 (40-60% interquartile range), reaching net zero around 2050 (2045–2055 interquartile range).*"

[362] According to the IPCC's Sixth Assessment Report (AR6), scenarios with a 50% probability of 1.5°C also offer a roughly 90% probability of limiting the temperature increase to 2°C. See in this regard Exhibit MD-036, IPCC 2022, AR6, WGIII, SPM, C1.1, note 41, p. 17.

[362] Exhibit MD-101, IPCC 2018, SR1.5, SPM, D.1.1 SPM, p. 18.

period, that is, staying within a total carbon budget (high confidence)."[364]

335. According to the IPCC, the remaining carbon budget for a 50% probability of limiting the temperature increase to 1.5°C with effect from 2018 is 580 $GtCO_2$. This budget is decreasing by 42 ± 3 $GtCO_2$ per year based on annual global emissions:

> *"The associated remaining budget is being depleted by current emissions of 42 ± 3 Gt CO_2 per year (high confidence). […] Using global mean surface air temperature, as in AR5, gives an estimate of the remaining carbon budget of 580 $GtCO_2$ for a 50% probability of limiting warming to 1.5°C, and 420 $GtCO_2$ for a 66% probability (medium confidence).*"[365]

336. In SR1.5, the IPCC emphasises in this connection the importance of rapid emission reductions in the short term, because otherwise – due to the continuing high cumulative emissions and the rapid depletion of the carbon budget – even faster and greater emission reductions will be needed later on to still keep global warming within certain temperature limits.

337. In addition, the IPCC explicitly warns in this connection in SR1.5 that delaying rapid emission reductions will lead to economic and institutional lock-in into carbon-intensive infrastructure as a result of the continued investments in and use of carbon-intensive technologies, which are difficult or costly to phase out; once introduced, such investments will also generate CO_2 emissions in the longer term, which are therefore "locked in":

> *"Less CO_2 emission reductions in the near term would require steeper and deeper reductions in the longer term in order to meet specific warming targets afterwards [...]. Besides this [...] delaying GHG emissions reductions over the coming years also leads to economic and institutional lock-in into carbon-intensive infrastructure, that is, the continued investment in and use of carbon-intensive technologies that are difficult or costly to phase out once deployed".*[366]

338. An important observation by the IPCC in this regard is that the mere compliance with the national reduction commitments made by the signatory states in Paris will not only make it impossible to achieve the 1.5°C target, but will also, due to the lock-in described above, constitute a barrier to rapid and deep emission reductions after 2030:

> *"Based on the implied emissions until 2030, the high challenges of the assumed post-2030 transition, and the assessment of carbon budgets in Section 2.2.2, global warming is assessed to exceed 1.5°C if emissions stay at the levels implied by the NDCs until 2030*[367] […] *NDC pathways that apply a post-2030 price of emissions as found in least-cost pathways starting from 2020 show infrastructural carbon lock-in as a result of following NDCs instead of least-cost action until 2030. A key finding is that carbon lock-ins persist long after 2030, with the majority of additional CO_2 emissions occurring during the 2030–2050 period."*[368] (underlining added by counsel.)

339. The IPCC therefore concludes that the period up to 2030 will be the critical decade: the lower the emissions in 2030, the lower the challenge in limiting global warming to 1.5°C after 2030. According to the IPCC, the risks of delayed emission reductions include – in addition to the serious consequences of global warming as such – the risk of cost escalation, the risk of a lock-in in carbon-emitting infrastructure, the risk of stranded assets and the risk of reduced flexibility in taking future measures in the medium to long term:

[364] Ibid, C1.3 SPM, p.12.
[365] Ibid, C.1.3 SPM, p.12.
[366] IPCC 2018, SR1.5, H2, p.126 (https://www.ipcc.ch/site/assets/uploads/sites/2/2022/06/SR15_Chapter_2_LR.pdf).
[367] Ibid, H2, p.127.
[368] Ibid, H2, p.129.

"The lower the emissions in 2030, the lower the challenge in limiting global warming to 1.5°C after 2030 with no or limited overshoot (high confidence). The challenges from delayed actions to reduce greenhouse gas emissions include the risk of cost escalation, lock-in in carbon-emitting infrastructure, stranded assets, and reduced flexibility in future response options in the medium to long term (high confidence)."[369]

6.8 RELEVANT COP DECISIONS AFTER THE PARIS AGREEMENT

6.8.1 Glasgow Climate Pact (2021)

340. In 2021, the Glasgow Climate Pact was concluded in Glasgow during COP26. Based on the IPCC findings in the SR1.5 report and the Sixth Assessment Report (AR6) of Working Group I which had just come out at the time, the Conference of the Parties expressed its utmost concern ("*Expresses alarm and utmost concern*") about the fact that human activities have already caused significant global warming, that its impacts are already being felt in every region of the world and that the remaining carbon budget is small and rapidly being depleted.[370] In line with the IPCC findings, the international community indicated that the critical decade had now arrived to close the gap between words and actions:

> *"The Conference of the Parties serving as the meeting of the Parties to the Paris Agreement, Recalling Article 2 of the Paris Agreement* […] *Stresses the urgency of enhancing ambition and action in relation to mitigation, adaptation and finance in this critical decade to address the gaps in the implementation of the goals of the Paris Agreement;"*[371] (underlining added by counsel.)

341. It is important to note in this context that, in line with the UN Climate Convention and the Paris Agreement, the Conference of the Parties reiterated in the very first paragraph of the Glasgow Climate Pact that climate action must always be based on the best available science:

> *"Recognizes the importance of the best available science for effective climate action and policymaking;"*[372]

342. This means that there has been international consensus that reduction targets must start out from the best available science for thirty years.

343. In the section on mitigation (emission reduction) of the Glasgow Climate Pact, the Conference of the Parties subsequently reaffirmed the goal of limiting global warming to 1.5°C. and resolved to make every effort to achieve this, recognising that the climate change impacts will be much less severe if global warming is limited to 1.5°C rather than 2°C.[373] In other words, all 194 countries that are party to the Paris Agreement therefore recognised – bearing in mind the latest scientific insights and the jointly expressed "*alarm and utmost concern*" about the global impact of the current 1.1°C warming – the need to limit warming to 1.5°C and resolved to work towards this goal. Based on the IPCC SR1.5 report, the parties subsequently recognised that this requires "*rapid, deep and sustained*" emission reductions, including global CO_2 emission reductions of 45% by 2030 relative to the 2010 level and the achievement of net zero CO_2 emissions in 2050:

[369] Exhibit MD-101, IPCC 2018, SR1.5, SPM, D.1.3, p. 18.
[370] Exhibit MD-102, UNFCCC COP26 2021 (Glasgow), "Glasgow Climate Pact", para. 3.
[371] Ibid, preamble and para. 5. See also para. 23 on the need for accelerated mitigation in this critical decade, based on the best available science and taking into account equity and the CBDR principle.
[372] Exhibit MD-102, UNFCCC COP26 2021 (Glasgow), "Glasgow Climate Pact", paragraph 1. See also paragraphs 23 and 24 of the Glasgow Climate Pact, the preamble, Article 4(1), 7(5) and 14(1) of the Paris Agreement and Article 4(2)(c) and (d) and Article 7(2)(a) of the UN Climate Convention.
[373] Exhibit MD-102, UNFCCC COP26 2021 (Glasgow), "Glasgow Climate Pact", paras. 20-21.

Recognises that limiting global warming to 1.5 °C requires rapid, deep and sustained reductions in global greenhouse gas emissions, including reducing global carbon dioxide emissions by 45 per cent by 2030 relative to the 2010 level and to net zero around midcentury, as well as deep reductions in other greenhouse gases[374] (underlining added by counsel.)

344. In view of this reduction target, the Conference of the Parties expressed serious concern that the parties' national reduction commitments, if implemented, will not collectively result in the above-mentioned reduction, but will even lead to a 13.7% increase in greenhouse gas emissions in 2030 relative to the 2010 level:

"Notes with serious concern the findings of the synthesis report on nationally determined contributions under the Paris Agreement, according to which the aggregate greenhouse gas emission level, taking into account implementation of all submitted nationally determined contributions, is estimated to be 13.7 per cent above the 2010 level in 2030;"[375] (underlining added by counsel.)

345. In view of this very large and worrying emissions gap, the Conference of the Parties stressed the need for all countries to scale up their ambitions, calling on them to align their national reduction pledges with the Paris temperature goal.[376]

346. Despite the observation that all countries worldwide were still doing far too little to prevent dangerous climate change, the Glasgow Climate Pact is a milestone in terms of agreements on reducing greenhouse gas emissions. Not only was the importance of the 1.5°C limit confirmed and was a decision taken to focus efforts on this goal – which is why the ICJ ruled that the 1.5°C target has become the central goal of the UN Climate Convention and the Paris Agreement[377] – but also a formal decision implementing the UN Climate Convention and the Paris Agreement addressed the need to move away from fossil fuels in order to prevent dangerous climate change more specifically. For example, the Glasgow Climate Pact called on all parties to accelerate the transition towards low-emission energy systems, scale up renewable energy and energy efficiency, and accelerate the phasedown of coal-fired power plants and the phase-out of inefficient fossil fuel subsidies:

"Calls upon Parties to accelerate the development, deployment and dissemination of technologies, and the adoption of policies, to transition towards low-emission energy systems, including by rapidly scaling up the deployment of clean power generation and energy efficiency measures, including accelerating efforts towards the phasedown of unabated coal power and phase-out of inefficient fossil fuel subsidies,"[378]

6.8.2 **Sharm el-Sheikh Implementation Plan (2022)**

347. During COP27 in Sharm el-Sheikh, the Sharm el-Sheikh Implementation Plan (COP27) was subsequently adopted. Partly on the basis of the contributions of Working Groups II and III to the IPCC Sixth Assessment Report (AR6), the UNEP's 2022 Emissions Gap Report and reports from WMO, among other organisations, the Conference of the Parties reaffirmed the urgency of climate action.

348. In this context, the Conference of the Parties recognised the impact of climate change on the cryosphere[379] and indicated that more knowledge is needed about this impact and the role played by tipping points in the

[374] Ibid, para. 22.
[375] Ibid, para. 25.
[376] Ibid, paras. 26-29.
[377] ICJ, 23 July 2025, "Advisory Opinion on the Obligations of States in respect of Climate Change", para. 224
[378] Exhibit MD-102, UNFCCC COP26 2021 (Glasgow), "Glasgow Climate Pact", para. 36.
[379] The cryosphere is a collective term for those parts of the earth's surface where water is present in solid form. This includes sea ice, ice on lakes or rivers, snow, glaciers, ice caps and frozen ground (including permafrost). The cryosphere is an integral part of the global climate system and has a significant impact on the global climate.

climate system in this context.[380] The importance and risks of tipping points was discussed in more detail in chapter 5.2.1.2.

349. The Conference of the Parties then reiterated the Glasgow Climate Pact finding that the consequences of climate change will be much less severe if global warming reaches 1.5°C instead of 2°C, and the decision in the Glasgow Climate Pact to focus efforts on limiting the temperature increase to 1.5°C.[381.]

350. Based on the update provided by the IPCC Working Group III in the Sixth Assessment Report (AR6), the Conference of the Parties indicated that limiting global warming to 1.5°C means that all greenhouse gases must have been reduced by 43% by 2030 relative to the 2019 level:

> *"Recognizes that limiting global warming to 1.5 °C requires rapid, deep and sustained reductions in global greenhouse gas emissions of 43 per cent by 2030 relative to the 2019 level;"*[382]

351. A reduction in all greenhouse gases (CO_2-eq) by 43% by 2030 and by 84% by 2050, both relative to the 2019 level, leads to a 50% probability of limiting the temperature increase to 1.5°C.[383] This corresponds with a global reduction in CO_2 emissions specifically of 48% by 2030 and achieving (virtually) net zero CO_2 emissions by 2050.[384] This reduction target and its relevance to Shell will be explained in more detail in chapter 11.2.

352. Finally, the Sharm el-Sheikh Implementation Plan highlighted the important role played by non-state actors (such as companies and financial institutions) in tackling climate change.[385] In this context, the Conference of the Parties expressed its appreciation for the recommendations of the UN High-Level Expert Group on the Net-Zero Emissions Commitments of Non-State Entities regarding the expectations for the climate commitments of companies, financial institutions, cities and regions.[386] In chapter 7, the important role of non-state actors (including companies) in climate action will be discussed in more detail, and Milieudefensie will explain that the need for this non-state climate action has been recognised within the UN climate regime since 2012. In that chapter, Milieudefensie will also discuss the findings of the UN High Level Expert Group regarding the specific action expected by the UN from non-state actors such as businesses.

6.8.3 **The Outcome of the First Global Stocktake (2023)**

353. COP28 in Dubai is a particularly important Conference of the Parties, as it marked the conclusion of what is known as the "first global stocktake"; a worldwide inventory of global efforts to prevent dangerous climate change. This global stocktake takes place periodically on the basis of the Paris Agreement to assess the progress made towards achieving the purposes of the Agreement.[387]

354. The Conference of the Parties found that the progress made is too slow in all areas of climate action: from

[380] Exhibit MD-103, UNFCCC COP27 2022 (Sharm el-Sheikh), "Sharm el-Sheikh Implementation Plan", para. 5.
[381] Ibid, paras. 1-4. The Conference of the Parties also reiterated this decision during COP28 in Dubai, see Exhibit MD-104, UNFCCC COP28 2023 (Dubai), "Outcome of the First Global Stocktake", para. 4.
[382] Exhibit MD-103, UNFCCC COP27 2022 (Sharm el-Sheikh), "Sharm el-Sheikh Implementation Plan", para. 11.
[383] Exhibit MD-001, IPCC 2023, AR6, SYR, para. 4.1, p. 92.
[384] Ibid, par. 4.1, p. 92, note 144.
[385] Exhibit MD-103, UNFCCC COP27 2022 (Sharm el-Sheikh), "Sharm el-Sheikh Implementation Plan", under the heading "XVI. Enhancing implementation: action by non-Party stakeholders".
[386] Ibid, para. 60.
[387] Exhibit MD-084, Paris Agreement (original English version), Article 14, and Exhibit MD-104, UNFCCC COP28 2023 (Dubai), "Outcome of the First Global Stocktake", preamble.

reducing greenhouse gas emissions to strengthening resilience to a changing climate and providing financial and technological support to vulnerable countries.[388] At the same time, the Parties expressed serious concern that 2023 was the warmest year since global temperatures have been recorded (since 1850)[389] and that the impacts from climate change are rapidly accelerating globally.[390] In view of this, the Parties emphasised that urgent action was needed to keep the 1.5°C goal within reach and to address the climate crisis in this critical decade:

> *"Expresses serious concern that 2023 is set to be the warmest year on record and that impacts from climate change are rapidly accelerating, and emphasises the need for urgent action and support to keep the 1.5 °C goal within reach and to address the climate crisis in this critical decade;"*[391]

355. The Conference of the Parties also committed to the much-needed acceleration of climate action in this critical decade on the basis of the best available science and reflecting equity and the CBDR principle:

> *"Commits to accelerate action in this critical decade on the basis of the best available science, reflecting equity and the principle of common but differentiated responsibilities and respective capabilities in the light of different national circumstances and in the context of sustainable development and efforts to eradicate poverty;"*[392]

356. The Conference of the Parties went on to express its concern that the current national reduction pledges are far from sufficient to achieve the reductions needed by 2030, meaning that there is still a very large emissions gap[393] and noted, based on the IPCC findings, that there was also an implementation gap, because the policies actually implemented are insufficient to meet the national reduction pledges.[394]

357. The Conference of the Parties therefore noted "*with significant concern*" that the window for achieving the Paris target is rapidly narrowing. The Parties expressed concern that the Paris-compliant carbon budget is already small and being rapidly being depleted, acknowledging that historical cumulative CO_2 emissions already account for about four fifths of the carbon budget for a 50% probability of 1.5°C.[395]

358. In this context, the Parties recognised (once again), based on the IPCC findings in the Sixth Assessment Report (AR6), that in order to limit global warming to 1.5°C, all greenhouse gas emissions must have been reduced by 43% by 2030 relative to the 2019 level and that CO_2 emissions must be net zero by 2050. For the first time, the international community added a reduction target for 2035, namely a 60% reduction in all greenhouse gas emissions relative to the 2019 level:

> *"Also recognizes that limiting global warming to 1.5 °C with no or limited overshoot requires deep, rapid and sustained reductions in global greenhouse gas emissions of 43 per cent by 2030 and 60 per cent by 2035 relative to the 2019 level and reaching net zero carbon dioxide emissions by 2050;"*[396]

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[388] Exhibit MD-104, UNFCCC COP28 2023 (Dubai), "Outcome of the First Global Stocktake", including paras. 15, 17, 21, 24, 46, 49.
[389] See also: Exhibit MD-053, Copernicus 2024, "Copernicus: 2023 is the hottest year on record, with global temperatures close to the 1.5°C limit" (website printout, 27 February 2025). According to Samantha Burgess, deputy director of Copernicus, temperatures in 2023 were likely to exceed those of any period in at least the last 100,000 years.
[390] Exhibit MD-104, UNFCCC COP28 2023 (Dubai), "Outcome of the First Global Stocktake", including para. 15(b).
[391] Ibid, para. 5.
[392] Ibid, para. 6.
[393] Ibid, paras. 21-22. Even if all conditional national emission reduction pledges were implemented, this would only lead to a 5.3% reduction in emissions by 2030 relative to 2019.
[394] Ibid, para 23.
[395] Ibid, paras. 24-25.
[396] Ibid, para. 27. The Conference of the Parties based these percentages on the AR6 findings, see Exhibit MD-001, IPCC 2023, AR6, SYR, p. 21.

359. According to the international community, it is therefore perfectly clear what needs to be done and that all current efforts are falling short. But the Outcome of the first global stocktake also offers hope. For example, the international community noted that there are sufficient effective and affordable mitigation options in all sectors to keep the 1.5°C target within reach in this critical decade:

> *"That feasible, effective and low-cost mitigation options are already available in all sectors to keep 1.5 °C within reach in this critical decade with the necessary cooperation on technologies and support;"*[397] (underlining added by counsel.)

360. In this context, the Conference of the Parties also noted that mitigation technologies have become increasingly available over the past decade and that the costs of these technologies, including solar energy, wind power and energy storage, have fallen continuously.[398]

361. Whereas the global community had already called for scaling up renewable energy and energy efficiency and accelerating the phase-out of coal-fired power generation in the Glasgow Climate Pact, the Outcome of the first global stocktake now went a step further, describing concrete measures the world should focus on in the period up to 2030:

> *"Further recognizes the need for deep, rapid and sustained reductions in greenhouse gas emissions in line with 1.5 °C pathways and calls on Parties to contribute to the following global efforts, in a nationally determined manner, taking into account the Paris Agreement and their different national circumstances, pathways and approaches:*
>
> *(a) Tripling renewable energy capacity globally and doubling the global average annual rate of energy efficiency improvements by 2030;*
>
> *(b) Accelerating efforts towards the phase-down of unabated coal power;*
>
> *(c) Accelerating efforts globally towards net zero emission energy systems, utilising zero- and low-carbon fuels well before or by around mid-century;*
>
> *(d) Transitioning away from fossil fuels in energy systems, in a just, orderly and equitable manner, accelerating action in this critical decade, so as to achieve net zero by 2050 in keeping with the science;*
>
> *(e) Accelerating zero- and low-emission technologies, including, inter alia, renewables, nuclear, abatement and removal technologies such as carbon capture and utilisation and storage, particularly in hard-to-abate sectors, and low-carbon hydrogen production;*
>
> *(f) Accelerating and substantially reducing non-carbon dioxide emissions globally, including in particular methane emissions by 2030;*
>
> *(g) Accelerating the reduction of emissions from road transport on a range of pathways, including through development of infrastructure and rapid deployment of zero and low-emission vehicles;*
>
> *(h) Phasing out inefficient fossil fuel subsidies that do not address energy poverty or just transitions, as soon as possible;"*[399]

362. With this list of concrete measures, which was drawn up on the basis of advice from the IEA and its Net Zero Emissions by 2050 scenario (NZE scenario) (see chapter 11.3.2 for more details), the international community has made it clear that *the* basic prerequisite for preventing dangerous climate change lies in moving away

[397] Exhibit MD-104, UNFCCC COP28 2023 (Dubai), "Outcome of the First Global Stocktake", para. 16(c).
[398] Ibid, para. 30.

[399] Ibid, para. 28.

from not only coal, but from all fossil fuels, in addition to scaling up renewable energy and energy efficiency. With this political consensus created during COP28, the scaling up of renewable energy will accelerate and, more than before, the barriers to this scale-up will be removed. However, the main obstacles here are the continued investments in and use of fossil fuels and the lock-in they create.[400]

363. Although this outcome of COP28 can rightly be called a milestone, the world still has a (very) long way to go. After all, COP28 in fact also highlights how far removed we are from achieving the climate targets and how precarious the situation is. In order to achieve the necessary downscaling of fossil fuels and upscaling of renewable energy, and the transition required for these purposes in all sectors, all sectors must commit themselves with maximum ambition.

364. The Conference of the Parties made this clear in several ways, including by (re-)iterating the importance of making finance flows consistent with the Paris target,[401] noting that the progress made is still too limited[402] and by pointing out, in more general terms, the important role of "non-Party stakeholders", including business and financial institutions.[403]

365. Chapter 7 will elaborate on the important role that non-State actors, and fossil-fuel companies in particular, must play in preventing dangerous climate change.

6.8.4 **The Baku Climate Unity Pact (2024)**

366. COP29 reaffirmed the importance of the 1.5°C target. World leaders confirmed once again that the target is crucial to preventing the most catastrophic consequences of climate change[404], referring back to the outcomes of the first global stocktake, as discussed above. The COP stressed that ambition and action must be enhanced in this critical decade to implement the Paris goals. The COP:

> "*[r]eaffirms the outcomes of the first global stocktake and stresses the urgency of enhancing ambition and action in this critical decade to address the gaps in the implementation of the goals of the Paris Agreement*."[405]

367. At the end of COP29, UN Secretary-General Guterres looked ahead to COP30 and emphasised the need for the largest emitters (the G20 countries) to take the lead in, among other things, accelerating the phase-out of fossil fuels and making plans that accelerate the reduction of all types of greenhouse gas emissions across the economy:

> *"COP29 comes at the close of a brutal year – a year seared by record temperatures, and scarred by climate disaster, all as emissions continue to rise. […]*
>
> *Countries must deliver new economy-wide national climate action plans – or NDCs – aligned with 1.5 degrees, well ahead of COP30 – as promised. The G20 countries, the biggest emitters, must lead.*
>
> *These new plans must cover all emissions and the whole economy, accelerate fossil fuel phase-out, and contribute to the energy transition goals agreed at COP28 – seizing the benefits of cheap, clean renewables.*

[400] See chapters 8.2 and 8.3. See also chapter 6.7, which discusses the IPCC findings on lock-in in the SR1.5 report .
[401] Exhibit MD-104, UNFCCC COP28 2023 (Dubai), "Outcome of the First Global Stocktake", para. 90.
[402] Ibid, para. 91.
[403] Ibid, para. 158.
[404] Exhibit MD-105, UNFCCC COP29 2024 (Baku), "New collective quantified goal on climate finance", para. 1.
[405] Exhibit MD-105, UNFCCC COP29 2024 (Baku), "New collective quantified goal on climate finance", para. 2.

The end of the fossil fuel age is an economic inevitability. New national plans must accelerate the shift, and help to ensure it comes with justice."[406]

6.8.5 **Global Mutirão of Belém (2025)**

368. The most recent Conference of the Parties took place in Belém, Brazil. COP30 had been designated in advance by the Brazilian presidency as the COP that would be dominated by "*Global Mutirão*". Mutirão is an indigenous expression for collective effort and cooperation.[407] The Brazilian presidency of COP30 thus invited the world to join forces in a large-scale global effort for climate action, in which governments, social movements, young people, indigenous peoples, traditional communities, the private sector, the scientific community and civil society would all play their essential roles to advance the climate agenda.

369. The outcome of COP30 naturally recognised the seriousness and urgency of climate action and the need for accelerated climate action[408], the importance of the 1.5°C target,[409] the importance of equity and the best available science for effective climate action[410] and the economic and societal benefits and chances of climate action, including improved access to energy, energy security and improved public health.[411]

370. COP30 also called on the private sector to accelerate and scale up climate action in order to keep the 1.5°C target within reach.[412]

371. Although some progress was made, many were ultimately disappointed with the concrete results of COP30. After all, it had been hoped that the promise made at COP28 to move away from fossil fuels would actually be made concrete, but that topic was not even included on the official agenda due to opposition from major oil-producing countries. There was also a great deal of attention and criticism regarding the record number of lobbyists with connections to the oil, gas and coal industries, including through official country delegations and interest groups, whose strong presence is an obstacle to progressive climate action.[413] In chapter 8, Milieudefensie will further discuss the inhibiting influence of the oil and gas industry, including Shell.

372. Nevertheless, a coalition of countries, including the Netherlands, announced its own international conference for 2026 at the end of April 2026, at which the required phase-out of fossil fuels will be discussed once again.[414]

7 **THE IMPORTANT ROLE OF NON-STATE ACTORS**

7.1 **INTRODUCTION**

373. In the above chapter, the impacts and risks of climate change were discussed based on climate science.

[406] Exhibit MD-106, UN Secretary-General Statement on COP29 (website printout, 27 February 2025).
[407] See, e.g. https://cop30.br/en/brazilian-presidency/mutirao-cop30.
[408] Exhibit MD-107, UNFCCC COP30 2025 (Belém), "Global Mutirão: Uniting humanity in a global mobilisation against climate change", pp. 1–2.
[409] Ibid, p. 3, paras. 6 and 7, p. 5, para. 27 and p. 29.
[410] Ibid, p. 3, para. 5, p. 5, para. 28.
[411] Ibid, p. 3, para. 9.
[412] Ibid, p. 5, para. 30. See also p. 2, which re-emphasises the important role of non-Party stakeholders in accelerating climate action.
[413] Corporate Europe Observatory, 14 November 2025, "Fossil fuel lobbyists flood COP30 climate talks in Brazil, with largest ever attendance share", available at https://corporateeurope.org/en/2025/11/fossil-fuel-lobbyists-flood-cop30-climate- talks-brazil-largest-ever-attendance-share.
[414] See the Fossil Fuel Treaty Initiative, 21 November 2025, "Colombia and The Netherlands Announce First International Conference for Fossil Fuel Phase Out — The Fossil Fuel Non-Proliferation Treaty Initiative", available at https://fossilfueltreaty.org/first-international-conference.

International climate policies were also discussed, including the UN Climate Convention, the Paris Agreement and other relevant international agreements and recognitions, such as those resulting from the annual COPs. What this shows, among other things, is that the international community of states recognises the causes, implications and risks of climate change and has therefore committed itself under treaty law to prevent dangerous climate change. It was also explained that this means that global warming must be limited to 1.5°C. The ICJ has also recognised that 1.5°C is the agreed temperature target.[415] States recognise that urgent emission reductions are necessary to stay under this universally recognised danger threshold and that the coming years will be critical for achieving this goal, as the carbon budget is rapidly shrinking and will have been depleted by 2030 if no further climate action is taken.

374. In chapter 6.5, Milieudefensie also explained in this connection what the emissions gap is and that the UN Environment Programme (UNEP) reports on this annually in its Emissions Gap reports, which include analyses by the world's leading climate scientists. In 2025, UNEP once again concluded that countries as a whole are not on track to keep the 1.5°C limit within reach and reiterated that there is a large gap between the climate policies pursued by countries and the emission reductions necessary to retain any chance of limiting global warming to 1.5°C.[416] UNEP has also made it clear in this context that the continued lock-in of carbon-intensive infrastructure makes the temperature target harder to achieve.[417]

375. In this chapter, Milieudefensie will explain that states have recognised since 2012, within the UN climate regime, that non-state actors play a crucial role in closing the emissions gap, that the contributions of these actors will have a significant flywheel effect, and that, against this backdrop, climate protocols have been developed that provide important principles for the setting of reduction targets by non-state actors in line with the 1.5°C limit. These include contributing a *"*fair share" to the emission reductions required at global level, using interim reduction targets and fossil-fuel phase-out. As will become apparent, these principles have been confirmed at UN level in several authoritative sources.

376. Subsequently, authoritative soft-law instruments that are widely supported internationally will be discussed. They include the United Nations Guiding Principles on Business and Human Rights (**"UN Guiding Principles**" or "**UNGP**") and the OECD Guidelines for Multinational Enterprises ("**OECD Guidelines**"). Such instruments show that it is internationally accepted that companies must respect human rights, and that this responsibility also entails that companies must take adequate measures to reduce their emissions in line with the 1.5°C limit and prevent or mitigate their involvement in actual or potential adverse human rights impacts via their business relationships.

7.2 THE IMPORTANT ROLE OF NON-STATE ACTORS UNDER THE UN CLIMATE REGIME

7.2.1 2012-2017: recognition of the need for non-state climate action

377. The fact that non-state actors have a role to play in combating climate change was already recognised within the context of the UN at the 1988 climate conference in Toronto (see chapter 6.2). The need for this non-

[415] ICJ, 23 July 2025, "Advisory Opinion on the Obligations of States in respect of Climate Change", para. 224, available at https://www.icj-cij.org/sites/default/files/case-related/187/187-20250723-adv-01-00-en.pdf.
[416] Exhibit MD-002, UNEP 2025, "Emissions Gap Report 2025", pp. xviii and xx (under 7).
[417] Ibid, p. xii: *"Each year of delayed action locks in carbon-intensive infrastructure. It results in greater losses for people and ecosystems, higher adaptation costs and a heavier reliance on costly and uncertain carbon dioxide (CO2) removal. Each year of inaction makes the path to net zero by 2050 and net-negative emissions thereafter steeper, more expensive and more disruptive*."

state climate action has since been increasingly recognised, and its scope has also been further defined in the course of time.

378. The recognition of the need for non-state climate action gained momentum in the period 2012-2017. The run-up to this was the expression of great concern by the 194 countries that were parties to the UN Climate Convention at the 2011 Durban Climate Conference (COP17) in 2011 that a significant emissions gap existed, based on the findings of the UNEP Emissions Gap Report. These countries decided to initiate two parallel work streams, both of which were considered necessary in order to reach a negotiated agreement in Paris in 2015.[418]

(i) Workstream 1 concerned the setting of the parameters for further negotiations on the Paris Agreement.

(ii) Workstream 2 concerned the pathway required to ensure that much greater emission reductions would take place prior to 2020; viz. much greater emission reductions would have to take place than could be expected on the basis of the reduction commitments made by the signatory states in 2010. Workstream 2 was intended to ensure that this emissions gap would be closed as quickly as possible in order to prevent dangerous climate change.

379. In 2012, when the parties were further elaborating Workstream 2, they concluded that closing the emissions gap would also require active climate action by non-state actors. From that time onwards, greater weight was also attached to climate action by non-state actors, such as cities, business and investors[419].

380. All of this ultimately led to the organisation of a major conference by the Secretary-General of the United Nations in New York in 2014, prior to COP20 in Lima, where not only UN member states, but also executives from large companies and banks and leaders from other public and private sectors were brought together.[420] The central goal of this 2014 Climate Summit was to create a flywheel of state and non-state climate action so that the emissions gap could be closed in time.[421]

381. From that moment in 2014, non-state climate action was communicated as one of the four pillars for closing the emissions gap. The other three pillars were:

(i) the conclusion of an ambitious climate agreement in Paris;

(ii) ambitious climate action by member states; and

(iii) mobilising public and private financing for climate action.[422]

382. Against the background of the successful 2014 Climate Summit, the President of COP20 organised a high-level event in Lima to acknowledge the outcomes of the Climate Summit. This acknowledgement

[418] Exhibit MD-108, Klein et al. 2017, "The Paris Agreement on Climate Change. Analysis and Commentary" (selected pages), Chapter 2.B "Pre-2020 Climate Action and the Emergent Role of Non-party Stakeholders", pp. 43-44.
[419] Ibid, p. 45: "*the focus gradually shifted from formal commitments from parties to informal ambition driven by international cooperation and through climate action by non-party stakeholders*".
[420] Ibid, p. 45. See also https://unfccc.int/news/un-climate-summit-ban-ki-moon-final-summary.
[421] Ibid, pp. 46-47.
[422] Ibid, p. 47.

subsequently also found its way into the COP decision entitled "the Lima Call for Climate Action". At the same time – so in 2014 – the Non-State Actor Zone for Climate Action (NAZCA) was established under the auspices of the UN to promote and showcase climate action by cities, business, investors and others.[423] In addition, the Lima-Paris Action Agenda was launched to further promote important initiatives for accelerating climate action in the run-up to COP21 in Paris.[424]

383. The private and other non-state initiatives that originated from the 2014 Climate Summit, the subsequent Lima Conference and the Lima-Paris Action Agenda on topics such as sustainable energy, energy efficiency and access to more private capital for the transition created significant momentum that helped the state parties to reach an agreement in Paris.[425]

384. The importance of these developments and the role of non-state actors (also referred to as "Non-Party Stakeholders") was also explicitly recognised in the Paris Decision, which adopted the Paris Agreement:

> *"The Conference of the Parties"* [..]
>
> *116. Acknowledges with appreciation the results of the Lima-Paris Action Agenda, which build on the climate summit convened on 23 September 2014 by the Secretary-General of the United Nations;*
>
> *117. Welcomes the efforts of non-Party stakeholders to scale up their climate actions, and encourages the registration of those actions in the Non-State Actor Zone for Climate Action platform;*
>
> *134. Welcomes the efforts of all non-Party stakeholders to address and respond to climate change, including those of civil society, the private sector, financial institutions, cities and other subnational authorities;*
>
> *135. Invites the non-Party stakeholders referred to in paragraph 134 above to scale up their efforts and support actions to reduce emissions* [..] *and demonstrate these efforts via the Non-State Actor Zone for Climate Action platform referred to in paragraph 117 above;"*[426]

385. Not only did states welcome the climate action of businesses in the Paris Agreement, but they also invited them to scale up their climate action efforts and demonstrate this scale-up via the above-mentioned Non-State Actor Zone. The idea behind demonstrating these efforts and thus making non-state climate action visible is that this in turn will also encourage other state parties and non-state actors to scale up climate action, creating a flywheel effect for climate action.

386. It was also decided in Paris to hold a high-level event every year at which non-state actors could announce and report on the progress of their climate initiatives and agreements.[427]

387. Furthermore, it was decided in Paris to appoint two high-level champions who would bring climate action by non-state actors further in the years to come.[428]

388. In this way, the importance of non-state action was formally acknowledged and institutionalised in Paris within the UN climate regime. A year later, during COP22 in 2016, the appointed UN Climate Change High-

[423] Ibid, p. 47. Also often referred to as the Global Climate Action Portal (GCAP).
[424] Ibid, p. 47.
[425] Ibid, pp. 46-49 (under 4: "An irresistible force: building momentum for adoption of the Paris Agreement").
[426] Exhibit MD-100, UNFCCC COP21 2015 (Paris), "Decision 1/CP.21".
[427] Ibid, para. 120.
[428] Ibid, para. 121.

Level Champions launched the Marrakesh Partnership and the accompanying vision for scaling up non-state climate action.[429] Under the banner of the Marrakesh Partnership, global climate action by non-state actors has since been further promoted and facilitated with the approval of the COP and with the support of the UNFCCC Secretariat and the COP President. [430]

389. The Oxford University handbook on the Paris Agreement concluded in 2017 that the importance of non-state action in achieving climate goals has become undeniably significant and crucial ("*a most critical driving force*"):

> "*They* [non-party stakeholders, addition by counsel] *represent an essential and unique feature of the climate regime and its ability for long-term momentum and ambition: a most critical driving force that can ensure that global efforts to address climate change are capable of achieving the purpose set out in Article 2.*"[431]

7.2.2 **2018: UNEP findings on the importance and impact of non-state climate action**

390. The importance of action by non-state actors (abbreviated to "NSAs") was also endorsed by UNEP in its 2018 Emissions Gap Report:

> *"Global climate change governance is diversifying rapidly: in recent years, political attention has been acknowledging the increasingly important role of non-state and subnational actors. [NSAs]."*[432]

391. In this context, UNEP, too, referred to the run-up to the Paris Agreement and the Paris Decision as the moments when it became clear that countries need non-state actors to scale up their climate action in order to achieve the climate goals:

> *"In sum, the process leading up to the Paris Agreement and the outcomes of Decision 1/CP.21 have paved the way for an increasingly prominent role for NSAs under the climate regime to support Parties in reaching the mitigation and adaptation goals."*[433]

392. According to UNEP, there is also enormous potential for emission reductions to be achieved by companies and other non-state actors and to close the emissions gap:

> *"The emission reduction potential from NSAs is large and could, if fully implemented, contribute significantly to bridging the 2030 emissions gap. However, realizing this potential requires commitments and action that go far beyond current pledges made by individual actors or single initiatives, and implies the scaling up of multiple initiatives across sectors and regions."*[434]

393. This means there is considerable potential to bridge the emissions gap if the non-state actors take much more far-reaching climate action and create a flywheel effect within their sectors or regions.

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[429] See https://unfccc.int/climate-action/marrakech-partnership/background.

[430] See https://unfccc.int/climate-action: *"Since adoption of the Paris Agreement, global climate action has been encouraged and facilitated under the banner of the Marrakech Partnership for Global Climate Action, which was agreed in Morocco at COP 22 and acknowledged at subsequent Conferences of the Parties. The Partnership brings together stakeholders working in key sectors and themes to spur enhanced climate ambition and action, and then recognises that action, to inspire [still] greater effort.*"

[431] Exhibit MD-108, Klein et al. 2017, "The Paris Agreement on Climate Change. Analysis and Commentary" (selected pages), p. 43. See also p. 49, which concludes that non-party stakeholders *"were placed at the heart of the new climate change regime"*.

[432] Exhibit MD-109, UNEP 2018, "Bridging the emissions gap - The role of non-state and subnational actors" (Pre-release Emissions Gap Report 2018), p. 6.

[433] Ibid, p. 7.

[434] Ibid, p. 6.

394. UNEP also recognised that the value of non-state climate action goes far beyond the emission reductions that non-state actors themselves are able to achieve with such action:

> "*Non-state and subnational actors provide important contributions to climate action beyond their quantified emission reductions. They build confidence in governments concerning climate policy and push for more ambitious national goals.*"[435]

395. According to UNEP, the knife therefore cuts both ways. In addition to reducing their own emissions, non-state actors also enable states themselves to set more ambitious targets. When states know that others are also pulling their weight, it becomes easier for them to achieve their national targets and thus also easier to show more ambition.

396. This important finding is also endorsed in a research report by the British think tank Chatham House, the Royal Institute of International Affairs:

> "*politically, measures implemented by sub-state/non-state actors can help national governments to implement existing targets faster and more effectively, while helping to build political support for more ambitious climate action."*[436]

397. Every Paris-compliant action by important non-state actors can therefore be expected to have a flywheel effect, which means that states and other parties will be able and dare to show greater climate ambition.

7.2.3 **2019-2020: the Climate Ambition Alliance and the UN Race to Zero**

398. In 2019, during the 25th Conference of the Parties to the UN Climate Convention (COP25), the Climate Ambition Alliance was established, which is the result of the work of the UN Climate Change High-Level Champions appointed under the Paris Agreement. In this Climate Ambition Alliance, both state and non-state actors have committed to achieving net zero CO_2 emissions by 2050 in order to meet the Paris Agreement climate target.[437] The Alliance also emphasised once again that countries cannot tackle the challenge alone, that non-state action is needed to achieve the Paris Agreement target and that this must be done in line with the latest scientific findings:

> *"The overall goal of this group is to push for net-zero CO_2 emissions in line with the latest scientific information.*
>
> *The deep transformation towards net zero CO_2 emissions requires the mobilisation of actors across all segments of society, which is why this group includes regions, cities, businesses, and investors alongside countries. All are united behind the same target because they recognize the benefits of the low-carbon transition."*[438]

399. In order to achieve the necessary expansion of the group of non-state actors within the Climate Ambition Alliance as quickly as possible, the Race to Zero initiative was launched in 2020 under the auspices of the UN. The aim is to further underline the importance of climate action by the private sector, as recognised in the Paris Agreement.

400. This UN Race to Zero initiative brings together the existing global networks that have developed climate

[435] Ibid, p. 5.
[436] Exhibit MD-110, Hale 2018, "The Role of Sub-state and Non-state Actors in International Climate Processes", p.1.
[437] Exhibit MD-111, UNFCCC 2019, "Climate Ambition Alliance: Nations Renew their Push to Upscale Action by 2020 and Achieve Net Zero CO2 Emissions by 2050" (website printout, 27 February 2025).
[438] Exhibit MD-112, UNFCCC, "Climate Ambition Alliance" (website printout, 27 February 2025).

protocols for non-state actors. Based on scientific findings, these climate protocols show, among other things, what companies need to do in order to take responsibility for reducing the emissions associated with their activities and products.

401. The mission of the UN Race to Zero is to mobilise non-state actors to take rigorous and immediate climate action on the path to net zero by 2050:

> *"Race to Zero Partners rally non-State actors – including companies, cities, regions, financial, educational, and healthcare institutions – to take rigorous and immediate action that contributes to halving global emissions by 2030 and deliver a healthier, fairer, net zero world."*[439]

402. The UN Race to Zero now has nearly 17,000 members, which participate through one or more of the 25 partner networks, which are responsible for ensuring robust science-aligned criteria:

> *"Race to Zero has 25 Partners and 35 Accelerators that collectively unite nearly 17,000 members – the largest ever alliance working to halve global emissions by 2030 in line with the Paris Agreement, with transparent action plans and near-term targets. All members are working towards robust science-aligned criteria on their transition to net zero. Partner initiatives are responsible for working with their members on their transition in a robust and transparent way. Become part of a leading community taking urgent climate action now."*[440]

403. The UN Race to Zero criteria define the lower limit for climate plans of non-state actors with "Starting Line criteria",[441] based on five "Ps": Pledge, Plan, Proceed, Publish and Persuade. This makes it clear that non-state actors must set adequate climate targets, draw up a plan to achieve those targets, take immediate action to implement the plan, report on it publicly and use their influence – directly and through interest groups – to contribute to the achievement of the climate goals.[442]

404. These UN Race to Zero criteria are accompanied by an Interpretation Guide. This guide was drawn up by the Expert Peer Review Group ("EPRG"), consisting of more than 20 experts. The Interpretation Guide aims to inform participants in advance about how the Race to Zero criteria should be interpreted and applied.

405. According to the minimum criteria of the UN Race to Zero, participating companies must set at least the following targets for 2030 and 2050:

> *"Pledge at the head-of-organisation level to reach (net) zero GHGs as soon as possible, and by 2050 at the latest, in line with the scientific consensus on the global effort needed to limit warming to 1.5C with no or limited overshoot, recognising that this requires phasing down and out all unabated fossil fuels as part of a global, just transition.*
>
> *Set an interim target to achieve in the next decade, which reflects maximum effort toward or beyond a fair share of the 50% global reduction in CO_2 by 2030. Targets must cover all greenhouse gas emissions:*
> *1. Including scopes 1, 2 and 3 for businesses and other organisations;"*[443] *(underlining added by counsel)*

[439] Exhibit MD-113, UNFCCC, "Race to Zero" (website printout, 8 February 2026), p. 2.
[440] Ibid, p. 2.
[441] Exhibit MD-114, UNFCCC, "Starting Line and Leadership Practices 3.0 - Minimum criteria required for participation in the Race to Zero campaign", p. 1 (underlining added by counsel): *"'Starting line' criteria lay out minimum requirements for all members to meet, below which members cannot fall if they wish to join and remain in the campaign. 'Leadership practices' signal how leading entities can light the way to a net zero world*." Thus in addition to the Starting Line criteria, there is also a second set of criteria – the Leadership practices – for non-state actors who want to set an example and can accelerate the path to net zero in this way.
[442] Ibid, pp. 2-3.
[443] Ibid, p. 2.

406. The criteria therefore make it clear that businesses must achieve (net) zero emissions as soon as possible, but by 2050 at the latest. They must also take action in the short term, which means they must make every effort ("*maximum effort*") towards a "*fair share*" of the globally required CO_2 reduction of (almost) 50% by 2030. This focus on 2030 stems from the recognition that the period up to 2030 is critical for keeping the 1.5°C temperature rise within reach, and reflects the importance of limiting total (cumulative) emissions on the way to net zero. Of course, this is also relevant for the reduction targets to be set after 2030, which will be discussed in more detail below. The criteria also demonstrate that every actor must reduce its total Scope 1, 2 and 3 emissions.

Box: What are Scope 1, 2 and 3 emissions?[444]

To properly understand the emissions for which an organisation is responsible, it is necessary to know what Scope 1, 2 and 3 emissions are. This categorisation finds its origin in the Greenhouse Gas Protocol, a joint initiative of the World Resources Institute (WRI) and the World Business Council for Sustainable Development (WBCSD). This collaboration started in the late 1990s based on the need for a common, internationally recognised standard for calculating and reporting greenhouse gas emissions. In 2001, the first version of the GHG Protocol Corporate Accounting and Reporting Standard was published, which was followed in 2011 by the separate Corporate Value Chain (Scope 3) Accounting and Reporting Standard (the "**Scope 3 Standard**", jointly referred to as the "**GHG Protocol**"). Since then, the GHG Protocol has become the *de facto* global standard for inventorying (quantifying) and reporting greenhouse gas emissions at individual company level.[445]
The GHG Protocol defines Scope 1, 2 and 3 emissions as follows:

- Scope 1: direct greenhouse gas emissions from sources controlled by or owned by an organisation (e.g. emissions associated with the combustion of fuel in industrial plants, boilers or vehicles);

- Scope 2: indirect greenhouse gas emissions associated with the purchase of electricity, steam, heat or cooling for an organisation's business activities. Although Scope 2 emissions physically occur at the facility where they are generated, they are included in the greenhouse gas inventory of the purchasing organisation because they result from that organisation's energy consumption;

- Scope 3: the remaining indirect greenhouse gas emissions of an organisation (not being Scope 2 emissions) that result from the organisation's activities, but arise from sources owned or controlled by third parties in the organisation's value chain, such as the organisation's business customers or consumers. Scope 3 emissions are emissions in the value chain that the reporting organisation has an influence over, and these emissions often represent the largest portion of an organisation's total greenhouse gas emissions. Scope 3 emissions are divided into 15 categories, both upstream and downstream in the value chain.[446]

In this way, an overview is provided of all emissions a company has control or influence over.[447] In

[444] See also: https://ghgprotocol.org/about-us: *"GHG Protocol supplies the world's most widely used greenhouse gas accounting standards. The Corporate Accounting and Reporting Standard provides the accounting platform for virtually every corporate GHG reporting programme in the world*." And: https://ghgprotocol.org/corporate-value-chain-Scope-3-standard: "*the Scope 3 Standard is the only internationally accepted method for companies to account for these types of value chain emissions*."
[445] Exhibit MD-115, GHG Protocol Corporate Standard (revised edition 2004), p. 25 and Exhibit MD-116, GHG Protocol Corporate Value Chain (Scope 3) Standard, p. 5 and p. 28.
[446] See also: Exhibit MD-116, GHG Protocol Corporate Value Chain (Scope 3) Standard, pp. 31-32.
[447] Ibid, p. 27: *"Direct emissions are included in scope 1. Indirect emissions are included in scope 2 and scope 3. While a company has control over its direct emissions, it has influence over its indirect emissions. A complete GHG inventory therefore includes scope 1, scope 2, and scope 3."*

many cases, Scope 3 emissions are the most important category of emissions.[448] This is particularly true for oil and gas companies. In the case of Shell, around 95% of all emissions are Scope 3 emissions.

The vast majority of emissions in the value chain of oil and gas companies arise from the use, by business relations and consumers, of the oil and gas products the companies produce and/or sell. Of all Scope 3 emissions, the most important category of emissions for oil and gas companies is therefore Scope 3, category 11: *"use of sold products*".

407. The UN Race to Zero Interpretation Guide makes it clear that the requirement to make a fair contribution (a *"fair share*") means that many actors can and must achieve steeper percentage reductions than the global average of 50% by 2030 and must also reach net zero well before 2050:

> *"One key dimension, amongst others, informing 'fair share' is the time by which actors reach a state of (net) zero emissions.*
> *I. Many actors in Race to Zero can and must go beyond 50% of emissions reductions by 2030, and must achieve an end state net zero well before 2050, as part of the requirement for entities in the campaign to contribute their fair share of achieving net zero as soon as possible.*
> *II. In parallel, developing country actors may require more flexibility on their pathway to net zero and may find it challenging to halve their emissions by 2030. Race to Zero recognises regional and sectoral disparities and, whilst requiring all actors to go as fast and as far as possible, expects targets to account for such factors."*[449] (underlining added by counsel.)

408. The UN Race to Zero thus makes it clear that many companies must achieve percentage reductions in emissions that go beyond the global average. This applies in particular to influential Western companies with significant emissions, large transition capabilities and/or a great historical responsibility. After all, in relation to the "fair share, equity & justice" topic, the UN Race to Zero explicitly refers to the Preamble and Articles 2 and 4 of the Paris Agreement, which lay down the principle of equity and the principle of Common But Differentiated Responsibilities and Respective Capabilities (the CBDR principle).[450] The Interpretation Guide also clearly calls on entities to "*be bold and shoulder the greatest responsibility, and to consider the established principles around equity in international law*."[451] This is also logical, because only in this way will emission space be left for actors in developing countries, for instance, who should be allowed more time to achieve climate targets. According to the UN Race to Zero, the starting point for all actors at all times is that they must reduce emissions *"as fast and as far as possible"*.[452]

409. The UN Race to Zero also demonstrates that, in the vast majority of cases, actors must set *absolute* percentage-based emission reduction targets.[453] This, too, is only logical, because the total quantity of absolute emissions must be reduced as quickly and as steeply as possible in order to stay within the carbon budget. In chapter 11.3, Milieudefensie will discuss what this means for Shell specifically.

410. The Interpretation Guide also makes it clear that *"phasing down and out all unabated fossil fuels as part of a*

[448] Ibid, p. 5: *"Scope 3 emissions can represent the largest source of emissions for companies and present the most significant opportunities to influence GHG reductions and achieve a variety of GHG-related business objectives*". See also: https://ghgprotocol.org/corporate-value-chain-scope-3-standard: *"the majority of total corporate emissions come from Scope 3 sources*".
[449] Exhibit MD-117, UNFCCC, "Interpretation Guide Race to Zero Expert Peer Review Group Version 2.0", p. 6.
[450] Ibid, p. 2.
[451] Ibid, p. 6 (para. 3a).
[452] Ibid, p. 6 (para. 3d(ii)).
[453] Ibid, p. 8 (para. 7a): *"In most cases, absolute emissions targets are necessary for ensuring real-world reductions*."

global, just transition" means that members must limit the development, financing and facilitation of new fossil projects, in line with science-based advice.[454] To this end, policies must be developed. Below and in chapter 11.4, it will be discussed in detail that phasing out fossil fuels in a science-aligned way means that no new oil and gas fields should be developed anymore.

411. The UN Race to Zero also emphasises that phase-out policies must provide for measures to prevent "*perverse outcomes*", such as simply transferring fossil assets from one owner to another.[455] Credible climate policies are, of course, about really phasing out fossil fuels, not enabling others to extract more oil and/or gas. This is relevant in the context of Shell, because Shell has suggested in the legal proceedings that are still pending that it will perhaps wish to comply with a Court order that may be issued by means of such a divestment strategy. In chapter 11.3.3.3, Milieudefensie will explain that an adequate climate policy also means that there are restrictions when it comes to simply divesting assets in order to reduce emissions.

412. With the fifth "P" of Persuade, the UN Race to Zero makes it clear that non-state actors must not only align their own climate policies with the 1.5°C target, but must also ensure that their external activities, including their membership of interest groups, are aligned with it.[456] According to the Interpretation Guide, companies must ensure that their lobbying, PR activities and membership of organisations active in the field of policy influencing are aligned with the goal of halving global emissions by 2030 and achieving net zero by 2050 (at the latest).[457] The Guide explicitly states that companies must be transparent about the interest groups they belong to, must have policies in place to ensure that those interest groups focus on achieving the global climate goals and must be prepared to end their involvement with interest groups if, after a reasonable period of time, they are still not acting in line with global climate goals:

> *"Within 12 months of joining, publicly disclose those trade association affiliations you can and ensure a governance mechanism is in place to provide accountability and alignment across all policy and engagement actions. Pursue efforts to shift the association's position to alignment with global climate goals. If after an appropriate period (e.g. following a round of strategy decisions or governance reforms) your associations persist in not aligning with scientific pathways, you are urged to remove yourself from such a trade association."*[458]

413. With all this, the UN Race to Zero provides important principles to be considered by non-state actors when they adopt climate policies and set the accompanying emission reduction targets. This includes setting the minimum requirements to be met by existing and newly developed corporate climate protocols in order to make credible contributions to limiting global warming to 1.5°C.

414. Milieudefensie recalls here that the UN Race to Zero arose from the international consensus that had already emerged in 2012 on the need for non-state climate action to achieve the climate challenge.[459] A necessity that, incidentally, had already been recognised in 2011 by the drafters of the Scope 3 Standard for the GHG Protocol:

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[454] Ibid, p. 8 (para. 5b: *"Each Race to Zero member shall phase out its development, financing, and facilitation of new unabated fossil fuel assets, including coal, in line with appropriate global, science-based scenarios (see above)*").
[455] Ibid, p. 8 (para. 5c).
[456] Exhibit MD-114, UNFCCC, "Starting Line and Leadership Practices 3.0 - Minimum criteria required for participation in the Race to Zero campaign", p. 3, under "Persuade": *"Within 12 months of joining, align external policy and engagement, including membership in associations, to the goal of halving emissions by 2030 and reaching global (net) zero by 2050."*
[457] Exhibit MD-117, UNFCCC, "Interpretation Guide Race to Zero Expert Peer Review Group Version 2.0", p. 15.
[458] Ibid.
[459] See also in this regard District Court of The Hague 26 May 2021, ground 4.4.26: "Since 2012, there has been broad international consensus on the need for non-state action, because states cannot tackle the climate challenge alone."

"Temperature rise above this level will produce increasingly unpredictable and dangerous impacts for people and ecosystems. As a result, the need to accelerate efforts to reduce anthropogenic GHG emissions is increasingly urgent. Existing government policies will not sufficiently solve the problem. Leadership and innovation from business is vital to making progress."[460]

7.2.4 **2021: UNEP's acknowledgment of the growing importance of non-state climate action**

415. In light of the above-mentioned developments, UNEP has also kept pointing out, in more recent reports, the ever-increasing importance of non-state action when it comes to raising climate ambitions and accelerating implementation. UNEP has pointed out in this connection that the Paris Agreement has institutionalised the engagement of non-state actors and set in motion an ongoing process to promote climate action by non-state actors, including net-zero targets:

> *"Businesses, cities, regions, investors, civil society groups, and other non-state and subnational actors (NSAs) play an increasingly important role in raising ambition and accelerating implementation. The Paris Agreement institutionalised the engagement of NSAs in achieving long-term climate goals and created an ongoing process to catalyse climate commitments made by NSAs, including net-zero targets (Chan, Ellinger and Widerberg 2018; Hale 2016; Hsu et al. 2018)."*[461]

416. UNEP (once again) explicitly pointed out the interaction between state and non-state climate action that can help achieve the positive transformation towards the 1.5°C target as well as the enormous mitigation potential of non-state actors (NSAs):

> *"Efforts by NSAs towards global net-zero emissions are strengthening and broadening, which helps mobilize stakeholders to achieve net zero [….] Actions taken by NSAs can also contribute to achieving net-zero targets set by governments, while at the same time creating more favourable conditions for governments to increase their ambition going forward. A recent study of major non-state actor initiatives found they had the potential to reduce 2030 emissions by 5–15 $GtCO_2$-eq (Black et al. 2021; Hale et al. 2021; Hsu et al. 2019; NewClimate Institute and Data-Driven EnviroLab 2020; NewClimate Institute et al. 2021)."*[462]

417. Unfortunately, the opposite is also true. The absence of adequate climate action by the private sector means that the crucial and necessary flywheel effect needed to be able to still achieve the 1.5°C target will also not materialise.

7.2.5 **2022: the recommendations of the UN Expert Group on credible climate policies by non-state actors**

418. The importance of adequate climate action by companies lies not only in the flywheel effect described above. If non-state climate action is insufficiently ambitious or credible, it will undermine and erode the implementation of government policies.

419. Against this background, it is important to highlight the work of the United Nations High-Level Expert Group on the Net Zero Emissions Commitments of Non-State Entities. This committee of UN experts will be referred to below as the **"UN Expert Group**". At the request of the UN Secretary-General, the UN Expert Group formulated five principles and made ten key recommendations in 2022 on what credible net-zero targets for companies should look like.

[460] Exhibit MD-116, GHG Protocol Corporate Value Chain (Scope 3) Standard, p. 3.
[461] Exhibit MD-118, UNEP 2021, "Emissions Gap Report 2021", p. 28.
[462] Ibid. By way of illustration: 15 $GtCO_2$-eq is more than China's total emission volume, see https://ourworldindata.org/co2/country/china.

420. These recommendations were necessary because more and more companies were, admittedly, committing themselves to a net-zero target in words, but the integrity of those pledges often left much to be desired: "*many of these pledges are not aligned with the science, do not contain enough detail to be credible, and use the terms "net zero" or "net zero aligned" (as well as many other similar terms) inconsistently. Deceptive or misleading net zero claims by non-state actors not only erode confidence in net zero pledges overall, they undermine sovereign state commitments and understate the work required to achieve global net* zero", according to the UN Expert Group.[463]

421. The aim was therefore to develop stronger and clearer standards for net-zero targets in order to prevent greenwashing by companies and further delays in meaningful climate action.

422. The recommendations of the UN Expert Group are set out in the report "Integrity Matters: Net Zero Commitments by Businesses, Financial Institutions, Cities and Regions", referred to below as the **"UN Expert Report**".

423. The UN Expert Report builds on existing initiatives such as the UN Race to Zero initiative to establish a universal definition of net zero by 2050 that should guide corporate action:

> *"We have built on the existing science and best-in-class voluntary efforts to create a universal definition of net zero, based on five principles and ten recommendations to guide the future of net zero, and focused on the actions that need to be taken by cities, states, corporations and those who regulate them."*[464]

424. The five key principles to be observed include setting an ambition to achieve significant emission reductions in the short and medium term on the path to net zero by 2050:

> 1. *Ambition which delivers* significant near- and medium-term emissions reductions on a path to global net zero by 2050;
> 2. *Demonstrated integrity by aligning commitments with actions and investments*
> 3. *Radical transparency in sharing relevant, non-competitive, comparable data on plans and progress*
> 4. *Established credibility through plans based on science and third-party accountability*
> 5. *Demonstrable commitment to both equity and justice in all actions*[465] (underlining added by counsel.)

425. The recommendations subsequently flesh out what this means in practice. The UN Expert Report confirms – in line with the UN Race to Zero minimum criteria – that a target must be set to achieve net zero emissions by 2050 or earlier reflecting the maximum ambition ("*[a]ll non-state actors must reduce emissions as fast as possible"*), while those that have the capacity to reduce emissions faster than the average emission reductions required globally should do so:

> *"Those that have the capacity to move faster than a 50% reduction by 2030 and net zero by 2050 should do so, while some developing country non-state actors may require more support on their path to net zero*."[466]

426. The importance of the fastest possible climate action by companies is then emphasised once again, partly in

[463] Exhibit MD-119, UN High-Level Expert Group on the Net-Zero Emissions Commitments of Non-State Entities 2022, "Integrity Matters: Net Zero Commitments by Businesses, Financial Institutions, Cities and Regions", p. 15.
[464] Ibid, p. 12.
[465] Ibid, p. 13.
[466] Ibid, p. 16.

view of the high risk of passing tipping points in the climate system: "*It is crucial that non-state actors have short-term targets that prioritise immediate reductions aligned with pathways that keep 1.5 °C in sight across their value chain to avoid crossing dangerous climate tipping points*."[467]

427. The UN Expert Report emphasises that it is crucial for companies to set short-term targets immediately and to have reduction targets for at least every five years from 2025 onwards. Here, too, it is emphasised that this will help governments to implement their own targets and can create a flywheel effect for tightening existing (government) targets.[468]

428. The UN Expert Report explicitly stresses that companies must reduce their emissions in absolute terms. The reduction target must cover all of the company's emissions, both the Scope 1 and 2 emissions and the Scope 3 emissions.[469]

429. Furthermore, the UN Expert Report clarifies that carbon credits should not be used to achieve short-term reduction targets. Carbon credits, and only carbon credits with guaranteed high integrity, may only be used for *"beyond value chain mitigation*". This means that carbon credits may only be used in addition to a company's own reduction targets, and not instead of actual emission reductions.[470] Chapter 11.3.3.4 will further explain what carbon credits are, why they are problematic and on which findings this recommendation that carbon credits should not be used to achieve reduction targets is based. Shell's position in the area of carbon credits will also be discussed.

430. The UN Expert Report also contains a specific recommendation regarding the phasing out of fossil fuels. After all, it is clear, according to the UN Expert Report, that existing fossil-fuel infrastructure will far exceed the remaining carbon budget for 1.5°C.[471] The UN Expert Report therefore established that "*there is no room for new investment in fossil fuel supply and* [there is] *a need to decommission existing assets.*"[472] In the words of the chair of the UN Expert Group: "*Non-state actors cannot claim to be net zero while continuing to build or invest in new fossil fuel supply.* […] *Net zero is entirely incompatible with continued investment in fossil fuels*."[473] Chapter 11.4 will explain the "no new fields" standard in more detail.

431. The UN Expert Report also makes it clear that lobbying *and* other forms of advocacy ("*lobbying and advocacy*") must be aligned with the 1.5°C target. Companies must disclose their memberships of interest groups, encourage those organisations to lobby for positive climate measures and have an escalation strategy if they fail to do so, including the option of leaving the organisation if the necessary changes are not made.[474] According to the UN Expert Report, company directors "*need to ensure that their full influence is working as part of the solution, not undermining it*." Chapter 8 will explain that interest groups have had a major inhibiting influence on states' climate policies in recent decades, and that this also applies to interest groups in which Shell has an influential position in particular.

[467] Ibid, p. 17.
[468] Ibid.
[469] Ibid, p. 17. See also p. 7: *"Non-state actors cannot focus on reducing the intensity of their emissions rather than their absolute emissions or tackling only a part of their emissions rather than their full value chain (scopes 1, 2 and 3)."*
[470] Ibid, pp. 7, 12 and 19.
[471] Ibid, p. 23.
[472] Ibid, p. 23.
[473] Ibid, p. 7.
[474] Ibid, p. 25.

432. The UN Expert Report was presented during COP27 and welcomed and embraced by states with approval, while recognising the importance of non-state climate action and the importance of transparency, progress and accountability in achieving climate commitments by non-state actors:

> "*The Conference of the Parties,* [...]
>
> *90. Encourages Parties and non-Party stakeholders to engage actively in the Marrakech Partnership for Global Climate Action;* [...]
>
> *92. Welcomes the recommendations of the High-Level Expert Group on the Net-Zero Emissions Commitments of Non-State Entities, launched by the United Nations Secretary General in March 2022, which are designed to enhance transparency and accountability related to, and progress in achieving, the climate pledges of businesses, investors, cities and regions;*
>
> *93. Invites the secretariat to ensure greater accountability of voluntary initiatives through the Non-State Actor Zone for Climate Action platform;"*[475]

433. At COP29 in 2024, the UN Secretary-General also explicitly called on companies to implement the recommendations of the UN Expert Group by COP30 in 2025 at the latest:

> *"First, I urge all non-state actors to create robust, accountable transition plans by COP30 next year.*
> *These must align with the full recommendations of our High-Level Expert Group on Net Zero.*
> *They must be consistent with limiting global temperature rise to 1.5 degrees Celsius.*
> *They must chart a course to net zero by 2050, through milestones in 2025, 2030, 2035, and beyond.*
> *They must disclose how research and development plans, and renewables investments, align with those targets.*
> *They must chart a course to fossil fuel phase out – based on science*."[476]

7.2.6 **Interim conclusion**

434. In conclusion, it can be established that there has been consensus, for a very long time, among all parties to the UN Climate Convention and (subsequently also) the Paris Agreement that states cannot tackle the climate challenge alone and that non-state actors play a crucial and indispensable role in preventing dangerous climate change. For this reason, the important role of non-state actors was institutionalised within the UN climate regime as early as 2015. Subsequently, important initiatives have been developed at UN level that clarify the principles to be used by non-state actors when formulating and implementing climate policies in order to make credible contributions to the climate challenge and - by extension - to actually create the much-needed flywheel effect for climate action.

435. The starting point here is that non-state actors must demonstrate maximum ambition to reduce their Scope 1, 2 and 3 emissions to net zero as quickly as possible, but by 2050 at the latest. To this end, ambitious and credible interim percentage reduction targets must be set. This contribution must form a fair share of the global challenge. For many actors, a fair share means that they will have to do more than the global average. Moreover, credible net-zero climate policies of companies must provide for the phasing out of fossil fuels. The UN Race to Zero, and especially the UN Expert Report, leaves no doubt that investments in new oil and gas production are at odds with a credible net-zero policy. Finally, the UN initiatives for non-state actors make it clear that they must also align their lobbying activities with the 1.5°C target. All these findings are important

[475] Exhibit MD-103, UNFCCC COP27 2022 (Sharm el-Sheikh), "Sharm el-Sheikh Implementation Plan", preamble and paras. 90 up to and including 93.
[476] Secretary-General's remarks at COP29 High-Level Event on the stocktake of "Integrity Matters", 14 November 2024, available via https://www.un.org/sg/en/content/sg/statement/2024-11-14/secretary-generals-remarks-cop29-high-level-event-the-stocktake-of-integrity-matters-delivered.

for fleshing out Shell's duty of care, as will be discussed in more detail in chapter 11.

7.3 COMPANIES' RESPONSIBILITIES TO RESPECT HUMAN RIGHTS

7.3.1 The human rights responsibilities of companies under the UNGP and the OECD Guidelines

436. The acknowledgment since 2012 that states cannot tackle the climate challenge alone and the explicit call by states to non-state actors to take proactive and ambitious climate action is well-aligned with the background of other important sources regarding society's expectations in the area of corporate responsibility. After all, around the same period – in 2011 – the UN Guiding Principles on Business and Human Rights (hereafter: "the **UNGPs**") were adopted with the unanimous support of the UN Human Rights Council.

437. The UNGPs flesh out the UN "Protect, Respect and Remedy Framework", which was established in 2008 at the invitation of the UN Human Rights Council in response to the adverse effects of globalisation and the resulting increase in human rights violations by multinational companies.

438. The framework was designed by the late Professor John Ruggie, UN Special Representative on human rights and transnational corporations and other business enterprises[477]. He was appointed in 2005 by the UN Secretary-General to identify and clarify standards for corporate responsibility and liability.

439. The Protect, Respect and Remedy Framework establishes (see below) that the increasing human rights violations by companies are, for an important part, caused by the fact that (national) governments and public institutions have insufficient control over multinational companies due to rapid international developments. The lack of international supervision and regulation has created a situation – a power vacuum caused by governance gaps – in which and through which internationally operating companies can operate outside individual countries' rules increasingly easier, without fear of sanctions.

440. For this reason, self-regulation through an international guideline to be drawn up as a code of conduct for companies was deemed necessary. This code of conduct should encourage companies to respect human rights independently.

441. The explanatory introduction to the Protect, Respect and Remedy Framework outlines the above background to this framework (and the UNGP based on it):

> *"[M]arkets work optimally only if they are embedded within rules, customs and institutions [...] Indeed, history teaches us that markets pose the greatest risks – to society and business itself – when their scope and power far exceed the reach of the institutional underpinnings that allow them to function smoothly and ensure their political sustainability. This is such a time and escalating charges of corporate-related human rights abuses are the canary in the coal mine, signalling that all is not well. The root cause of the business and human rights predicament today lies in the governance gaps created by globalization - between the scope and impact of economic forces and actors, and the capacity of societies to manage their adverse consequences. These governance gaps provide the permissive environment for wrongful acts by companies of all kinds without adequate sanctioning or reparation. How to narrow and ultimately bridge the gaps in relation to human rights is our fundamental challenge."*[478] (underlining added by counsel.)

[477] For an overview of his impressive CV, see https://scholar.harvard.edu/john-ruggie/home.

[478] Exhibit MD-120, Ruggie 2008, "Protect, Respect and Remedy: a Framework for Business and Human Rights, Report of the Special Representative of the Secretary-General on the issue of human rights and transnational corporations and other business enterprises", p. 3 under 2 and 3.

442. As a result of this observation, the above-mentioned framework was drawn up, which broadly states that, in addition to states, companies themselves also have a responsibility to prevent human rights violations in the course of their activities:

> *"The framework rests on differentiated but complementary responsibilities […]: the State duty to protect against human rights abuses by third parties, including business; the corporate responsibility to respect human rights […] Each principle is an essential component of the framework: the State duty to protect because it lies at the very core of the international human rights regime; the corporate responsibility to respect because it is the basic expectation society has of business."*[479]

443. On the one hand, states must protect their citizens against human rights violations by companies, but, on the other, companies must also refrain from such violations and respect human rights because that is the expectation society is allowed to have of them.

444. That is the basis of the framework that Professor Ruggie, in consultation with relevant governments, companies and NGOs, subsequently developed and which led to the UN Guiding Principles on Business and Human Rights, to which Shell has also committed itself.

445. Page 1 of the UNGP formulates, as the central starting point, that companies have a special role in society, that the UNGP apply to all states and companies and that the UNGP must be interpreted in light of their purpose, which includes contributing to a socially sustainable globalisation:

> *"These Guiding Principles are grounded in recognition of:*
> *(a) States' existing obligations to respect, protect and fulfil human rights and fundamental freedoms;*
> *(b) The role of business enterprises as specialized organs of society performing specialized functions, required to comply with all applicable laws and to respect human rights;*
> *(c) The need for rights and obligations to be matched to appropriate and effective remedies when breached.*
> *These Guiding Principles apply to all States and to all business enterprises, both transnational and others, regardless of their size, sector, location, ownership and structure.*
> *These Guiding Principles should be understood as a coherent whole and should be read, individually and collectively, in terms of their objective of enhancing standards and practices with regard to business and human rights so as to achieve tangible results for affected individuals and communities, and thereby also contributing to a socially sustainable globalization*."[480]

446. The UN Guiding Principles, which Shell has also embraced, essentially demonstrate the following: the responsibility to respect human rights is a global standard of conduct that all companies are expected to adhere to;[481] addressing negative human rights impacts means that companies must take measures to prevent, mitigate and, where necessary, remedy these impacts;[482] companies should not undermine the ability of states to fulfil their own human rights obligations;[483] companies should therefore prevent that their own activities, products and services have adverse effects on human rights.[484] The larger the company and the more serious the impact (in terms of scale, scope and degree of irreversibility), the greater the responsibility to prevent these negative impacts; preventive or mitigating (precautionary) measures must

[479] Ibid, pp. 4 and 5 under 9.

[480] Exhibit MD-121, UN Guiding Principles (2011), p. 1.
[481] Ibid, p. 13, Commentary Principle 11: *"The responsibility to respect human rights is a global standard of expected conduct for all business enterprises wherever they operate. It exists independently of States' abilities and/or willingness to fulfil their own human rights obligations, and does not diminish those obligations*."
[482] Ibid.
[483] Ibid.
[484] Ibid, p. 14, Principle 13.

also be taken in the case of potential impacts.[485]

447. This responsibility of companies is their own, independent responsibility. According to the UNGP, this responsibility requires companies to carry out due diligence in order to respect human rights in all their business activities and relationships. This due diligence must identify adverse human rights impacts that a company causes or contributes to through its own activities, or that are directly linked to its operations, products or services by its business relationships:

> "*In order to identify, prevent, mitigate and account for how they address their adverse human rights impacts, business enterprises should carry out human rights due diligence*. […] *Human rights due diligence: (a) Should cover adverse human rights impacts that the business enterprise may cause or contribute to through its own activities, or which may be directly linked to its operations, products or services by its business relationships*."[486]

448. Companies must then take appropriate measures based on their findings and assessments to prevent and mitigate adverse human rights impacts in their value chains (and must provide remedies for impacts that have already occurred).[487] Where any adverse human rights impact is directly linked to a company's activities, products or services via a business relationship with another entity, a company should use its position ("*use its leverage*") to prevent or mitigate adverse human rights impacts and thus encourage that other entity to improve its conduct. If the protection of human rights is not improved, the business relationship may have to be ended.[488]

449. Other guidelines to which Shell has committed include the OECD Guidelines for Multinational Enterprises. As known, the OECD is a partnership of 38 mostly prosperous countries (including the Netherlands) within which social and economic policies are discussed, studied and coordinated. The member countries try to solve common problems and align their international policies. In 1976, they also drew up guidelines that clarify what they expect from multinational enterprises that do business in a global context. In 2011, these guidelines were aligned with the principles and responsibilities included in the UN Guiding Principles and which were last updated in 2023.[489] These OECD guidelines represent the common view of the 38 OECD countries and 13 additional countries[490] on the role of multinational companies in society (most large multinational companies are also headquartered in these countries) and their responsibilities to protect human rights and the environment. The content of the OECD Guidelines and the UN Guiding Principles correspond on the most important points.

450. All in all, it can be established that the OECD Guidelines and the UNGP reflect a universal standard of conduct requiring companies to respect the human rights; they were also created in recognition of the fact that internationally operating companies are partly operating in a power vacuum, due to increased globalisation. Proactive measures by these companies are necessary for the full protection of human rights. In other words, due to the increased globalisation, countries cannot (or no longer) fully achieve the protection of human rights on their own, and companies must also take responsibility themselves in the area of human rights.

7.3.2 **The responsibilities of companies in relation to climate change under human rights law**

[485] Ibid, pp. 14 and 15, Principle 14 and Commentary.
[486] Ibid, p. 16, Principle 17.
[487] Ibid, p. 17, Principle 17 and p. 20, Principle 19.
[488] Ibid, p. 21, Commentary, Principle 19.
[489] Exhibit MD-122, OECD Guidelines (original English version) (2023).
[490] Ibid, p. 6, footnote 1.

451. The above-mentioned corporate responsibility under human rights law also extends to measures to combat climate change. This is evident, given the very serious consequences and risks of climate change for human rights, as found by, for instance, the Dutch Supreme Court, the ECtHR, the Inter-American Court of Human Rights (hereafter: "the **IAHRM**") and the International Court of Justice.

452. Both the OECD guidelines and authoritative sources on the UN Guiding Principles clarify what climate measures may be expected of companies, among other actors. Due to the overlap between the OECD guidelines and the UNGP, they will be discussed jointly.

453. In the 2023 update of the OECD Guidelines, climate change was added to the environmental section, where – in addition to the generally applicable frameworks for human rights due diligence – specific guidance is now also provided on the measures to be taken by companies to mitigate their climate impact.[491] With regard to the UNGP, a special UN Working Group on the issue of human rights and transnational corporations and other business enterprises issued an Information Note in 2023 on the UNGP and the climate challenge, under the mandate of the UN Human Rights Council.[492]

454. This UN working group has been given a mandate by the UN to promote the effective implementation of the UNGP.[493] According to the UN working group, the Information Note serves as a supplement to the growing number of guidelines and requirements relating to climate change action by states and companies.[494]

455. The environmental section of the OECD guidelines makes it clear – in line with the UN Race to Zero and the UN Expert Report – that companies play a key role in tackling climate change.[495] The environmental section is based on the principle that companies must act as quickly and proactively as possible to prevent negative environmental impact.[496] According to the explanatory notes to the OECD guidelines, companies must ensure that their greenhouse gas emissions are in line with the global temperature target and the best available science. To this end, they must apply science-based reduction targets for Scopes 1, 2 and 3, for the short, medium and long term.[497] The targets set must be absolute and, where relevant, aimed at reducing CO_2 intensity.[498]

456. The earlier mentioned UN working group also emphasises with regard to the UNGP that companies must develop policies and action plans relating to the climate impact of their activities.[499] With a view to this, they must identify all their Scope 1, 2 and 3 emissions and incorporate them in their climate policies.[500] The UN working group also explicitly states that companies must phase out the use of fossil fuels and the production

[491] Exhibit MD-122, OECD Guidelines (original English version) (2023), p. 33. See also p. 37 (paras. 76-77).
[492] Exhibit MD-123, UN Working Group on the issue of human rights and transnational corporations and other business enterprises 2023, "Information Note on Climate Change", p. 3, where the following can be read: *"it is clear that States and business enterprises have obligations with respect to climate change, and with respect to the impacts of climate change on human rights*".
[493] On this mandate, see: https://www.ohchr.org/en/special-procedures/wg-business/about-mandate.
[494] Exhibit MD-123, UN Working Group on the issue of human rights and transnational corporations and other business enterprises 2023, "Information Note on Climate Change", p. 2 (para. 3) and p. 3 (para. 6).
[495] Exhibit MD-122, OECD Guidelines (original English version) (2023), p. 33: *"Enterprises play a key role in advancing sustainable economies and can contribute to delivering an effective and progressive response to global, regional and local environmental challenges, including the urgent threat of climate change*."
[496] Ibid, p. 37, par. 74.
[497] Ibid, p. 37, paras. 76-77.
[498] Ibid.
[499] Exhibit MD-123, UN Working Group on the issue of human rights and transnational corporations and other business enterprises 2023, "Information Note on Climate Change", p. 5 (para. 17, under b)
[500] Ibid, p. 6 (para. 17, under d, f and g and para. 19 under d).

of emissions, and may not use carbon offsets (which is a different term for carbon credits) to do so.[501]

457. Based on the above, it follows from the OECD guidelines and the UNGP that companies have a responsibility of their own to achieve percentage reduction targets and thus reduce their Scope 1, 2 and 3 emissions in absolute terms to protect human rights and the climate. According to these guidelines, the reduction targets must be aligned with climate science. This is consistent with the climate protocols for companies discussed above.

458. In addition, the chain responsibility of the OECD Guidelines and the UNGP make it clear, as said, that companies have due-diligence obligations with regard to their business relationships.[502] Based on these due-diligence obligations, companies must examine how they could be involved in adverse human rights and climate impacts via their business relationships. They must then make efforts to prevent or mitigate those adverse impacts.[503]

459. The OECD Guidelines and the UNGP require companies to take action when they contribute to negative implications for human rights and climate via their business relationships. When they identify such negative impacts with business relationships, companies must take steps and use their position (leverage*)* to counter those impacts.

460. In the context of climate change, this means that a company must examine to what extent its business relationships are pursuing adequate climate policies. If those business relationships are not pursing sound climate policies, the conclusion might have to be that these business relationships are contributing to negative implications for human rights and the climate. In that case, the company must take appropriate action based on the OECD Guidelines and the UNGP.

461. It does not matter in this respect whether these business relationships are with countries or companies[504], as both countries and companies have responsibilities under human rights law.[505] After all, the OECD Guidelines and the UNGP not only concern the responsibilities of companies under human rights law, but also confirm the responsibilities of countries under human rights law.[506]

462. Furthermore, according to both sets of guidelines, the responsibilities of countries and companies under human rights law exist independently of each other. This means that every country and every company has its own responsibility. The failure of one does not detract from the obligation of the other. Countries and companies are also not allowed to undermine each other's obligations based on these guidelines.[507] This chain of responsibility, in which all relevant parties have an independent responsibility of their own, effectively creates a flywheel effect under human rights law that promotes the effective protection of human rights (and the climate).

[501] Ibid, p. 6, para. 19, under b.
[502] Exhibit MD-122, OECD Guidelines (original English version) (2023), pp. 14 and 15 (paras. 11 to 13) and p. 33. Exhibit MD-121, UN Guiding Principles (2011), Principles 17 to 21 (pp. 17 to 24).
[503] Ibid.
[504] Exhibit MD-122, OECD Guidelines (original English version) (2023), p. 18 (para. 17). Exhibit MD-121, UN Guiding Principles (2011), Commentary on Principle 13 (pp. 14-15).
[505] Exhibit MD-122, OECD Guidelines (original English version) (2023), p. 25 (paras. 42 and 43). Exhibit MD-121, UN Guiding Principles (2011), Commentary on Principle 1 and Principle 11 (pp. 8 and 13).
[506] Ibid.
[507] Exhibit MD-122, OECD Guidelines (original English version) (2023), p. 12 (para. 2) and p. 25 (para. 42). Exhibit MD-121, UN Guiding Principles (2011), Commentary on Principle 1 and Principle 11 (pp. 8 and 13).

463. A current example of this chain responsibility is the procedure initiated by the UN Working Group together with various UN Special Rapporteurs, in which the Saudi state oil company Aramco and a large number of its financiers have each been individually contacted regarding their own roles and responsibilities in relation to climate change.[508] This concerns a letter in response to a complaint from environmental organisation ClientEarth about Aramco's business plans, which are not aligned with the Paris Agreement, and the financing from private banks and investors that makes those plans possible.

464. The UN experts are "*concerned about how Saudi Aramco's actions may contribute to undermining the Paris Agreement and international cooperation in the face of the existential threat to human rights posed by climate change*" and confirm that companies have an independent responsibility under the UN Guiding Principles to respect all internationally recognised human rights, including in the context of climate change. The UN experts also emphasise that misinformation and disinformation can have a negative impact on climate action and that companies should refrain from supporting and/or participating in campaigns that undermine the ability of states and the public to make informed decisions regarding climate change.[509]

465. In light of all this, the UN experts have requested Saudi Aramco (and also its financiers) to provide a great deal of information in order to ascertain how they are implementing or will implement the responsibilities under the UNGP.

7.4 **CONCLUSION**

466. The above shows that the international community has made it clear in various ways that non-state actors have an important role to play in helping to limit global warming to 1.5°C. This responsibility is a chain responsibility, extending across the full emissions scope (Scope 1, 2 and 3 emissions) of a company, and also entails additional obligations to make sure a company is not otherwise associated with or contributing to negative human rights implications via its business relationships.

467. Both under the UN climate regime and under the UN Guiding Principles and OECD guidelines, clear and consistent principles have been provided for this purpose that must be observed by all non-state actors when they determine their climate policies. Non-state actors must reduce their emissions (in Scope 1, 2 and 3) in line with science and the 1.5°C target. This calls for adequate interim reduction targets on the way to net zero by 2050. The UN Race to Zero and the UN Expert Report demonstrate that these reduction targets must reflect a *"fair share*" of the required global emission reductions. In addition, fossil fuels will have to be phased out; in this connection, the UN Expert Group, among other organisations, has clarified that no room is left for the development of new oil and gas fields.

468. In chapter 9, Milieudefensie will explain that the above findings in the authoritative soft-law instruments concerning human rights and the environment as discussed above carry considerable weight when the societal duty-of-care standard to be complied with by Shell is determined. As the Court of Appeal in The Hague formulated this on 12 November 2024 in the earlier Shell case:

[508] Exhibit MD-124, Letter from UN experts to Saudi Aramco dated 26 June 2023, p. 6 and pp. 9–11.
[509] Ibid, p. 6.

"In private-law relationships, human rights – including protection against dangerous climate change – can have an effect via open standards, such as the societal duty of care. The duty of care to be observed with regard to the climate can be fleshed out on the basis of soft law such as the UNGP and the OECD guidelines. The substance and extent of this duty may vary from one company to the next, depending on the contribution made by a company to climate change and its ability to combat climate change. It follows from the instruments discussed that the societal duty of care entails that companies are also under the obligation to contribute to combating dangerous climate change."[510]

8 THE INHIBITING INFLUENCE OF THE OIL AND GAS INDUSTRY, INCLUDING SHELL

8.1 INTRODUCTION

469. It follows from the previous chapter that non-state action is crucial for global climate action to be successful. Due to the lack of adequate climate action by states and key non-state actors, we have now reached the point where there is only very little time left to turn the tide and action must be taken with the largest possible urgency to limit global warming to 1.5°C. In the words of the IPCC:

> *"The cumulative scientific evidence is unequivocal: climate change is a threat to human well-being and planetary health (very high confidence). Any further delay in concerted anticipatory global action on adaptation and mitigation will miss a brief and rapidly closing window of opportunity to secure a liveable and sustainable future for all (very high confidence)."*[511]

470. In order to understand how it could come to the point that the world – despite the knowledge of climate change and the possibilities for preventing dangerous climate change – has failed to take the necessary action, a better understanding of the role of the fossil-fuel industry is useful and necessary. After all, as already mentioned in the introduction, the fossil-fuel industry has a particularly negative influence on climate action. Limiting climate change requires a drastic transformation from a fossil-fuel-based to a sustainable energy system. Climate action is therefore at odds with the commercial interests of the oil and gas industry. That industry already recognised climate change as a threat to the fossil-fuel business model at an early stage, and then took action to protect that business model.

471. This will be explained below.

472. Chapter 6.2 of this summons discussed how, by the 1980s at the latest, the need for a sustainable energy transition had become evident. At the 1988 climate conference in Toronto, the international community had already called on industry to shift business investments on a massive scale towards the research into and development of sustainable energy and to reduce emissions as a matter of urgency.

473. The call and final statement of 1988, as well as other climate conferences such as the Noordwijk Conference (1989) and the scientific insights from the first report of the UN Climate Panel (1990), which was established in 1988, led to the UN Climate Convention in 1992 (during the UN Conference on Environment and Development in Rio de Janeiro).

474. These developments – which brought climate change out into the spotlight and high on the political agenda from 1988 onwards – marked the start of intensive political and social lobbying by the fossil-fuel industry, including Shell. This was done by means of lobbying activities and PR campaigns, both directly and through interest groups that Shell and other fossil-fuel companies began to support in order to maintain the fossil-

[510] Court of Appeal of The Hague 12 November 2024, ECLI:NL:GHDHA:2024:2099, ground 7.26.
[511] Exhibit MD-001, IPCC 2023, AR6, SYR, p. 89.

fuel business model. The strategies used by the fossil-fuel industry to prevent the disruption of their business operations and forced change have evolved over the past decades, but even today, the fossil-fuel industry still has an influence on the failure of global climate action that cannot be denied.

475. The UN Special Rapporteur on the issue of human rights obligations relating to the enjoyment of a safe, clean, healthy and sustainable environment put it as follows:

> "*For decades, large businesses have undermined the procedural elements of the right to a healthy environment, through greenwashing, deceit, denial, fraud, sabotaging science, aggressive lobbying, massive political donations, corruption, manipulating public opinion, revolving-door hiring practices, regulatory capture and other strategies that exploit their disproportionate economic, social and political power*."[512]

476. With regard to the fossil-fuel industry in particular, he added: "*the fossil fuel industry denied the existence of climate change, knowingly misled the public about climate science, and continues to spread misinformation about the challenges of powering the world with renewables*."[513] (underlining added by counsel.)

477. In this chapter, Milieudefensie will explain that this inhibiting influence of the fossil-fuel industry over climate action is widely recognised in (climate) science, including in the findings of the IPCC, as well as by UNEP and the UN, including the Secretary-General and many Special Rapporteurs.

478. The UN recently also reiterated this very clearly in a report published in the summer of 2025 with the support of, among other organisations, the IEA, the International Monetary Fund, the OECD and the World Bank.[514] Specifically, the chapter entitled *"*Barriers and challenges of the current transition" states that fossil-fuel companies are obstructing political action at the national, regional and international levels, that this has been going on for decades and that it is slowing down the transition. One of the things pointed out is that these fossil-fuel companies spread misinformation that delays the need to reduce fossil-fuel reliance, including false claims about renewable energy technologies to undermine support for them:

> *"Political action to mitigate climate change has been impeded at the national, regional, and international levels through direct lobbying by fossil fuel companies and through the funding of political actors that remains largely undisclosed. A growing body of academic research and investigative journalism has also documented how, for decades, vested interests have developed strategies to both directly discredit climate science and spread disinformation and misinformation that delay the need to reduce fossil fuel reliance, including false claims about renewable energy technologies to undermine support for them." [515]*

479. All of this is highly relevant to this lawsuit, as it demonstrates the necessity of overcoming this inhibiting influence if global climate action is to succeed. The findings of the IPCC, UNEP and other authoritative scientists and bodies will be discussed in chapter 8.3. Much is also known about the specific role that Shell has played and continues to play. Chapter 8.4 will first explain from what time onwards Shell became aware of climate change and the role played in it by fossil fuels. This will be followed by a description of what Shell

[512] Exhibit MD-125, UN Special Rapporteur on the human rights obligations relating to the enjoyment of a safe, clean, healthy and sustainable environment 2024, "Business, planetary boundaries, and the right to a clean, healthy and sustainable environment", p. 8, para. 27.
[513] Ibid, p. 8, para. 28.
[514] Exhibit MD-126, United Nations 2025, "Seizing the moment of opportunity: Supercharging the new energy era of renewables, efficiency, and electrification". All organisations involved are listed on p. ii. See also the accompanying UN press release: Exhibit MD-127, United Nations 2025, "Supercharging Clean Energy Will Repair Humankind's *Relationship with Climate, Fuel Economic Growth, Secretary-General Says – Noting $2 trillion Invested in 2026*" p. 2: *"Today, we are releasing a special report with the support of UN agencies and partners — the International Energy Agency, the International Monetary Fund (IMF), International Renewable Energy Agency, the Organisation for Economic Cooperation and Development (OECD) and the World Bank. The report shows how far we have come in the decade since the Paris Agreement sparked a clean energy revolution. And it highlights the vast benefits — and actions needed — to accelerate a just transition globally*."
[515] Exhibit MD-126, United Nations 2025, "Seizing the moment of opportunity: Supercharging the new energy era of renewables, efficiency, and electrification", p. 29.

has done with that knowledge. It will become clear that Shell has acted (and continues to act) exactly as described by the IPCC, UNEP and other scientists. That chapter will also address how the strategies of fossil-fuel companies have developed over time. First, the infrastructural aspect of the carbon lock-in will be discussed below.

8.2 THE INFRASTRUCTURAL CARBON LOCK-IN

480. The inhibiting influence of the fossil-fuel industry on climate action can be described on the basis of the phenomenon known in science as “carbon lock-in”.

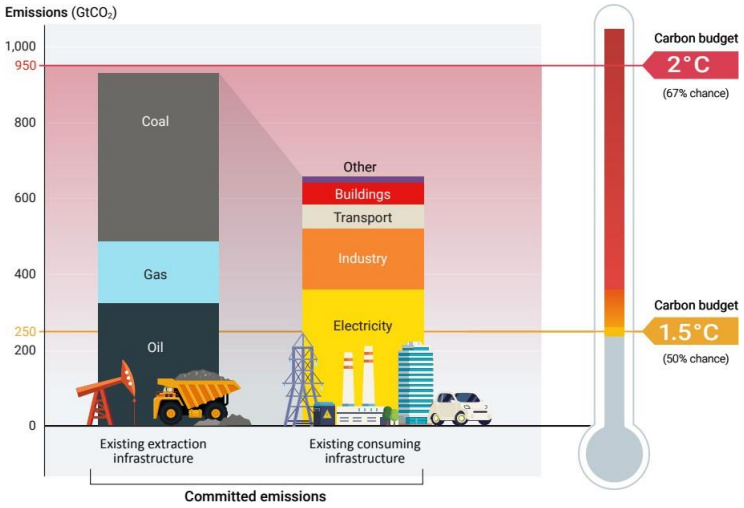
481. Carbon lock-in is the umbrella term for a large number of obstacles that obstruct the necessary transformation of society from a fossil-based to a sustainable energy system. The concept has several dimensions that reinforce each other and create collective inaction.[516]

482. Investing in new oil and gas fields, for instance, creates an extra infrastructural lock-in. The development of new oil and gas fields generally requires large upfront investments that can only be recouped over a long period of time. Once the investment has been made and a new oil or gas field is in production, an oil and gas company will generally always continue production, even if the demand for oil and gas is low and would not justify extra production. After all, the investments must be recouped and discontinuing production would lead to greater financial losses. The parties that have invested in (new) fossil-fuel production thus have an incentive to continue producing for as long and as much as possible, as the Court of Appeal also ruled in the first Shell case.[517] As a result, the future oil and gas production and the CO_2 emissions associated with their combustion are “locked in” once the investments have been made.

483. The lock-in of fossil-fuel infrastructure is very extensive, because so much has been invested in fossil-fuel projects for many years that the expected associated emissions will far exceed the carbon budget that is still available for 1.5˚C.[518] In order to be able to remain within that carbon budget, the production and sale of fossil fuels will have to be rapidly curtailed.

484. The current extent of this infrastructural lock-in has been aptly illustrated by UNEP in the figure below from the Emissions Gap Report 2023.

[516] Exhibit MD-128, Seto et al. (2016), “Carbon Lock-In: Types, Causes, and Policy Implications”, pp. 426-427. For a brief overview of the various dimensions, see also Exhibit MD-036, IPCC 2022, AR6, WGIII, SPM, p. 189.
[517] Court of Appeal of The Hague 12 November 2024, ECLI:NL:GHDHA:2024:2099, ground 7.59.
[518] Exhibit MD-130, UNEP “Emissions Gap Report 2023: Broken Record – Temperatures hit new highs, yet world fails to cut emissions (again)”, p. 35.



485. This figure from UNEP shows that the oil fields that are already in production or for which an investment decision has been made alone are sufficient to exceed the carbon budget for 1.5°C. Oil and gas fields jointly represent almost twice the remaining carbon budget for 1.5°C of emissions. The figure also shows that the emissions implied on the supply side (shown in the left-hand column) are significantly higher than those implied on the demand side (shown in the right-hand column). This makes it clear that the supply of fossil fuels must be phased out as quickly as possible and that there is certainly no room for new fields.

486. The International Energy Agency (IEA) has also acknowledged that the supply of fossil fuels is too large for a 1.5°C scenario and that too much is being invested in it.

487. In this context, the IEA warned in 2023 that the planned investments in fossil-fuel infrastructure are no less than $3.6 billion higher than the investments that are necessary under the IEA's 1.5°C scenario.[519] By way of comparison: that 3.6 billion is equivalent to 3.5 times the gross domestic product of Saudi Arabia, one of the world's largest oil producers. That is also why the IEA has indicated since 2021 that little or no investment in new oil and gas fields is needed and that some already existing fields will be closed before the end of their (technical) lifespan.[520] The existing oil and gas fields (and coal mines) can meet the still remaining demand for fossil fuels in the IEA's 1.5°C scenario. Milieudefensie will discuss the importance of this IEA scenario in more detail later.

488. Despite the very substantial lock-in, all major oil and gas producers, including Shell, are still investing heavily in the development of new oil and gas fields and new fossil-fuel infrastructure *and* in searching for new reserves. Although Shell often claims that new investments in oil and gas production are necessary to meet demand, Shell ignores the fact that every expansion in the supply of fossil fuels will generate extra (unnecessary) demand for these fossil fuels as a result of the downward pressure on oil and gas prices. In this way, the supply side of the market is imposing the use (or continued use) of fossil fuels, which also makes the

[519] Exhibit MD-099, IEA 2023, "Net Zero Roadmap, A Global Pathway to Keep the 1.5 °C Goal in Reach, 2023 Update", pp. 150–151. For the earlier findings from 2021, see: IEA 2021, "Net Zero by 2050 – A Roadmap for the Global Energy Sector", p. 21, available at https://www.iea.org/reports/net-zero-by-2050.
[520] Ibid, pp. 76-77. See also Exhibit MD-131, IEA 2023, "The Oil and Gas Industry in Net Zero Transitions", p. 61.

transition to renewable energy alternatives harder. This was explicitly acknowledged by the Court of Appeal in the first Shell case: "*The use of fossil fuels thus imposed by the supply side of the market could seriously delay the energy transition.*"[521]

489. The International Energy Agency rejects the emphasis placed by the oil and gas industry on shifting responsibility to oil and gas consumers (the demand side) – as Shell also does – as a common misconception about the energy transition. Like the Court of Appeal, the IEA emphasises the importance of measures on the supply side:

> *"A productive debate about the oil and gas industry in transitions needs to avoid two common misconceptions. The first is that transitions can only be led by changes in demand. "When the energy world changes, so will we" is not an adequate response to the immense challenges at hand.* [...] *In practice, no one committed to change should wait for someone else to move first."*[522]

490. By failing to take the necessary measures on the supply side, the oil and gas industry, including Shell, continues to contribute to increasing the carbon lock-in and society remains unnecessarily dependent on fossil fuels. With every investment, the fossil-fuel industry prolongs society's dependence on a fossil-fuel energy system and commits the world again for many more years, and sometimes even decades, of extra greenhouse gas emissions. This creates an economic and social barrier to change, partly due to the long lifespan of fossil-fuel projects and the financial interests involved. The lock-in of fossil infrastructure therefore stands in the way of achieving climate goals. And this lock-in also stands in the way of the further emergence and implementation of renewable energy, according to the IPCC in AR6 WGIII:

> "*Still existing locked-in infrastructures and business models advantages the fossil fuel industry over renewable and energy-efficient end use industry (Klitkou et al. 2015). The fossil fuel energy generation and delivery system therefore epitomises a barrier to the acceptance and implementation of new and cleaner renewable energy technologies (Kariuki 2018).*"[523]

491. The fossil-fuel energy system thus constitutes a major obstacle to the transition to sustainable energy. This brings Milieudefensie to another important form of carbon lock-in, namely the lock-in that is institutional or political in nature. This form of carbon lock-in relates to the various ways in which the established industry reinforces the status quo that is beneficial to the industry and protects its own position. Milieudefensie will describe the institutional lock-in on the basis of findings by the IPCC and other authoritative bodies.

8.3 INSTITUTIONAL CARBON LOCK-IN AND THE FINDINGS OF THE IPCC, UNEP AND OTHER AUTHORITATIVE BODIES ON THE INHIBITING INFLUENCE OF FOSSIL-FUEL COMPANIES ON CLIMATE ACTION

492. The above quotation already shows that the lock-in of infrastructure further strengthens the dominant position of the fossil-fuel industry. Due to the high global dependence on a fossil-fuel energy system and the worldwide dominance of large oil and gas companies and their lobbyists, the fossil-fuel industry has a major influence over politics and society. The IPCC describes this, in factual terms, as a situation in which the interests of the established industry are being favoured over other interests:

> "*Institutions entrench specific political decision-making processes, often empowering some interests over others, including powerful interest groups who have vested interests in maintaining the current high-carbon economic structures (Okereke and*

[521] Court of Appeal of The Hague 12 November 2024, ECLI:NL:GHDHA:2024:2099, ground 7.59.
[522] Exhibit MD-131, IEA 2023, "The Oil and Gas Industry in Net Zero Transitions", p. 15.
[523] Exhibit MD-132, IPCC, AR6, WGIII (selected chapters), p. 557. See also p. 558 (under 5.4.4).

Russel 2010; Wilhite 2016; Engau et al. 2017)[524]

493. The IPCC notes that incumbent industries have limited the ability of governments to pursue ambitious climate policies:

> *"One factor limiting the ambition of climate policy has been the ability of incumbent industries to shape government action on climate change (Newell and Paterson 1998; Jones and Levy 2009; Geels 2014; Breetz et al. 2018)."*[525]

494. According to the IPCC, overcoming the carbon lock-in therefore requires a radical change in the balance of power relations between fossil-fuel industries and governments:

> *"Overcoming the carbon lock-in is not simply a matter of the right policies or switching to low-carbon technologies. Indeed, it would mean a radical change in the existing power relations between fossil fuel industries and their governments and social structural behaviour (Seto et al. 2016).*[526]

495. The transition to a sustainable energy system requires breaking the lock-in of the fossil-fuel system and overcoming resistance to change from the industries and actors that are benefiting from the current system:

> *"A transition to a lower carbon system is unlikely to happen even if models find it technically feasible and cost-effective. Rather, achieving a transition requires breaking locked-in high-carbon technological trajectories, path dependencies and resistance to change from the industries and actors that are benefiting from the current system (Rogge et al. 2017)."*[527]

496. In short, what the IPCC makes clear in the above quotes is that the fossil-fuel industry is an obstacle to the sustainable energy transition, not only through its investments, but also through its influential position vis-à-vis governments.

497. The UNEP Production Gap Report also describes how legislation and regulations are subject to political influence from the fossil-fuel sector, including through lobbying activities, PR activities and "revolving doors" (the transfer of employees from fossil-fuel companies to government and vice versa). This political influence is a major barrier to sustainability, according to the UNEP Production Gap Report:

> *"Firms in the sector tend to be highly politically organized, investing considerable resources into lobbying, campaign finance, public relations, and think tank sponsorship, and exerting influence through a "revolving door" between business and government. This political activity is widely considered to be a major barrier to decarbonization."*[528]

498. The IPCC's AR6 report not only states in general terms that and how the institutional position of the fossil-fuel industry stands in the way of the transition to sustainable energy today, but also notes that the incumbent fossil-fuel industry has exerted influence over climate policies in recent decades.

499. The fact that the industry has influenced climate policies is evident from the findings cited above as well as from the following observation, which demonstrates that companies have worked individually or through interest groups to shape climate policies to their benefit:

[524] Exhibit MD-132, IPCC, AR6, WGIII (selected chapters), p. 172.
[525] Exhibit MD-132, IPCC, AR6, WGIII (selected chapters), p. 170.
[526] Exhibit MD-132, IPCC, AR6, WGIII (selected chapters), p. 1745.
[527] Exhibit MD-132, IPCC, AR6, WGIII (selected chapters), p. 1764.
[528] SEI, IISD, ODI, E3G, and UNEP (2020). "The Production Gap Report: 2020 Special Report", p. 34, available at http://productiongap.org/2020report.

"Corporate actors often influence policies and their adoption (Pulver and Benney 2013; Mildenberger 2020; Goldberg et al. 2020). Corporate actors acting individually or through industry associations have worked to sway climate policy in different countries (Falkner 2008; Bernhagen 2008; Newell and Paterson 2010; Meckling 2011; Mildenberger 2020)."[529]

500. Similar findings can be found in many other scientific papers, including a peer-reviewed article in the journal Climatic Change, according to which the political activities of companies that produce and consume fossil fuels are one of the key reasons why government efforts to combat climate change have failed:

"the political activities of business actors in industries that produce and consume fossil fuels have proven to be one of the key reasons why government efforts to implement climate policies have failed."[530]

501. Since the 1990s, the political arrows of the fossil-fuel industry have been pointed primarily at the most important Western regions that should have taken the lead in climate action under the UN Climate Convention. This is also confirmed by the IPCC:

"*Drawing upon wider networks (Brulle 2014), campaigns by oil and coal companies against climate action in the United States of America and Australia are perhaps the most well known and largely successful of these (Pearse 2017; Brulle et al. 2020; Mildenberger 2020; Stokes 2020), although similar dynamics have been demonstrated in Brazil and South Africa (Hochstetler 2020), Canada (Harrison 2018), and Norway and Germany (Fitzgerald et al. 2019), for example*."[531]

502. The IPCC describes that despite the scientific consensus on anthropogenic climate change, there is polarisation and ongoing debate in the public domain and in politics about the reality of anthropogenic climate change, with all the risks this entails for society.[532] According to the IPCC, public perception of the consensus on anthropogenic climate change and trust in experts, institutions and environmental groups are important prerequisites for successful climate policies.[533]

503. It is precisely these important prerequisites that the fossil fuel industry has undermined. The IPCC finds that established economic and political interests have spread and financed misinformation and generated rhetoric and disinformation that undermine climate science and disregard risks and urgency.[534]

504. The vested (fossil-fuel) industry has done this by organising and financing misinformation and contrarian climate change communication:

"*Vested economic and political interests have organised and financed misinformation and 'contrarian' climate change communication (Brulle, 2014; Farrell, 2016a; Farrell, 2016b; Supran and Oreskes, 2017; Bolsen and Druckman, 2018; Brulle, 2018)*."[535]

[529] Exhibit MD-132, IPCC, AR6, WGIII (selected chapters), p. 1373.
[530] Exhibit MD-133, Brulle & Downie (2022) "Following the money: trade associations, political activity and climate change", pp. 14–15. See also p. 1: *"The political activities of industries associated with the production and consumption of fossil fuels are one of the principal reasons that states are failing to limit greenhouse gas emissions. There is growing evidence, especially in the USA, that the political activities of firms across the economy have played a key role in thwarting government attempts to implement climate policies."*
[531] Exhibit MD-132, IPCC, AR6, WGIII (selected chapters), p. 170.
[532] IPCC AR6 WGII, p. 1939, available at https://www.ipcc.ch/report/ar6/wg2/downloads/report/IPCC_AR6_WGII_FullReport.pdf.
[533] IPCC AR6 WGII, p. 1939.
[534] IPCC AR6 WGII, p. 1939: *"Rhetoric and misinformation on climate change and the deliberate undermining of science have contributed to misperceptions of the scientific consensus, uncertainty, disregarded risk and urgency, and dissent (high confidence) (Ding et al., 2011; Oreskes and Conway, 2011; Aklin and Urpelainen, 2014; Cook et al., 2017; van der Linden et al., 2017)*".
[535] IPCC AR6 WGII, p. 1940, available at https://www.ipcc.ch/report/ar6/wg2/downloads/report/IPCC_AR6_WGII_FullReport.pdf.

505. The IPCC report contains further findings on the inhibiting influence of the fossil fuel industry. For instance, it states that the fossil-fuel industry has had a significant influence over the (political) agenda, in all major economies:

> *"Fossil fuel industries have been important agenda-setters in many countries, including the USA (Dunlap and McCright 2015; Supran and Oreskes 2017; Downie 2018), the EU (Skjærseth and Skodvin 2010; Boasson and Wettestad 2013), Australia (Ayling 2017), China (Shen and Xie 2018; Tan et al. 2021), India (Schmitz 2017; Blondeel and Van de Graaf 2018), and Mexico (Pulver 2007), with differing positions and impacts across countries (Kim et al. 2016; Nasiritousi 2017)."*[536]

506. It is the American oil industry (in which Shell also plays an important role) that has been at the root of the rise of climate scepticism in the US and its spread abroad:

> *"In the US, the oil industry has underpinned the emergence of climate scepticism (Dunlap and McCright 2015; Farrell 2016a; Supran and Oreskes 2017), and its spread abroad (Dunlap and Jacques 2013; Engels et al. 2013; Painter and Gavin 2016)."*[537]

507. The IPCC also notes that corporate opposition to climate policy is often facilitated by a broad coalition of companies.[538] According to the IPCC, there is evidence that the American opposition to climate measures by fossil-fuel industries is widespread and highly organised, and is accompanied by "*extensive lobbying*".[539]

508. This observation is crucial, because undermining public and political support in the United States as a global superpower and the largest emitter historically also has a slowing effect on global climate action.[540] The same can be said about the opposition to climate measures in other countries and regions which, just like the United States, had to take (or should have taken) the lead in tackling climate change since 1992.

509. In addition to lobbying against climate action, the fossil-fuel industry has also used media strategies to undermine climate science. This is also confirmed by the IPCC:

> *"A significant number of corporate agents have attempted to derail climate change mitigation by targeted lobbying and doubt-inducing media strategies. A number of corporations involved in both upstream and downstream supply chains of fossil fuel companies make up the majority of organisations opposed to climate action."*[541]

510. These behaviours and strategies of Shell and other oil and gas companies now form the basis for various climate lawsuits brought by American states and cities against Shell and other supermajors, such as ExxonMobil and Chevron. In mid-2025, there were more than 30 lawsuits pending in the United States to hold the major oil companies liable, partly on the basis of public deception about the role their products play in causing climate change.[542] Shell is invariably part of the group of defendants, due to its significant and destructive influence on climate action, the consequences of which are being felt today. Chapter 8.4 will describe in detail important examples of this inhibiting influence and the strategies used to achieve it.

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[536] Exhibit MD-132, IPCC, AR6, WGIII (selected chapters), p. 1374.
[537] Exhibit MD-132, IPCC, AR6, WGIII (selected chapters), p. 1374.
[538] Exhibit MD-132, IPCC, AR6, WGIII (selected chapters), p. 1374.
[539] Exhibit MD-132, IPCC, AR6, WGIII (selected chapters): *"There is evidence that US opposition to climate action by carbon-connected industries is broad-based, highly organised, and matched with extensive lobbying*." See also Exhibit MD-133, Brulle & Downie (2022) "Following the money: trade associations, political activity and climate change", pp. 2-3.
[540] Exhibit MD-134, Ekberg et al (2023), "Climate Obstruction", pp. 56-57: *"With the end of the Cold War and the fall of the Soviet Union, the balance of power which influenced the governance architecture of IPCC also shifted: the global agenda thus became more heavily dependent on the actions and position of the USA. Thus, if the U.S. climate debate could be shifted in favour of minor or no climate action, such a move would be able to change the narrative around the entire international community's response to the climate crisis*."
[541] Exhibit MD-132, IPCC, AR6, WGIII (selected chapters), p. 557.
[542] Exhibit MD-135, UNEP (2025), "Climate change in the courtroom: Trends, impacts and emerging lessons", p. 36.

511. Media strategies are, incidentally, not only used to undermine climate science. Shell and other fossil-fuel companies also make intensive use of PR and advertising activities to create loyalty in society and influence legislation and regulation. A scientific advisory report to the Dutch House of Representatives in 2023 also confirmed that fossil-fuel advertising is employed to delay the regulation of the fossil-fuel industry. According to the advisory report, advertising is used to portray fossil-fuel companies as being sustainable, despite their highly negative role in causing climate change.[543] The advertising also shifts the responsibilities from companies to individuals. To quote the scientific opinion provided to the Dutch House of Representatives: "These kinds of 'frames' emphasise the idea that individual consumers are responsible for maintaining the demand for fossil fuels. This diverts attention from the role played by the fossil-fuel industry in causing climate change and the responsibilities the fossil-fuel industry has in tackling climate change," according to the report provided to the Dutch House of Representatives.[544] The report concludes that a ban on fossil-fuel advertising could be an essential link in achieving a social tipping point in the transition to sustainability.[545]

512. The IPCC and many other sources make it perfectly clear in their findings that the fossil-fuel industry has had and continues to have a significant inhibiting influence on countries' climate policies and public support for climate action. An analysis in The Guardian summarises the IPCC's message as follows: "*we can tackle climate change if big oil gets out of the way*."[546]

8.4 THE INHIBITING INFLUENCE OF SHELL

8.4.1 Shell's knowledge of climate change and the role of fossil fuels played therein

513. In order to explain the inhibiting influence that Shell has exerted on climate action in recent decades, it must first be determined from what time onwards Shell has been aware of the danger of climate change and the role of fossil fuels played therein. Then it will be discussed what Shell has done with that knowledge and made clear that the findings of the IPCC, the UN and UNEP discussed above also apply to Shell. This information is relevant because what Shell knows, the foreseeability of the damage and the nature of Shell's conduct play a role, from a legal perspective, when Shell's societal duty of care is determined, as will be further explained in chapter 10.3.

514. Shell has known for many decades that the use of fossil fuels results in climate change and could have significant impacts on people and the environment.

515. As early as the 1950s, the American oil and gas industry conducted (palaeontological) research into climate-related topics such as historical sea levels, temperatures and hurricanes[547]. This research was typically carried out through the American Petroleum Institute (referred to hereafter as: "**API**"), of which Shell was (and still is) a member and board member at the time.[548] Although this research was primarily conducted for the purpose of exploring for and producing oil and gas, it also placed the oil and gas industry at the forefront of climate science research. Thanks to this research, the industry already knew in the 1950s what role climate

[543] Exhibit MD-136, Scientific advice (2023), "A ban on fossil fuel advertising: essential, but not sufficient", p. 6.
[544] Ibid.
[545] Ibid, pp. 3 and 8.
[546] Exhibit MD-137, The Guardian 2023, "IPCC: We can tackle climate change if big oil gets out of the way", pp. 1-2.
[547] Exhibit MD-138, CIEL 2017, "Smoke and Fumes: The Legal and Evidentiary Basis for Holding Big Oil Accountable for the Climate Crisis", pp. 10 and 11.
[548] Exhibit MD-141, CIEL 2018 "A Crack in the Shell: New Documents Expose a Hidden Climate History", pp. 3-4.

change played in causing sea level rises and hurricanes.[549]

516. Also in the 1950s, the American oil and gas industry was involved in the Air Pollution Foundation, which had been established in response to a major smog crisis in the southern part of the American state of California and the large public protests directed against this air pollution. There was already a great deal of evidence that oil production, refineries, petrol stations and cars were causing the major smog problems, but the industry believed that more research had to be carried out into the nature and cause of the problem. A comprehensive reconstruction by research platform DeSmog provides insight, based on original reports, minutes and memos, into how the oil and gas industry sponsored scientific research that was intended to downplay the harmful effects of oil and gas production and combustion, and to protect the industry against local environmental regulation.[550] However, in a telling publication, the Air Pollution Foundation reported conclusions that were not to the liking of the oil and gas industry, as the report pointed out that CO_2 emissions caused by fossil fuels could, in the long term, have significant consequences for civilisation.[551] This caused great dissatisfaction among the members of the Western States Petroleum Association, of which Shell was also a member[552] (and still is a member[553]). In response, they called the chairman to account, accusing him that the conducted study was too broad and that he was deemed to act as research director for the oil industry. In subsequent publications, CO_2 was referred to as being harmless ("*innocuous*").[554]

517. In 1959, API, chaired at the time by Shell's then CEO H.M.S. Burns, organised the symposium "Energy and Man". Edward Teller, an American physicist, gave a lecture here on the relationship between fossil fuels, CO_2 and the greenhouse effect.[555] Teller warned that oil and gas companies should start looking for alternative energy sources to replace oil, gas and coal. According to Teller, a 10% increase in atmospheric CO_2 would eventually cause a temperature rise sufficient to melt the ice caps and submerge New York. All coastal cities would be affected by it, according to Teller:

> *"It has been calculated that a temperature rise corresponding to a 10 per cent increase in carbon dioxide will be sufficient to melt the ice cap and submerge New York. All the coastal cities would be covered, and since a considerable percentage of the human race lives in coastal regions, I think that this chemical contamination is more serious than most people tend to believe."*[556]

518. In 1962, Marion King Hubbert, head of Shell's geological service, wrote the report "Energy Resources", which said that there was evidence that the accumulation of CO_2 in the atmosphere was already causing higher average temperatures at that time and that climate change could eventually alter weather conditions and disrupt the ecological balances:

> *"There is evidence that the greatly increasing use of fossil fuels, whose material contents after combustion are principally H_2O and CO_2, is seriously contaminating the earth's atmosphere with CO_2. Analyses indicate that the CO_2 content of the atmosphere since 1900 has increased by 10 per cent. Since CO_2 absorbs long-wavelength radiation, it is possible that this is already producing a secular climatic change in the direction of higher average temperatures. This could have profound effects both on the weather*

[549] Exhibit MD-138, CIEL 2017, "Smoke and Fumes: The Legal and Evidentiary Basis for Holding Big Oil Accountable for the Climate Crisis", pp. 10 and 11.
[550] Exhibit MD-139, DeSmog (2024), "Revealed: Big Oil Told 70 Years Ago That Fossil Fuel Emissions Could Impact 'Civilisation'", pp. 1–5.
[551] Ibid, p. 1 (where the quote from the original article is reproduced) and p. 2.
[552] Ibid, pp. 8–9.
[553] Exhibit MD-004, Shell Climate and Energy Transition Lobbying Report 2024, pp. 34 and 60
[554] Ibid, p. 2, pp. 18-19.
[555] Exhibit MD-140, The Guardian (2018), "On its 100th birthday in 1959, Edward Teller warned the oil industry about global warming", p. 1 and Exhibit MD-141, CIEL 2018, "A Crack in the Shell: New Documents Expose a Hidden Climate History", p. 5.
[556] Ibid.

and on the ecological balances."[557](underlining added by counsel)

519. Hubbert clarified that this imminent threat to the ecological balances could not remain without consequences for Shell by referring to the conclusions another scientist had linked to this imminent threat, namely that the focus should be placed on sustainable energy, with serious consideration being given to the maximum utilisation of solar energy:

> *"Professor Hutchinson urges serious consideration of the maximum utilization of solar energy."* [558]

520. In 1965, API President Frank Ikard gave a speech at API's annual meeting. Ikard discussed the findings of a recent report of the Johnson administration. In that speech delivered to the American oil and gas industry, Ikard discussed the report's key findings, including the findings on the consequences of burning oil, coal and gas and the need to find alternatives to the internal combustion engine:

> *"One of the most important predictions of the report is that carbon dioxide is being added to the earth's atmosphere by the burning of coal, oil, and natural gas at such a rate that by the year 2000 the heat balance will be so modified as to possibly cause marked changes in climate beyond local or even national efforts. The report further states, and I quote: "...the pollution from internal combustion engines is so serious, and is growing so fast, that an alternative nonpolluting means of powering automobiles, buses, and trucks is likely to become a national necessity."*[559]

521. In the years that followed, the American oil industry, including Shell, would become even more emphatically involved in climate science.

522. In 1968, the report "Sources, Abundance, and Fate of Gaseous Atmospheric Pollutants", commissioned by API, was published. It endorsed Hubbert's conclusions, stating that the cause of the rising CO_2 concentration in the atmosphere was best explained by the burning of fossil fuels and that it would almost certainly lead to temperature rises and climate change.[560] They feared that a significant rise in global temperature could lead to various events, including ice cap melt, sea level rises and warming of ocean waters. The study also pointed out that a system to control the CO_2 emissions was not available yet and that future research should focus on technologies and other changes to reduce CO_2 emissions.[561]

523. A supplementary report produced by the Stanford Research Institute and commissioned by API subsequently established that 90% of the increased CO_2 concentration in the atmosphere could be attributed to the burning of fossil fuels.[562] Based on the expected growth in the use of fossil fuels, scientists calculated that the CO_2 concentration would reach 370 ppm by the year 2000.[563] This prediction proved to be surprisingly accurate: according to NASA data, the CO_2 concentration did indeed reach 370 ppm in the year 2000.[564]

524. By the end of the 1960s, API and its members, including Shell, had therefore already been warned by their

[557] Exhibit MD-141, CIEL 2018 "A Crack in the Shell: New Documents Expose a Hidden Climate History", pp. 5 and 6.
[558] Ibid, p. 6.
[559] Exhibit MD-142, Frank N. Ikard (API) "Meeting the Challenges of 1966", p. 13 (under "Air and Water Conservation").
[560] Exhibit MD-138, CIEL 2017, "Smoke and Fumes: The Legal and Evidentiary Basis for Holding Big Oil Accountable for the Climate Crisis", pp. 11 and 12, and Exhibit MD-141, CIEL 2018, "A Crack in the Shell: New Documents Expose a Hidden Climate History", p. 6.
[561] Exhibit MD-138, CIEL 2017, "Smoke and Fumes: The Legal and Evidentiary Basis for Holding Big Oil Accountable for the Climate Crisis", pp. 11-12 (under "*The Petroleum Industry was Unequivocally Warned of Climate Change Due Primarily to the Combustion of Fossil Fuels By 1968*.")
[562] Ibid.
[563] Ibid.
[564] Ibid. See also NASA Goddard Institute for Space Studies, Global Mean CO2 Mixing Ratios (ppm): Observations, available at https://data.giss.nasa.gov/modelforce/ghgases/Fig1A.ext.txt (last accessed on 8 February 2026).

own scientific advisers that the correlation between burning fossil fuels and rising CO_2 emissions in the atmosphere was credible, that a temperature rise was almost certain to occur and that research into solutions to the CO_2 problem was urgently needed.

525. When the oil crisis hit in 1973, many oil and gas companies decided to diversify in the 1970s to stay afloat. Shell was one of them and started to invest in metals, coal, nuclear and renewable energy. In 1973, Shell purchased the company Solar Energy Systems, and from 1978 onwards, Shell's Non-Traditional Business (hereafter: "the **NTB**") focused primarily on renewable energy, including forestry and solar energy, although investments remained modest. In 1979, Shell purchased 50% of the shares in the Australian solar heating company Solarhart.[565]

526. In 1979, Shell participated in the World Climate Conference organised by UNEP and WMO (see also chapter 6.2).[566] The conference called on the countries of the world to take preventive measures against potential anthropogenic climate change that might be adverse to the well-being of humanity *("to foresee and to prevent potential man-made changes in climate that might be adverse to the well-being of humanity"*).[567]

527. Between 1979 and 1983, senior scientists from Shell were part of the API's CO_2 and Climate Task Force (which was renamed the Energy and Climate Task Force in 1980). In 1979, they shared a study with this Task Force which confirmed that carbon dioxide emissions were rising, and the negative consequences of climate change were mentioned. In response, the Task Force members stated that the oil industry might also have a responsibility to reduce CO_2 emissions and proposed researching the technical implications of an energy transition.[568] However, the Task Force was disbanded when API decided to merge its environmental department with its political department, which consisted of lobbyists. According to the former director of the Task Force, James J. Nelson, the companies were not interested in developing climate science, but in creating more favourable political and economic conditions for the oil industry.[569]

528. In 1986, Shell wrote an extensive internal report on climate change entitled "The Greenhouse Effect". It was published two years later (in 1988). In this report, Shell concluded that there was reasonable agreement in climate science that the increase in greenhouse gases would cause global warming:

> *"There is reasonable scientific agreement that increased levels of greenhouse gases would cause global warming."*[570]

529. The report then pointed to the serious consequences of global warming:

> *"Significant changes in sea level, ocean currents, precipitation patterns, regional temperature and weather."*[571]

530. The report warned that these dramatic changes would impact on people's living environment, future living standards and food supplies, with potentially major social, economic and political consequences:

[565] Exhibit MD-141, CIEL 2018, "A Crack in the Shell: New Documents Expose a Hidden Climate History", p. 7.
[566] Exhibit MD-074, WMO 1979, "Proceedings of the World Climate Conference: A Conference of Experts on Climate and Mankind", (Geneva) (selected pages), p. 784 (participants) and Exhibit MD-141, CIEL 2018, "A Crack in the Shell: New Documents Expose a Hidden Climate History", p. 7.
[567] Exhibit MD-074, WMO 1979, "Proceedings of the World Climate Conference: A Conference of Experts on Climate and Mankind" (Geneva) (selected pages), p. 713.
[568] Exhibit MD-143, Banerjee 2015, "Exxon's Oil Industry Peers Knew About Climate Dangers in the 1970s, Too", p. 2.
[569] Ibid, pp. 3-4.
[570] Exhibit MD-144, Shell 1988, "The Greenhouse Effect", p. 1, summary and Exhibit MD-145, Mommers, J. (2017), "Reconstruction: How Shell discovered that climate change is life-threatening (and undermined all serious solutions)", p. 5.
[571] Ibid.

"Such relatively fast and dramatic changes would impact on the human environment, future living standards and food supplies, and could have major social, economic and political consequences." [572]

531. Shell was therefore aware of the enormity of the consequences for humanity and the environment as a result of the global warming caused by greenhouse gases by 1986 at the latest. In this context, the report also indicated that the consequences anticipated by Shell could be so severe that some parts of the earth could become so uninhabitable that it would lead to the migration and displacement of people:

"The changes [in climate] may be the greatest in recorded history. They could alter the environment in such a way that habitability would become more suitable in one area and less suitable in another area. Adaptation, migration and replacement could be called for"[573]

532. In its 1986 report, Shell also acknowledged that waiting until the evidence is irrefutable before taking action would be unwise and that it was important to start looking for solutions straight away, given the seriousness and possible irreversibility of the climate problem:

"Monitoring will improve understanding and likely outcomes. However, by the time global warming becomes detectable, it could be too late to take effective countermeasures to reduce the effects or even to stabilise the situation.[574]

533. Based on this climate knowledge, Shell also took measures to protect its assets. In 1989, Shell decided to spend tens of millions of dollars to modify the design of the Troll A gas production platform to accommodate sea level rise and the more powerful waves and storms that Shell was expecting to be caused by climate change during the platform's operating life spanning more than 70 years.[575] This shows that the company took the scientific conclusions very seriously.

534. In 1989, Shell's scenario planning department once again described the ubiquitous consequences of climate change in the document "Scenarios 1989–2010 – Challenges and Responses". The internal and confidential document – which was disclosed by journalists in 2023 – provides a good insight into Shell's awareness of the major consequences of global warming for society. The report first acknowledged that of all environmental problems, climate change was of particular importance, because it has global consequences and is directly linked to economic activities through the use of energy. Global warming "*could be the most important issue for the energy industry*," according to the report.[576]

535. The report described two scenarios: "Sustainable World" and "Global Mercantilism" and looked ahead to what the future might look like until the year 2050. In the "Sustainable World" scenario, CO_2 emissions would be significantly reduced year on year from the year 2000 onwards and CO_2 concentrations would eventually stabilise just below 400 ppm. Although this would not prevent the problem, as the earth would warm due to

[572] Exhibit MD-144, Shell 1988, "The Greenhouse Effect", p. 1, summary and Exhibit MD-145, Mommers, J. (2017), "*Reconstructie: Zo kwam Shell erachter dat klimaatverandering levensgevaarlijk is (en ondermijnde het alle serieuze oplossingen"* (Reconstruction: How Shell discovered that climate change is life-threatening (and undermined all serious solutions)), p. 6. And on the same page: *"zo lang de mens broeikasgassen in de atmosfeer blijft uitstoten, doen we gegarandeerd mee met dit mondiale "experiment", "schreven de Shell-medewerkers. "Mogelijk zal het milieu zo worden aangetast dat sommige stukken van de aarde onbewoonbaar worden. (*As long as humans continue to emit greenhouse gases into the atmosphere, we are guaranteed to participate in this global "experiment"," wrote the Shell employees. "It is possible that the environment will be so severely affected that some parts of the earth will become uninhabitable.)

[573] Exhibit MD-144, Shell 1988, "The Greenhouse Effect", p. 25.

[574] Exhibit MD-144, Shell 1988, "The Greenhouse Effect", p. 1, summary.

[575] Exhibit MD-138, CIEL 2017, "Smoke and Fumes: The Legal and Evidentiary Basis for Holding Big Oil Accountable for the Climate Crisis", pp. 15 and 16.

[576] Exhibit MD-146, Shell Scenarios 1989-2010 "Challenge and Response", p. 33 (under 'Global Climate Change').

cumulatively emitted CO_2 emissions, it would limit the problem.[577]

536. In the "Global Mercantilism" scenario, CO_2 emissions would continue to rise year on year and the CO_2 concentration would continue to rise to around 425 ppm in 2025 (which is what actually happened) and beyond 475 ppm in 2050.[578] This would have drastic consequences for the living environment and biodiversity: "*there would be more violent weather - more storms, more droughts, more deluges. Mean sea level would rise at least 30 cm. Agricultural patterns would be most dramatically changed. Something as simple as a moderate change in rainfall pattern disrupts eco-systems, and many species of trees, plants, animals and insects would not be able to move and adapt*."

537. However, the impact on people and societies would be most significant, according to the report:

> *"The changes would, however, most impact on humans. In earlier times, man was able to respond with his feet. Today, there is no place to go because people already stand there. Perhaps those in industrial countries could cope with a rise in sea level (the Dutch example) but for poor countries such defences are no possible. The potential refugee problem in GLOBAL MERCANTILISM could be unprecedented. Africans would push into Europe, Chinese into the Soviet Union, Latins into the United States, Indonesians into Australia. Boundaries would count for little — overwhelmed by the numbers. Conflicts would abound. Civilisation could prove a fragile thing*." [579]

538. The same serious implications for society were also described in Shell's 1991 informational film entitled *"*Climate of Concern". The title of this work already conveys the great concern that existed about the climate problem. In this informational film, Shell warns viewers about the dangers of climate change. According to Shell, abnormal weather conditions could become the new norm in all countries around the world. Climate change could happen so quickly, according to the film, that society would be unable to adapt. In the film, Shell therefore warns, among other things, of climate refugees who will lose their homes due to rising sea levels and catastrophic changes in their living environment. The film ends with Shell's call to action: "*Taking action now is the only certainty we have.*"[580]

539. In light of all this, it was also clear to Shell that climate change would have a major impact on its business activities and that other energy sources had to be developed.

540. In summary, it can be concluded that Shell was already aware from the 1950s onwards of the correlation between burning fossil fuels and global warming, and also of the possibility that this could have (very) serious consequences. By 1986 at the latest, Shell undoubtedly knew that fossil fuels cause climate change and that climate change can have potentially catastrophic consequences. The knowledge that Shell and the oil and gas industry had developed over the years was also being widely shared within the scientific community at that time. In 1986, Shell also demonstrated its awareness of the reasonable scientific consensus that existed at that time about the cause of climate change. It was precisely this scientific consensus that Shell subsequently started to publicly undermine and Shell began to develop other strategies to diminish political and public support for climate policies. These strategies have been implemented on a large scale and in an organised manner since at least 1989 and are still being used today. This will be described in detail in the rest of this chapter.

[577] Ibid, pp. 35-36.
[578] Ibid, p. 35, Chart 16: "Global CO2 Production to 2050".
[579] Ibid, p. 36.
[580] Exhibit MD-145, Mommers, J. (2017), "Reconstruction: How Shell discovered that climate change is life-threatening (and undermined all serious solutions)", p. 16.

8.4.2 **1989–2001: Shell's active undermining of climate science and other strategies to delay climate action**

541. As evidence of the risks of disruptive climate change caused by fossil fuel burning became more robust within the scientific community, in the research departments of fossil-fuel companies and among political leaders, the need for regulation also became evident.

542. In the summer of 1988, tackling climate change was high on the political agenda and the subject was prominent in the public debate. It was a scorching hot and dry summer in the United States, with forest fires, thousands of heat-related deaths and extensive damage.[581] That same summer, climate scientist James Hansen gave impressive testimony to the US Congress about the seriousness of the climate problem. The IPCC was also established in order to map scientific knowledge of the causes and consequences of climate change. These findings would subsequently form the scientific basis for the international approach to the problem. Finally, at the Toronto conference, the international community called for urgent investment in the research into and development of cleaner energy sources (see chapter 6.2).

543. In light of these developments, fossil-fuel companies decided to take (coordinated) action to turn the tide and oppose binding regulations. After all, shortly before (in 1987), the industry had seen, when the Montreal Protocol was adopted, that the global community might start taking joint action to tackle a global environmental problem based on the scientific findings and a public call for action. The world had succeeded in reaching agreements to gradually phase out the production and consumption of ozone-depleting substances such as CFCs, and that could (and should) also be done with fossil fuels. A large counter-movement emerged to oppose mandatory CO_2 emission reductions (underlining added by counsel):

> *"The dramatic testimony of James Hansen and the creation of the Intergovernmental Panel on Climate Change (IPCC) in 1988 marked the emergence of climate change as a major public issue, and amplified calls for government action to reign in carbon emissions. In response, corporations with strong ties to fossil fuels, acting in coordination with allied trade associations, and a number of other organizations mounted a series of efforts to oppose reductions in carbon emissions."*[582]

8.4.2.1 *Global Climate Coalition*

544. An important part of this counter-movement was the Global Climate Coalition. The establishment of this coalition is seen as the starting point in large-scale organised climate obstruction, which is still taking place on a large scale today. Robert Brulle, professor and expert in the field of climate obstruction, wrote a historical analysis of the Global Climate Coalition (abbreviated as GCC) in 2022, drawing the following conclusion:

> "*The GCC, as the first and largest U.S. domestic coalition organized to oppose climate action, played an important role in the development of the approaches other coalitions have utilized to stop or slow climate action. The repertoire of counter-movement actions that this coalition developed informed future actions to obstruct climate action*."[583]

[581] AccuWeather, "1988 heat wave had people wondering whether 'God is against us'.", available at https://www.accuweather.com/en/weather-news/heat-wave-and-drought-were-so-devastating-it-had-americans- declaring-god-is-against-us/481031.

[582] Exhibit MD-147, Brulle (2023), "Advocating inaction: a historical analysis of the Global Climate Coalition", p. 1. See also p. 8: *"After the petro-chemical industry having been subjected to a mandatory reduction of ozone-depleting substances by the Montreal Protocol, the GCC was designed to take a proactive stance to avoid any mandatory reductions in carbon emissions*."

[583] Exhibit MD-147, Brulle (2023), "Advocating inaction: a historical analysis of the Global Climate Coalition", p. 2. See also Exhibit MD-134, Ekberg et al (2023), "Climate Obstruction", p. 21 and p. 45-47 (under "Assembling the climate denial machine"), as well as p. 53: *"Brulle emphasises how the CGC* [to be read as "GCC", addition by counsel] *carried out four main obstruction practices […]. These practices have been common and still remain widely used in combination with the tropes mentioned above*."

545. The Global Climate Coalition was an initiative of the National Association of Manufacturers (of which Shell was and still is a member[584]) involving dozens of companies and their interest groups, including Shell, ExxonMobil, Chevron, BP, the American Petroleum Institute, the American Gas Association and the US Chamber of Commerce.[585]

546. Through the Global Climate Coalition, the industry joined forces to counter American and international climate action by governments and to sow doubt about the severity of the climate problem. To this end, the Global Climate Coalition employed various strategies, including spreading misinformation and questioning climate science in other ways, contrary to the findings of their own scientists.[586] The Global Climate Coalition also used aggressive lobbying practices and conducted intensive PR campaigns to influence political and public understanding of climate change.[587]

547. Another strategy employed by the Global Climate Coalition was to engage consultants to prepare economic studies and disseminate narratives about the adverse economic effects of climate regulation.[588] These studies were used to exaggerate the costs of climate action and downplay its benefits, with the help of seemingly independent experts.[589]

548. In addition, the Global Climate Coalition launched PR campaigns to influence public understanding of climate change, while also lobbying policymakers intensively to oppose binding reduction targets.[590] All this took place alongside the activities of conservative think tanks, which had in some cases also been established with industry funding. The industry also initiated "citizen movements" that positioned climate policies as a threat to citizens and their freedoms.[591] This purported resistance from society could then be used to dissuade policymakers from pursuing ambitious policies.

549. By 1992, the results of this intensive campaign to fuel mistrust in climate science were already visible. The American government led by Bush senior – himself from the oil industry – changed its position on climate change and blocked international efforts to reach a climate agreement. At the Rio Earth Summit in 1992, the United States refused to sign for the implementation of specific emission reduction targets.[592]

550. Following the adoption of the UN Climate Convention and the election of Bill Clinton and Al Gore, the Global Climate Coalition hired a team of PR experts in the fall of 1992 to communicate its message about climate

[584] Exhibit MD-004, Shell Climate and Energy Transition Lobbying Report 2024, p. 34.
[585] DeSmog Climate Disinformation Database, Global Climate Coalition, under "Related Organisations", available at https://www.desmog.com/global-climate-coalition/. See also Exhibit MD-148, Global Climate Coalition membership list dated 16 November 1989, p. 1, which shows that Shell has been a member since the start of the coalition in 1989.
[586] Exhibit MD-134, Ekberg et al (2023) "Climate Obstruction", pp. 45-47. See also Exhibit MD-147, Brulle (2023), "Advocating inaction: a historical analysis of the Global Climate Coalition", pp. 10-11 and pp. 15-16 (under "Undermining climate science").
[587] Exhibit MD-147, Brulle (2023), "Advocating inaction: a historical analysis of the Global Climate Coalition", p. 17. See also pp. 9 and 11 to 13 (on lobbying practices) and pp. 10, 13 and 14 (on PR campaigns).
[588] Exhibit MD-147, Brulle (2023), "Advocating inaction: a historical analysis of the Global Climate Coalition", Abstract and pp. 8-9, as well as pp. 16-17. See also Exhibit MD-134, Ekberg et al (2023) "Climate Obstruction", pp. 52-53.
[589] Exhibit MD-147, Brulle (2023), "Advocating inaction: a historical analysis of the Global Climate Coalition", p. 16: *"The GCC sponsored a series of economic analyses that exaggerated the costs of mitigating carbon emissions and minimised the economic damages of climate change*."
[590] Exhibit MD-147, Brulle (2023), "Advocating inaction: a historical analysis of the Global Climate Coalition", pp. 11–14 (under "Stopping mandatory international limits on carbon emissions 1995–1999"). See also Exhibit MD-134, Ekberg et al (2023), "Climate Obstruction", p. 52. See also Exhibit MD-149, Report of the Special Rapporteur on extreme poverty and human rights (2019), "Climate change and poverty", para. 36.
[591] Exhibit MD-134, Ekberg et al (2023), "Climate Obstruction", pp. 44, 48-50 and pp. 53-55.
[592] Exhibit MD-134, Ekberg et al (2023), "Climate Obstruction", p. 55. See also Exhibit MD-147, Brulle (2023), "Advocating inaction: a historical analysis of the Global Climate Coalition", p. 10.

change more effectively. The message was that the scientific facts were not yet established and that policymakers should not only take the environment into account, but should also consider the negative impacts that climate change measures would have, according to the Global Climate Coalition, on American jobs, trade and prices.[593] This message was disseminated through an extensive media campaign. Within a year, the PR team claimed to have secured hundreds of specific mentions in the media.[594]

551. In 1993, the Global Climate Coalition decided that its message should be conveyed by hired professionals, as they would have greater credibility with the media and the public than industry representatives, so they believed.[595] The plan was to pay experts to give speeches or write opinion pieces and to arrange media tours so that they could appear on local television and radio stations.[596]

552. This strategy proved successful. In 1995, the PR advisor to the Global Climate Coalition, also known as the GCC, wrote: "*the GCC has successfully turned the tide on press coverage of global climate change science, effectively countering the eco-catastrophe message and asserting the lack of scientific consensus on global warming*."[597]

553. This questioning of global warming was at odds with the best available climate science and also at odds with the internal advice of the fossil-fuel industry itself. In an internal memorandum written to the Global Climate Coalition in the same year, an advisor wrote: "*The scientific basis for the Greenhouse Effect and the potential impact of human emissions of greenhouse gases such as CO_2 on climate is well-established and cannot be denied.*"[598]

554. As described in chapter 8.4.1, Shell itself had already reached this conclusion in 1986. Despite these climate science findings, which had been known within Shell since at least 1986, Shell subsequently joined the Global Climate Coalition.

555. In the run-up to COP3 in Kyoto in 1997, a massive lobbying effort was launched in the US Congress, in which the Global Climate Coalition was also involved. This resulted in the approval of the Byrd-Hagel Amendment, which imposed strict conditions on the possible signing of an international agreement. The Global Climate Coalition subsequently set up the Global Climate Information Project (hereafter: the "**GCIP**") together with other interest groups; GCIP launched a PR campaign costing USD 13 million to stress the allegedly devastating economic consequences of the forthcoming Kyoto Protocol.[599] When the US finally signed the protocol, public opinion had been significantly influenced. Ultimately, President Bush Jr. also withdrew from the Kyoto Protocol. The influence of the Global Climate Coalition on the American rejection of the Kyoto Protocol has been confirmed by the administration itself, according to Professor Brulle's historical analysis, who quotes from a memorandum from the American administration here:

[593] See also Exhibit MD-150, BBC 23 July 2022, "The audacious PR plot that seeded doubt about climate change", pp. 4–5.
[594] Exhibit MD-150, BBC 23 July 2022, "The audacious PR plot that seeded doubt about climate change", p. 5.
[595] Ibid, pp. 5-6. See also Exhibit MD-147, Brulle (2023), "Advocating inaction: a historical analysis of the Global Climate Coalition", pp. 10-11.
[596] Ibid. See also Exhibit MD-147, Brulle (2023), "Advocating inaction: a historical analysis of the Global Climate Coalition", p. 12 and p. 17.
[597] Exhibit MD-150, BBC 23 July 2022, "The audacious PR plot that seeded doubt about climate change", p. 7.
[598] Exhibit MD-147, Brulle (2023), "Advocating inaction: a historical analysis of the Global Climate Coalition", p. 12: *"the GCC received an internal memorandum from its own scientists showing that virtually all of the 'science' arguments advanced by contrarian climate scientists were false, and that human driven climate change was an established fact*." See also Exhibit MD-138, CIEL 2017, "Smoke and Fumes: The Legal and Evidentiary Basis for Holding Big Oil Accountable for the Climate Crisis", p. 16.
[599] Exhibit MD-134, Ekberg et al (2023), "Climate Obstruction", p. 52. See also Exhibit MD-147, Brulle (2023), "Advocating inaction: a historical analysis of the Global Climate Coalition", p. 13 and p. 17.

"In one final compliment, the GCC's effectiveness was acknowledged in a meeting with White House staff on 21 June 2001. The talking points for that meeting noted that 'POTUS rejected Kyoto, in part, based on input from you.'"[600]

556. The Global Climate Coalition came to an end in late 2001. Shell had left the coalition in 1998, probably partly as a result of increasing public criticism of the GCC and the growing scientific consensus on climate science,[601] which meant that direct and open involvement in denying the seriousness or scientific knowledge of climate change posed reputational and other business risks. However, through influential positions in the American Petroleum Institute and other interest groups, Shell continued to be involved in further undermining climate science and political and public support for climate change.

8.4.2.2 *Global Climate Science Communications Plan*

557. One example of this is the Global Climate Science Team established by the American Petroleum Institute.

558. The Global Climate Science Team thus operated in parallel with the Global Climate Coalition from 1998 onwards and had the important goal of blocking the signing and implementation of the Kyoto Protocol by the United States.

559. In April 1998, that team drew up a draft plan, the Global Climate Science Communications Action Plan, in which it can be read that the Clinton administration had reached agreement in December 1997 on a treaty to reduce greenhouse gases and that this treaty, if approved by the US Senate, would impact emissions from fossil-fuel combustion in particular.[602]

560. This was a sensitive point for the working group, which observed that the "theory of climate change" was being promoted by proponents of the treaty (i.e. the Kyoto Protocol), but that, according to the team, this "theory" was based on "*forecasting models with a very high degree of uncertainty*".[603] The Plan goes on to say that it was very uncertain whether climate change was actually happening and that even if this were the case, it was unclear whether humans really have an effect on it. As mentioned, this totally contradicted their own scientific findings from almost 20 years earlier and was inconsistent with solid scientific knowledge of climate change, which had already led to the UN Climate Convention.

561. The introduction to the Plan noted that the science underpinning the global climate change theory had not been challenged effectively in the media and observed (with concern) that there was broad public support for the Kyoto Protocol.[604]

562. The Global Climate Science Communications Team therefore developed an action plan to inform the American public "*that science does not support the precipitous actions Kyoto would dictate, thereby providing a climate for the right policy decisions to be made*".[605] The Plan also refers to opinion polls which allegedly showed that the public would oppose Kyoto if they knew that some scientists believed that the evidence that

[600] Exhibit MD-147, Brulle (2023), "Advocating inaction: a historical analysis of the Global Climate Coalition", p. 15 and p. 19. See also Exhibit MD-151, US Dept of State Briefing Memorandum (2001), "Your meeting with members of the Global Climate Coalition" for the original document, p. 3 ("Talking points").
[601] Exhibit MD-134, Ekberg et al (2023), "Climate Obstruction", p. 53.
[602] Exhibit MD-152, API 1998, "Global Climate Science Communications Plan", p. 1 (the draft plan is attached to an email to the "Global Climate Science Team").
[603] Ibid.
[604] Exhibit MD-152, API 1998, Global Climate Science Communications Plan, p. 2: *"Because the science underpinning the global climate change theory has not been challenged effectively in the media or through other vehicles reaching the American public, there is widespread ignorance, which works in favor of the Kyoto treaty and against the best interests of the United States." Indeed, the public has been highly receptive to the Clinton Administration's plans."*
[605] Ibid.

climate change was being caused by human activities was insufficient.[606]

563. The description of the Project Plan contained a very clear strategy to mislead the American public via the media about the state of climate science.

564. According to the Plan, the overall goal was to get average citizens and the media to embrace the uncertainties in climate science, to enable industry representatives to better influence climate policy with this knowledge and to portray supporters of the Kyoto Protocol as "*out of touch with reality*":

> "*Victory Will Be Achieved When*
>
> - *Average citizens "understand" (recognise) uncertainties in climate science; recognition of uncertainties becomes part of the "conventional wisdom"*
> - *Media 'understands' (recognises) uncertainties in climate science*
> - *Media coverage reflects balance on climate science and recognition of the validity of viewpoints that challenge the 'conventional wisdom'*
> - *Industry senior leadership understand uncertainties in climate science, making them stronger ambassadors to those who shape climate policy*
> - *Those promoting the Kyoto treaty on the basis of extant science appear to be out of touch with reality.*[607]

565. It is evident that the industry was well aware that the adoption of the Kyoto Protocol and further measures posed a major risk to the fossil-fuel business model and that counteracting these initiatives had very high priority:

> *"Unless 'climate change' becomes a non-issue, meaning that the Kyoto Protocol is defeated and there are no further initiatives to thwart the threat of climate change, there may be no moment where we can declare victory for our efforts. It will be necessary to establish measurements for the science effort to track progress toward achieving the goal and strategic success."*[608]

566. The Plan then described seven tactics to sow widespread doubt about climate science between April 1998 (the date of the plan) and the global Climate conference in Buenos Aires in November 1998.

567. One of the things the Plan described is how scientists who were unknown until then would receive media training in order to get involved in the public debate "*to undercut the "conventional wisdom" on climate science*". Information kits would also be developed for distribution to the media, a "*steady stream of climate science information*" would be distributed to journalists, and a "*steady stream of op-ed columns and letters to the editor authored by scientists*" would be produced.[609]

568. Another tactic involved setting up a national outreach programme to inform members of Congress, state and industry representatives, and teachers and students about the uncertainties in climate science: "*Informing teachers/students about uncertainties in climate science will begin to erect a barrier against further efforts to*

[606] Ibid.
[607] Ibid, p. 3 (under "Victory Will be Achieved When").
[608] Ibid. p. 3 (under "Current Reality").
[609] Ibid, p. 4 (under "Strategies and Tactics")

impose Kyoto-like measures in the future."[610]

569. The Global Climate Science Communications Plan thus described a detailed strategy to structurally undermine support for climate measures and to influence the public narratives surrounding climate change.

8.4.3 2001-present: the continuation and further development of strategies that lead to delaying and weakening the climate approach

570. Around the turn of the century, a change in the communication strategies of Shell and other oil and gas companies (such as BP) could be observed. As described above, Shell withdrew from the Global Climate Coalition in 1998. In the preceding period, the second Assessment Report of the IPCC report had been issued as scientific support for the negotiations leading up to the Kyoto Protocol. As known, the Kyoto Protocol was adopted at the end of 1997. In those dynamics, the Global Climate Coalition came under heavy criticism. BP, among other companies, had already publicly broken with the interest group in 1997, and Shell therefore also decided to change course in 1998. From 1998 onwards, Shell began to acknowledge the existence of climate change and the need to take precautionary measures (particularly for the government) more emphatically and also started to position itself as part of the solution.

571. By way of illustration, reference can be made to Shell's 1998 brochure entitled "Climate change: what does Shell think and do about it?", in which Shell acknowledged the danger of climate change and the importance of precautionary measures, but also immediately emphasised the importance of fossil fuels as well as the role of governments in taking measures, which should primarily consult with the industry and not undermine the fossil-fuel industry's competitive position.[611]

572. The development of the narratives and strategies of the oil and gas industry over the years has been extensively researched and described in, for instance, the report by the Democratic branch of the Oversight Committee of the US House of Representatives and the Democratic branch of the US Senate Budget Committee entitled "Denial, Disinformation, and Doublespeak: Big Oil's Evolving Efforts to Avoid Accountability for Climate Change" (the "**Big Oil Report**"). This report is the result of many years of research into the big Western oil and gas companies (including Shell) and two of the most influential US interest groups: the US Chamber of Commerce and the American Petroleum Institute. The report describes the development of strategies by the oil and gas industry to undermine climate action as a *"deception campaign [that] evolved from explicit denial of the basic science underlying climate change to deception, disinformation, and doublespeak*."[612] The Big Oil Report, for instance, points to deception, disinformation and doublespeak about (i) the role of fossil gas as a transition fuel, while in fact the aim is long-term economic dependence on fossil gas, (ii) the promotion of gas as a green, climate-friendly fuel, while the emissions associated with the production and combustion of gas are very substantial and inconsistent with the necessary emission reductions, and (iii) lobbying behind closed doors, either directly or through interest groups, against climate legislation that companies publicly claim to support.[613]

[610] Ibid, pp. 6-7 (under "III").
[611] Exhibit MD-153, Shell 1998, "Climate Change: What does Shell think and do about it?", pp. 4-9.
[612] Exhibit MD-154, Joint Bicameral Staff Report (2024) "Denial, Disinformation, and Doublespeak: Big Oil's Evolving Efforts to Avoid Accountability for Climate Change", Executive Summary (pp. 2–3).
[613] Exhibit MD-154, Joint Bicameral Staff Report (2024) "Denial, Disinformation, and Doublespeak: Big Oil's Evolving Efforts to Avoid Accountability for Climate Change", Executive Summary (pp. 2-3).

573. In line with this, a recent study by Giuliana Gentile and Spinoza Prize winner and professor Joyeeta Gupta of the University of Amsterdam also concludes that the fossil-fuel industry is slowing down the energy transition and that, in terms of their delaying tactics, companies have shifted over the years from the explicit denial of the climate problem to more subtle narratives.[614] In this context, the study identifies pre-shift and post-shift narratives, with the turning point in communication tactics – as also already explained above – occurring around the turn of the century.[615] The pre-shift strategies involved spreading doubt about science ("Spreading doubt" and "Questioning science"), lobbying and making use of "revolving doors" (professionals switching jobs from business to politics and vice versa). The study then contextualises the post-shift strategies on the basis of Shell's sustainability reports and provides insight into how Shell has used the discourse on climate issues as a marketing tool to delay action on climate change.[616] The various strategies (used through lobbying and PR activities) are referred to here as "Necessitarianism" (fossil fuels are positioned as necessary and irreplaceable), "greenwashing" (a versatile marketing tool to make a company appear more sustainable, greener or more environmentally conscious than it actually is), "Strategic Blame Placement" (pointing the finger at others to justify one's own inaction) and "Techno-Optimism" (unconditional belief in technology to defend the continued burning of fossil fuels).[617] As for the greenwashing strategies, the study refers, for example, to Shell replacing the term "oil" with the more neutral term "energy", the explosive increase in the use of the term "net zero", presenting half-truths about fossil gas and constantly emphasising the in reality meagre investments in renewable energy. Everything is aimed at selling the image that Shell is a leader in the energy transition, when in reality it focuses on the continued dependence on fossil fuels.[618] The study also shows how the various post-shift narratives have evolved over time, depending on the external challenges Shell is faced with.[619] It finds that Shell shows its true colours in times of crisis. During the economic crisis that began in 2008, Shell abandoned its previous ambitions in the field of renewable energy and began to promote and legitimise the use of fossil fuels much more explicitly. The same thing happened from 2022 onwards after the Russian invasion of Ukraine.[620] Both crises were characterised by high oil and gas prices, resulting in high profits for Shell. In chapter 8.4.3.1, Milieudefensie will explain, based on internal documents from an interest group representing the gas industry, that the fossil-fuel industry is also well positioned and prepared to respond to a crisis and is therefore able to position fossil gas as part of the solution again, even in times of a gas crisis.

574. First, it is important to recall that the IPCC has explicitly found that opposition to accelerated climate action is highly organised and also often takes place via interest groups (chapter 8.3). The Global Climate Coalition was an early example of this, but this has not changed over the years. Industries join forces through this type of organisations, which act in the collective interest of their members. Fossil-fuel companies rely on this type of interest groups to spread misleading narratives without their own names being directly associated with the advertising, lobbying or PR campaigns in question. As a result, they are usually not held accountable for them individually and can also distance themselves, if they wish, from specific activities to protect their reputation.

[614] Exhibit MD-155, Gentile and Gupta (2025), "Orchestrating the narrative: The role of fossil fuel companies in delaying the energy transition", Abstract.
[615] Ibid, p. 2, under 3, "Results: Pre-shift and post-shift strategies".
[616] Ibid, p. 8, under 6, "Conclusion". According to the authors, Shell was chosen because "*Shell* […] *is also one of the biggest contributors to CO2 emissions, as well as one of the fossil fuel companies that adopts the most greenwashing techniques in Europe, and influences climate denial campaigns*.", see p. 2.
[617] Ibid, pp. 4 up to and including 6, under 3.2.1. Necessitarianism, 3.2.2 Greenwashing, 3.2.3 Strategic blame placement, 3.2.4 Techno-Optimism.
[618] Ibid, pp. 4-5.
[619] Ibid, pp. 6-7, under 4, "Results: The chronological evolution of the narrative".
[620] Ibid, pp. 6-7, under "Second readaptation of the narrative", "desperately need oil" (2008-2014) and p. 8 under 6, "Conclusion".

575. In this context, the Big Oil report speaks of "*[a]n armada of trade associations, organisations, and coalitions works with and for fossil fuel companies to perpetuate deceptive and misleading industry narratives*"[621].

576. Interest groups have thus become an extension of the fossil-fuel industry, with an influence over climate policies and the social and political debate on climate action that cannot be ignored.

577. Shell itself acknowledges that the interest groups it belongs to provide Shell with a platform for industry-wide contacts (engagements) with governments, regulators and communities around the world. According to its own statements, Shell is a member of hundreds of interest groups:

> *"We are a member of hundreds of industry associations, which provide us with a platform for industry-wide engagements with governments, regulators and communities around the world."*[622]

578. InfluenceMap – a leading research organisation – has described in that context that Shell (and BP) maintain a vast network of highly oppositional interest groups, which have successfully weakened numerous climate measures worldwide and continue to advocate for the expansion of oil and gas extraction:

> *"BP and Shell both maintain a vast network of highly oppositional industry associations, which have successfully weakened numerous climate policies globally, and continue to advocate for oil and gas build out. BP and Shell hold some of the highest number of industry association memberships."*[623]

579. This is also demonstrated by InfluenceMap's analyses of specific interest groups. Through its LobbyMap platform, InfluenceMap provides independent, data-based assessments of the influence that companies and their interest groups exert over climate policies and legislation. The LobbyMap platform contains analyses of 600 companies and 300 influential interest groups, all of which are given a ranking. This ranking is the result of the most up-to-date analyses of the lobbying activities. The substantive positions are assessed against scientific IPCC findings, among other things.[624] Scores A and B indicate broad support for Paris-compliant climate policies, while scores D up to and including F indicate opposition to climate policies, to an increasing extent. Score C reflects a mixed score, with both positive and negative positions and lobbying activities.

580. The table below provides an overview of all interest groups that were included by Shell in its own Industry Associations Review in 2024. Shell does not report on all of the hundreds of organisations of which it is a member, but selects organisations based on a number of criteria, such as the degree of influence that the organisation in question has in the field of climate policy.[625] Shell also reports its annual contribution to the organisation in question here and whether Shell is part of the organisation's governing body.[626] For every organisation, Milieudefensie has subsequently included InfluenceMap's ranking in the table.

581. The table thus shows (once again) that, also today, Shell is part of many organisations that have a (very) negative influence on climate policies. What is also striking is that almost all the organisations to which Shell makes the highest financial contributions score very poorly.

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[621] Exhibit MD-154, Joint Bicameral Staff Report (2024) "Denial, Disinformation, and Doublespeak: Big Oil's Evolving Efforts to Avoid Accountability for Climate Change", p. 36.
[622] Exhibit MD-004, "Shell Climate and Energy Transition Lobbying Report 2024", p. 4.
[623] Exhibit MD-158, InfluenceMap (2023), "BP and Shell's Climate Policy Engagement, A Real-World Metric of the Companies' Climate Strategies", p. 1.
[624] See https://lobbymap.org/briefing/LobbyMap-Methodology-24422 for an explanation of the methodology.
[625] Exhibit MD-004, "Shell Climate and Energy Transition Lobbying Report 2024", p. 34.
[626] Exhibit MD-004, "Shell Climate and Energy Transition Lobbying Report 2024", pp. 34–35.

	Organisation	Annual contribution from Shell	Shell part of of governing body?	InfluenceMap ranking
1	American Petroleum Institute (API)	USD 5 - < 7.5 million	Yes	E-[627]
2	US Chamber of Commerce	USD 2.5 - < 5 million	Yes	E[628]
3	American Chemistry Council	USD 1 - < 2.5 million	Yes	D[629]
4	Australian Energy Producers (formerly Australian Petroleum Production Exploration Association)	USD 1 - < 2.5 million	Yes	E+[630]
5	European Chemical Industry Council (Cefic)	USD 1 - < 2.5 million	Yes	C-[631]
6	European Fuel Manufacturers Association (including FuelsEurope and Concawe)	USD 1 - < 2.5 million	Yes	D-[632]
7	International Association of Oil and Gas Producers (IOGP)	USD 1 - < 2.5 million	Yes	D[633]
8	Oil and Gas Climate Initiative	USD 1 - < 2.5 million	Yes	Not known
9	Western States Petroleum Organisation	USD 1 - < 2.5 million		E[634]
10	American Clean Power Association	USD 500,000 - < 1 million	Yes	A-[635]
11	Brazilian Petroleum and Gas Institute (IBP)	USD 500,000 - < 1 million	Yes	D[636]
12	Canadian Fuels Association	USD 500,000 - < 1 million	Yes	D+[637]
13	Electric Power Supply Association	USD 500,000 - < 1 million	Yes	Not known
14	International Petroleum Industry Environmental Conservation Association (IPIECA)	USD 500,000 - < 1 million	Yes	C[638]
15	National Association of Manufacturers (NAM)	USD 500,000 - < 1 million	Yes	E[639]
16	Offshore Energies UK (formerly Oil and Gas UK)	USD 500,000 - < 1 million	Yes	C+[640]
17	VEMOBIN (formerly	USD 500,000 - < 1 million	Yes	Not known
	Dutch Petroleum Industry Association)			
18	Australian Energy Council	USD 100,000 - <500,000	Yes	C[641]
19	Canadian Association of Petroleum Producers (CAPP)	USD 100,000 - <500,000	Yes	E+[642]
20	Confederation of British Industry	USD 100,000 - <500,000	No	B-[643]
21	VNO-NCW	USD 100,000 - <500,000	Yes	C[644]
22	Eurogas	USD 100,000 - <500,000	Yes	D+[645]

[627] https://lobbymap.org/influencer/American-Petroleum-Institute-API/projectlink/American-Petroleum-Institute-API-In-Climate-Change.
[628] https://lobbymap.org/influencer/US-Chamber-of-Commerce/projectlink/US-Chamber-of-Commerce-In-Climate-Change.
[629] https://lobbymap.org/influencer/American-Chemistry-Council-ACC/projectlink/American-Chemistry-Council-ACC-In-Climate-Change.
[630] https://lobbymap.org/influencer/Australian-Petroleum-Production-Exploration-Association-APPEA/projectlink/Australian-Petroleum-Production-Exploration-Association-APPEA-In-Climate-Change.
[631] https://lobbymap.org/influencer/CEFIC-d9d3710f40561dc4376930da7e0c5942/projectlink/European-Chemical- Industry-Council-CEFIC-In-Climate-Change.
[632] https://lobbymap.org/influencer/Fuels-Europe/projectlink/FuelsEurope-In-Climate-Change.
[633] https://lobbymap.org/influencer/International-Association-of-Oil-and-Gas-producers/projectlink/International- Association-of-Oil-and-Gas-Producers-IOGP-In-Climate-Change.
[634] https://lobbymap.org/influencer/Western-States-Petroleum-Association-WSPA/projectlink/Western-States-Petroleum-Association-WSPA-In-Climate-Change.
[635] https://lobbymap.org/company/American-Wind-Energy-Association-AWEA-2a3685608a28187293859ff9797af6c8/ projectlink/American-Wind-Energy-Association-AWEA-in-Climate-Change-abe3d0cc8550b45bb5aae0c6630b5a31.
[636] https://lobbymap.org/influencer/Brazilian-Petroleum-and-Gas-Institute-05fb4c94a0c256d1da0291d828851f0c/projectlink/Brazilian-Petroleum-and-Gas-Institute-in-Climate-Change-4f091dd1cbb00e3f4a5bc8aa4c6ac8e3.
[637] https://lobbymap.org/influencer/Canadian-Fuels-Association-59600212de99b8154e0dfc2118defd22/projectlink/Canadian-Fuels-Association-in-Climate-Change-c6ddda41a8bb6ecfffd85e2669e67a2f.
[638] https://lobbymap.org/influencer/Ipieca-181fa48bfbe2212e8bd69e2c044f3177/projectlink/Ipieca-in-Climate-Change-b7561e1acd0785e6a9768df431cb1fce.
[639] https://lobbymap.org/influencer/National-Association-of-Manufacturing-NAM/projectlink/National-Association-of- Manufacturers-NAM-In-Climate-Change.
[640] https://lobbymap.org/influencer/Oil-and-Gas-UK-e790994a4f9d3807a1da9a194c671599/projectlink/Oil-and-Gas-UK-in-Climate-Change-4f32a4a01c39c9dbc5041bc0f30849d1.
[641] https://lobbymap.org/influencer/Australian-Energy-Council-83e55ed2f88d1efd18283e58b8ce10a6/projectlink/Australian-Energy-Council-in-Climate-Change-6ab78b212f70bcf27f2d8b9f9973e894.
[642] https://lobbymap.org/influencer/Canadian-Association-of-Petroleum-Producers/projectlink/Canadian-Association-of-Petroleum-Producers-In-Climate-Change.
[643] https://lobbymap.org/influencer/Confederation-of-British-Industry-CBI/projectlink/Confederation-of-British-Industry-CBI-In-Climate-Change.
[644] https://lobbymap.org/influencer/VNO-NSW-4ea76f0bea9dbbbf5477ee5d502cfa00/projectlink/VNO-NSW-in-Climate-Change-aaf09aafba8ef5918cb2ace880fdbf3a.
[645] https://lobbymap.org/influencer/Eurogas-77f7679cf538d83e0640e915abb5b28b/projectlink/Eurogas-In-Climate-Change.

23	Fuels Industry Association of South Africa (formerly South African Petroleum Industry Association)	USD 100,000 - <500,000	Yes	C[646]
24	Fuels Industry UK	USD 100,000 - <500,000	Yes	C[647]
25	International Air Transport Association (IATA)	USD 100,000 - <500,000	Yes	D[648]
26	Natural Gas Supply Association	USD 100,000 - <500,000	Yes	E[649]
27	Plastics Europe	USD 100,000 - <500,000	Yes	D+[650]
28	Solar Energies Industries Association	USD 100,000 - <500,000	Yes	A+[651]
29	WindEurope	USD 100,000 - <500,000	Yes	B+[652]
30	World Business Council for Sustainable Development (WBCSB)	USD 100,000 - <500,000	Yes	Not known
31	Business Council of Australia	USD 50,000 - <100,000	No	C-[653]
32	Business Council of Canada	USD 50,000 - <100,000	Yes	D+[654]

	Organisation	**Annual contribution from Shell**	**Shell part of governing body'?**	**InfluenceMap ranking**
33	European Round Table for Industry (ERT)	USD 50,000 - <100,000	No	C+[655]
34	French Association of Large Companies (AFEP)	USD 50,000 - <100,000	No	C-[656]
35	Hydrogen Council	USD 50,000 - <100,000	Yes	C[657]
36	KAZENERGY Association	USD 50,000 - <100,000	Yes	D[658]
37	Nigerian Gas Association	USD 50,000 - <100,000	No	D-[659]
38	Texas Oil and Gas Association	USD 50,000 - <100,000	Yes	F[660]
39	Australian Industry Greenhouse Network	USD 0 - <50,000	No	D+[661]
40	Australian Industry Group	USD 0 - <50,000	No	C[662]
41	BusinessEurope	USD 0 - <50,000	No	D-[663]

[646] https://lobbymap.org/influencer/South-African-Petroleum-Industry-Association-SAPIA-c8c83274df05e6f859c11819a424b320/projectlink/South-African-Petroleum-Industry-Association-SAPIA-in-Climate-Change-2dfc0ec7d258c5d23ee82d41037a74c8.

[647] https://lobbymap.org/influencer/UKPIA-58be27f5fb4d65e38a67b9d9a11534a8/projectlink/UKPIA-in-Climate-Change-c28ad3102a9db4eb5b2641b4f5b52880.

[648] https://lobbymap.org/influencer/International-Air-Transport-Association-IATA/projectlink/International-Air-Transport-Association-IATA-In-Climate-Change.

[649] https://lobbymap.org/influencer/Natural-Gas-Supply-Association/projectlink/Natural-Gas-Supply-Association-In-Climate-Change.

[650] https://lobbymap.org/influencer/Plastics-Europe-83ed94e8199aa815fc3dba15aee6ba4a/projectlink/Plastics-Europe-in-Climate-Change-7df4612b2b7c220967aa9acc6fc4860a.

[651] https://lobbymap.org/company/Solar-Energy-Industries-Association-SEIA-51a4bb6dc2042331294851f3b64750bc/projectlink/Solar-Energy-Industries-Association-SEIA-in-Climate-Change-28ab680938a9e59f6ab8f394c98b1f8c.

[652] https://lobbymap.org/company/WindEurope-2af3b6d81d6ba2b8ea7c2c1c29a9c092/projectlink/WindEurope-in-Climate-Change-b9d2a199f7f203feac34de74e07651eb.

[653] https://lobbymap.org/influencer/The-Business-Council-of-Australia/projectlink/The-Business-Council-of-Australia-In- Climate-Change.

[654] https://lobbymap.org/influencer/Business-Council-of-Canada-3a80afc0d80626f147477b2404ea3464/projectlink/Business-Council-of-Canada-in-Climate-Change-24366c5e720227f4d195d0498a217c13.

[655] https://lobbymap.org/influencer/European-Roundtable-of-Industrialists-ERT/projectlink/European-Roundtable-of-Industrialists-ERT-In-Climate-Change.

[656] https://lobbymap.org/influencer/French-Association-of-Large-Companies-French-Association-of-Large-Companies-AFEP-f34c421fdb389855189b600d028283af/projectlink/French-Association-of-Large-Companies-AFEP-in-Climate-Change-c83c525ddf29b7f33c29b952ecb7f579.

[657] https://lobbymap.org/influencer/Hydrogen-Council-6c5c2ba1fc8a4b691fbb0d46e7ee035b/projectlink/Hydrogen-Council-in-Climate-Change-d1900815c807325ebcc2fee889f6f6e3.

[658] https://lobbymap.org/influencer/KazEnergy-4ccd1d5b959e67a7f32b2373ff6687b1/projectlink/KazEnergy-in-Climate-Change-1835108b7331f03b3c987f887b3c350a.

[659] https://lobbymap.org/influencer/Nigerian-Gas-Association-b234a1065a0517a160a15969497960a6/projectlink/Nigerian-Gas-Association-in-Climate-Change-b95e38df312ffab2e2287982bc94c0b6.

[660] https://lobbymap.org/influencer/Texas-Oil-Gas-Association-TXOGA-3c5e73675bba9c0be73f07072ee4f73d/projectlink/Texas-Oil-Gas-Association-TXOGA-in-Climate-Change-0070347fb310c39bf44a1c3205e20a54.

[661] https://lobbymap.org/influencer/Australian-Industry-Greenhouse-Network-8ed2a5a6cf6ec81a07ef15b52e676e62/projectlink/Australian-Industry-Greenhouse-Network-in-Climate-Change-95256c56b4714096f5c075ee13276f5b.

[662] https://lobbymap.org/influencer/The-Australian-Industry-Group-Ai-Group-97dc23b317a6d0edd6516c5f4c900cac/projectlink/The-Australian-Industry-Group-Ai-Group-in-Climate-Change-7d0d35ffcf3657b8484d4ccc7973ae02.

[663] https://lobbymap.org/influencer/Business-Europe/projectlink/Business-Europe-In-Climate-Change.

42	Chamber of Minerals and Energy of Western Australia	USD 0 - <50,000	Yes	C-[664]
43	China Petroleum and Chemical Industry Federation	USD 0 - <50,000	No	C-[665]
44	European Union Chamber of Commerce in China	USD 0 - <50,000	No	C[666]
45	Hydrogen Europe	USD 0 - <50,000	No	C[667]
46	International Emissions Trading Association (IETA)	USD 0 - <50,000	Yes	C[668]
	Organisation	**Annual contribution from Shell**	**Shell part of governing body'?**	**InfluenceMap ranking**
47	International Gas Union (IGU)	USD 0 - <50,000	Yes	C-[669]
48	Malaysian Gas Association	USD 0 - <50,000	Yes	D[670]
50	Association of the Chemical Industry e.V.	USD 0 - <50,000	No	Not known

582. The table also shows that Shell is part of many organisations with a mixed track record (score C, C+ or C-). Like Shell itself, these organisations engage in "dual advocacy strategies":

> *"InfluenceMap's analysis shows that BP and Shell have engaged in 'dual' advocacy strategies regarding climate change and the transition of the energy mix. This has included positive advocacy on high-level climate targets (e.g. net-zero by 2050), as well as certain low carbon technologies, for instance support for electric vehicles, as well as specific policy areas such as carbon pricing policies. At the same time, however, BP and Shell have continued to advocate for policy incentives to increase oil and gas production and infrastructure globally.*[671]
>
> […]
>
> *Such advocacy is at odds with the findings of the Intergovernmental Panel on Climate Change and the International Energy Agency about how to limit global warming to 1.5C. Both bodies have found the need to reduce the exploration, production, infrastructure and use of oil and gas significantly to meet international climate targets*."[672]

583. In short, InfluenceMap concludes that Shell has a dual agenda; it expresses general support for e.g. the net-zero climate target in 2050 and supports specific policy areas such as carbon pricing, but, at the same time, continues to lobby globally for the expansion of oil and gas production – contrary to the IPCC and IEA findings.

584. It is a sophisticated strategy that enables Shell to create the image that it is a positive player in the field of climate policies (which is also the focus of much of its PR and advertising). Moreover, Shell can fairly easily claim that it supports the international temperature target or the national net-zero targets of countries or the EU (it would also face enormous public criticism if it did not), when all kinds of obstacles are subsequently put up when policies are aimed at achieving those targets are developed.[673]

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[664] https://lobbymap.org/influencer/Chamber-of-Minerals-and-Energy-d0c65f9cab5827d1636fa1af2bc3dd21/projectlink/Chamber-of-Minerals-and-Energy-in-Climate-Change-e66c9e8792af131e91232a32f0ffee3c.

[665] https://lobbymap.org/influencer/China-Petroleum-and-Chemical-Industry-Federation-5d700b2cd3490e74603ccf4e988f6f6e/projectlink/China-Petroleum-and-Chemical-Industry-Federation-in-Climate-Change-d0ee3090b59f5b1cad07495098c7ed04.

[666] https://lobbymap.org/influencer/European-Union-Chamber-of-Commerce-in-China-f56a1e7e99026c977b2e0b8dbdde908e/projectlink/European-Union-Chamber-of-Commerce-in-China-in-Climate-Change-b0d7e742564e51bb7d5e887b663afe9f.

[667] https://lobbymap.org/influencer/Hydrogen-Europe-9e172c06632e23a664778eff669e1881/projectlink/Hydrogen-Europe-in-Climate-Change-4ebc7c296846b0113466bc9f359720c7.

[668] https://lobbymap.org/influencer/International-Emissions-Trading-Association-IETA-bcef30cc8150cfb9e088a8550c014d1d/projectlink/International-Emissions-Trading-Association-IETA-in-Climate-Change-de6f8392686c99c5ff2bc80184071bf4.

669 https://lobbymap.org/influencer/International-Gas-Union-4c447ae29711d1d963985a0c475a2476/projectlink/International-Gas-Union-in-Climate-Change-37128dbeaff4120fd4e4608e96bfdc7a.

[670] https://lobbymap.org/influencer/Malaysian-Gas-Association-fce96c2021245545bd42fb9152ebe56d/projectlink/Malaysian-Gas-Association-in-Climate-Change-88be6b245d26e74183c0710aed46ea73.

[671] Exhibit MD-158, InfluenceMap (2023), "BP and Shell's Climate Policy Engagement, A Real-World Metric of the Companies' Climate Strategies", p. 5.

[672] Ibid, p. 1 and p. 6.

[673] Ibid, p. 6, where the discrepancy between support for climate action in a general sense (high-level) and much more limited support and negative positions at the level

585. To gain a better understanding of how fossil-fuel lobbyists work in practice to protect the interests of companies such as Shell, the playbook of the International Gas Union will be discussed next.

8.4.3.1 *The playbook of the International Gas Union for the lock-in of in fossil gas*

586. The International Gas Union, or IGU, is a global interest group for the gas industry, which calls itself "the Global Voice of Gas" and represents approximately 95% of the global gas industry.[674] Naturally, Shell is also part of it, as a Premium Associate Member.[675] This is an exclusive membership reserved for the most important gas companies. Shell is also represented on the IGU Executive Committee and thus contributes to determining the IGU's course.[676]

587. The documents of the IGU provide a detailed description of how the gas industry is pursuing an intensive and coordinated global strategy to perpetuate the role of natural gas as a fuel for the future. It becomes clear here (once again) that the idea of gas as a transition fuel, which is also promoted by Shell, is nothing more than a slogan coordinated within the gas industry to enable it to continue selling gas in the future as well; indeed, to enable it to *increasingly* sell gas in the future. It becomes clear that the last thing Shell and the gas industry are concerned with is contributing to solving the climate problem. After the first conference under the UN Climate Convention had been held, the IGU started to work on securing the future of the gas industry.

588. The IGU documents show how IGU has been present since the very first climate conference in 1995 and how it has wanted to make an increasingly significant mark on these annual climate conferences over the years.[677]

589. During the 2009 climate conference in Copenhagen, negotiations on extending the Kyoto Protocol would take place. Given the interests at stake at this conference, the IGU decided to launch a new event called ″The role of natural gas in a sustainable energy future″, with the aim of informing country delegations, civil servants, NGOs, the press and industry about the alleged benefits of natural gas.[678]

590. As the IGU documents show, the gas industry was well aware at the time that natural gas would not simply become an integral part of the energy system of the future. Due to growing concerns about climate change, increasing pressure from environmental organisations and growing political attention for climate measures, the IGU knew that an effective and consistent communication strategy was necessary to convince policymakers that natural gas should become part of the solution.[679]

591. From 2010 onwards, the IGU decided to also focus its attention on other institutions and stakeholders and the public.[680] To this end, it launched the gas advocacy initiative.[681] With a view to this, the IGU would seek to intensively engage with international organisations such as the International Energy Agency, the G20 and the World Bank:

of detailed engagement on policy is shown.
[674] Exhibit MD-159, International Gas Union 1931-2021, "The history of the global voice of gas" (selected pages), p. 4.
[675] Ibid, p. 7.
[676] Exhibit MD-004, "Shell Climate and Energy Transition Lobbying Report 2024", p. 35 and p. 63 (footnote 131).
[677] Exhibit MD-159, International Gas Union 1931-2021, "The history of the global voice of gas" (selected pages), pp. 120 up to and including 126.
[678] Exhibit MD-159, International Gas Union 1931-2021, "The history of the global voice of gas" (selected pages), pp. 122 and 123.
[679] Exhibit MD-159, International Gas Union 1931-2021, "The history of the global voice of gas" (selected pages), pp. 77-78.
[680] Ibid, p. 11 and p. 138.
[681] Ibid, pp. 77-78.

"Collaboration and relationship building with these organisations is critically important, as they can be influential in the fuel choice that countries make".[682]

592. At that time, the IGU also began distributing reports and created a gas advocacy toolkit. This would enable its members to communicate more effectively about the importance of natural gas. Complete presentations were also made available for its members to use.[683]

593. In 2011, the IGU also launched a new initiative with six European gas organisations under the name GasNaturally. GasNaturally was specifically intended to influence European policymakers. Again, in the words of the IGU:

"GasNaturally [….] targeted the European Commission and Parliament with the aim of ensuring that natural gas was well represented in discussions of the future energy mix in Europe."[684]

594. Research shows that Shell and the interest groups of which it is a member opposed binding European targets for energy efficiency and renewable energy around that time.[685] Recent research also shows that interest groups that Shell is part of have opposed support for renewable energy since the 1960s.[686]

595. After the gas advocacy initiative had been launched, the IGU focused on developing a global vision for natural gas. The aim was to reaffirm the role of natural gas and actively create demand for gas in as many sectors as possible, according to the documents:

"The goal was to reaffirm and consolidate the role of natural gas – at times mistakenly perceived as a "transitional fuel" – as an integral part of the global energy system for the long term, and to build confidence in the future demand for gas across a variety of sectors."[687]

596. For context, it is important to clarify that actively boosting the demand for natural gas was at odds with climate action, even in 2011. In 2011, the IEA had already published a scenario indicating that "*natural gas* [...] *is still a fossil fuel. Its increased use could muscle out low-carbon fuels, such as renewables and nuclear."*[688] According to the IEA, this scenario involving high gas consumption would even lead to 3.5°C of global warming.

597. As the attention paid to climate change increased after the Paris Agreement, the exertion of influence by the IGU also continued to grow. In 2021, the IGU Executive Committee, in which Shell is represented, concluded that the active debate on climate change could pose an existential threat to the global natural gas chain. This threat should not be ignored: a positive message had to be found to defend *and* enhance the role of gas in

[682] Exhibit MD-160, InfluenceMap (2022), "The International Gas Union's Climate Strategy: What the IGU reveals about the industry's global playbook to lock in fossil gas", p. 29, with reference to a 2020 IGU report (Document H, extract 1 on pp. 72-75). See also Exhibit MD-159, "International Gas Union 1931-2021, The history of the global voice of gas" (selected pages), p. 11.
[683] Exhibit MD-159, "International Gas Union 1931-2021, The history of the global voice of gas (selected pages)", p. 138.
[684] Ibid.
[685] See, e.g., The Guardian, 27 April 2015, "Shell lobbied to undermine EU renewables targets, documents reveal", available at https://www.theguardian.com/environment/2015/apr/27/shell-lobbied-to-undermine-eu-renewables-targets-documents-reveal.
[686] See Exhibit MD-156, InfluenceMap (2024), "How the Oil Industry Has Sustained Market Dominance Through Policy Influence", p. 3. See also The Guardian, 8 March 2024, "Oil industry has sought to block state backing for green tech since 1960s", available at https://www.theguardian.com/environment/2024/mar/08/oil-industry-has-sought-to-block-state-backing- for-green-tech-since-1960s.
[687] Exhibit MD-159, "International Gas Union 1931-2021, The history of the global voice of gas" (selected pages), p. 139.
[688] IEA 5 June 2011, "IEA special report explores potential for 'golden age' of natural gas", available at https://www.iea.org/news/iea-special-report-explores-potential-for-golden-age-of-natural-gas.

the global energy dynamic, according to the IGU Executive Committee:[689]

> *"This debate could be potentially existential for the global natural gas value chain. Potential regulatory changes combined with a restriction of liquidity to the sector could have highly damaging effects on the industry. It is not in the IGU's interest to ignore the issue, but to find a positive message to defend and enhance the role of gas in the global energy dynamic."*[690]

598. According to the IGU, it was necessary, in order to convey this positive message about gas, to intensify the efforts in the areas of "*communication, outreach and advocacy*". These efforts had to protect and strengthen the role of gas for decades to come.[691]

599. In the accompanying PowerPoint presentation from 2021, the following can be read:[692]

(a) in terms of communication, important media and influencers should have a positive sentiment towards gas;
(b) social acceptance of natural gas should be increased and compared with other fossil fuels;
(c) in terms of lobbying, policymakers should be influenced in a positive way to encourage the role of gas in investment and regulatory decisions;
(d) in terms of PR (outreach), the credibility and leadership of the IGU should be increased within influential organisations in order to shape the debate on energy.

600. Another document contains an "Updated Communications, Outreach and Advocacy Plan".[693] This is a global playbook of the IGU with a detailed action plan to maximise the role of natural gas. The plan contains separate communication strategies and narratives for each region of the world.[694]

601. In Europe, the focus seems to be on the "greening of gas", in which natural gas is presented as part of a broader category of "gases", such as biogas and biomethane, and hydrogen produced from natural gas.[695] For Africa, parts of Asia and Central and South America, the IGU's proposed communication strategies focus on the use of the Sustainable Development Goals, with an emphasis on combating energy poverty and air pollution.[696]

602. A long list of key targets from 2021, including media outlets and international institutions, shows which organisations the IGU believed it needed to lobby in order to secure the role of natural gas for the future. Important media outlets mentioned on the list include the Financial Times, the Economist, Bloomberg, the Wall Street Journal and the New York Times. [697]

603. The lobby also focused on the major development banks in Asia, Africa and the Middle East as well as the World Bank. Other targets mentioned by the IGU are the International Energy Agency, OPEC, the UN Conference of the Parties, the European Commission, the US Department of Energy, the OECD and China's

[689] Exhibit MD-160, InfluenceMap (2022), "The International Gas Union's Climate Strategy: What the IGU reveals about the industry's global playbook to lock in fossil gas", pp. 12 and 13, as well as p. 41 (Document B, extract 1) and p. 43.
[690] Ibid.
[691] Ibid.
[692] Ibid, pp. 8, 9, 12 and 34 as well as p. 39 (Document A, extract 1).
[693] Exhibit MD-160, InfluenceMap (2022), The International Gas Union's Climate Strategy: What the IGU reveals about the industry's global playbook to lock in fossil gas, pp. 10, 13, 16, 20 and pp. 49 up to and including 62 (Document E, extract 1 up to and including 5).
[694] Ibid, p. 5.
[695] Ibid, pp. 15-18 as well as p. 47 (Document D, extract 1).
[696] Ibid, pp. 10, 13, 16, 20 and pp. 49 up to and including 62 (Document E, extracts 1 up to and including 5).
[697] Ibid, p. 10, as well as p. 62 (Document E, extract 5).

National Energy Administration.[698]

604. Furthermore, maintaining and building partnerships with "top-tier think tanks and consultancies" is identified as an important priority.[699]

605. The theme of energy security also recurs frequently in the 2021 IGU playbook. It is clear to the gas industry that it is important to emphasise in the direction of the public and politicians that more gas means greater energy security and greater security of supply. The talking points therefore contain references to the importance of Russian gas. The importance of Russian gas for European energy security is also emphasised as a talking point.[700] That importance of Russian gas has, incidentally, also been consistently emphasised by Shell, for example in the context of the Nord Stream 2 project, in which Shell is involved.[701]

606. However, the IGU documents also show that the gas industry was prepared for geopolitical landslides that could be important for the position and future of natural gas. According to its 2021 presentation, a *"black swan event*" was expected to take place between 2022 and 2025 that would turn the global political agenda upside down.[702]

607. The term "black swan event" originates from the literature and is described as an unpredictable event with catastrophic consequences. This immediately brings to mind Russia's invasion of Ukraine in 2022, which took place within a year of this IGU document being drafted. This is not to suggest, of course, that the IGU foresaw this Russian invasion, but rather that it had prepared itself, with its tactics and strategies, to be able to respond as well as possible to such a major crisis and to capitalise on it as much as possible for the further promotion of natural gas.

608. This is also confirmed by InfluenceMap's analysis, which shows that after the outbreak of the war in Ukraine, the gas industry almost immediately switched from promoting Russian gas for energy security to promoting LNG for energy security and promoting the need to increase LNG capacity.[702] All this, of course, with a view to scaling up global gas sales.[703]

609. Another new promotional narrative from the oil and gas industry is to give the national oil and gas production a central place in the alleged interest of energy security.

610. InfluenceMap concludes that the development of these narratives and communication strategies in advance has probably enabled the oil and gas industry to respond very quickly to the gas crisis with globally consistent messaging, at a critical time when policymakers were still figuring out how to respond to that crisis.[704]

611. The IGU documents provide unique insights into how the gas industry is attempting to defend and strengthen

[698] Ibid, p. 10, as well as p. 62 (Document E, extract 5).
[699] Ibid, p. 10, as well as p. 65 (Document E, extract 8).
[700] Ibid, p. 10, as well as p. 54-55 (Document E, extract 1).
[701] See, for example, the press release of 4 September 2015, "Gazprom, BASF, E.ON, ENGIE, OMV and Shell sign Shareholders' Agreement on the Nord Stream 2 project", pp. 1–2, available at https://www.omv.com/en/media/press-releases/2015/gazprom-basf-e-on-engie-omv-and-shell-sign-shareholders-agreement-on-the-nord-stream-2-project.
[702] Exhibit MD-160, InfluenceMap (2022), "The International Gas Union's Climate Strategy: What the IGU reveals about the industry's global playbook to lock in fossil gas", p. 23 and p. 40 (Document A, Extract 2).
[703] Exhibit MD-160, InfluenceMap (2022), "The International Gas Union's Climate Strategy: What the IGU reveals about the industry's global playbook to lock in fossil gas", p. 3, p. 23.
[704] Ibid, p. 23.

its interests in the face of growing concern about climate change and the energy transition among the public, politicians and international institutions. It reveals a very extensive and coordinated strategy which seeks to protect the commercial interests of the IGU's constituency. In this strategy, climate change is seen not so much as an existential problem for humanity, but primarily as an existential problem for the gas industry.

612. It should not be forgotten that the IGU is just one of hundreds of organisations in which Shell and its industry peers participate.[705]

613. Shell also lobbies policymakers directly. In fact, Shell has 12 full-time lobbyists in Brussels alone and spends EUR 4.5-5 million annually on lobbying against all legislation and regulations that could affect Shell's business operations.[706] In the United States, Shell ranked sixth among companies with the highest spending on lobbying activities in the entire oil and gas industry at the federal government level in 2024, with more than USD 7 million in lobbying expenditure.[707] Shell lobbies policymakers around the world for, among other things, the acknowledgment of the continuing role of fossil gas and for an increase in LNG production.[708] When doing so, Shell points to its own LNG Outlook and studies, which have been conducted by fossil-fuel interest groups; these documents emphasise the importance of gas and predict a huge growth in the use of (in particular) LNG, a growth that even exceeds the one used by the IEA in its highest emissions scenario for 2023.[709]

8.4.3.2 *The lobby against the CSDDD*

614. Lobbying (in a coordinated form) to protect or expand fossil-fuel interests and weaken or abolish climate legislation is therefore still commonplace.

615. Of the countless examples that could be given to illustrate this, Milieudefensie points to the extensive lobbying against the Corporate Sustainability Due Diligence Directive (CSDDD).

616. In 2024, after a legislative process that took many years, the CSDDD came into force. This directive stipulates that companies have an independent obligation to reduce Scope 1, 2 and 3 emissions in line with limiting global warming to 1.5°C and in line with climate science.[710]

617. The oil and gas industry has strongly opposed this obligation, even after the CSDDD had already been adopted. Large corporations saw an opportunity to lobby for the watering down of, among other things, the (climate) obligations included in the CSDDD, particularly after the European Parliament elections in the summer of 2024 (which resulted in electoral gains for climate-denying right-wing populist parties). The European Commission subsequently launched the Omnibus I proposal in early 2025, which aims to amend

[705] Exhibit MD-004, "Shell Climate and Energy Transition Lobbying Report 2024", p. 4.
[706] Exhibit MD-161-A, A. European Union Transparency Register, Shell plc (website printout dated 11 February 2026). See p. 4 for an overview of the most important legislative proposals Shell is lobbying against, p. 9 for the number of lobbyists and p. 12 for the lobbying expenditure.
[707] Exhibit MD-161-B, "OpenSecrets Oil and Gas Lobbying Profile 2024" (website printout dated 11 February 2026), p. 2.
[708] Exhibit MD-004, "Shell Climate and Energy Transition Lobbying Report 2024", pp. 28-30.
[709] See e.g. Australasian Centre for Corporate Responsibility, 12 November 2024, "Shell's LNG Strategy: Overcooked?", p. 2: "*Shell's LNG growth strategy is based on a bullish outlook for LNG demand – one that is far above all the International Energy Agency's (IEA) global LNG scenarios, including its highest emissions scenario which would result in 2.4 °C of warming*.", available at https://www.accr.org.au/research/shell%E2%80%99s-lng-strategy-overcooked/ and Australasian Centre for Corporate Responsibility 30 October 2025, "*Commitment Issues: Shell's LNG lobbying risks undermining its Paris pledge*", pp. 4-6, available at https://www.accr.org.au/research/commitment-issues-shells-lng-lobbying-risks-undermining-its-paris-pledge/.
[710] Directive (EU) 2024/1760 of the European Parliament and of the Council of 13 June 2024 on corporate sustainability due diligence and amending Directive (EU) 2019/1937 and Regulation (EU) 2023/2859, Article 22.

the CSDDD.

618. In the documentation accompanying the Omnibus I proposal, the European Commission confirmed that representatives of the oil and gas industry in particular had lobbied for the deletion of the climate plan obligation from Article 22 CSDDD.[711] During the oral hearing of the appeal, Shell was still emphatically denying that it had actively lobbied against the CSDDD.[712] In fact, Shell claimed that it had actively supported the CSDDD through BusinessEurope, one of the largest European business lobbying organisations. According to Shell, the opposition to the CSDDD came mainly from small and medium-sized enterprises.[713]

619. This is incorrect, as evidenced by the communications of e.g. the European Commission, but also by the fact that BusinessEurope is seen as a highly obstructive interest group.[714] Moreover, the most influential lobbying organisations of the oil and gas industry in particular subsequently started to oppose the climate responsibilities of Article 22 CSDDD even more emphatically and openly, even after the directive had been adopted in 2024 following a five-year legislative process. Article 22 CSDDD simply requires European Member States to impose an independent obligation on companies to align their business model and strategy with limiting global warming to 1.5°C through time-bound emission reduction targets in five-year steps, from 2030 until climate neutrality is achieved in 2050.[715] Explicit calls were made by, among others organisations, Eurogas (where Shell sits on the Governing Board[716]), the European lobbying arm of the International Association of Oil and Gas Producers (IOGP Europe, where Shell sits on the board[717]), FuelsEurope (where Shell sits on the governing body[718]), and BusinessEurope (where Shell is part of the Corporate Advisory and Support Group[719]), for the complete deletion or complete neutralisation of Article 22 CSDDD following the publication of the so-called "Omnibus Package".[720]

620. Whereas the European legislator, after a legislative process that took many years, has finally adopted a European climate obligation, recognising that climate action by the business community is indispensable for

[711] Commission Staff Working Document, 26 February 2025, SWD (2025) 80 final, p. 33: "*Others, in particular from the oil and gas industry, called for the deletion of Article 22 CSDDD on combatting climate change*". Available at https://commission.europa.eu/document/download/1da93ca2-7911-4e1f-9ce6-cecd09a85250_en?filename=SWD-Omnibus-80-81_En.pdf.

[712] Exhibit MD-162, Court of The Hague, record of the oral hearing on 2, 3, 4 and 12 April 2024, p. 26: "On the general point that Shell lobbied against CSDDD, that is not correct. There were numerous concerns about small and medium-sized businesses that would have to comply with the obligation. Since the CSDDD was proposed in February 2022, Shell has always fallen within its scope. The notion that Shell has been lobbying is completely inaccurate. In fact, Shell has even actively supported the CSDDD through its membership of Business Europe."

[713] Ibid. That assertion of Shell was at odds with the findings of the rapporteur responsible for the CSDDD, who spoke out in very clear terms about the obstructive influence of large corporate lobbies on the CSDDD legislative process; see, e.g., the verbatim report of proceedings dated 28 February 2024, available at https://www.europarl.europa.eu/doceo/document/CRE-9-2024-02-28_EN.html.

[714] A 2021 analysis by InfluenceMap concludes that the American Petroleum Institute, the American Fuel & Petrochemical Manufacturers, the US Chamber of Commerce, the National Mining Association and BusinessEurope are among the five interest groups with the most negative impact on climate policies, see https://influencemap.org/report/The- Carbon-Policy-Footprint-Report-2021-670f36863e7859e1ad7848ec601dda97.

[715] Directive (EU) 2024/1760 of the European Parliament and of the Council of 13 June 2024 on corporate sustainability due diligence and amending Directive (EU) 2019/1937 and Regulation (EU) 2023/2859, Article 22.

[716] https://www.eurogas.org/about-us/structure/.

[717] https://iogpeurope.org/about-iogp-europe/board/. See also https://iogpeurope.org/about-iogp-europe/: "*We advance the views and position of oil & gas E&P companies to international and EU regulators, legislative bodies, and other relevant stakeholders*".

[718] Exhibit MD-004, Shell Climate and Energy Transition Lobbying Report 2024, p. 34.

[719] https://www.businesseurope.eu/about-us/asgroup-our-partner-companies/.

[720] See the BusinessEurope position paper on Omnibus I (April 2025), available at https://www.businesseurope.eu/wp-content/uploads/2025/04/2025-04-Businesseurope-position-paper-on-omnibus-I.pdf, p. 4: "*If Article 22 is maintained, it needs to be revised as follows to make sure it comprises only an obligation of means and achieves consistency with other EU legislation: • The wording "implementing actions" in Article 22 (1) of the CS3D should be deleted, or it should be clarified that the adoption of implementing actions does not include an obligation to put the plan into effect*." See also FuelsEurope, Eurogas, and IOGP Europe, 2 June 2025, available at https://www.fuelseurope.eu/uploads/files/modules/publications/1748942037_FuelsEurope%20Press%20Release%20-%20Omnibus%20Joint%20Statement%2002.06.2025.pdf: "*Article 22 of the CSDDD should be deleted to prevent legal uncertainty and conflicting expectations*." See also the Eurogas Response to the Omnibus Simplification Package (CSRD, CS3D and EU Taxonomy), 2 May 2025, available at https://www.eurogas.org/wp-content/uploads/2025/05/240502-Eurogas-Response-to-the-Omnibus-Simplification-Package.pdf, p. 5: "*climate transition plan requirements should remain solely within the CSRD framework, and Article 22 of CS3D should be deleted*".

achieving global climate goals,[721] the oil and gas industry is organising coordinated resistance, in this case, too, to an obligation to promote sustainability and reduce emissions.

621. The resistance of Shell and other major industrial polluters has actually been successful. In the adopted Omnibus package, the climate plan obligation has effectively been deleted.

8.4.3.3 *Opposition to the SBTi standard*

622. Another recent example of the exertion of influence by the oil and gas industry is the withdrawal of Shell and other oil and gas companies from the process for the development of a standard for the oil and gas sector through the Science Based Targets Initiative (SBTi). After many difficult years, a draft standard was arrived at which included a provision saying that a credible net-zero climate policy means that no new oil and gas fields will be developed anymore.[722] This was a logical and inevitable conclusion, given the extensive carbon lock-in of already existing fields and the findings of, among other organisations, the International Energy Agency that such a phase-out of oil and gas is also feasible.[723] According to Shell, the "industry vision" was not sufficiently reflected in the draft standard and oil and gas companies should be given more flexibility. In other words, fossil-fuel companies should simply be able to continue with new production in spite of climate science, and even call that "science-based". This is the umptieth example of the fact that Shell's only focus is on protecting its fossil-fuel business model. For years, Shell has told the public that it intended to sign up to a voluntary standard for the oil and gas industry, thereby creating the impression, also among the public, that Shell is a responsible player and would start to make its own contribution to tackling climate change. However, as soon as it was established, based on widely supported scientific and institutional findings, that this actually requires oil and gas to remain in the ground, Shell walked away and it became very clear, again, that Shell's focus in this critical decade will continue to be on increasing the carbon lock-in; the latter will make climate action and the associated sustainable energy transition more expensive, more complicated and more drastic.

8.5 CONCLUSION

623. Based on the above, Milieudefensie confidently asserts that Shell has sailed a highly destructive course in recent decades when it comes to inhibiting effective climate action. When Shell established more than 35 years ago, based on its own research, how large the dangers of climate change could be for humanity, it subsequently used all possible means, both directly and through interest groups, to obstruct, delay and weaken climate action for many decades. By doing so, Shell has misled citizens about the dangers of climate change and the availability of options for combating it.

624. Much has already been said and written about the inhibiting influence of the oil and gas industry – and Shell's influence in particular. Scientists and investigative journalists have carefully documented the coordinated deception and policy influencing, partly on the basis of internal documents. They all reach the same

[721] Directive (EU) 2024/1760 of the European Parliament and of the Council of 13 June 2024 on corporate sustainability due diligence (CSDDD), recital 10 (underlining added by counsel): "*International agreements under the UN Framework Convention on Climate Change, to which the Union and its Member States are parties, such as the Paris Agreement under the UN Framework Convention on Climate Change adopted on 12 December 2015 (the 'Paris Agreement') and the recent Glasgow Climate Pact, set out precise avenues to address climate change and keep global warming within 1.5 degrees Celsius. Besides specific actions being expected from all signatory Parties, the role of the private sector, in particular its investment strategies, is also considered central to achieve these objectives*."

[722] Reuters, 22 July 2025, "Global oil and gas emissions standard put on pause after Shell, others walk away, FT says", https://www.reuters.com/business/energy/global-oil-gas-emissions-standard-put-pause-after-shell-others-walk-away-ft-says-2025-07-22/.

[723] See, e.g., para. 486 and also, in detail, chapter 11.4.

conclusion: Shell has contributed and continues to contribute to delaying global climate action.

625. In this lawsuit, Milieudefensie is not seeking compensation for an unlawful act in the past with its demands. What Milieudefensie is asking Shell to do is to stop its destructive behaviour by implementing a Paris-compliant climate policy. This in any event requires Shell to (i) stop developing new oil and gas fields and (ii) reduce its global greenhouse gas emissions in line with the global danger threshold of 1.5°C. In the following chapters, Milieudefensie will argue that Shell's societal duty of care requires it to take these measures, starting with the applicable assessment framework.

9 LEGAL ASSESSMENT FRAMEWORK

9.1 INTRODUCTION

626. Based on the previous chapters, it is clear that companies, as important non-state actors – and certainly companies such as Shell, which produce and trade fossil fuels that cause climate change – must play an independent role in helping to prevent dangerous climate change. This is important because independent climate action by companies is one of the four pillars that international climate policies rely on in order to be successful.

627. For multinational companies in the oil and gas industry in particular, it is crucial that they take on responsibility for global climate action independently. This applies even more so because they currently have an inhibiting and obstructive influence on climate action and the associated energy transition.

628. It is therefore essential for Shell to adopt and implement a sound climate policy to reduce its greenhouse gas emissions in line with the 1.5°C target and to stop contributing to the further lock-in of fossil-fuel infrastructure.

629. If Shell fails to do so, it is acting in breach of its societal duty of care under Section 6:162(2) DCC and can be ordered to comply with its legal obligation under Section 3:296(1) DCC. In this chapter, Milieudefensie will explain the assessment framework that applies to determining this societal duty of care incumbent on Shell.

9.2 THE ASSESSMENT FRAMEWORK UNDER SECTION 3:296 DCC AND SECTION 6:162 DCC

9.2.1 The court order

630. Paragraph 1 of Section 3:296 DCC provides that someone who is obliged, in relation to someone else, to give something, do something or refrain from doing something can be ordered to do so by the court at the request of the person entitled hereto, unless it follows otherwise from the law, from the nature of the obligation or from a legal act. To this, the second paragraph of this Section adds that a person who is obliged to do something subject to a condition or time limit can be ordered to do so subject to that condition or time limit.

631. The essence of Section 3:296 DCC is that a legal duty must be fulfilled. It is incumbent upon Milieudefensie to demonstrate the existence of Shell's legal duty to "give something, do something or refrain from doing something". If this is demonstrated and Shell breaches or threatens to breach this duty, Shell must be ordered by the District Court to do what it is demanded to do upon the application of Milieudefensie.

632. The existence and scope of Shell's legal duty can be found on the basis of the societal duty of care as laid down in Section 6:162(2) DCC.

9.2.2 **The societal duty of care**

633. A characteristic feature of societal duties of care based on Section 6:162(2) DCC is their intertwinement with the circumstances of the case, or in other words, their context-dependent nature. They are unwritten standards, whose scope has not been defined in advance by an acknowledged subjective right or a legal obligation described as such, and these standards must therefore be determined on a case-by-case basis, based on the specific circumstances of the case.[724]

634. The question in this case is, therefore, whether Shell, viewed against the background of its specific circumstances, has a legal duty to take the precautionary measures demanded by Milieudefensie to protect the interest represented by Milieudefensie.

635. Whether Shell actually has a legal duty must be determined by weighing, on the one hand, Shell's interest in freely pursuing its own interests with its climate policy and, on the other, the interest represented by Milieudefensie in being protected from the (unlawful) consequences of that climate policy.[725] When weighing these interests, the legitimate expectations of Shell and Milieudefensie can serve as an overarching criterion.[726] The societal duty of care entails that a party must weigh their own interests against those of others and, when doing so, must be guided by "*what people in society may reasonably expect from each other*".[727]

636. When the above criterion is applied in a specific case, objective points of reference can serve as sources of (or perspectives for interpreting) the standards for the societal dure of care, in addition to the specific circumstances of that specific case.[728] Such objective points of reference can be found in, for example, the case law, general legal principles, fundamental rights, legislation, soft law and (climate) science.[729]

637. It is helpful here to have insight into possible sources of objective points of reference, such as those provided by Advocate General Valk in his opinion regarding the 2020 Dutch Supreme Court ruling concerning the repatriation of women who had travelled to ISIS-controlled territory.[730] With reference to, among other things, the opinion of Procurator General Langemijer and Advocate General Wissink regarding the Dutch Supreme Court's *Urgenda* judgment, Valk wrote that "*the court does [not] operate in a vacuum or elevate its subjective opinion of what is 'right' to being the law*" but *"links up [or should link up] as much as possible with objective references with which the case to be decided can be compared*".[731] Valk subsequently mentions the

[724] "*GS Onrechtmatige Daad*" (Green Series, Commentary on the concept of an unlawful act under Dutch law (hereafter: "Green Series")), Section. 6:162 DCC, note 3.1:3.1, and Section 6:162 DCC note 6.1.4.1.
[725] "Green Series", Section 6:162 DCC, note 6.1.4.2. See, in that sense, Asser/Sieburgh 6-IV 2019/56 and 75; and T.F.E. Tjong Tjin Tai, *RMTh* 2019, p. 27, among other authors. See also the opinion of deputy Advocate General Langemeijer and Advocate General Wissink, ECLI:NL:PHR:2019:887, regarding the Dutch Supreme Court judgment HR 20 December 2019, ECLI:NL:HR:2019:2006, under 2.18 et seq.
[726] Green Series, Section 6:162 DCC, notes 3.1:3.1 and 6.1.4.
[727] Asser/Sieburgh 6-IV 2019/56 and Asser/Sieburgh 6-IV 2019/75.
[728] Green Series, Section DCC, note 6.1.9.
[729] Ibid. See also Asser/Sieburgh 6-IV 2023/76 et seq.
[730] Opinion of Advocate General Valk, ECLI:NL:PHR:2020:412, regarding the Dutch Supreme Court judgment HR 26 June 2020, ECLI:NL:HR:2020:1148.
[731] Opinion of Advocate General Valk, ECLI:NL:PHR:2020:412, regarding the Dutch Supreme Court judgment HR 26 June 2020, ECLI:NL:HR:2020:1148, ground 6.1. Valk uses the term "objective references", where Milieudefensie uses the term "objective points of reference" (the term also used by, for example, the Court of Appeal of The

following as "objective references":

> *"Legal provisions* […] *that do not directly apply to the case in question* […] *Among lawyers, the 'Langemeijer correction', as accepted by the Dutch Supreme Court in 1951 in its Tandartsen ruling, is well-known: the violation of a legal standard which does not seek to protect the injured party against the damage they have suffered (and which therefore, based on the "relativity requirement", does not in itself result in liability) can serve as a point of reference in answering the question of whether the conduct in relation to the injured party is contrary to what is considered right in society according to unwritten law."*
>
> *"Similarly, treaty provisions can also make themselves felt in the assessment of whether due care has been exercised, even if they do not have direct effect within the meaning of Sections 93 and 94 of the Dutch Constitution. A well-known example of this is the "indirect horizontal effect" that rights under the ECHR (which has been written for the 'vertical relationship' between governments and citizens) may have in legal relationships between private parties."*
>
> *"Court judgments (case law) serve as an important point of reference, partly against the background of the principle of legal uniformity. In a case such as this, the case law of foreign courts is also a potentially significant point of view, I believe, particularly with regard to neighbouring countries that have a similar social order and legal tradition."*
>
> *"Private regulations and other forms of soft law, in different forms and degrees, are also relevant. An illustrative example is the Urgenda case, in which the Dutch State was ordered to reduce greenhouse gas emissions from Dutch territory by at least 25% by the end of 2020 relative to the 1990 levels. This reduction order under Articles 2 and 8 ECHR was based in part on widely shared insights from climate science and the international community, considering the arguments of the parties to the proceedings.*[732] *(*underlining added by counsel.)

638. Therefore, important objective points of reference, according to Advocate General Valk, include:

- statutory and treaty provisions that are not directly applicable, including the indirect horizontal effect of (ECHR) human rights in legal relationships between private parties;
- judgments of courts, including those of foreign courts, in particular those from neighbouring countries with a comparable social order and legal tradition;
- private regulations and other forms of soft law;
- widely shared views from (climate) science and the international community.

639. The widely shared views of climate science and the international community were already discussed in the previous chapters. This chapter will further examine the other objective points of reference which indicate - together with the weighing of interests (i.e. Shell's private interests against the collective interests represented by Milieudefensie) – that Shell has a societal duty of care requiring it to pursue an adequate climate policy.

640. Advocate General Valk also makes it clear that if a court is unable to flesh out or further flesh out the standards for a societal duty of care on the basis of objective points of reference, it will have to rely more heavily on a case-specific weighing of interests when applying Section 6:162(2) DCC. In this context, case law (such as the Dutch *Kelderluik* judgment and the *Kalimijnen* judgment) provides guidance for the weighing of interests to be carried out in that case. In the words of Valk:

> *"If and insofar as there are no objective points of reference to flesh out or further flesh out unwritten standards of due care, the court will have to fall back on a weighing of the interests as presented in the legal proceedings, also in view of the prohibition for a court to deny justice (Section 13 of the Dutch General Provisions Act ("Wet AB")). In that case, fleshing out the standard of due care will*

Hague in the *Shell* case; see the judgment of the Court of Appeal of The Hague 12 November 2024, ECLI:NL:GHDHA:2024:2099, ground 7.2). However, the same thing is meant.

[732] Ibid, grounds 6.1 up to and including 6.7.

become strongly case-specific. The well-known factors of the Kelderluik judgment, among other things, serve as a useful framework here for the reasoned weighing of interests to be carried out by the court. In the Kalimijnen judgment, which the Court of Appeal in The Hague took as its starting point, the "due care test" also had the character of a context-specific weighing of interests.[733]

641. In this case, Milieudefensie's starting-point for its demands against Shell is that Milieudefensie may reasonably expect that Shell's policy will not harm, or at least not excessively harm, the interest represented by Milieudefensie in a sustainable society (as set out in more detail in chapter 3.2.1). This starting-point is consistent with the weighing of interests to be made, also according to the Dutch Supreme Court's case law, when Section 6:162(2) DCC is applied. In the above-mentioned *Kalimijnen* judgment, the Dutch Supreme Court considered that in the weighing of the mutual interests of the polluters and the downstream users of the river, the interests of the latter carried particular weight because downstream users "may, as a matter of principle, expect that the river will not be excessively polluted by large discharges".[734] Nieuwenhuis notes in this regard that the "legitimacy of this expectation" does not lie in a comparison of the financial advantages and disadvantages of the discharges, but in the idea that a river is intended for "sustainable and shared use".[735] The climate is also intended for sustainable and shared use, and it may be expected that it will not be altered and adversely affected by the polluter in such a manner that the climate becomes dangerous to people and society.

642. In relation to climate change, Milieudefensie may therefore expect from a polluter such as Shell that its climate policy does not harm, or at least does not excessively harm, the interests represented by Milieudefensie of present and future Dutch residents in being protected against the enormous danger of climate change exceeding 1.5°C. There can be no doubt about the fact that this expectation is legitimate, based on both a weighing of interests and on the available objective points of reference. Many objective points of reference indicate that Shell has a societal duty of care requiring it to reduce its emissions, and these objective points of reference also provide ample guidance for determining what Shell is specifically required to do based on that societal duty of care.

643. As mentioned, many of these objective points of reference have already been discussed in the previous chapters. Chapters 5 and 6 explained in detail, based on climate science, international climate treaties and other international climate policy instruments such as COP decisions – that a climate change of more than 1.5°C will undeniably lead to an (excessive) harming of the interests represented by Milieudefensie, given the seriousness and scale of the danger associated with such a climate change. Subsequently, it was demonstrated in detail in chapter 7 – based on, among other things, UN initiatives and partnerships, expert reports, soft law (such as the UNGP and OECD guidelines) and corporate climate protocols – that companies such as Shell have a very important role to play in combating dangerous climate change, and that there has therefore been broad social consensus for a very long time on the (precautionary) measures that companies must therefore take with a view to this.

644. A large number of these objective points of reference were also discussed in the first Shell case, and many of them were (rightly) considered by the Court of Appeal of The Hague in its finding that companies have a societal duty of care under Section 6:162(2) DCC which requires them to reduce their emissions, including Scope 3 emissions.

[733] Ibid, para. 6.8.
[734] Judgment of the Dutch Supreme Court 23 September 1988, ECLI:NL:HR:1988:AD5713, ground 3.3.2.
[735] Annotation by J.H. Nieuwenhuis for the judgment of the Supreme Court 23 September 1988, ECLI:NL:HR:1988:AD5713, *NJ* 1989/743.

645. In addition to the objective points of reference already discussed in the previous chapters, Shell's legal duty of care is also evident from important additional points of reference. These not only show that Shell has a societal duty of care, but also provide a framework – in line with the conclusion of Advocate General Valk (see paragraph 637) – for assessing how Shell should give effect to this in practice.

646. Therefore, the following objective points of reference will be discussed in succession below: the doctrine of hazardous negligence as derived from Dutch case law; the horizontal effect of human rights; the sources of soft law relevant to this case (as a further elaboration of what was already discussed in chapter 7); the relevant legal principles that follow from sources of soft law, treaty law and customary law and provide authoritative criteria for determining the contribution to the global climate challenge required from Shell. When these topics are addressed, important foreign court decisions will also be considered as objective points of reference.

647. Milieudefensie will now first discuss the doctrine of hazardous negligence developed in Dutch case law and the criteria from the Dutch *Kelderluik* judgment implied in that case law. In doing so, Milieudefensie will also discuss the significance of these points of reference in the case against Shell and explain that the Court of Appeal of The Hague failed to sufficiently consider several points of reference when judging whether Shell is also bound by a specific reduction percentage when fulfilling its duty of care.

9.2.3 **Doctrine of hazardous negligence**

648. The duty of care that Milieudefensie is holding Shell accountable for is based on the principle that Shell has a societal duty of care requiring it, according to the law applicable to the societal duty of care (part of which is unwritten law), to not create and/or perpetuate any hazard, including the failure to take sufficient precautions to prevent the realisation of that hazard (referred to as "hazardous conduct" in short).[736]

649. The doctrine of hazardous negligence, which has been developed in the case law and legal literature, provides an appropriate and useful assessment framework for determining whether Shell, with its current climate policy, is fulfilling its duty of care under Section 6:162(2). The question essentially is whether Shell is creating or perpetuating the significant hazard of climate change exceeding 1.5°C by pursuing an inadequate climate policy, i.e. a climate policy that does not contain sufficient precautionary measures to maintain a reasonable chance of limiting climate change to a maximum of 1.5°C, or at least by insufficiently contributing to the precautionary measures required on a global scale to achieve this.[737]

650. For decades, the criteria formulated by the Dutch Supreme Court in the *Kelderluik* judgment (the "*Kelderluik* criteria") have been used in court judgments for the purpose of judging whether certain conduct is unlawful due to the hazard it creates.[738] Whether any hazardous conduct constitutes a breach of the societal duty of care is determined, according to the case law and legal literature, by the degree of care (or lack of care) on the side of the party causing the damage ("the perpetrator") (in this case Shell) and the severity that the hazard poses for the interests on the side of the injured party (in this case Milieudefensie). The care (or degree

[736] See, in this regard, among others: Asser/Sieburgh 6-IV 2019/58; and C.H.M. Jansen, "*Onrechtmatige daad: algemene bepalingen*" (Unlawful act: general provisions) *"Mon. BW nr. B45"* (Dutch Civil Code Monologues, no. B45) 2009/21.
[737] Ibid.
[738] Judgment of the Dutch Supreme Court 5 November 1965, NJ 1966, 136 (*Kelderluik* judgment) ECLI:NL:HR:1965:AB7079.

of care) to be exercised by the perpetrator depends on the nature of their conduct and the onerousness of taking precautionary measures. The hazard is assessed on the basis of the magnitude of the feared damage, its foreseeability and the likelihood that this damage will occur. [739]

651. By weighing the *Kelderluik* criteria, a turning point can be found that determines whether or not certain precautionary measures need to be taken. There is no further "hierarchy" in these criteria; often, they function as communicating vessels.[740] For instance, precautionary measures will be considered as not being very onerous if the severity of a hazard is greater.[741] The result of this is that a duty of care in the case of a very serious hazard may necessitate that very far-reaching precautionary measures are taken. Even a relatively small chance of a relatively limited, known hazard may necessitate (far-reaching) precautionary measures if the hazard affects a large group of interested parties and their interests deserve a high degree of protection due to the nature of these interests, for instance, in the case of a violation or imminent violation of human rights.[742]

652. Given that the *Kelderluik* criteria are consistent with basic notions regarding risk handling, it will not be surprising that these views are also widely accepted internationally and are reflected in similar terms in other legal systems.[743] For example, very similar criteria can be found in the Principles of European Tort Law[744], which express the key elements of (European) liability law.[745] The same applies to the Draft Common Frame of Reference[746], which identifies common principles of private law in the European Union and in which the protection of human rights is a primary function.[747] In common-law legal systems, the *Kelderluik* criteria can be recognised in the Learned Hand formula used by the American judge Billings Learned Hand,[748] in which the "negligence" is assessed on the basis of the probability of the damage, the seriousness of the damage and the onerousness of the precautions to be taken.[749] The doctrine of hazardous negligence is therefore rightly considered to be universally applicable.[750]

653. In the first case against Shell, the doctrine of hazardous negligence was applied by the District Court of The Hague. This application is implied, among other things, in the Court's considerations regarding climate change and its consequences[751], including in the Netherlands and the Wadden Sea region[752], Shell's awareness of this,[753] Shell's CO_2 emissions,[754] Shell's control and influence,[755] the possibilities of preventing dangerous

[739] C.H. Sieburgh 2000, "*Toerekening van een onrechtmatige daad*" (Attribution of a wrongful act), Kluwer, 1 July 2000 p. 74.
[740] K.J.O. Jansen, Green Series, Section 6:162 DCC, note 6.3.9.6.
[741] Opinion of Advocate General Hartkamp regarding the Dutch Supreme Court judgment HR 28 May 2004, *NJ* 2005, 105 (*Jetblast*), para. 12.
[742] C.C. van Dam, "*Aansprakelijkheidsrecht*" (Law of liability), The Hague: *Boom juridisch 2023*, para. 207-1.
[743] Opinion of Procurator General Langemeijer and Advocate General Wissink regarding the Dutch Supreme Court judgment HR 20 December 2019, ECLI:NL:PHR:2019:887 (*Urgenda*), para. 2.23.
[744] Articles 4:102 and 4:103 of the Principles of European Tort Law. See also Article 2:102(1) of the Principles of European Tort Law.
[745] Opinion of P-G Langemeijer and A-G Wissink regarding the Supreme Court judgment HR 20 December 2019, ECLI:NL:PHR:2019:887 (*Urgenda*), para. 2.23; I. Giesen, and S.D. Lindenbergh, "*Europese beginselen als bron van inspiratie*" (European principles as a source of inspiration), *AV&S* 2007, 7.
[746] Article VI.-1:102 DCFR. See also Principles 16 and 30 up to and including 33 DCFR.
[747] C. von Bar et al., *Principles, Definitions and Model Rules of European Private Law. Draft Common Frame of Reference (DCFR). Outline Edition*, Munich: Sellier 2009, pp. 3 and 7.
[748] Opinion of Procurator General Langemeijer and Advocate General Wissink regarding the Dutch Supreme Court judgment HR 20 December 2019, ECLI:NL:PHR:2019:887 (*Urgenda*), para. 2.23.
[749] *United States v. Carroll Towing Co.* 159 F.2d 169 (2d Cir. 1947), para. 173. See also C.C. van Dam, *European Tort Law,* Oxford: Oxford University Press 2013, p. 236.
[750] T. Hartlief, "PETL: Basic Norm and Liability Based on Fault", *AV&S* 2007, 8.
[751] Judgment of the District Court of The Hague of 26 May 2021, ECLI:NL:RBDHA:2021:5337, ground 2.3.
[752] Ibid, ground 4.4.6. et seq.
[753] Ibid, ground 4.4.20
[754] Ibid, ground 4.4.5.
[755] Ibid, ground 4.4.22 et seq.

climate change[756] and the onerousness for Shell of the reduction demanded by Milieudefensie.[757]

654. On appeal, the Court of Appeal of The Hague also partly determined Shell's duty of care on the basis of the doctrine of hazardous negligence. Although the Court of Appeal did not systematically perform a test against all the *Kelderluik* criteria, it did find that these criteria flesh out the general duty of care under Section 6:162(2) DCC.[758] These criteria are then also clearly reflected in the paragraphs where the Court argues that Shell is obliged to reduce its emissions. In the words of the Court of Appeal:

> *"Whether certain conduct constitutes a breach of the societal duty of care depends on a variety of factors. The severity of the threat of a particular hazard occurring, the contribution to the emergence of the hazard and the possibility of contributing to countering the hazard are among the factors to be considered. [759]*

655. In its judgment, the Court of Appeal also addressed the likelihood, foreseeability, nature and extent of the damage resulting from climate change in detail (criteria (i) up to including (iii)) from the *Kelderluik* judgment, which, according to the Court of Appeal, is – in view of all the foregoing – undoubtedly "the greatest problem of our time".760 The Court of Appeal also devoted considerable attention to the significance of the nature of the conduct (and absence of conduct) of companies (in this case Shell) and to the possibilities for companies to take precautionary measures to combat climate change; in light of this, the Court of Appeal found that *"Especially companies whose products have contributed to the creation of the climate problem and have it in their power to contribute to combating it are obliged to do so vis-à-vis other inhabitants of the earth* [...], and that therefore "*companies like Shell, which contribute significantly to the climate problem and have it within their power to contribute to combating it, have an obligation to limit CO_2 emissions in order to counter dangerous climate change*".[761]

656. The Court of Appeal also (rightly) considered other objective points of reference that lead to similar outcomes as the outcome based on the application of the *Kelderluik* criteria. Examples of such points of reference are soft law (such as the UNGP and the OECD guidelines) and the climate protocols for companies developed within the UN framework: these also demonstrate that companies have a responsibility to reduce their emissions; the extent of that responsibility depends on a company's contribution to climate change and its ability to combat it.[762]

657. Although the Court of Appeal rightly considered some of the *Kelderluik* criteria (and other objective points of reference) when finding that companies have an obligation to reduce their emissions, the Court of Appeal disregarded these criteria (and a large number of other objective points of reference) when judging whether Shell is bound to any specific reduction percentage. From ground 7.67 onwards, the Court of Appeal narrows down its assessment framework to the mere test of whether such a percentage is apparent from climate legislation or climate science consensus. When judging the reduction percentage to be applied, the Court of Appeal failed to sufficiently consider the relevant objective points of reference and carry out the required broad weighing of interests required under Section 6:162 DCC; among other things, the Court of Appeal failed to attach significance to the factor of "onerousness" as an important element of the *Kelderluik* criteria.

[756] Ibid, ground 4.4.26 et seq.
[757] Ibid, ground 4.4.53 et seq.
[758] Judgment of the Court of Appeal of The Hague of 12 November 2024, ECLI:NL:GHDHA:2024:2099, ground 7.3.
[759] Ibid, ground 7.24.
[760] Ibid, in particular grounds 3.3 up to and including 3.20, 7.6 up to and including 7.17 and 7.25.
[761] Ibid, in particular grounds 3.21 up to and including 3.54 and 7.27.
[762] Ibid, e.g. grounds 7.20 up to and including 7.23, 7.26, 7.28 up to and including 7.46, 7.55 to 7.57.

658. Due to this narrowing down of the assessment framework, the Court of Appeal of The Hague, unlike the District Court, did not, or did not sufficiently, consider the *Kelderluik* criteria (and other objective points of reference) when answering the question whether any specific reduction percentage could be demanded from Shell. The Court of Appeal's interpretation differs from the interpretation that must be given, according to Milieudefensie, to Section 6:162(2) DCC, and which is also evident, for example, from the earlier cited opinion of Advocate General Valk (see chapter 9.2.1). After all, Advocate General Valk notes that when Section 6:162(2) DCC is applied, soft law ("in all different forms and degrees"), treaty provisions, statutory provisions (even if they do not directly apply to the case to be decided) and case law (see paragraph 611) are also relevant. Furthermore, he notes that if the court cannot flesh out or further flesh out a standard of due care on that basis, the Court's assessment must not end there. The Court must then rely on a case-specific weighing of the interests, in which the case law (such as the *Kelderluik* judgment and the *Kalimijnen* judgment) will then "serve as a useful framework for the reasoned weighing of interests to be carried out by the court" (see para. 613).

659. For Milieudefensie, it is therefore an established fact that this Court, when defining the concrete scope of Shell's legal duty in the present case, cannot rely solely on climate legislation and climate science consensus. When the concrete scope of this legal duty is determined, this Court could (and should) also find support in objective points of reference, including the case law, climate treaties, international legal principles, human rights law and soft law, including climate protocols relating to corporate responsibility, in accordance with the settled interpretation of Section 6:162(2) DCC. Together with widely supported findings from climate science and the results of climate scenarios, the Court can then determine Shell's legal duty in concrete terms.

660. Milieudefensie wishes to emphasise in particular that, with the above, significant importance should also be attached to the following when the concrete scope of Shell's legal duty is determined:

1. The *Kelderluik* criteria, in particular criterion (v) concerning the onerousness of the measures to be taken by Shell in relation to the seriousness and nature of the hazard of climate change. In chapter 10, Milieudefensie will apply the hazardous negligence criteria to Shell and demonstrate that Shell's inadequate climate policy means that Shell is engaging in unlawful and negligent conduct, so that Shell is obliged to take the climate measures demanded.

2. The precautionary principle, the CBDR principle and the principle of intergenerational justice, as they follow from various (climate) treaties and widely held expectations regarding the role of companies in combating climate change. These principles also affirm that Shell is obliged to take the specific climate measures that Milieudefensie is demanding of Shell. Milieudefensie will discuss the more precise meaning of the above-mentioned principles when Shell's legal obligation is determined and made concrete in chapter 9.2.5.

9.2.4 **Human rights**

661. As also follows from chapter 9.2.1, human rights laws, in addition to the doctrine of hazardous negligence discussed above, also flesh out Shell's duty of care under Section 6:162(2) DCCP. According to Advocate General Valk's enumeration, the horizontal effect of human rights (under the ECHR) is also one of the objective points of reference the Court must consider when deciding this case.

662. Dutch case law has widely recognised the (indirect) horizontal effect of the ECHR via open private-law standards, such as the "societal duty of care" standard of Section 6:162 DCC[763]. In this way, the ECHR also shapes the duty of care that private (legal) persons must exercise in relation to each other. The following quote from Prof. A.S. Hartkamp aptly reflects why this horizontal effect exists, and why it is important that it does:

> "The values embodied in fundamental rights are so important to society as a whole that it is desirable that such rights can also, at least to a certain extent, be invoked by citizens in their relationships with other citizens, including associations and other private-law organisations. This is in line with today's reality, in which such organisations can exercise such considerable legal, economic or factual power over individuals that the need for protection against that power can be comparable to the need for protection against the power of public institutions."[764]

663. According to Hartkamp, certain private legal entities have such considerable legal, economic or factual power over individuals (and their fate) that individuals must be protected against this power in a way similar to how they are protected against the power that public institutions such as the state have over them. Individuals are increasingly confronted with private-law organisations that wield considerable power and determine their living conditions and circumstances to an important extent. This means that it is no longer only governments that are in a position of power vis-à-vis citizens.

664. The social development that is primarily responsible for this trend – and which is explicitly referred to in this context – is the phenomenon of globalisation[765]. This development also underpins the work of Prof. Cees Van Dam, a leading author in the field of business and human rights. He aptly characterises the relationship between globalisation and the increasing focus on human rights with the words "*Trade has been globalised – justice not yet*".[766] Whereas human rights traditionally arose to protect individual citizens against a state as the holder of power, he believes that multinationals in particular have now become social actors that are at least as powerful as states, partly as a result of the above-mentioned globalisation.[767]

665. In view of the above, the application of the (indirect) horizontal effect of human rights in Dutch private law in general, and when defining the scope of the unwritten duty-of-care standard of Section 6:162(2) DCC in particular, is of great importance for the protection of human rights. It is these fundamental rights that Milieudefensie is defending in this lawsuit, and it is therefore also important that Shell's duty of care is formulated in a way that also effectively protects these fundamental rights in a practical manner (as also required by Articles 6 and 13 ECHR).

666. It is evident that the law of liability is of great importance for the protection of human rights and should also offer this protection, including in horizontal situations. In the words of Van Dam:

> "Obligations incumbent on the State under the ECHR *can* have horizontal effects (between citizens and companies). After all, national courts must also protect the rights offered by treaties in horizontal relationships as well. Courts must do so by shaping the law of liability, in particular the corresponding duties of care, in such a way that the fundamental rights of the injured party are adequately protected. If courts fail to do so, they are violating the ECHR as a body of the state."[768]

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[763] Asser/Hartkamp 3-I 2023/226-231 "*Europees Recht en Nederlands Vermogensrecht*" (*European Law and Dutch Property Law*) with further references to relevant case law and legal literature.
[764] Asser/Hartkamp 3-I 2023/226 "*Europees Recht en Nederlands Vermogensrecht*" (*European Law and Dutch Property Law*).
[765] See, in the context of the ECHR: R. Nehmelman and C.W. Noorlander, "*Horizontale werking van grondrechten*" (Horizontal effect of human rights) in "*Handboeken Staats- en Bestuursrecht*" (Constitutional and Administrative Law Guides), Deventer: Kluwer 2013, p. 316.
[766] C. Van Dam, "Onderneming en mensenrechten" (Business and Human Rights), Inaugural Lecture, Utrecht University, The Hague: Boom Juridische uitgevers, 2008, p. 17 et seq.
[767] Ibid, p. 24.
[768] Van Dam, "*Aansprakelijkheidsrecht*" (*Law of liability*) (2023), 820-1.

667. And elsewhere, Van Dam states:

> "It is therefore the task of the state to protect fundamental rights, also through the law of liability, which is thus part of the constitutional fabric of the rule of law."[769]

668. Under the ECHR, this protection of fundamental rights through indirect horizontal effect is also required. This obligation is directed at national courts as part of the state. In horizontal relationships, courts must effectively and actively enforce ECHR rights as a positive obligation under the treaty.[770] One of the ways in which this is achieved is through the application of the law of liability.[771] The ECHR thus also obliges national courts to horizontally enforce the rights guaranteed by Articles 2 and 8 in their national law and to offer remedies to warranty the protection thereby offered.[772] It goes without saying that the need for a horizontal enforcement of fundamental ECHR rights and ECHR principles will be greater when such rights offer protection against more fundamental interests or against greater threats and dangers.

669. The Dutch Supreme Court has repeatedly accepted the horizontal effects of human rights under e.g. the ECHR and the ICCPR.[773] Human rights and general legal principles therefore also serve as sources for national courts when they determine what (unwritten) duty-of-care standards mean.[774] This prevailing doctrine is also followed by Procurator General Langemeijer and Advocate General Wissink in their opinion regarding the *Urgenda* judgment.[775] In his opinion for the *IS-uitreizigers* judgment, Advocate General Valk also noted that treaty provisions can have an effect when the compliance with the duty of care is assessed, even if these treaty provisions do not have direct effect.[776] According to Brans and Scheltema, the use of fundamental rights to determine the unwritten standard of due care in the judgment in the first climate case against Shell is therefore not surprising.[777]

670. This effect of fundamental rights can also be explained very well dogmatically based on the fact that when a duty of care is found to exist and fleshed out, courts are essentially weighing interests. It is not surprising that interests

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[769] Van Dam, "*Aansprakelijkheidsrecht*" (2023), para. 107.

[770] See, for example, the judgment of the Dutch Supreme Court 6 January 1995, *NJ* 1995, 422; Dutch Supreme Court 15 April 1994, NJ 1994, 576. See also T. Barkhuysen & M.L. van Emmerik, "*Zorgplichten volgens de Hoge Raad en het Europees Hof voor de Rechten van de Mens: van Lindenbaum/Cohen via Kelderluik en Öneryildiz tot Urgenda*" (Duties of care according to the Dutch Supreme Court and the European Court of Human Rights: from Lindenbaum/Cohen via Kelderluik and Öneryildiz to Urgenda?), *RM Themis* 2019-1, p. 43; C.C. van Dam, "*Het EVRM en de aansprakelijkheid van private partijen*") (The ECHR and the liability of private parties), *VR* 2014/164, paras. 2 and 4; A.J.P. Schild, "*De invloed van het EVRM op het Ondernemingsrecht*" (The influence of the ECHR on corporate law), Deventer: Kluwer 2012, para. 2.8; J. Gerards, "*EVRM – Algemene beginselen*" (ECHR – General principles), The Hague: SDU Publishers 2011, pp. 263, 281 and 282.

[771] C.C. van Dam, "Aansprakelijkheidsrecht" (Law of liability), The Hague: Boom juridisch 2023, paras. 107 and 820-1.

[772] ECHR 3 November 2011, no. 28096/04 (*Antonov v. Ukraine*); ECHR 14 June 2011, no. 19776/04 (*Ciechonska v. Poland*); ECHR 24 May 2011, no. 23302/03 (*Anna Todorova v. Bulgaria*); ECHR 24 June 2004, no. 59320/00 (*Caroline von Hannover v. Germany I*). For a detailed overview, see C.C. van Dam, "*Het EVRM en de aansprakelijkheid van private partijen"*(The ECHR and the liability of private parties), *VR* 2014/164, para. 2; J. Vande Lanotte & Y. Haeck, "*Handboek EVRM*" (Handbook on the ECHR), part 1, Antwerp: Intersentia 2005, p. 108. See also A.J.P. Schild, "*De invloed van het EVRM op het ondernemingsrecht*", Deventer: Kluwer 2012, para. 2.9.

[773] See, for example, Dutch Supreme Court 13 July 2012, ECLI:NL:HR:2012:BW3367 (*Leeftijdsontslag KLM (KLM age-related dismissal)*); Dutch Supreme Court 8 October 2004, ECLI:NL:HR:2004:AP0424 (*Martinair*); Dutch Supreme Court 13 January 1995, *NJ* 1995, 430 (*Leeftijdsdiscriminatie* (Age discrimination)); Dutch Supreme Court 9 January 1987, NJ 1987, 928 (*Edamse bijstandsvrouw* (Edam female welfare recipient)). In the latter judgment, the Dutch Supreme Court even accepted the direct horizontal effect of Article 8 ECHR. For indirect horizontal effect via the open standard of Section 2:8 DCC, see also the Court of Appeal of Amsterdam 24 February 2009, ECLI:NL:GHAMS:BH6413 (*Esthéticienne/Waterpark*).

[774] *Asser/Sieburgh 6-IV* 2023/71 and 74; K.J.O. Jansen, Green Series, Section 6:162 DCC, note 6.1.13.1; E.H.P. Brans & M.W. Scheltema, "*Aansprakelijkheid Shell voor klimaatverandering. Een "carbon major" geconfronteerd met een reductiebevel*" (Shell's liability for climate change. A carbon major confronted with a reduction order), *M en R* 2021/80, para. 8.4; J.W.A. Fleuren, "*Urgenda en niet(?)-rechtstreeks werkend internationaal (klimaat) recht*" (Urgenda and (non-)directly applicable international (climate) law), *NJB* 2019/475; T. Barkhuysen & M.L. van Emmerik, "*Zorgplichten volgens de Hoge Raad en het Europees Hof voor de Rechten van de Mens: van Lindenbaum/Cohen via Kelderluik en Öneryildiz tot Urgenda*?", *RM Themis* 2019-1, p. 54.

[775] Opinion of Procurator General Langemeijer and Advocate General Wissink regarding the Dutch Supreme Court judgment HR 20 December 2019, ECLI:NL:PHR:2019:887 (*Urgenda*), paras. 2.15 and 2.30.

[776] Opinion of Advocate General Valk regarding the Dutch Supreme Court judgment HR 26 June 2020, ECLI:NL:PHR:2020:412 (*IS-uitreizigers*), para. 6.2.

[777] E. Brans & M.W. Scheltema, "*Aansprakelijkheid Shell voor klimaatverandering. Een "carbon major" geconfronteerd met een reductiebevel*" (Shell's liability for climate change. A carbon major confronted with a reduction order), in *M en R 2021/80*, para. 804.

protected by human rights and general legal principles also play a part in this weighing of interests.

671. This also sheds light on the weight carried by such human rights and general legal principles. The greater or more fundamental the interest that the human right or general legal principle seeks to protect, the stronger the horizontal effect of that right or principle will be. In other words, the greater the threat or danger that the human right or general legal principle seeks to protect, or the more fundamental the right or principle in question is, the greater the weight it will carry in the balancing of interests. In addition to the extent of the danger or threat against which the human right or general legal principle seeks to offer protection, the extent to which that right or principle is incorporated in international or European law and whether or not it has the status of customary law may also be relevant.[778] The more deeply and broadly a human right or general legal principle is enshrined in international or European law, the stronger the horizontal effect will be and, thus, the more weight it will carry in the balancing of interests.

672. This brings us to the relationship between human rights and dangerous climate change. In the *Urgenda* case, the Court of Appeal tightened the standard of care to be exercised by the state by ruling (among other things) that insufficient emission reductions to prevent dangerous climate change constitute a violation of the duty of care that arises directly for the Dutch state from the right to life and undisturbed family life, as laid down in Articles 2 and 8 ECHR respectively.[779] The Supreme Court has upheld this ruling of the Court of Appeal.[780]

673. This ruling by the Supreme Court follows an established line of case law of the European Court of Human Rights, according to which both Article 2 ECHR[781] and Article 8 ECHR[782] apply in the case of natural or environmental disasters and other "environmental issues", such as dangerous climate change. This is also obvious, given that dangerous climate change, as explained in detail above, is the greatest danger of our time and is life-threatening in nature. In this way, the right to a clean, healthy and sustainable environment and the right to a liveable climate are also covered by Articles 2 and 8 ECHR. These rights are so unchallenged that they are also recognised outside the ECHR context[783] (and even outside Europe).[784]

674. Since the *Urgenda* judgment, it has been widely recognised in court judgments that dangerous climate change leads to human rights violations. Not only the ECHR[785], but also the IACtHR and the ICJ have recently found this.[786] Numerous (supreme) national courts have independently reached the same conclusion. Within Europe, for example, reference can be made to the case law of the Bundesverfassungsgericht and the Court of Appeal in Brussels.[787] Outside Europe, the situation is no different. For example, the Lahore High Court in Pakistan, the

[778] See in this regard the conclusions of the International Court of Justice on the customary law status of the duty of climate care in ICJ 23 July 2025, No. 187 (Obligations of States in respect of climate change).
[779] Judgment of the Court of Appeal of The Hague 9 October 2018, ECLI:NL:GHDHA:2018:2591, ground 40 et seq.
[780] Judgment of the Dutch Supreme Court 20 December 2019, ECLI:NL:HR:2019:2006, ground 5.2.1 et seq.
[781] See, for example, ECHR 28 February 2012, no. 17423/05 (*Kolyadenko v. Russia*); ECHR 20 March 2008, no. 15339/02 (*Budayeva v. Russia*); ECHR 30 November 2004, no. 48939/99 (*Öneryildiz v. Turkey*).
[782] See, for example, ECHR 10 January 2012, no. 30765/08 (*Di Samo v. Italy*); ECHR, 10 November 2004, no. 46117/99 (*Taskin v. Turkey*); ECHR 9 December 1994, no. 16798/90 (*López Ostra v. Spain*).
[783] See, for example, ICJ 23 July 2025, No. 187 (Obligations of States in respect of climate change), para. 393; IACtHR 29 May 2025, OC-32/25 (*Climate Emergency and Human Rights*), paras. 156, 270, 301, 305 up to and including 313, 394 and 397.
[783] See, for example, Resolution 48/13 of the UN Human Rights Council and Resolution 76/300 of the UN General Assembly.
[784] See, for example, ICJ 23 July 2025, No. 187 (Obligations of States in respect of climate change), para. 393; IACtHR 29 May 2025, OC-32/25 (*Climate Emergency and Human Rights*), paras. 156, 270, 301, 305 up to and including 313, 394 and 397.
[785] ECHR 9 April 2024, no. 53500/20 (*Verein KlimaSeniorinnen Schweiz v. Switzerland*), paras. 434, 436, 537, 538 and 542. See also, in a similar sense, ECHR 28 October 2025, no. 34068/21 (*Greenpeace Nordic and Others v. Norway*), para. 298.
[786] IACtHR 29 May 2025, OC-32/25 (*Climate Emergency and Human Rights*), paras. 156, 270, 301, 394 and 397; ICJ 23 July 2025, No. 187 (*Obligations of States in respect of climate change*), para. 372 et seq.
[787] Dutch Supreme Court HR 20 December 2019, ECLI:NL:HR:2019:2006 (*Urgenda*), grounds 5.6.2 and 5.7.9; Bundesverfassungsgericht 24 March 2021, 1 *BvR* 2656/18 (*Neubauer*), ground 192; Brussels Court of Appeal 30 November 2023, 2021/AR/15gs, grounds 211, 213 and 214.

Supreme Court of Colombia, the Brazilian Federal Supreme Court, the District Court of Montana (United States) and the Supreme Court of India have all ruled that human rights can be relied on in order to be protected against the effects of climate change.[788]

675. In view of the above, there can be no misunderstanding that human rights (indirectly) have a horizontal effect when the unwritten duty-of-care standard is fleshed out. Nor can there be any debate about the fact that dangerous climate change leads to human rights violations and that human rights can be relied on for protection against dangerous climate change. The only question that remains is what assessment framework needs to be applied here.

676. Whether or not measures to protect the right to life must be taken in a specific situation on the basis of Article 2 ECHR will depend, as in the doctrine of hazardous negligence,[789] on the circumstances of the case. This also applies to the question of which measures are sufficient.[790] This follows from the *Osman* judgment, in which the ECtHR found the following:

> "116. (…) *For the Court, and having regard to the nature of the right protected by Article 2, a right fundamental in the scheme of the Convention, it is sufficient for an applicant to show that the authorities did not do all that could be reasonably expected of them to avoid a real and immediate risk to life of which they have or ought to have knowledge. This is a question which can only be answered in the light of all the circumstances of any particular case*."[791]

677. Although all the circumstances of the case may be relevant, the seriousness of the risk of a violation of Article 2 ECHR is of great importance at the very least[792], as the ECtHR ruled in the *Kotilainen v. Finland* judgment:

> "*88. Given the particularly high level of risk to life involved in any misuse of firearms, the Court considers that it is essential for the State to put in place and rigorously apply a system of adequate and effective safeguards designed to counteract and prevent any improper and dangerous use of such weapons* (…)."[793]

678. Article 8 ECHR builds on Article 2 ECHR. Due to its broad scope – private and family life – Article 8 ECHR offers comprehensive protection that can also apply in situations where Article 2 ECHR is not applicable. Examples are cases where the *quality* of life is affected, but no life-threatening situation arises.[794] In the context of Article 8 ECHR, too, all the relevant circumstances of the case are considered, which may result in the obligation to take measures to protect the right to private and family life.[795]

679. The conclusion that can be drawn is that the assessment to be carried out on the basis of Articles 2 and 8 ECHR bears great similarities to the doctrine of hazardous negligence. This observation is also made by Procurator

[788] Lahore High Court 4 September 2015, W.P. No. 25501/2015 (*Leghari/Federation of Pakistan*), para. 7; Supreme Court of Colombia 5 April 2018, No. STC4360-2018 (*Future Generations/Ministry of the Environment*), p. 13; Federal Supreme Court of Brazil 7 April 2022 (*PSB et al v. Brazil*); Montana First Judicial District Court 14 August 2023, CDV-2020-307 (*Held, et al./State of Montana*, et al.), pp. 97 and 98; Supreme Court of India 21 March 2024, No. 3570 of 2022 (*Ranjitsinh and Others v. Union of India and Others*), para. 20.

[788] T. Barkhuysen & M.L. van Emmerik, "*Zorgplichten volgens de Hoge Raad en het Europees Hof voor de Rechten van de Mens: van Lindenbaum/Cohen via Kelderluik en Öneryildiz tot Urgenda*?", *RM Themis* 2019-1, p. 43. See also the opinion of Advocate General Valk regarding the Dutch Supreme Court judgment HR 26 June 2020, ECLI:NL:PHR:2020:412 (*IS-uitreizigers*), para. 6.29, and the opinion of Procurator General Langemeijer and Advocate General Wissink regarding the Dutch Supreme Court judgment HR 20 December 2019, ECLI:NL:PHR:2019:887 (*Urgenda*), para. 2.23.

[790] ECHR 9 November 2010, no. 2345/06 (*Deés v. Hungary*).

[791] ECHR 28 October 1998, no. 23452/94 (*Osman v. United Kingdom*).

[792] ECHR, "Guide on Article 2 of the European Convention on Human Rights", para. 27.

[793] ECHR 17 September 2020, no. 62439/12 (*Kotilainen v. Finland*).

[794] ECHR, "Guide on Article 8 of the European Convention on Human Rights", para. 26 et seq. See also the opinion of Procurator General Langemeijer and Advocate General Wissink regarding the Dutch Supreme Court judgment HR 20 December 2019, ECLI:NL:PHR:2019:887 (*Urgenda*), para. 2.46.

[795] ECHR, "Guide on Article 8 of the European Convention on Human Rights", paras. 416 up to and including 418. See also the opinion of Procurator General Langemeijer and Advocate General Wissink regarding the Dutch Supreme Court judgment HR 20 December 2019, ECLI:NL:PHR:2019:887 (*Urgenda*), para. 2.48.

General Langemeijer and Advocate General Wissink in their opinion regarding the *Urgenda* judgment, in which they state, while referring to the *Osman* judgment, that "*the factors of the Kelderluik judgment [...] show similarities with the points of view of the ECtHR in its case law (to be discussed below) on positive obligations in situations that are (environmentally) dangerous*."[796] Similarly, in his opinion on the judgment on the women travelling to ISIS-controlled territory, Advocate General Valk stated, referring to the *Osman* judgment, that "civil lawyers will recognise the necessary similarity" between the doctrine of hazardous negligence and the application of Articles 2 and 8 ECHR by the ECtHR.[797] This has also been noted in the literature, for example by Barkhuysen and Van Emmerik, who conclude:

> "Looking at the body of the national case law on liability for unlawful (government) conduct and this Strasbourg case law on positive obligations, we can see that there is a clear link when it comes to the application of what is known as the *Kelderluik* criteria. The criteria applied to determine whether liability exists under the Dutch Civil Code show similarities with the requirements applied by the ECtHR under the ECHR.[798]

680. In view of this, it is possible to determine, in one assessment – the assessment according to the doctrine of hazardous negligence and the *Kelderluik* criteria, together with all the other objective points of reference – whether Shell has a duty of care with regard to the climate, what this duty of care entails in concrete terms and whether Articles 2 and 8 ECHR also require the acceptance of this duty of care. As explained, the human rights that are at stake and the very high degree to which they are threatened by dangerous climate change carry considerable weight in the balancing of interests to be carried out in this context.

681. As further guidance of what the duty of care means in concrete terms, Milieudefensie points out that, in a number of cases concerning the application of Articles 2 and/or 8 ECHR in relation to environmental risks, the ECtHR has formulated principles and rules for judging whether precautionary measures should be taken in a specific situation:

a. If there is a sufficiently real risk of adverse effects on public health, there is an obligation to protect citizens against those adverse effects, even if there is no absolute certainty yet about the cause-and-effect relationship between the harmful act (or omission) and the (imminent) harm. This is the effect of the precautionary principle (to be discussed in more detail below) in Articles 2 and 8 ECHR, which means that scientific uncertainty (or a lack of consensus) about the risks involved or the measures to be taken cannot categorically prevent the provision of protection.[799]

b. If there is a generally recognised and foreseeable health risk, human rights can be invoked, even if the damage cannot yet be determined with certainty because it will perhaps only be suffered in the distant future.[800]

c. If a citizen cannot escape the potential (climate) dangers, for example by moving to a more environmentally friendly area, there is a more far-reaching duty to offer protection.[801]

d. Even if a very large group of people is confronted with a more general risk to public health that means

[796] Opinion of deputy Advocate General Langemeijer and Advocate General Wissink, ECLI:NL:PHR:2019:887, regarding the Dutch Supreme Court judgment HR 20 December 2019, ECLI:NL:HR:2019:2006, para. 2.23 and paras. 2.41 up to and including 2.49.
[797] Opinion of Advocate General Valk, ECLI:NL:PHR:2020:412, regarding HR 26 June 2020, ECLI:NL:HR:2020:1148, paras. 6.23 up to and including 6.29.
[798] T. Barkhuysen and M.L. van Emmerik, "*Zorgplichten volgens de Hoge Raad en het Europees Hof voor de Rechten van de Mens: van Lindenbaum/Cohen via Kelderluik en Öneryildiz tot Urgenda*?", *Rechtsgeleerd Magazijn THEMIS* 2019-1, 43.
[799] ECHR 27 January 2009, no. 67021/01 (*Tatar v. Romania*).
[800] ECHR 10 November 2004, no. 46117/99 (*Taskin v. Turkey*). See also ECHR 10 January 2012, no. 30765/08 (*Di Samo v. Italy*).
[801] ECHR 9 June 2005, no. 55723/00 (*Fadayeva v. Russia*).

that the rights of some citizens are infringed to a greater or actually lesser extent, the interest in being protected may still be sufficiently individualisable.[802]

682. Given all of the above, it cannot be surprising that human rights carried great weight in the first climate case against Shell. In the first-instance proceedings, the District Court used the law of human rights, and in particular Articles 2 and 8 ECHR, to flesh out the unwritten duty-of-care standard.[803] The Court of Appeal also linked up with these human rights to flesh out the duty-of-care standard applicable to Shell (and other companies) with regard to dangerous climate change.[804] The Court of Appeal left no doubt about the fact that this results in an obligation for companies to reduce their emissions.[805]

683. To further define the scope of these human rights responsibilities, both the District Court and the Court of Appeal referred to the effect of soft law under Section 6:162(2) DCC, and in particular the UNGP and the OECD Guidelines discussed in chapter 7.3.[806] In this context, the Court of Appeal found the following:

> "Especially companies whose products have contributed to the creation of the climate problem and have it in their power to contribute to combating it are obliged to do so vis-à-vis other inhabitants of the earth, even when (public law) rules do not necessarily compel them to do so. This follows from the instruments discussed above, including the OECD guidelines and the UNGP, to which Shell has subscribed. Those instruments place responsibility for protection against dangerous climate change also on (large) companies and call on them to take appropriate measures themselves to counter dangerous climate change."[807]

684. The conclusion that Shell has a legal duty based on both the *Kelderluik* criteria and the (indirect) horizontal effect of human rights law is therefore a conclusion that is endorsed and supported by authoritative sources of soft law. These sources underpin, as objective points of reference, that companies have an independent responsibility of their own to respect human rights and also provide, in addition to the findings discussed above, important points of reference for the way in which that responsibility must be fleshed out in concrete terms. The direct application of the doctrine of hazardous negligence and the horizontal application of human rights thus lead to an outcome that is also related to soft law, which makes clear what society (the international community) expects from large companies such as Shell. Milieudefensie will now discuss this soft law in more detail.

9.2.5 **Soft law**

685. Chapter 7 discussed how it was established in 2008, at UN level, that the increased globalisation and the associated increase in the power of internationally operating companies had resulted in a governance gap, meaning that national governments are not adequately equipped to regulate multinational companies. Against this background, various sources of soft law have emerged, including the UN Guiding Principles and the OECD Guidelines, which reflect the international consensus that companies must also respect human rights and act accordingly. Partly because of the broad international consensus demonstrated by these soft-law sources, these sources are part of the objective points of reference that are important to consider when this case is decided.

686. In chapter 7.3, it was demonstrated that, in the context of climate change, important soft-law sources recognise that companies must reduce their Scope 1, 2 and 3 emissions in line with scientific findings in order to protect

[802] ECHR 10 January 2012, no. 30765/08 (*Di Samo v. Italy*); ECHR 12 June 2005, no. 3622/97 (*Okyay v. Turkey*).
[803] District Court of The Hague 26 May 2021, ECLI:NL:RBDHA:2021:5337, ground 4.4.9 et seq.
[804] Court of Appeal of The Hague 12 November 2024, ECLI:NL:GHDHA:2024:2099, ground 7.6. et seq.
[805] Ibid, grounds 7.25 and 7.27.
[806] Ibid, ground 7.18 et seq., and District Court of The Hague 26 May 2021, ECLI:NL:RBDHA:2021:5337, ground 4.4.11 et seq.
[807] Ibid, ground 7.26.

human rights, and that companies must check whether they are not otherwise involved in or directly linked to actual or potential human rights violations via their business relationships. It was also explained there that the relevant guidelines also provide important points of reference for the measures that may be expected when it comes to tackling dangerous climate change. Setting absolute reduction targets for Scope 1, 2 and 3 emissions (and, where relevant, intensity targets) is an important part of this. The OECD guidelines state, for example:

> "*Enterprises should ensure that their greenhouse gas emissions and impact on carbon sinks are consistent with internationally agreed global temperature goals based on best available science, including as assessed by the Intergovernmental Panel on Climate Change (IPCC).*
>
> […] *This includes the introduction and implementation of science-based policies, strategies and transition plans on climate change mitigation and adaptation as well as adopting, implementing, monitoring and reporting on short, medium and long-term mitigation targets. These targets should be science-based, include absolute and also, where relevant, intensity-based GHG reduction targets and take into account scope 1, 2, and, to the extent possible based on best available information, scope 3 GHG emissions*."[808] (underlining added by counsel)

687. In addition to the UNGP and the OECD Guidelines, reference can also be made in this context to many findings by (UN) human rights experts, who repeatedly point to the responsibility of companies to respect human rights and confirm their importance, including findings by, among others, the UN Committee on the Rights of the Child,[809] the UN Special Rapporteur on human rights and the environment,[810] the UN Secretary-General[811] the UN Special Rapporteur on human rights obligations related to a safe, clean, healthy and sustainable environment[812] and the Commission on Human Rights of the Philippines.[813]

688. This responsibility to respect human rights applies to all companies.

689. In this regard, reference was also already made in chapter 7.3 to the Information Note of the UN Special Working Group on the issue of human rights and transnational corporations and other business enterprises under the mandate of the UN Human Rights Council. Reference was also made to the procedure of the UN Working Group, together with various UN Special Rapporteurs, in which the Saudi state oil company Aramco and a large number of its financiers were all contacted individually in connection with their own roles and responsibilities with regard to climate change.

690. The UN Guiding Principles clarify that this responsibility of companies extends to virtually the entire spectrum of internationally recognised human rights, which in any event includes the human rights acknowledged in the Universal Declaration of Human Rights, the ICCPR, the ICESCR and the ILO Declaration on Fundamental Principles and Rights at Work.[814] Several UN human rights bodies have now also explicitly stated that companies must also respect the right to a healthy, clean and sustainable environment and this is also obvious in view of the developments described above regarding the recognition of that right:

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[808] Exhibit MD-122, "OECD guidelines" (original English version) (2023), commentary 76 and 77. See chapter 7.3 for more details. In its judgment in the Shell case, the Court of Appeal of The Hague therefore wrongly failed to consider the fact that companies have a responsibility to achieve *absolute* percentage reduction targets under soft law, which, according to the Court of Appeal, also shapes the societal duty-of-care standard of Section 6:162(2) DCC. See the judgment of the Court of Appeal of The Hague 12 November 2024, ECLI:NL:GHDHA:2024:2099, in particular grounds 7.21 and 7.22.

[809] UN Committee on the Rights of the Child, "General comment No. 26 on children's rights and the environment, with a special focus on climate change", 22 August 2023, para. 78, available at https://www.ohchr.org/en/documents/general-comments-and-recommendations/crccgc26-general-comment-no-26-2023-childrens-rights.

[810] Exhibit MD-163, UN Special Rapporteur on Human Rights and the Environment 2019, "Safe Climate", p. 32 (paras. 71-72).

[811] Exhibit MD-164, UN Secretary-General 2022, "The impacts of climate change on the human rights of people in vulnerable situations", paras. 23 and 37.

[812] Exhibit MD-125, UN Special Rapporteur on the human rights obligations related to the enjoyment of a safe, clean, healthy and sustainable environment 2024, "Business, planetary boundaries, and the right to a clean, healthy and sustainable environment", para. 14 et seq.

[813] Commission on Human Rights of the Philippines 2022, "National Inquiry on Climate Change Report", pp. 84-88 (see https://chr2bucket.storage.googleapis.com/wp-content/uploads/2022/12/08152514/CHRP_National-Inquiry-on-Climate-Change-Report.pdf).

[814] Exhibit MD-121, "UN Guiding Principles "(2011), Principle 12 and accompanying commentary.

> *"All businesses, regardless of size or sector, have a responsibility to respect all internationally recognized human rights, including the right to a clean, healthy and sustainable environment, throughout their value chains. This responsibility exists over and above compliance with national laws and regulations protecting human rights and the environment. The responsibility to respect human rights applies not only to businesses whose activities may directly damage the climate and environment, but also to the full array of enterprises supporting these businesses, including financial institutions, law firms, public relations firms, accounting firms, and consultancies."*[815] […]
>
> *Businesses must respect the right to a healthy environment and should seek to proactively advance it through responsible business practice."*[816]

691. These soft-law sources serve as important objective points of reference for fleshing out the societal duty-of-care standard and the responsibilities under human rights law of non-state actors such as Shell.

692. The distinction between soft law and hard law, for that matter, cannot always be clearly made, and in the context of international law, soft law often serves as a forerunner for hard law. In this connection, Procurator General Langemeijer and Advocate General Wissink concluded in their opinion regarding the *Urgenda* judgment that *"increasing weight is being given"* to international soft law *"when generally formulated obligations under international law and, building on this, open national law standards are fleshed out by courts."*[817] In that case, the Dutch Supreme Court subsequently also explicitly referred to the ECtHR's interpretation criteria, including the common-ground method. On that basis, the ECtHR also attaches weight to soft law when interpreting the ECHR, such as the WHO noise standards.[818, 819]

693. There is also other case law of the Dutch Supreme Court that undeniably shows that soft law is becoming increasingly important when the unwritten duty-of-care standard of Section 6:162(2) DCC is to be found. For example, in the *Achmea/Rijnberg* judgment of 2014[820] and the *Graafrichtlijn* judgment of 2018, the Dutch Supreme Court ruled that soft law could be taken as the starting point to determine the unlawfulness of an act or omission.[821] This legal view has since been confirmed on several occasions.[822]

694. This also follows from the ruling of the Court of Appeal of The Hague in a case concerning the cutting off of drinking water. When the Court of Appealed determined what "access to sufficient water" meant in concrete terms, it linked up with the WHO's soft law and also referred to non-binding General Comments from UN treaty committees in the field of human rights.[823]

695. Specifically in relation to business and human rights, the late John Ruggie – the founder of the UN Guiding Principles – had also already pointed out the need to convert soft law into hard law at a case-specific level in order to offer citizens effective legal protection.

696. In chapter 7, where the background to the adoption of the UNGP was discussed, it was explained that the

[815] Exhibit MD-125, UN Special Rapporteur on the human rights obligations related to the enjoyment of a safe, clean, healthy and sustainable environment 2024, "Business, planetary boundaries, and the right to a clean, healthy and sustainable environment", para. 16.
[816] Exhibit MD-165, OHCHR, UNEP and UNDP 2023, "What is the right to a healthy environment?", p. 19.
[817] Opinion of Procurator General Langemeijer and Advocate General Wissink, 13 September 2019, ECLI:NL:PHR:2019:887 (*Urgenda*), para. 2.31.
[818] Dutch Supreme Court HR 20 December 2019, ECLI:NL:HR:2019:2006 (*Urgenda*), ground 5.4.3., with reference to, among other judgments, ECHR 20 May 2010, no. 61260/08 (*Oluić v. Croatia*), paras. 29-31, 49, 60 and 62 (WHO noise standards).
[819] See also M.E. Coenraads and J.E.S. Hamster, "*Verantwoord ondernemen: van soft law naar harde verplichtingen via strategische procedure*" (Corporate Responsibility: from soft low to hard obligations through strategic litigation", TOP 2019/8, pp. 35-36 and the examples cited there.
[820] Dutch Supreme Court HR 18 May 2014, ECLI:NL:HR:2014:942, ground 5.2.1.
[821] Dutch Supreme Court HR 25 May 2018, ECLI:NL:HR:2018:772, ground 3.7.2.
[822] Dutch Supreme Court HR 15 December 2023, ECLI:NL:HR:2023:1750, ground 3.2.
[823] Court of Appeal of The Hague, 19 March 2024, ECLI:NL:GHDHA:2024:363, grounds 6.12, 6.13, 6.16, 6.18 & footnote 42.

governance gap leads to inadequate regulation of internationally operating companies. For this reason, self-regulation through an international guideline as a code of conduct for companies was thought to be necessary. This code of conduct should encourage companies to respect human rights independently.

697. Ruggie argued that in the absence of adequate self-regulation by companies and given the political reality that a universal treaty to regulate companies' human rights obligations is doomed to fail for many reasons, allowing soft law to work its way into national legal systems could offer a way out of the impasse. In other words, the rise of soft law is related to the increasing role of non-state actors in a globalising world, in which the creation of traditional sources of national and international law is becoming increasingly complex.[824] In this way, soft law can also act as a forerunner of hard law and serve as a building block for the development of unwritten law.[825]

698. This applies in particular to the soft-law sources invoked by Milieudefensie in this summons, including the UN Guiding Principles, the OECD guidelines, the climate protocols for companies and the many acknowledgements and recommendations from the international community in the context of COP and from the United Nations. After all, as Milieudefensie has demonstrated, these sources point in much the same direction and specifically demonstrate the great importance of Paris-compliant climate action by non-state actors for the success of global climate action and the protection of human rights.

699. It can therefore be concluded that the soft-law sources relied on by Milieudefensie underpin the responsibility of non-state actors to pursue a sound climate policy, including by achieving percentage-based reductions in emissions and thus reducing their Scope 1, 2 and 3 emissions in absolute terms and not proceeding with new oil and gas fields, in order to protect human rights and the climate. The application of these soft-law sources as objective points of reference that are relevant to consider when the open standard of tort law is fleshed out thus leads to the same outcome as the application of the doctrine of hazardous negligence and the (indirect) horizontal application of human rights law. Together, all three of these approaches (hazardous conduct, human rights and soft law) point in the same direction, namely a clear climate responsibility for Shell; a responsibility for Shell to pursue a sound climate policy and to do what Milieudefensie is currently demanding from Shell in court.

9.2.6 **Relevant legal principles**

9.2.6.1 Legal principles as key criteria for Shell's contribution to global climate action

700. As follows from chapter 9.2, the societal duty-of-care standard to be met by Shell should be determined as much as possible on the basis of objective points of reference, such as general legal principles, fundamental rights, statutory provisions, treaty provisions, soft law, science and case law. This applies in addition to the balancing of Shell's private interests as a polluter and the collective interests of a stable and safe climate that Milieudefensie is defending.

701. The duty-of-care standard applicable to Shell should therefore not be determined solely by the doctrine of hazardous negligence discussed above, human rights (and their horizontal effect) and the applicable soft law. *All*

[824] J.G. Ruggie, "Multinationals as global institution: Power, authority and relative autonomy, Regulation and Governance" (2018), 12, 317-333, p. 329. See also Alston & Goodman, "International Human Rights" (2013), p. 88; Shelton, "Soft Law, The George Washington University Law School Public Law and Legal Theory Working Paper no. 322" (2008), p. 16; Rodriguez-Garavito, "A Human Right to a Healthy Environment", in: Knox and Pejan (eds.), "The Human Right to a Healthy Environment" (2018), pp. 162-163.

[825] Van Dam, "*Aansprakelijkheidsrecht*" (Law of liability) (2023), 225-4.

relevant objective points of reference must be taken into account when Shell's duty of care is judged, and they must be considered and weighed in relation to each other.

702. Various legal principles are of great importance to Shell's societal duty of care. These legal principles – considered in conjunction with other relevant points of reference such as the criterion of onerousness under the doctrine of hazardous negligence – not only confirm that Shell is obliged to contribute to the emission reductions required at global level, but are also key criteria for the minimum extent and scope of this contribution that can be expected of Shell. In other words, they provide criteria that can be used to reason, identify and determine the specific climate measures to be taken by Shell in line with its legal duty (including setting specific reduction percentages on the road to net zero emissions by 2050).

703. Milieudefensie will explain below the legal principles involved here, the legal grounds on which the principles are based and the key criteria these principles offer for judging the minimum climate measures Shell is required to take. Milieudefensie will then briefly explain how these principles should be applied to Shell's societal duty of care (and to the way in which that duty is determined in concrete terms).

9.2.6.2 The precautionary principle

704. As already explained above, this case revolves around Shell's societal duty of care requiring it to take sufficient precautions to prevent or limit a danger that it has contributed to and is perpetuating, in this case dangerous climate change. The key principle from which this legal duty is derived – i.e. the precautionary principle – is already inherent in the essence of the doctrine of hazardous negligence (see chapter 9.2.3), but also follows from several sources (including specific climate-related sources).

705. The importance and meaning of the precautionary principle are evident from, among other things, Article 3(3) of the UN Framework Convention on Climate Change, various international (environmental) treaties and the Treaty on the Functioning of the European Union (see chapter 6.4.3) and the human rights frameworks for companies, which require precautionary measures to prevent environmental and human rights violations (including climate change) by companies (chapter 7.3).

706. In its Advisory Opinion of 23 July 2025, the ICJ also re-emphasised that the precautionary principle has an impact on the climate obligations that follow from the UN climate regime and that the precautionary principle provides guidance for the interpretation and implementation of the obligations under the UN Climate Convention, the Paris Agreement and all related instruments.[826] The Inter-American Court of Human Rights has reached a similar conclusion.[827]

707. Milieudefensie has also explained why the precautionary principle is particularly important in the case of climate change, based on climate science. Climate science makes it clear that the consequences and risks of climate change are already significant and will increase with every increment of further warming. In addition, every increment of further warming will increase the risk that tipping points in the climate system are passed (see chapter 5). It is therefore necessary to adopt an approach based on the precautionary principle when Shell's societal duty of care is determined and fleshed out.

[826] ICJ 23 July 2025, "Advisory Opinion on the Obligations of States in respect of Climate Change", paras. 146, 158, 161, 172, 178, 180.
[827] Inter-American Court of Human Rights, "Advisory Opinion OC-32/25" dated 29 May 2025, paras. 126, 216, 228, 229, 282, 287.

708. The above-mentioned manifestations of the precautionary principle do not stand alone. Other sources also offer objective points of reference on the basis of which the precautionary principle must be considered when Shell's societal duty of care is determined and fleshed out.

709. Firstly, Milieudefensie refers here to the ECHR (which, as discussed in the previous chapter, also has a broader effect under Section 6:162 DCC), and more specifically to the way in which the ECHR is interpreted by the European Court of Human Rights. Where there is a sufficiently real risk of adverse effects on citizens' health (such as in the case of dangerous climate change), the precautionary principle results in an obligation to protect citizens against those adverse effects, according to the ECtHR, even if there is no absolute certainty yet about the cause-and-effect relationship between the harmful act (or omission) and the (imminent) damage.[828] In this regard, the ECtHR has referred to the case law of the International Court of Justice and the codification of the precautionary principle in EU law.[829]

710. In its case law, the ECtHR has also referred to the 1992 Rio Declaration on Environment and Development, which was adopted by the UN General Assembly as part of the Earth Summit (on the occasion of which the UN Climate Convention was also signed).[830] Principle 15 of this Declaration lays down the precautionary principle.[831]

711. Principle 15 of the Rio de Janeiro Declaration has also been a starting point for a broader recognition of the significance of the precautionary principle for businesses. This recognition is not only reflected in the OECD Guidelines and the UNGP (see chapter 7.3), but also in the fundamental principles of the UN Global Compact, which Shell has also endorsed.[832]

712. Principle 7 of the UN Global Compact – which refers back to Article 15 of the Rio de Janeiro Declaration[833] – states: "*Businesses should support a precautionary approach to environmental challenges*". According to the UN Global Compact, this means that businesses should not cause unacceptable risks by postponing precautionary measures in view of scientific uncertainty.

713. When determining what constitutes an "unacceptable" risk, an assessment must be made, according to the UN Global Compact, that goes beyond a purely scientific and/or economic assessment; the acceptability (or unacceptability) of risks for society must also be considered. This means that precaution is required if scientific uncertainty leads to risks that are unacceptable to society.[834]

714. In this context, the UN Global Compact clarifies that precaution not only compels a company to systematically *assess* the risks of scientific uncertainties, but also to *manage* these risks (and communicate about them):

[828] ECHR 27 January 2009, AB 2009/285 (*Tatar v. Romania*) ECLI:NL:XX:2009:BIO380. See also ECHR 9 April 2024, ECLI:CE:ECHR:2024:0409JUD005360020, paras. 439 up to and including 444.
[829] T. Barkhuysen & F. Onrust, "*De betekenis van het voorzorgsbeginsel voor de Nederlandse (milieu)praktijk*" (The significance of the precautionary principle for the Dutch (environmental) legal practice), in: M.N. Boeve & R. Uylenberg (eds.), "*Kansen in het Omgevingsrecht. Opstellen aangeboden aan prof. Mr. N.S.J. Koeman*" (Opportunities in Environmental Law. Essays presented to Prof. N.S.J. Koeman), Groningen: Europa Law Publishing 2010, p. 62.
[830] Ibid.
[831] Exhibit MD-166, UN General Assembly, "Rio Declaration on Environment and Development".
[832] Exhibit MD-167, "Shell Sustainability Report 2017", Introduction from the CEO, p. 3, and Exhibit MD-168, UN Global Compact, registration Shell plc.
[833] Exhibit MD-169, UN Global Compact, "The Ten Principles of the UN Global Compact, Principle 7: Environment" (website printout, 27 February 2025).
[834] Ibid.

"Precaution involves the systematic application of risk assessment, risk management and risk communication."[835]

715. The precautionary principle provides a normative framework for dealing with scientific uncertainty in relation to risks, such as uncertainty about the effects that may occur, the causes of those effects, the timeframe in which the effects may occur and the measures to be taken to prevent those effects. A company cannot wait for scientific certainty and must take precautionary measures, in the absence of such certainty, that can be considered socially acceptable. These measures will be more far-reaching rather than less far-reaching, according to the Dutch Supreme Court's ruling in the *Urgenda* case:

> "*It is therefore possible that even at less global warming and with lower greenhouse gas concentrations, dangerous climate change will occur nevertheless, for example because a 'tipping point' is reached or because ice will melt more quickly [...]. The precautionary principle therefore implies that more far-reaching measures should be taken to reduce greenhouse gas emissions rather than less far-reaching measures*."[836]

716. The precautionary principle should also be applied to potential scientific uncertainty about the percentage-based reduction contribution to be made by a company to mitigate that collective threat.[837] In the event of such uncertainty, the company must, in principle, start out from measures that limit the likelihood and severity of the threat as much as possible.

717. As far as Milieudefensie is concerned, there is no uncertainty (scientific or otherwise) about the danger of climate change, about Shell's contribution to it or about the answer to the question of whether the measures demanded by Milieudefensie are a contribution to the only effective remedy against dangerous climate change that is appropriate for Shell: an absolute global reduction in emissions, as explained in chapters 5 up to and including 7, 10, 11 and 11.5.

718. Yet even if such uncertainty must be deemed to exist nevertheless, Shell must take the demanded climate measures on the basis of its societal duty of care. After all, the precautionary principle dictates that Shell must take measures to limit the risk associated with such uncertainty to a socially acceptable level.

9.2.6.3 The CBDR principle

719. In addition to the precautionary principle, the principle of Common But Differentiated Responsibilities and Respective Capabilities (the CBDR principle) is also an important (legal) principle which, as an objective point of reference, helps to shape Shell's societal duty of care under Section 6:162(2) DCC. The CBDR principle, too, not only confirms that Shell is obliged to contribute to the emission reductions required at global level, but also provides normative criteria for the minimum content and scope of the contribution that Shell may be expected

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[835] Ibid.

[836] Dutch Supreme Court HR 20 December 2019, ECLI:NL:HR:2019:2006, ground 7.2.10.

[837] The precautionary principle is particularly important in determining the nature and extent of the contribution to be made by an individual company to mitigating a collective threat, such as dangerous climate change. Science cannot provide an answer to what the nature of this contribution is, because its determination inevitably requires that non-scientific criteria (including the legal principles discussed in this chapter 9.1, as applied to a company's individual circumstances) are also used. The precautionary principle prevents that the concrete determination of the nature and extent of a company's individual contribution can be postponed indefinitely, partly because a certain degree of uncertainty about the measures to be taken is and will remain inherent, and because the concrete determination of a company's individual contribution requires, by its very nature, an approach that is not purely scientific. Procurator General Langemeijer and Advocate General Wissink say the following about this approach in their opinion regarding the *Urgenda* judgment of the Dutch Supreme Court: "The distribution of the required global reduction effort cannot be determined by natural science, but it can be reasoned on the basis of broadly shared normative principles embodied in, for instance, the UN Climate Convention." Opinion of Procurator General Langemeijer and Advocate General Wissink, ECLI:NL:PHR:2019:887, regarding the Dutch Supreme Court judgment HR 20 December 2019, ECLI:NL:HR:2019:2006, para. 6.8.

to make.

720. The previous chapters have already referred several times to the foundations and purport of the CBDR principle. Among other things, it was discussed that the CBDR principle is enshrined in Articles 3.1 and 4.1 of the UN Climate Convention (see chapter 6.4.3) and in articles 2.2, 4.3 and 4.19 of the Paris Agreement (see chapter 6.6.1). In its Advisory Opinion of 23 July 2025, the ICJ confirmed that the CBDR principle is a key principle for the implementation of the UN climate regime.[838]

721. Milieudefensie has also explained that the CBDR principle under the UN climate regime also helps to define the scope of companies' climate responsibilities (see chapter 7.2). The Inter-American Court of Human Rights has also indicated that the CBDR principle is important in determining what climate action can be demanded from companies: "*[T]he court considers that States should establish differentiated obligations with regard to climate action based on the actual and historical contribution of business enterprises to climate change, and impose stricter obligations on those whose activities are major sources of GHG emissions*."[839]

722. As explained in more detail in those chapters, the CBDR principle means that although the climate challenge is a shared responsibility of multiple actors, these actors have different individual (partial) responsibilities. The differences between them reflect the principle of fairness, on the basis of which an individual actor bears greater responsibility if this actor (i) has a larger share in the causes of climate change and/or (ii) has greater capabilities (e.g. in economic terms) to help mitigate climate change. According to the CBDR principle, the starting point thus is that actors from the more industrialised, developed (Annex I) countries have a proportionally greater responsibility. It is for this reason that the UN Race to Zero indicates, for the determination of the appropriate contribution ("*fair share*") of an individual actor, that "*many actors in Race to Zero can and must go beyond 50% of emissions reductions by 2030, and must achieve an end state net zero well before* 2050" (see chapter 7.2). After all, many international companies are of Western origin and generate their largest revenues in the economies of the developed countries.

723. The relevance of the CBDR principle was also recognised in the ruling of the ECtHR in the *KlimaSeniorinnen* case.[840] As this ruling shows, the CBDR principle is primarily important for establishing that individual actors have a legally relevant (individual) partial responsibility in solving the (collective) problem of climate change. Milieudefensie will discuss this in detail in chapter 12.3, where the effectiveness of Milieudefensie's demands will be discussed.

724. There can be no doubt about the fact that the CBDR principle also plays a part when it comes to determining what the societal duty-of-care standard of Section 6:162(2) DCC means in concrete terms, given its importance in the UN Climate Convention, the Paris Agreement and the UN climate protocols for non-state actors, which also apply the CBDR principle to companies and financial institutions, and in view of the cited court rulings. This also follows from the significance that the District Court, the Court of Appeal and the Dutch Supreme Court have attached to the CBDR principle in the *Urgenda* case. When the specific reduction percentage to be achieved by the state was determined, the above Courts took into account that the Netherlands is one of the richest countries, has relatively high emissions per capita and therefore has an above-average responsibility to reduce emissions.

[838] International Court of Justice, 23 July 2025, "Advisory Opinion on the Obligations of States in respect of Climate Change", paras. 148 and 149.
[839] Inter-American Court of Human Rights, "Advisory Opinion OC-32/25" of 29 May 2025, para. 350.
[840] ECHR 9 April 2024, ECLI:CE:ECHR:2024:0409JUD005360020, paras. 442 and 478.

According to the Court rulings in the *Urgenda* case, the Dutch state must achieve, as a minimum, the average emission reduction level that applies to the group of developed (Annex-I) countries as a whole. This is clearly expressed in the following consideration of the Court of Appeal of The Hague (which was supported in the cassation proceedings by Procurator General Langemeijer and Advocate General Wissink).[841]

> "The state has further argued that the emission reduction percentage of 25-40% by 2020 is intended for the Annex-I countries as a whole and therefore cannot be taken as a starting point for the emission reduction that an individual Annex-I country such as the Netherlands should achieve. However, the state has not substantiated why the emission reduction percentage that applies to the Netherlands should be lower than the percentage for the Annex-I countries as a whole. This is not obvious on the basis of a distribution in proportion to GDP per capita, which was used in the EU's Effort Sharing Decision, for instance, for the distribution of the EU's emission reduction commitment among the member states [..] It may be assumed that the GDP per capita of the Netherlands is among the highest of the Annex-I countries and in any case lies above the average of those countries [..] The starting-point can therefore be that the percentage that applies to the Annex-I countries as a whole should at least also apply to the Netherlands."[842]

725. This means that justice must also be done to the CBDR principle as far as Shell's societal duty of care (or the way in which it is determined in concrete terms) is concerned. In chapter 11.3.2, Milieudefensie will explain why Shell bears an above-average responsibility, given its historical and current share in the causes of climate change and its great capacity for change as a company that operates for the most part in developed economies, among other factors.

726. After all, companies and financial institutions that are part of the economies of developed (Annex-I) countries will have to take the lead in tackling climate change just as much as the economies they are part of, as is also evident from the climate protocols for non-state actors.[843] The starting position therefore is that a company that is based in an Annex-I country and is supplying its products and services primarily in Annex-I countries is considered to have a greater responsibility for climate action and is deemed to have above-average knowledge, expertise and (financial) transition capacity. The latter therefore partly applies because that company's customers and other business relations in these wealthy countries will also have a greater transition capacity. This means that such a company (together with its above-mentioned customers and business relations) will be able, and is also required, to undergo the transition required for the climate challenge more rapidly.

727. The CBDR principle is therefore of great importance in determining Shell's societal duty of care. However, no allowance is made for this principle in most modelled emission reduction scenarios, meaning that the results of those scenarios must be normatively corrected on the basis of the CBDR principle. After all, the problem with most modelled reduction scenarios is that they start out from the principle of cost-effectiveness.[844] The typical outcome of these modelled scenarios is therefore that most emission reductions take place in those parts of the world (in those countries and sectors) where they can be achieved most cheaply. As a result, these modelled scenarios rely heavily on emission reductions in developing countries, while developed (Annex-I) countries are disproportionately spared. These scenarios thus place the heaviest burden on developing countries, without taking into account the treaty agreements, even though these countries have contributed less to the climate problem historically and also have a smaller (economic) capacity for change than the developed (Annex -I) countries. The IPCC itself therefore indicates that the modelled scenarios fail to consider what the IPCC calls "equity", i.e. the distribution of the global reduction target in accordance with, among other things, international

[841] Opinion of deputy Advocate General Langemeijer and Advocate General Wissink, ECLI:NL:PHR:2019:887, regarding the Dutch Supreme Court judgment HR 20 December 2019, ECLI:NL:HR:2019:2006, paras. 4.180-4.183.
[842] Court of Appeal of The Hague 9 October 2018, ECLI:NL:GHDHA:2018:2591, ground 60.
[843] See chapters 7.2.3 and 7.2.5.
[844] IPCC 2022, AR6, WGIII, H3 under 3.2.2, p. 304 and p. 305 (see https://www.ipcc.ch/report/ar6/wg3/downloads/report/IPCC_AR6_WGIII_FullReport.pdf).

treaties such as the UN Climate Convention and the Paris Agreement, and the CBDR principle they include.[845] These modelled scenarios are therefore not compatible with the CBDR principle, which, after all, dictates that it is actually the developed (Annex-I) countries that must take the lead in tackling climate change.

728. This criticism of (most) modelled reduction scenarios is endorsed by UNEP. In its 2023 Emissions Gap Report, UNEP emphasised that a fair distribution of efforts is essential for the successful implementation of the Paris Agreement.[846] According to UNEP, the CBDR principle entails that countries with greater transition capabilities and greater historical responsibility for emissions should take climate action that is more ambitious and is carried out at a higher speed, but most modelled climate scenarios do not sufficiently allow for this. If the CBDR principle *is* allowed for, developed countries and their economies, and so also the companies operating in these countries as part of those economies, must be required to make an effort that exceeds the reduction percentages that normally follow from modelled reduction scenarios.[847]

729. The shortcoming in the reduction scenarios (or the model calculations used for the scenarios) has not gone unnoticed. The International Energy Agency (IEA) does allow for the above-mentioned findings in its modelling. In its 2023 NZE scenario (on which the climate measures Milieudefensie is demanding from Shell are partly based; see chapter 11), the IEA has taken the CBDR principle into account.[848] In this context, the IEA speaks of a difference in the speed of reduction between "*advanced economies*" (by which the IEA means OECD countries)[849] and "*emerging markets and developing economies*" or "EMDEs" (non-OECD countries); this means that OECD countries must reduce their emissions faster than non-OECD countries.[850] What this means for Shell will be explained in chapter 11.3.

9.2.6.4 The principle of intergenerational justice

730. In addition to the precautionary principle and the CBDR principle discussed above, Milieudefensie points to the principle of intergenerational justice as an important legal principle that is a contributing factor in identifying and determining the standard of Shell's societal due of care under Section 6:162(2) DCC (also referred to as "intergenerational equity").

731. Just like the precautionary principle and the CBDR principle, the principle of intergenerational justice also finds its legal basis in various sources already discussed in this summons. In this context, Milieudefensie refers to the UN Climate Convention (see chapter 6.4.2) and the Paris Agreement (see chapter 6.6.1), which codify intergenerational justice as a principle to be respected by the contracting states. With regard to intergenerational justice, the ICJ has ruled that "*its relevance for the obligations in respect of climate change is undisputable*."[851]

732. The Inter-American Court of Human Rights has reached the same conclusion.[852] For this reason, climate action, according to this human rights court, should not be unjustifiably delayed, as this would disproportionately

[845] Ibid. For more information on the concrete meaning of the concept of equity, see Exhibit MD-037, IPCC 2022, AR6, WGIII, TS, p. 74, where the IPCC clarifies, among other things, that fleshing out the principles of equity is important for accelerating global reduction efforts: "*Equity can be an important enabler, increasing the level of ambition for accelerated mitigation (high confidence)*."
[846] Exhibit MD-130, UNEP "Emissions Gap Report 2023: Broken Record – Temperatures hit new highs, yet world fails to cut emissions (again)", p. 36.
[847] Ibid.
[848] Exhibit MD-099, IEA 2023, "Net Zero Roadmap, A Global Pathway to Keep the 1.5 °C Goal in Reach, 2023 Update", p. 59. The IEA speaks of "equity" here, as does the IPCC (see footnote 845).
[849] Ibid, p. 213. The IEA uses this term to refer to the OECD countries plus Bulgaria, Croatia, Cyprus, Malta and Romania.
[850] Ibid, p. 59, Box 2.1, "Integrating equity into the NZE Scenario design".
[851] International Court of Justice 23 July 2025, "Advisory Opinion on the Obligations of States in respect of Climate Change", para. 155.
[852] Inter-American Court of Human Rights, "Advisory Opinion OC-32/25 of 29 May 2025, Climate Emergency and Human Rights", paras. 305-313.

burden young and future generations with both climate damage and the costs of climate action.[853] The Court even referred to the need to guarantee intergenerational justice in the interpretation and implementation of obligations following from the climate regime, because the collective aim of this principle is to protect humanity as a whole from the consequences of climate change.[854]

733. The principle of intergenerational justice can be traced back to the UN World Commission on Environment and Development (also known as the Brundtland Commission), which defined the concept of sustainable development as follows in its well-known 1987 report entitled "Our Common Future":

> "*Sustainable development is development that meets the needs of the present without compromising the ability of future generations to meet their own needs.*[855]

734. In line with this development, other sources of international law – in addition to the UN Climate Convention, the Paris Agreement and the court rulings cited above – also confirm the principle of intergenerational justice. This principle is, for instance, also enshrined in the Charter of Fundamental Rights of the European Union (final part of the preamble) and in the Aarhus Convention on Access to Information, Public Participation in Decision-Making and Access to Justice in Environmental Matters (preamble, seventh paragraph). Moreover, in 2021, the UN Human Rights Council adopted Resolution 48/13, which states that the right to a clean, healthy and sustainable environment is a fundamental human right and that climate change is one of the greatest threats to the human rights of present and future generations, including the right to life.[856]

735. The relationship between the principle of intergenerational justice and climate change was already established at international level in 1988. In that year, the United Nations General Assembly called, in Resolution 43/53, for the protection of the climate "*for present and future generations*", recognising climate change as "*a common concern of mankind*", "*the effects of which could be disastrous for mankind if timely steps are not taken at all levels*".[857]

736. The fact that the principle of intergenerational justice is also relevant in civil-law cases is evidenced by the *Urgenda* case; in this case, the Court also considered the interests of future generations when the state's duty of care was determined and established.[858]

737. Other judicial authorities have also allowed for the principle of intergenerational justice when deciding climate cases. An important ruling in this regard is that of the German Constitutional Court (Bundesverfassungsgericht) in the *Neubauer* case, in which the Court ruled that the German government was required to implement emission reductions until 2030 with great speed and urgency, because otherwise a disproportionate burden would be placed on younger generations:

> *"Provisions that allow for CO_2 emissions in the present time constitute an irreversible legal threat to future freedom* […] *One generation must not be allowed to consume large portions of the CO_2 budget while bearing a relatively minor share of the reduction effort if this would involve leaving subsequent generations with a drastic reduction burden and expose their lives to comprehensive*

[853] Inter-American Court of Human Rights, "Advisory Opinion OC-32/25 of 29 May 2025, Climate Emergency and Human Rights", para. 310.
[854] Inter-American Court of Human Rights, "Advisory Opinion OC-32/25 of 29 May 2025, Climate Emergency and Human Rights", para. 313.
[855] Exhibit MD-170, UN World Commission on Environment and Development 1987, "Our Common Future" (selected pages), part I, chapter 2.I, para. 1.
[856] Exhibit MD-171, UN Human Rights Council, Resolution 48/13, p. 2.
[857] Exhibit MD-172, UN General Assembly, Resolution 43/53.
[858] District Court of The Hague 24 June 2015, ECLI:NL:RBDHA:2015:7145, ground 4.89, and Court of Appeal of The Hague 9 October 2018, ECLI:NL:GHDHA:2018:2591, ground 37.

losses of freedom."[859]

738. According to the German Constitutional Court, the principle of intergenerational justice was therefore relevant in determining the state's reduction obligation until 2030 (and beyond).

739. In the Belgian *Klimaat* case (the "Climate Case"), the Brussels Court of Appeal also explicitly considered the principle of intergenerational justice in its ruling requiring the Belgian federal state and the Brussels and Flemish regions to realise an emission reduction of at least 55% by 2030. The Court considered this reduction to be necessary (as a minimum measure) in order to protect future generations from the risks to which they would otherwise be exposed, for example because part of the territory available to them would become uninhabitable due to sea level rise and flooding.[860] The Court also took into account in its ruling that these future generations would suffer damage as a result of the Belgian government's inadequate climate policy, including (non-material) damage caused by the awareness of the inadequacy of that policy to protect the interests of future generations.[861] In this regard, the Court considered that the inadequate climate policy of the Belgian government – which is postponing the reduction target and is not aiming for sufficient emission reductions until 2030 – leads to an excessive depletion of the remaining carbon budget, with the result that future generations may be confronted with the need to reduce their greenhouse gas emissions more quickly and without an appropriate transition. This undermines the human rights of these generations.[862]

740. The Brussels Court of Appeal, like the German Constitutional Court, therefore attached relevance to the principle of intergenerational justice when it determined the reduction obligation until 2030 (and beyond).

741. The ECtHR also attaches great importance to the principle of intergenerational justice, especially in the context of climate change. In its 2024 *KlimaSeniorinnen* ruling, the ECtHR emphasised that future generations will bear an increasingly heavy burden as a result of today's failures and negligence. According to the ECtHR, the current (short-term) decision-making poses a particularly serious risk to future generations, while these generations are unable to participate in that decision-making. This also makes it clear that climate action cannot be left to the legislator alone, if that legislator opts for an approach that does not sufficiently protect the interests of future generations. According to the ECtHR, the principle of intergenerational justice is therefore of particular importance and justifies that today's decision-making must be subjected to legal review, also from the perspective of the interests of future generations:

> *"The Court notes that, in the specific context of climate change, intergenerational burden-sharing assumes particular importance both in regard to the different generations of those currently living and in regard to future generations.* […] *[I]t is clear that future generations are likely to bear an increasingly severe burden of the consequences of present failures and omissions to combat climate change* […] *and that, at the same time, they have no possibility of participating in the relevant current decision-making processes.* […] *In the present context, having regard to the prospect of aggravating consequences arising for future generations, the intergenerational perspective underscores the risk inherent in the relevant political decision-making processes, namely that short-term interests and concerns may come to prevail over, and at the expense of, pressing needs for sustainable policy-making, rendering that risk particularly serious and adding justification for the possibility of judicial review*."[863] (underlining added by counsel)

[859] Exhibit MD-173, BVerfG 24 March 2021, *Neubauer*, English summary, p. 2 (8th paragraph), p. 4 (under 3 (a)).
[860] Cour d'Appel Bruxelles (Brussels Court of Appeal) 30 November 2023, 2021/AR/15gs 2022/AR/737 and 2022/AR891, ground 244. See also Exhibit MD-174, Cour d'Appel Bruxelles 30 November 2023, Climate Case, Unofficial English translation.
[861] Ibid, grounds 266, 268 and 283
[862] Ibid, ground 266.
[863] ECHR 9 April 2024, ECLI:CE:ECHR:2024:0409JUD005360020, para. 420.

742. The foregoing shows that the principle of intergenerational justice creates a responsibility to prevent the interests of future generations (which interests Milieudefensie is also defending in this case; see chapter 3.2) from being unfairly harmed by today's emissions. The principle therefore not only determines the establishment of that responsibility, but also provides a framework for judging how that responsibility should be translated in concrete terms in the form of percentage reductions in emissions and other climate measures.

743. This is of great importance seeing that many reduction scenarios are calculated on the basis of cost-effectiveness, as explained in the context of the CBDR principle (see paragraph 726). In addition to an unfair shift of the reduction costs to developing countries, this also leads to an unfair shift to future generations, as also recognised by the IPCC.[864]

744. In line with the above-mentioned findings of the German Constitutional Court, the Brussels Court of Appeal and the ECtHR, the principle of intergenerational justice therefore means that reduction pathways that shift disproportionate reduction burdens to future generations and push climate action into the future are inadmissible. The principle of intergenerational justice underlines the importance of fast and steep emission reductions in the short term, without any delay.

9.2.6.5 Application of the principles to Shell's societal duty of care (and what it means in concrete terms)

745. It follows from the foregoing that the precautionary principle, the CBDR principle and the principle of intergenerational justice must (also) serve as starting points when Shell's societal duty of care is established and determined in concrete terms. All these principles are abundantly evident from (internationally authoritative) objective points of reference. In addition to the doctrine of hazardous negligence, human rights law and the other points of reference discussed in this summons (see paragraph 618), these principles reaffirm Milieudefensie's justified expectation that Shell will take measures to reduce its emissions and thus help to combat the danger of climate change.

746. However, these principles not only imply *that* emission reductions are necessary, but also *how* they should be achieved: steep reductions must be achieved urgently and without any delay, with the strongest shoulders bearing the heaviest burdens, and so with developed countries and large companies from those countries taking the lead. These starting-points are fully in line with soft-law sources such as the UN Race to Zero and the UN Expert Report (see chapter 7.2), which – given the principles discussed – confirm that companies must reduce their emissions as quickly and steeply as possible, and that, for many companies, this means net zero must have been achieved well before 2050 (see chapter 7.2).

747. In this way, the principles discussed not only provide further support for the existence of a societal reduction obligation, but also provide normative criteria for determining the nature and scope of the concrete climate measures to be taken by Shell. More specifically, these criteria can be used to determine how scientific and other insights (such as emission reduction scenarios) should be taken into account when the concrete substance of those climate measures is determined. Furthermore, these principles require that Shell's specific circumstances be taken into account. For example, when applying the CBDR principle, consideration must also be given to the extent to which Shell contributes to the causes of climate change and has the capabilities to help mitigate climate change. As the Court of Appeal also already found in the first climate case against Shell, "More can be expected

[864] See footnote 845.

of Shell […] than of most other companies, given that Shell has been a major player in the fossil-fuel market for over a hundred years and also has a prominent position in that market today."[865]

748. The application of the above principles means that Shell's societal duty of care must be translated into, among other things, concrete reduction percentages and a halt to investments in new oil and gas fields. This will be elaborated in more detail in chapters 11.3 and 11.4 respectively.

9.2.7 **International customary law**

749. Finally, it is relevant to know with regard to the assessment framework to be applied in this case that the International Court of Justice ("ICJ") has confirmed in its Advisory Opinion that, in addition to treaty obligations, there is also an obligation under customary international law to prevent significant harm to the environment and that this obligation also extends to the climate system *"which is an integral and vitally important part of the environment and which must be protected for present and future generations.*[866] The ruling of the ICJ and the customary law established in that ruling, as will be discussed in more detail below, are also among the objective points of reference that are relevant in this case.

750. The ICJ concluded that "*significant harm*" was already occurring, which gives rise to a "*duty to prevent*" under customary law based on the prevention principle under customary law.[867]

751. According to the ICJ, this duty to prevent requires acting with due diligence. Various elements may play a role when this customary duty of care is determined in concrete terms in a specific situation, according to the ICJ.[868] In this context, the ICJ mentions a number of elements that are particularly important, namely (among other elements[869]):

a. the need to take "*appropriate measures*". Based on the prevention principle, which applies as a rule of customary international environmental law, the duty of care means that a state must use all means at its disposal to prevent activities on its territory or in any area under its jurisdiction that cause significant harm to the environment of another state.[870] The ICJ specifically mentions here that appropriate measures include the drafting of regulations to achieve the "*deep, rapid and sustained*" emission reductions necessary to prevent and limit significant harm to the climate system.[871] The ICJ also clarifies that the severity of a particular risk of harm is always an important element when the duty of care is determined, in the same way as when the Dutch doctrine of hazardous negligence is applied: the greater the likelihood and severity of the potential damage, the stricter the required

[865] Court of Appeal of The Hague 12 November 2024, ECLI:NL:GHDHA:2024:2099, ground 7.55.
[866] ICJ Advisory Opinion 23 July 2025, paras. 272 and 273.
[867] ICJ Advisory Opinion 23 July 2025, paras. 274 and 278. In para. 274, it is also established that states are obliged to prevent significant harm, both when no harm has yet been caused, but a risk of future significant harm arises, and when some harm has already been caused and a risk of further significant harm arises.
[868] ICJ Advisory Opinion ICJ 23 July 2025, para. 280. This shows similarities with the duty of care under civil law, which must also be determined in concrete terms for each specific situation and where all relevant facts and circumstances may play a role (see for more on this chapter [x]).
[869] For the sake of brevity, only the substantive elements relevant to the determination of the duty of care (such as the obligation to take appropriate measures) will be addressed below, and not the procedural elements (such as the obligation to give notice and consult). See para. 289 for this distinction and paras. 295-299 for the procedural obligations.
[870] ICJ Advisory Opinion 23 July 2025, para. 272 in conjunction with para. 281.
[871] Cf. ICJ Advisory Opinion 23 July 2025, 280 in conjunction with 281-282. It is understandable that, in the case of states, the duty of care primarily entails that the emissions of others must be restricted through regulation, since states (or their governments) generally do not produce emissions of their own, but *can* exercise control and influence over parties within their own jurisdiction through regulation. In the case of a private party, however, the party has emissions of its own, has control and influence over the Scope 1, 2 and 3 emissions and must reduce these emissions as an appropriate and effective measure.

standard of conduct.[872]

b. "*Scientific and technological information*". On this point, the ICJ states that scientific research into climate change is at an advanced stage. According to the ICJ, the IPCC reports provide a comprehensive and authoritative account of the best scientific knowledge on climate change, as existing at the time of publication.[873]

c. "*Relevant international rules and standards*". According to the ICJ, such standards may originate from both binding and non-binding normative sources. So they not only include treaties and international customary law, but also soft-law sources, such as recommended technical standards and practices. [874]

d. The CBDR principle ("*Different capabilities*"). According to the ICJ, the CBDR principle is implicitly laid down in many rules of international environmental law and this principle must be observed when determining the customary duty of care in concrete terms.[875]

e. The precautionary principle ("*Precautionary approach or principle and respective measures"*). With reference to a conclusion by ITLOS, the ICJ explains that the precautionary principle forms an integral part of the duty of care based on customary law to prevent significant harm to the environment. If there are plausible indications of possible risks, the duty of care is not fulfilled if those risks are ignored. The precautionary principle therefore serves as a guideline in determining the concrete scope of the duty of care to prevent significant harm to the environment.[876]

752. A number of conclusions can be drawn from this description by the ICJ of the assessment framework to be used when the scope of the duty of care existing under international customary law is determined.

753. Firstly, there is an important starting point, which is the realisation that the international legal obligations in relation to climate change cannot be reduced to purely written (treaty-based) obligations. Partly because of the important fundamental rights at stake, an independent, unwritten international standard based on customary law exists, viz. a "*duty to prevent significant harm to the climate system*" based on the prevention principle. This duty of care based on customary law can then be interpreted – as an open standard - in a specific situation on the basis of several elements.

754. This open standard based on customary law and the manner in which it is fleshed out bear close resemblance to the general duty of care under civil law as applicable in the Netherlands. The Dutch duty of care is also an open standard that must be determined in concrete terms for a specific situation on the basis of all relevant circumstances of the case; when doing so, courts can link up with objective points of reference, such as general legal principles, science, case law and binding and non-binding normative sources such as treaty provisions and soft law. The "*elements [that] are particularly relevant when it comes to determining what due diligence requires from a State in a particular situation*"[877] mentioned by the ICJ bear great similarities to these objective points of

[872] ICJ Advisory Opinion 23 July 2025, para. 280 in conjunction with para. 275.
[873] ICJ Advisory Opinion 23 July 2025, para. 280 in conjunction with paras. 283-286.
[874] ICJ Advisory Opinion 23 July 2025, para. 280 in conjunction with paras. 287-289.
[875] ICJ Advisory Opinion 23 July 2025, para. 280 in conjunction with paras. 290-292.
[876] ICJ Advisory Opinion 23 July 2025, para. 280 in conjunction with paras. 293-294.
[874] ICJ Advisory Opinion 23 July 2025, para. 280 in conjunction with paras. 290-292.
[877] ICJ advisory Opinion 23 July 2025, para. 280 et seq.

reference.

755. There are also large similarities with the assessment framework used in the application of the ECHR, which – as explained – in turn shows large similarities with the Dutch doctrine of hazardous negligence. All these assessment frameworks make it possible and necessary to consider sources such as general legal principles, science, case law and binding and non-binding normative sources, such as treaty provisions and soft law, when courts make decisions.[878] And, of course, the customary law established by the ICJ in itself also constitutes an objective point of reference that must be considered when the societal duty of care applicable to Shell is determined.

756. In short: international customary law, the Dutch standard for the societal duty of care and the human rights assessment framework all provide a very similar assessment framework for determining the scope of a duty of care (relating to the climate) in a specific situation, which must be judged on the basis of this assessment framework.

9.3 CONCLUSION

757. Section 6:162(2) DCC, as interpreted in settled case law and the legal literature, provides a clear framework for deciding which climate measures Shell is required to take. The overarching criterion is that Shell is obliged to take the climate measures that Milieudefensie may reasonably expect of Shell; this reasonable expectation must be fleshed out as far as possible on the basis of objective points of reference, and in light of these points of reference a balancing of interests (see also the *Kalimijnen* judgment) must be carried out between the interests of Shell as a polluter and the collective interests defended by Milieudefensie that no excessive harm may be caused to the climate.

758. An important point of reference is the doctrine of hazardous negligence (and the case law on this doctrine), which – both on its own and when viewed in conjunction with the other objective points of reference discussed in this summons – leads to the conclusion that Shell is obliged to take the climate measures demanded by Milieudefensie.

759. In this lawsuit, there are numerous objective points of reference that can be used to judge what climate measures Milieudefensie may reasonably expect of Shell. In addition to the doctrine of hazardous negligence, these include (horizontally applicable) human rights, which have also already been applied in previous court judgments to determine the societal duties of care of governments and private actors in relation to climate change. In addition, various important legal principles must be included as objective points of reference in the judgment (in any case, the precautionary principle, the CBDR principle and the principle of intergenerational justice, whose legal significance in relation to climate change has already been confirmed in various climate cases). All these points of reference must be considered, of course, in addition to all the other objective points of reference already mentioned in this summons, such as climate science, UN initiatives and partnerships and climate protocols and other soft law (such as the UNGP and the OECD guidelines). Finally, international customary law also indicates that the assessment framework as explained by Milieudefensie should be applied.

760. When all these objective points of reference are considered and weighed in relation to each other, it is clear that

[878] See also the opinion of deputy Advocate General Langemeijer and Advocate General Wissink, ECLI:NL:PHR:2019:887 regarding the Dutch Supreme Court judgment HR 20 December 2019, ECLI:NL:HR:2019:2006 (*Urgenda*), under 2.31 and under 2.72: "*The common-ground method is somewhat comparable to the reflexive effect that national courts can attribute to treaty provisions and "soft law" without direct effect when they determine what open standards in national law mean in concrete terms*."

Shell has a duty in relation to Milieudefensie to reduce its Scope 1, 2 and 3 emissions in line with the 1.5°C target and to stop producing oil and gas from new fields, partly in order to break the lock-in caused by new fields.

761. In the following chapters, Milieudefensie will explain how this duty must be further fleshed out on the basis of the assessment framework discussed above. Milieudefensie will first explain there that Shell's current inadequate climate policy leads to unlawful hazardous conduct by Shell and to a violation by Shell of its responsibilities under human rights law (chapter 10). Milieudefensie will then explain what concrete climate measures Shell will have to take, considering the applicable legal assessment framework and the significance to be attached to all the circumstances and objective points of reference relevant to this case based on that framework (chapter 11).

762. In discussing these climate measures, Milieudefensie will also immediately demonstrate that Shell is currently failing to take these measures, leading to the conclusion that Shell, with its inadequate climate policy, is violating, and threatens to continue violating, its legal obligations (this will therefore also be discussed in chapter 11).

10 SHELL BEARS A SHARE OF THE RESPONSIBILITY TO PREVENT DANGEROUS CLIMATE CHANGE

10.1 INTRODUCTION

763. In light of the previous chapter, Milieudefensie will explain below that Shell must make an appropriate contribution to preventing dangerous climate change, based on the doctrine of hazardous negligence, whose criteria correspond with the assessment framework to be used according to human rights law and international customary law.

10.2 CRITERIA (I) AND (III): THE NATURE AND EXTENT OF THE CLIMATE HARM AND THE LIKELIHOOD THAT DANGEROUS CLIMATE CHANGE WILL OCCUR

764. The nature and extent of the harm caused by climate change were described in detail in chapter 5. This is, of course, the same harm that was also already described in the court rulings discussed in chapter 9.2 regarding *Urgenda* and in the first Shell case. The harm caused is global environmental harm, resulting in extensive personal injury and property damage of potentially catastrophic proportions; the severity of the nature and extent of the harm is therefore unprecedented. It therefore concerns both environmental harm and harm (in the form of personal injury and property damage) caused to people via the environmental harm. It also concerns harm that results in infringements of the right to life and the right to an undisturbed family life, as the Courts also ruled in the *Urgenda* and *Shell* cases.

765. The environmental harm is evident. Man-induced greenhouse gas emissions, for instance, cause harm to the atmosphere and have already increased atmospheric CO_2 concentration by 50%, resulting in global warming, climate change and damage to ecosystems, flora, fauna and biodiversity, among other things. This environmental harm in turn also affects the ecosystem goods, functions and services that are very important to people. Examples are food, drinking water, raw materials, life-sustaining atmospheric conditions, pollination, pest control and disease regulation, etc. (see chapter 5). This environmental harm causes harm to and for people, also in the Netherlands. Both forms of harm play a role in this case, which is why the expression “harm to people and the environment” is used each time. Both forms of harm are evidently related to each other.

766. More frequent and severe types of extreme weather (heat, drought, storms, hurricanes, torrential rain and

flooding, etc.) have consequences for food supplies, pose a threat to life and health and lead to many forms of damage (including property damage). Consider the consequences of the expected intensification of storms and hurricanes if global warming continues, and the increasing risk of flooding as a result of sea level rise and heavy rainfall: these situations will claim victims and destroy residential and working areas and infrastructure that are important and vital to society. This destruction obviously leads to the loss of property, but also creates a chain of other (personal) damage, as former Advocate General of the Dutch Supreme Court Jaap Spier has explained.[879] He describes this chain of damage in, among other publications, a preliminary opinion in English from 2018. Drawing on this preliminary opinion, this can be summarised as follows in the next two paragraphs.

767. People may be temporarily unable to live or work in the way they normally do, because ICT and electricity infrastructure has been destroyed, or because homes and business premises have been destroyed or can no longer be reached because the road infrastructure has been damaged. If the people or businesses are unable to carry the losses incurred, for example due to the prolonged halt of business activities or the destruction of crops on which farmers depend for their income, people may lose their businesses or jobs. The loss of businesses and jobs can in turn have a negative impact on local shops in the vicinity of these businesses and residents; loans can perhaps not be repaid anymore resulting in distressed banks, etc. Extreme weather conditions do not even have to occur in people's own environment for these consequences to occur; even if suppliers in distant countries are affected by a hurricane or flood, production in the places where people live can come to a standstill. Anyone can be affected by this uncertainty of supply, even for important things such as food and medicines.

768. If the electricity infrastructure is affected and areas lose their power supply, problems will arise for services and facilities, such as banks and hospitals, as well as for households. Payments can no longer be made and surgery can no longer be performed. Eventually, coastal cities cannot be protected anymore against sea level rise, resulting in the loss of property, forced shutdowns of businesses, people having to rebuild their lives elsewhere or, if they are unable to do so, falling into poverty. Tourist destinations will disappear as a result of climate change, and if people have to move to new places, new infrastructure for roads, hospitals, etc. will have to be created.[880]

769. These are just a few examples of how changes in the climate and our living environment as a result of global warming will impact everyday life, causing all kinds of harm and risks of harm for all inhabitants. The harm is so extensive that the future outlook for society will become very bleak, and that does not even account for the deaths and health problems caused by extreme weather and related disasters (including physical and psychological trauma) as global warming increases. Damage prevention is the name of the game, if only because the damage will be so comprehensive and irreversible that compensation afterwards will not be possible.

770. With a further increase in global warming, the harm that is caused every year to people and the environment will only increase, and the chance of reaching the dangerous tipping points in the climate system that will accelerate further global warming and have irreversible consequences will also increase rapidly. There is therefore every reason to characterise the avoidance of dangerous climate change as a legitimate interest of Milieudefensie deserving legal protection.

771. With regard to the criterion (from the *Kelderluik* judgment) concerning the likelihood of the feared danger, it was

[879] KNVIR (Royal Netherlands Society of International Law), Preliminary Opinions, "Climate Change: Options and Duties under International Law", Communications from the Royal Netherlands Society of International Law, No. 145.
[880] KNVIR Preliminary Opinions, "Climate Change: Options and Duties under International Law", Communications from the Royal Netherlands Society of International Law No. 145.

explained in chapter 7 that there is a very significant chance that the carbon budget associated with a 1.5°C scenario will be exhausted in the short term and dangerous climate change will be inevitable, if no appropriate policy measures are taken by public and private actors that have a major impact on greenhouse gas emissions,. With the current global climate policies, the earth will have warmed by approximately 3°C by the end of this century.

772. In court cases in the Netherlands and abroad, including in the *Urgenda* and *Shell* rulings, it has been concluded that the nature and extent of climate harm to people and the environment is so serious, and the risk of dangerous climate change if the current approach remains unchanged is so great, that it justifies and necessitates judicial intervention. Milieudefensie is therefore seeking legal protection against this harm to people and the environment from the District Court in the form of the issue of a (preventive) injunction (an order requiring Shell to take action) under Section 3:296 DCC. Milieudefensie is therefore focusing on damage prevention and is not claiming compensation in these legal proceedings.

773. In short, the conclusion must be that the nature and extent of climate harm and the likelihood of dangerous climate change occurring, with major consequences for people and the environment, also in the Netherlands, will be very severe if Shell does not also take action. For this reason, a special duty of care and a high degree of care are being demanded from Shell.

10.3 CRITERION (II): THE KNOWLEDGE AND FORESEEABILITY OF THE HARM FOR SHELL

10.3.1 Overview of the facts known to Shell

774. It follows from chapters 4 up to and including 8 and from the paragraphs below that Shell could and should have known, as early as the 1980s, about the harm to people and the environment that would be caused by climate change. It also follows from this that Shell could and should have known, in any event in the 1990s, that, as an oil and gas company, it plays a key role in causing and preventing that harm. More specifically, Shell can be considered to have known in the 1990s that:

(i) a warming of 2°C would result in dangerous climate change (in line with the danger threshold known at the time, which was subsequently adjusted to 1.5°C; see chapter 6);

(ii) dangerous climate change is caused by anthropogenic greenhouse gas emissions;

(iii) the combustion of fossil fuels is the main source of these emissions;

(iv) the consequence of this should be that only limited quantities of fossil fuels could still be used;

(v) Western countries and their economies should take the lead in preventing dangerous climate change;

(vi) it is necessary to shift investment immediately to forms of energy that emit no or less CO_2;

(vii) continuing the exploration, production, distribution and sale of fossil fuels will increase the risk of dangerous climate change; and

(viii) Shell plays an important role in the emergence of, and can and must play a role in preventing, the imminent harm caused by dangerous climate change.

775. From what was discussed in chapter 8.4.1 above, it is clear that Shell has increasingly demonstrated its knowledge of the above-mentioned facts in various ways since the 1960s and 1970s. Moreover, since then, an increasingly well-defined notion of the responsibility of Shell, as an oil and gas company, for causing and solving the climate problem has developed. Also, Shell certainly already knew (and was one of the first to know) in the 1980s and 1990s about the harm that climate change would cause to people and the environment. In that period, Shell also already knew the following facts:

(i) that Shell was contributing substantially to the climate problem and that its share was already measurable and identifiable at that time;

(ii) that a 2˚ C rise in temperature would mean dangerous climate change and that a 450 ppm CO_2-eq scenario should therefore be allowed for;

(iii) that only limited quantities of fossil fuels could still be used (and that many fossil-fuel reserves could therefore not be extracted);

(iv) that Shell should take precautionary measures against the danger of climate change and that, partly for this reason, a transition to sustainable energy was necessary for Shell;

(v) that this business transition was also possible for Shell.

776. This crucial knowledge and foreseeability for Shell of not only the damage and the role played by Shell in it, but also of the necessity and possibilities for Shell to help prevent that damage will be addressed and explained below.

10.3.2 **Shell has known for a long time that fossil fuels cause climate change with serious consequences for people and the environment**

777. There can be no doubt that Shell has known for many decades that the use of fossil fuels leads to climate change with potentially serious consequences for people and the environment. In chapter 8.4.1, Milieudefensie explained, based on numerous sources, that Shell already knew since the 1950s about the cause-and-effect relationship between the combustion of fossil fuels and global warming, and also about the possibility that this could have (very) serious consequences. By 1986 at the latest, Shell was undoubtedly aware that fossil fuels cause climate change and was familiar with the potentially catastrophic consequences of climate change.

10.3.3 **Shell has known for a long time that it is making a substantial contribution to climate change**

778. Shell has also known for a long time that it is making a substantial contribution to climate change. There is a clear and measurable relationship between Shell's activities and global warming and the resulting climate change. As mentioned in the introduction to this summons, the Carbon Majors project shows that Shell has been one of the largest individual contributors to climate change since its foundation in 1890: Shell's production and sale of oil

and gas alone has caused more than 2% of total global CO_2 emissions[881]. Furthermore, half of the emissions that can be attributed to Shell up to 2010 have occurred since 1986, i.e. after Shell had already become aware of the fact that the use of fossil fuels leads to climate change.[882] In addition, research in 2017 already demonstrated that 1.6% of the measured temperature increase and 1.4% of the measured sea level rise can be attributed to Shell's business activities.[883] In recent years, more and more research has been published in which the harmful effects of the emissions from the most polluting companies are quantified. For example, in 2025, a study was published in which the emissions of the large oil and gas companies, including Shell, are directly linked to the increased intensity and frequency of more than 200 heat waves.[884]

779. As reported by Shell itself, it began publishing the annual quantities of greenhouse gases associated with its business activities and the use of its products by its customers in 1997. For the year 2002, Shell reported, on that basis, that it was the source of the equivalent of 3.6% of global CO_2 emissions emitted that year through the use of fossil fuels.[885]

780. Similar emission data were also already known to Shell in the 1980s. For example, the internal and confidential report "The Greenhouse Effect" from 1988 discussed above said that Shell's contribution to total global CO_2 emissions in 1984 was 4%. The report shows that Shell was even able to specify its contribution to global emissions in 1984 for each type of fuel individually.[886]

781. The foregoing demonstrates that Shell has long been aware that its activities and the products manufactured by it make a substantial, measurable and identifiable contribution to global warming.

782. If Shell's annual emissions in 2024 are compared with the emissions of countries, it becomes clear that only four countries in the world have higher CO_2 emissions than Shell: China, the United States, Russia and India.[887] In this sense, Shell's control and influence are therefore not only comparable to those of a country, but to those of a state-based superpower.

783. By way of comparison: Shell's contribution to global emissions, based on the above percentages, is considerably higher than the Dutch state's contribution of 0.5% to global emissions, a contribution that the state has been held responsible for. This shows that Shell's contribution to the climate problem is substantial enough to justify that Shell is held legally accountable for that contribution.

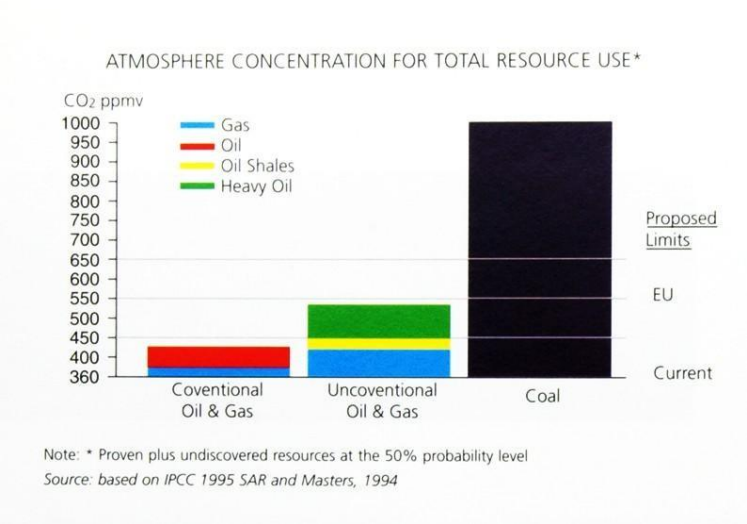
784. Due to Shell's substantial contribution to climate change, Shell has a large and special responsibility to contribute to combating dangerous climate change.

10.3.4 **Shell has known for a long time that it needs to take (precautionary) measures**

785. Shell knew as early as 1998 that a 450-scenario would mean a huge limitation of the quantities of the remaining

[881] Exhibit MD-007, "Carbon Majors: 2023 Data Update", p. 10.
[882] Exhibit MD-175, Heede (2014), "Tracing anthropogenic carbon dioxide and methane emissions to fossil fuel and cement", p. 229, p. 234.
[883] Exhibit MD-176, Ekwurzel et al. (2017), "The rise in global atmospheric CO2, surface temperature, and sea level from emissions traced to major carbon producers", p. 585.
[884] Carbon Brief, 10 September 2015, "Study links world's top oil and gas firms to 200 "more intense" heatwaves", available at https://www.carbonbrief.org/study-links-worlds-top-oil-and-gas-firms-to-200-more-intense-heatwaves/.
[885] Exhibit MD-177, Shell, "The Shell Report 2004 – Meeting the energy challenge – our progress in contributing to sustainable development", p. 9.
[886] Exhibit MD-144, Shell 1988, "The Greenhouse Effect", p. 57, table 8.
[887] See paragraph 32 of this summons.

marketable fossil fuels. This is evident from Shell's own brochure from that time, entitled "Climate Change, what does Shell think and do about it" (March 1998).[888] The following figure is included on page 6.



786. In the figure, Shell has indicated the 450-scenario with a horizontal line. This figure shows that the CO_2 concentration had already risen to 360 ppm in 1998. It also shows the following:

- if only all conventional oil and gas reserves in the world would be used (petroleum and natural gas), see the left-hand column in the figure, the CO_2 concentration would rise to almost 450 ppm. The additional CO_2 concentration resulting from the continued use of coal and unconventional oil and gas comes on top of this;
- if only all unconventional oil and gas reserves would be used (shale gas, tar sand oil, etc.), see the middle column in the figure, the CO_2 concentration would rise to almost 550 ppm. The additional CO_2 concentration resulting from the continued use of coal and conventional oil and gas comes on top of this;
- if only all coal reserves in the world would be used, see the right-hand column in the figure, the CO_2 concentration would rise to 1,000 ppm. The additional CO_2 concentration resulting from the continued use of conventional and unconventional oil and gas comes on top of this.

787. Although a 550-scenario was sometimes also still taken as the starting-point in 1998 (which is why it also indicated by a horizontal line in the figure), it was already clear to Shell at that time that a 450-scenario should also be allowed for. It is likely that this is why this scenario was included in the graph. Both scenarios clearly indicated that the remaining marketable quantities of fossil fuels had to be limited. As a result, it was also clear that Shell would have to change.

788. This was something that Shell also realised itself. After all, according to the brochure, Shell was aware that the energy markets were changing and that all Shell companies around the world would have to adapt, take precautionary measures and assume their social responsibility:

[888] Exhibit MD-153, "Climate Change: What does Shell think and do about it?"

"*They must play their part in the necessary precautionary measures to limit greenhouse gas emissions...in their own operations as well as helping their customers to do the same*."[889]

789. Shell therefore knew as early as 1998 that precautionary measures were necessary to comply with its societal duty of care and that it bore responsibility for the emissions released during the use of its products by customers. In fact, in an internal document from 1998, Shell described a scenario in which the company might be sued in the future, for example after a number of storms on the east coast of the United States, if it failed to take action to combat climate change:

> *"Following the storms, a coalition of environmental NGOs brings a class-action suit against the US government and fossil-fuel companies on the grounds of neglecting what scientists (including their own) have been saying for years: that something must be done. A social reaction to the use of fossil fuels grows, and individuals become 'vigilante environmentalists' in the same way, a generation earlier, they had become fiercely anti-tobacco. Direct-action campaigns against companies escalate. Young consumers, especially demand action…"* [890]

790. In that same year, 1998, Shell established a new business division called Shell International Renewables, Shell's renewable energy business. In 1999, Shell made its intentions clear in a large advertisement in the Financial Times:

> *"Shell is playing a major part in the move from oil and gas, and now we're planting the seeds of renewable energy with Shell International Renewables, a new business committed to making renewable energy viable."* [891]

791. This is clear evidence that Shell was well aware of the need to move away from oil and gas ("*the move from oil and gas*") and transform itself into a sustainable energy company. It also proves that Shell believed that this business transformation was possible, even though renewable energy was not yet "*viable*" and therefore not yet profitable in Shell's view at that time. Shell apparently believed that the company itself had to contribute to making sustainable energy (more) profitable.

792. In 2004, Shell reiterated that climate change required that the company should not only tackle its own emissions, but should also ensure that its customers emitted less. For this reason, Shell stated in its sustainability report for that year that, in addition to conventional natural gas, it would have to focus on wind and solar power, hydrogen, biofuels and carbon capture and storage (CCS) as its future sustainable portfolio:

> *"We recognise that our response to climate change means more than reducing our own emissions. A shift to lower carbon-emitting energy products is also needed, so the rapid rise in energy use does not bring an equally big increase in GHG emissions. Expanding our natural gas business will help. In the longer term, so will our efforts to lower the costs and increase the use of biofuels, wind and solar power, and hydrogen, and to develop efficient ways to capture and safely store the CO_2 from fossil fuels."* [892]

793. Shell thereby acknowledged that its strategic decisions influence the course of the energy transition and thus play a role in preventing serious climate change. In other words, Shell's strategic decisions can either accelerate

889 Exhibit MD-153, Shell 1988, "Climate Change: What does Shell think and do about it?", p. 8 and 9.

890 Exhibit MD-178, "Shell Group Scenarios 1998-2020" (selected pages), p. 118. See also Climate Investigations Centre on 5 April 2018, "Internal Shell Climate Documents Revealed", available at https://climateinvestigations.org/shell- oil-climate-documents-revealed/.

891 Exhibit MD-179, Stockman et al (2009) "Shell's Big Dirty Secret: Insight into the world's most carbon intensive oil company and the legacy of CEO Jeroen van der Veer", p. 20.

892 Exhibit MD-177, Shell, "The Shell Report 2004 – Meeting the energy challenge - our progress in contributing to sustainable development", p. 9.

or slow down the energy transition.

794. When it became clear, in 2007, due to the Bali Action Plan and the IPCC report of that year, that the 450-ppm scenario would need to be followed, it was immediately clear to Shell that urgent (precautionary) measures had to be taken to prevent dangerous global warming. In the years that followed, that urgency only increased. After all, the 2009 Copenhagen Accord, the 2010 Cancun Agreements and the annual Climate Conferences from 2011 onwards also referred to the possible lowering of the global climate target to 1.5°C.[893] This was also formalised in the Paris Agreement and subsequent COP decisions, and in 2025 the ICJ confirmed that 1.5°C is the global climate target.

795. However, it was precisely from 2007 onwards that Shell actually phased out its investments in renewable energy and scaled up its investments in fossil-fuel activities. With effect from 2007, Shell even started to invest heavily in the most polluting and CO_2-intensive unconventional fossil fuels, such as tar sands oil, shale oil, shale gas and LNG – fossil fuels that, per unit of energy, release a greater proportion of CO_2 and other greenhouse gases into the atmosphere when extraction, transport and combustion are considered combined than conventional oil and natural gas. Shell thus became the most carbon-intensive oil company in the world.[894]

796. This has not changed significantly in the years that followed. Research shows that between 2010 and 2018, Shell spent only 1.3% of its capital expenditure on low-carbon investments.[895] And the vast majority of Shell's investments are still directed at its oil and gas activities, and Shell's activities and investments are focused on long-term fossil-fuel dependence.

10.3.5 **Interim conclusion regarding Shell's knowledge and foreseeability of the harm**

797. In short, all of the above not only shows that Shell has known for decades about the serious harm to people and the environment caused by the use of (its own) fossil fuels, but also that it was well aware of the part it was playing in causing the climate crisis; it also demonstrates that Shell also realised that this came with a responsibility for Shell to take precautionary measures and change as an organisation by focusing on sustainable, emission-free forms of energy. However, Shell has continued to focus on fossil energy and on society's continued dependence on fossil fuels. As explained in chapter 8.4 above, Shell has exerted an inhibiting influence over climate action, both directly and through the interest groups of which it is a member (often even as a part of the board), and with its large-scale investments in oil and gas and its political and public activities, it has continued to be an obstacle to accelerating climate action to this day.

10.4 **CRITERION (IV): THE NATURE OF SHELL'S CONDUCT**

798. Whether the nature of the conduct of the party held liable for damage does or does not pose a serious risk affects the weight to be attached to the other *Kelderluik* criteria. Conduct that does not pose a serious risk will only be considered a breach of due care if there is a reasonable degree of probability that the damage will occur. Conduct that poses a significant risk and lies, for example, in the area of safety will be considered as a breach of due care

[893] See chapter 6.5.
[894] Exhibit MD-179, Stockman et al (2009) "Shell's Big Dirty Secret: Insight into the world's most carbon intensive oil company and the legacy of CEO Jeroen van der Veer".
[895] Exhibit MD-157, Kenner & Heede (2021), "White knights, or horsemen of the apocalypse? Prospects for Big Oil to align emissions with a 1.5 °C pathway", p. 4, with reference to an analysis by the Carbon Disclosure Project (https://fingfx.thomsonreuters.com/gfx/ce/7/1800/1799/Pasted%20Image.jpg).

more easily, even if the likelihood of damage is very small and the onerousness of taking precautionary measures is considerable. [896]

799. The court rulings discussed in chapter 9 in the *Urgenda* and *Shell* cases show that the courts concerned also followed this line of reasoning: if the nature of the conduct is such that it creates a danger that has the magnitude of (dangerous) climate change and, moreover, also creates a very high risk of damage, high duty-of-care standards care may and must be imposed, even if the precautionary measures to be taken are very onerous for the party that is causing the damage. Due to the great dangers and risks of climate change, private companies may be required to take drastic measures and make big financial sacrifices in order to combat CO_2 emissions and the dangerous climate change they cause.

800. This also applies to the reduction of companies' Scope 3 emissions, because companies also have control and influence over those Scope 3 emissions. For Shell, this was also specifically established in the first court case against Shell.

801. The fact that Shell has this control was found by the District Court in the first court case against Shell and Shell did not challenge this finding in the appeal proceedings. In ground 4.4.25 of its judgment, the District Court found that Shell "[...] determines the energy package – and thus the range of energy products – of the Shell group. [...] Via the energy package offered by the Shell group, RDS therefore has control and influence over the Scope 3 emissions of the end users of the products produced and sold by the Shell group."[897]

802. Along the same lines, it was also ruled in the *Urgenda* case that although national emissions are caused by citizens and businesses (and hardly by the state itself), the state can exercise a degree of control over the collective Dutch emission levels of citizens and businesses (the state's Scope 3 emissions, as it were), and that this possibility of control, given the magnitude of the danger to be combated, means that a high degree of care could be demanded from the state. Another factor considered here by the Court was that the state plays an important role in the transition to a sustainable society.

803. Shell therefore has complete control over the quantities of fossil fuels it produces and trades both now and in the future, and thus also has complete control over its Scope 3 emissions (as well as over its Scope 1 and 2 emissions). If its oil and gas activities grow, Shell's emissions will grow, and so will its contribution to climate change. If Shell phases out these activities, Shell's contribution to climate change will decrease.[898]

804. Furthermore, the control that Shell has over the emissions associated with the fossil fuels produced and sold by it is greater and more direct than the control the Dutch state has over the emissions of citizens and businesses. After all, it is completely up to Shell whether it bases its business strategy on the growth of its oil and gas activities or whether it commits to phasing them out. Shell can independently decide to phase out its fossil-fuel activities and is not dependent on anyone else for that decision. This is an additional argument as to why climate measures can be demanded of Shell.

[896] C.H. Sieburgh 2000, "*Toerekening van een onrechtmatige daad*" (Attribution of wrongful conduct), Kluwer, 1 July 2000, pp. 75–77. See also: Asser 6-IV, 2023/76 (A.S. Hartkamp and C. Sieburgh, "*De verbintenis uit de wet"* (The law-based obligation)*,* 2023/76).

[897] District Court of The Hague 26 May 2021, ECLI:NL:RBDHA:2021:5337. The designation "RDS" used here is the abbreviation for Royal Dutch Shell, the name previously used by Shell plc as the parent company of the Shell group.

[898] See also the UK Supreme Court ruling in the *Finch* case, in which the Court held that the extraction of oil inevitably leads to the combustion of oil and the associated emissions, so that the oil producer is also deemed to have control over those combustion emissions. See UK Supreme Court 20 June 2024 in the case of *R (on the application of Finch on behalf of the Weald Action Group) (Appellant) v Surrey County Council and others (Respondents)*, ground 103.

805. It is evident that Shell, just like the state, with the scale of its global business activities and as one of the largest multinationals in the world, has a significant influence over the energy transition. Shell actually exerts that influence, but in the wrong way. If Shell were to convert the many billions it invests annually in fossil-fuel activities into investments in green, emission-free energy products as quickly as possible, this would certainly have an impact, both in terms of the signal it would send to the rest of the world and in terms of the volume of investments in green energy.

806. The same applies, incidentally, to simply stopping investments in new fields or other new fossil-fuel infrastructure. If one of the largest investors in fossil fields and infrastructure stops these investments, this will certainly also have an impact on the fossil-fuel industry as such. In this way, Shell would also be contributing to reducing the lock-in effect of its investments.

807. Furthermore, if Shell continues to move further away from oil and gas, it will no longer have an interest in using its political, social and economic influence in the way it has done until now, and with which Shell has proven to be an obstacle to climate action and the energy transition. With the fossil lock-in effects that Shell has created to date and with its lobbying and public influencing in favour of oil and gas use and against climate measures, Shell is not only influencing the supply side of fossil energy, but also the demand side. In this way, Shell therefore has influence over both sides of the energy transition - the supply side and the demand side.

808. Shell therefore has both control over the emissions from its activities and products and influence over the energy transition (on both sides). Given the significant risk of climate change associated with its conduct – i.e. both Shell's conduct that results in emissions and Shell's conduct that slows down the energy transition and makes it harder to achieve – the criterion discussed here regarding the *nature of the conduct* at issue in this lawsuit means that high standards of care must be imposed for Shell, even if the measures to be taken are considerably onerous for Shell.

809. The nature of Shell's conduct therefore inherently creates a significant risk and gives rise to a very high probability of various forms of harm to people and the environment, so that high standards of care must be imposed. Against this background, the *Kelderluik* factor regarding the onerousness issue will be discussed below.

10.5 CRITERION (V): THE ONEROUSNESS OR NON-ONEROUSNESS OF THE MEASURES FOR SHELL

810. In this case, the measures that Shell must take are measures that are necessary for Shell to make an adequate contribution to the global 1.5°C target. Insofar as the measures in question would be onerous, that onerousness should not be decisive for Shell's legal duty to take those measures. This applies even if there is a high degree of onerousness, given the severity of the risks and the danger posed by dangerous climate change (see also paragraph 773).

811. It is also hard to see why the whole world should have to suffer catastrophic climate change and bear its consequences because it would be too onerous for Shell (and other big greenhouse gases emitters) to change. What justification could there be for the fact that Shell's shareholders can continue to rake in tens of billions of dollars in profits from the sale of fossil fuels each year, while this plunges the world into an ecological and humanitarian crisis at the same time? Why should society have to endure increasingly dangerous changes year

after year because it would be too onerous for Shell to change?

812. To ask the question is to answer it. It defies all sense of justice if the outcome were to be that Shell could simply continue with the destruction of the global environment.

813. Without changes in the policies of all major and substantial emitters in the world, the world will face dangerous climate change with incalculable consequences for people and the environment and a high probability of tipping points in the climate system being crossed. Against this backdrop, it cannot be accepted that Shell does not need to change because it would be too onerous for it. That would be inexplicable. Shell will therefore have to change, regardless of whether that is onerous.

814. Shell is also capable of changing and already argued this itself in the 1990s. As mentioned earlier, Shell wrote in 1998 that the company realised it had to change in order to combat climate change. At the time, this was the reason why Shell International Renewables, Shell's renewable energy division was set up, in connection with which Shell announced in the Financial Times:

> "*Shell is playing a major part in the move from oil and gas, and now we're planting the seeds of renewable energy with Shell International Renewables, a new business committed to making renewable energy viable*."[899]

815. As said, this is clear evidence that Shell was already well aware, more than 25 years ago, of the need to move away from oil and gas ("*the move from oil and gas*") and transform itself into a sustainable energy company. It also proves that, in Shell's view, this business transformation was already possible in the 1990s – even though renewable energy was not yet "*viable*" and therefore not yet profitable in Shell's eyes at that time, according to Shell. Shell apparently believed that the company itself had to contribute to making sustainable energy (more) profitable.

816. However, Shell has not continued to expand its renewable energy portfolio.

817. At this point in time, more than 25 years after the above announcements that Shell would move from oil and gas, it will in any case be easier for Shell to transform from an oil and gas company into a sustainable energy company. The cost-benefit ratio for sustainable energy has improved steadily over the past 25 years. The starting-points have therefore become more favourable for Shell. In this context, Shell's former CEO, Jeroen van der Veer, stated in an interview with EnergyPost EU in 2016 that moving away from oil and gas presents great opportunities for oil companies:

> *"Moving away from fossil fuels presents great opportunities for oil companies."*[900]

818. In 2019, Shell indicated that it believed that wind and solar energy are on a par with oil and gas from a technical and commercial point of view and can therefore compete with oil and gas on their own merits:

> *"We advocate different levels of government support depending on <u>the technical and commercial maturity</u> of low-carbon technologies. For example, Shell calls for technology-neutral carbon pricing and targets to reduce emissions intensity for*

[899] Exhibit MD-179, Stockman et al (2009), "Shell's Big Dirty Secret: Insight into the world's most carbon-intensive oil company and the legacy of CEO Jeroen van der Veer", p. 20.
[900] Exhibit MD-180, *Energypost.EU (2016), "'Jeroen van der Veer, former CEO Shell, Chairman ING, 'Moving away from fuels presents great opportunities for oil companies'".*

commercially viable sources of energy such as oil, natural gas, wind and solar."[901] (underlining added by counsel)

819. If Shell itself has believed since at least 2019 that these renewable energy sources are economically viable, there is nothing to prevent it from investing more heavily in these sustainable energy sources, and it is fair to ask the question why it is investing almost exclusively in oil and gas projects.

820. A year earlier, in 2018, Shell had also already indicated that it was well positioned to take further steps in sustainable electricity generation in the US and Europe:

> *"We currently produce electricity through renewable projects in the USA and Europe. We have decades of experience trading electricity and we supply it wholesale to energy retailers. In the USA, we have consistently been ranked in the top three power wholesalers over the past decade."*[902]

821. Large-scale global investments in solar and wind power are needed to generate sustainable electricity, and electricity grids have been rolled out globally that need to be supplied with sustainable energy instead of fossil fuels as a source of power generation. There is more than sufficient demand for sustainable electricity worldwide, especially if the major oil and gas companies do not continue to promote their own fossil fuels and thwart the energy transition in all kinds of ways.

822. There are therefore plenty of opportunities and possibilities for Shell to enter the sustainable energy market on a large scale if it so wishes and is willing to shift its focus to energy projects other than the fossil-fuel projects it has developed for more than 100 years. However, there is no real willingness within Shell to completely transform and innovate the Shell group. It prefers to continue doing what it has done for more than 100 years, is afraid to take the step towards a different part of the energy market and is leaving the development of that market to others; others that Shell fights against at the same time by keeping the world as dependent as possible on oil and gas.

823. Whatever reasons Shell may have for hardly investing in the energy transition and thwarting it with its continuing investments in oil and gas (and other) activities, they are not valid reasons for not starting to act in line with the global 1.5°C target. The company must not continue to fuel dangerous climate change and will now really have to undergo the sustainable transformation already foreseen in the 1990s at an accelerated pace, so that its emissions can be phased out. This is necessary to avert the ubiquitous danger to people and the environment posed by dangerous climate change.

824. There are plenty of options for building a sustainable portfolio, and it can take many forms. As early as 2004, Shell already indicated (see paragraph 786) that its sustainable portfolio should consist of wind and solar power, hydrogen, biofuels and CCS (carbon capture and storage). Shell may now see things differently and start to focus on only some of these energy sources or even on other activities, but there are plenty of opportunities to give effect to the transformation to becoming a sustainable energy company.

825. However, there are also ways in which Shell can undergo a transformation that will reduce emissions at the

[901] Exhibit MD-181, "Shell Industry Associations Climate Review" (April 2019), p. 11 under 3.
[902] Shell, "Energy Transition Report 2018", p. 64, available at https://www.shell.com/business-customers/catalysts-technologies/resources-library/why-shell-catalysts-technologies-is-emphasizing-more-and-cleaner-energy/_jcr_content/root/main/section/simple/text_1386189698.multi.stream/1658493306964/3f2ad7f01e2181c302cdc453c5642c77acb48ca3/web-shell-energy-transition-report.pdf.

required speed other than transforming itself into a sustainable energy company. After all, Shell can confine itself to just becoming a smaller oil and gas company, something that Shell will have to become anyway seeing what Milieudefensie is demanding, even if it wants to become a bigger player in the sustainable energy market at the same time.

826. Becoming a smaller oil and gas company is also a feasible scenario for Shell. This is a scenario in which Shell could, for instance, reduce its investments in upstream oil and gas, downsize this company division and, at the same time, distribute profits to shareholders through dividends and share buy-backs. In this way, the company could further downsize its oil and gas division step by step, yet remain profitable while oil and gas are being phased out. Shell did not dispute the possibility of this scenario in the first court case.

827. Therefore Shell is not required to enter the renewable energy market, and this is not what Milieudefensie is demanding either. However, Shell will in any event have to become a smaller oil and gas company no matter what. Also if Shell has to achieve net zero emissions by 2050, it can, however, still be a smaller oil and gas company. Insofar as oil and gas will still only be supplied from 2025 onwards to customers who use CCS and so do not emit emissions into the atmosphere when burning oil and gas, Shell can continue to supply oil and gas and meet the target of net zero CO_2 emissions by 2050 nevertheless. Also, as a smaller oil and gas company, Shell can continue to supply oil and gas from 2050 onwards, insofar as they are used as raw materials for products such as certain plastics and fertilisers. Complying with Milieudefensie's demands will result in a change of Shell, not in a demise, and these changes may also be demanded of Shell.

828. In the first court case against Shell, Milieudefensie further explained why downsizing the oil and gas company does not need to be excessively onerous for Shell. It was explained that it should certainly be possible for Shell to reduce the business step by step, because even if Shell were to be halved in size now, the company would still be one of the 10 largest oil and gas companies in the world in terms of turnover. Shell is, and will therefore continue to be, a very dominant player in the oil and gas market for a very long time while oil and gas are being phased out.

829. In this context, it has been shown that the French Total and British BP are already 33% smaller than Shell, America's Chevron is 40% smaller than Shell, Norway's Equinor and Italy's ENI are 68% smaller than Shell and Brazil's Petrobas and Japan's Eneos are 72% smaller than Shell. All these companies, please note, rank among the top 15 largest oil and gas companies in the world, but are therefore all much smaller than Shell.

830. All of the top 100 listed oil and gas companies are making profits. Number 44 on the list (the American company Occidental Petroleum) has only 8% of Shell's turnover, and every company that follows it is even smaller. Shell is therefore a giant among giants, and of course Shell can downsize as an oil and gas company. There are so many companies that are a fraction of Shell's size and still manage to survive, remain listed on the stock exchange and be profitable. If Shell were unable to do so, that would have nothing to do with the award of what Milieudefensie is demanding in this lawsuit, but would have everything to do with poor management of the company itself. As said, Shell must and can change; that much is clear.

831. There are therefore several options available to Shell for meeting the climate target. These are feasible scenarios that also offer Shell the prospect of playing an important role (if desired) in a new energy era. It is up to Shell to choose between these options (and other options that are undoubtedly available to Shell to further shape its

future), provided Milieudefensie's demands are complied with. Within the framework of these demands, Shell can shape the company's transformation itself and decide how best to achieve it, provided that it contributes to the global 1.5°C target and, with a view to this, stops investing in new fields, among other things, and ensures that the atmospheric emissions over which it has control are reduced with the required speed.

832. Milieudefensie believes that if scientists consider it possible for global society (so including all developing countries and the least developed countries) to reach a point by 2050 where no more CO_2 emissions are added to the atmosphere, then this should certainly also be possible for Shell, as one of the richest and most powerful companies in the world, with all its (financial) resources, knowledge and expertise and international network and connections. Milieudefensie is not demanding that Shell cease its fossil-fuel activities overnight, but is demanding that Shell use the next 25 years to move towards the goal of net zero CO_2 emissions by 2050 step by step.

833. If Shell starts immediately and so still has 25 years to achieve the transformation, this will be an easier and smoother transition in terms of costs (and other factors) than if, for example, Shell would wait until 2035 and therefore only have 15 years to achieve the transition. It is therefore not only important from a human and environmental perspective to start the transformation immediately, but it will also give Shell more time to actually undergo the transformation and be successful at it. The less time there is, the more disruptive the transition will be for Shell as well. For this reason, too, it is hard to see why it would be too onerous to award the relief sought by Milieudefensie.

834. The fact that it is better for businesses – and society as a whole – to transform as quickly as possible is also confirmed by the European Central Bank (ECB). The ECB shows that an immediate and decisive transition is the best way forward, both from the perspective of businesses, financial stability, the economy and from the perspective of keeping energy affordable:

> "*[A]cting immediately and decisively (the accelerated transition scenario) would provide significant benefits for firms, households, and the financial system, not only by maintaining the economy on the optimal net-zero emissions path (and therefore limiting the impact of climate change), but also by rapidly reducing their energy expenses and lessening the financial risk*."[903]
>
> *[T]he sooner and faster we complete the necessary green transition, the lower the overall costs and risks*."[904]

835. In short, it is not only from the perspective of avoiding unlawful hazardous conduct and the human rights perspective to be discussed below that Shell must pursue an adequate climate policy, but it will also be beneficial to the interests of the broader economy, energy interests and financial stability. Shell itself will also benefit from all of this, given its interdependence with the broader economy. For these reasons too, it is hard to see why the pursuit of an adequate climate policy as demanded by Milieudefensie would be onerous for Shell, let alone so onerous that no injunction requiring Shell to pursue an adequate climate policy could be issued by this Court.

836. Finally, Milieudefensie believes that it may also be inferred from the case law of the Dutch Supreme Court on asbestos that, in a situation such as the one at hand, a change in company policy can be demanded in court. It follows from this asbestos case law that companies sometimes have a legal obligation to phase out certain activities without any specific legislation or regulations requiring them to do so. The extensive case law developed in the 1980s and 1990s in response to the danger of asbestos to public health shows that, from 1969 onwards, employers and asbestos producers have had a duty to protect employees and consumers against asbestos,

[903] Exhibit MD-182, Emambakhsh et al. 2023, ECB Occasional Paper Series, "The Road to Paris: stress testing the transition towards a net-zero economy", p. 5.
[904] Exhibit MD-183, De Guindos 2023, The ECB Blog, "Need for Speed on the Road to Paris" (website printout, 27 February 2025), p.1.

because the dangers could have been sufficiently known to these companies at that time and they therefore had a protection obligation, even though no laws or regulations existed. According to the Dutch Supreme Court, the order of importance to be observed from 1969 onwards was "minimising the use of asbestos, air purification and personal protective measures".[905] According to this judgment, the asbestos-processing company should have replaced the hazardous product of asbestos with alternative products and, in the meantime, should have taken the above-mentioned protective measures.[906] Freely translated to the climate situation, this provides further support for reiterating the argument that a fossil-fuel company should replace its fossil-fuel activities with alternatives that do not pose a risk of further global warming and the serious consequences associated with it. Although the Dutch Supreme Court was only able to rule retrospectively (after the damage had already occurred) in the asbestos case law that asbestos-processing companies should have phased out their asbestos activities given the dangers associated with them, this does not alter the fact that such a conclusion can also be drawn in advance in the context of damage prevention.

837. Milieudefensie therefore reiterates that, in light of all the facts and circumstances, demanding a change in Shell's business operations is justified.

11 THE CLIMATE MEASURES THAT SHELL MUST AND CAN TAKE TO TAKE ON ITS SHARE OF THE RESPONSIBILITY

11.1 INTRODUCTION

838. The legal obligations described in the previous chapters mean that Shell is obliged to pursue a climate policy that makes an appropriate contribution to limiting global warming to 1.5°C. In this chapter, Milieudefensie will explain which climate measures Shell's climate policy must consequently provide for.

839. To this end, Milieudefensie will first describe the global target that must be achieved in order to avert dangerous climate change (chapter 11.2).

840. Milieudefensie will then outline the measures Shell must take to make its minimally necessary contribution to this global target (chapter 11.3 and 11.4), explaining that Shell's appropriate contribution must include the following measures:

i. an absolute reduction in Shell's Scope 1, 2 and 3 CO_2 emissions;

ii. ceasing the production of oil and gas from new fields and ceasing the trade and sale of oil, gas and energy products obtained from oil and gas produced by the Shell Group or by third parties, in respect of which Shell knows, or can reasonably know, that they originate from new fields.

11.2 THE GLOBAL TARGET

841. To offer protection against dangerous climate change, it is necessary to limit global warming to 1.5°C. As explained in chapter 6.8, the world community each time indicated, during the Conferences of the Parties in Glasgow (COP26), Sharm el-Sheikh (COP27), Dubai (COP28), Baku (COP29) and Belém (COP30), that global

[905] Dutch Supreme Court 2 October 1998 (*Erven Cijsouw/De Schelde II*) ECLI:NL:1998:ZC2721 ground 3.5.
[906] Dutch Supreme Court 2 October 1998 (*Erven Cijsouw/De Schelde II*) ECLI:NL:1998:ZC2721, ground 3.3.3.

warming must be limited to this danger threshold and decided to focus global efforts on this goal, while recognising – based on the best available science – that the impacts of climate change will be much lower in the case of a temperature increase of 1.5°C instead of 2°C.

842. The ICJ recently also confirmed that limiting global warming to 1.5°C is the central temperature target of the Paris Agreement and that a country that has signed up to the Paris Agreement is required under treaty law to contribute to this goal with "*its highest possible ambition*". This means, among other things, that the level of ambition to be reflected in a party's NDC has not been left to the discretion of the signatories.[907] In order to comply with the treaty obligations under the Paris Agreement, the NDCs submitted by the countries must collectively be capable of achieving the goal of limiting global warming to 1.5°C as well as the overall objective of the "*stabilization of greenhouse gas concentrations in the atmosphere at a level that would prevent dangerous anthropogenic interference with the climate system*".[908] The ICJ has also made it clear that states have a customary duty of care relating to the climate that exists alongside (and potentially in addition to) these treaty obligations.[909]

843. The ICJ also pointed out that, based on scientific findings, the international community has already recognised what needs to be done globally to limit the temperature increase to 1.5°C.[910] During the Conference of the Parties in Dubai (COP28), it was established that this required all greenhouse gas emissions to be reduced by 60% by 2035 relative to the 2019 level. By 2050, CO_2 emissions must have been reduced to net zero:

> *"The Conference of the Parties serving as the meeting of the Parties to the Paris Agreement […] recognizes that limiting global warming to 1.5 °C with no or limited overshoot requires deep, rapid and sustained reductions in global greenhouse gas emissions of 43 per cent by 2030 and 60 per cent by 2035 relative to the 2019 level and reaching net zero carbon dioxide emissions by 2050;"*[911]

844. These reduction percentages set by the Conference of the Parties concern the reductions specified by the IPCC in its Sixth Assessment Report (AR6) for a 50% probability of limiting global warming to 1.5°C by the end of this century. In its AR6 Synthesis Report, the IPCC uses a table to clarify what this reduction path entails for both CO_2 and all greenhouse gases combined in the period from 2030 to 2050.[912] This shows that CO_2 emissions must fall faster than the 60% reduction in total greenhouse gases (GHG) by 2035, namely by 65%. For the other years, according to this table, CO_2 emissions must also fall faster than all greenhouse gases combined.

Table SPM.1: Greenhouse gas and CO_2 emission reductions from 2019, median and 5-95 percentiles. (*3.3.1, 4.1, Table 3.1, Figure 2.5, Box SPM.1*)

		Reductions from 2019 emission levels (%)			
		2030	2035	2040	2050
Limit warming to1.5°C (>50%) with no or limited overshoot	GHG	43 [34-60]	60 [49-77]	69 [58-90]	84 [73-98]
	CO_2	48 [36-69]	65 [50-96]	80 [61-109]	99 [79-119]

845. This table therefore shows the reductions to be achieved globally between 2019 and 2050, according to the IPCC, in order to limit global warming to 1.5°C by the end of this century. If all global emissions are reduced in line with this reduction pathway outlined by the IPCC and adopted by the climate conferences, there is a 50% or greater chance that global warming will remain limited to 1.5°C by the end of this century and a roughly 90% chance that

[907] ICJ 23 July 2025, No. 187 ("Obligations of States in respect of climate change"), paras. 224 and 242.
[908] ICJ 23 July 2025, No. 187 ("Obligations of States in respect of climate change"), para. 245.
[909] ICJ 23 July 2025, No. 187 ("Obligations of States in respect of climate change"), para. 314.
[910] ICJ 23 July 2025, No. 187 ("Obligations of States in respect of climate change"), para. 243.
[911] Exhibit MD-104, UNFCCC COP28 2023 (Dubai), "Outcome of the First Global Stocktake", para. 27. The Conference of the Parties based these percentages on the findings of AR6, see Exhibit MD-001, IPCC 2023, AR6, SYR, Table SPM.1.
[912] Exhibit MD-001, IPCC 2023, AR6, SYR, Table SPM.1, p. 21.

global warming will remain limited to 2°C this century, according to the IPCC.[913]

846. In other words, even if these significant reductions in CO_2 and greenhouse gas emissions are achieved by 2030 and net zero CO_2 emissions are achieved by 2050, there is still a 50% chance that the temperature rise will exceed 1.5°C by the end of this century and a 10% chance that global warming will even exceed 2°C already this century. Achieving all the emission reductions for 2030, 2035, 2040 and 2050 mentioned in paragraph 843 therefore does not guarantee that warming will actually remain limited to 1.5°C or even limited to 2°C at the end of this century. Following this reduction path should therefore be seen as the absolute minimum that must be achieved to prevent dangerous climate change.

> The importance of achieving these interim emission reductions is further underlined by the following. Chapter 4.2 has already explained that what is needed to limit global warming to a specific temperature level can be expressed in terms of a carbon budget.[914] This is a budget of CO_2 that can still be emitted into the atmosphere before a temperature limit is exceeded.[915] According to the most recent IPCC Assessment Report (AR6), the carbon budget for a 50% probability of limiting the temperature increase to 1.5°C was 500 $GtCO_2$ at the beginning of 2020.[916] On the road to net zero CO2 emissions by 2050, global cumulative emissions must therefore remain within this carbon budget in order to limit the temperature increase to 1.5°C with a 50% probability (and to 2°C with a 90% probability). This shows once again that it is not only the goal – achieving net zero emissions by 2050 – that is important, but that the road to get there is (at least) equally important. This was already illustrated in a graph in chapter 4.2.
>
> In this context, it is worrying that the latest scientific insights show that the remaining carbon budget is even smaller than thought a few years ago and is being depleted very quickly. In the Emissions Gap Report 2025, UNEP concluded that the remaining carbon budget for a 50% probability of 1.5°C (without overshoot) was only still 130 $GtCO_2$ at the beginning of 2025. This means that this carbon budget will be exhausted before 2030 if the current global CO_2 emissions of approx. 40 $GtCO_2$ per year remain the same.[917] It is therefore clear that the need for maximum efforts to reduce CO_2 emissions as quickly as possible is more urgent than ever.

847. Following the global reduction pathway described in paragraph 818 should be seen as a minimum requirement, all the more because it already entails more climate risks than might be thought. After all, following this reduction pathway will lead to what is known as an "overshoot", meaning that the carbon budget for a 50% probability of 1.5°C is (temporarily) exceeded and the temperature (temporarily) rises above 1.5°C. The reduction scenarios on which the global reduction path is based are not designed to prevent an overshoot. An overshoot is, as it were, "baked into" these scenarios, because in these scenarios the peak temperature first rises to almost 1.6°C before returning to 1.5°C before the end of this century. [918, 919]

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[913] Exhibit MD-036, IPCC 2022, AR6, WGIII, SPM, C1.1 and note 41, p. 17.

[914] Exhibit MD-031, IPCC 2021, AR6, WGI, SPM, D.1.1, p. 28, and Exhibit MD-032, IPCC 2021, AR6, WGI, TS, TS.3.3, p. 97 and 98.

[915] Up to and including the fifth Assessment Report (AR5), it was customary to express the reduction target in terms of the concentration of greenhouse gases in the atmosphere, such as the need to limit it to 430 ppm CO_2-eq for a 50% probability of 1.5°C. Because of this, the reduction target was also discussed in this way during the Conferences of the Parties (see, for example, the Bali Action Plan in chapter 10.3.4). However, since the IPCC SR15 report, the IPCC has tended to mainly use carbon budgets to express how far the world is still removed from reaching temperature limits. This provides an easier and better understanding of how much can still be emitted and what the reduction target is. Since then, the remaining carbon budgets have also tended to be included in the considerations of the decisions of the world community during the COPs.

[916] Exhibit MD-032, IPCC 2021, AR6, WGI, TS, TS.3.3, p. 98, and H5, p. 678.

[917] Exhibit MD-002, UNEP 2025, "Emissions Gap Report 2025", Box 4.2, p. 39.

[918] IPCC 2022, AR6, WGIII, section A. III.II.3.2.1, p. 1889 (see https://www.ipcc.ch/report/ar6/wg3/downloads/report/IPCC_AR6_WGIII_FullReport.pdf). The median for maximum warming in these scenarios is 1.58°C. This means that the probability that the peak temperature in these scenarios will actually remain below 1.5°C is not 50%, but only 38%: "*As a result, the scenarios in the lowest category also have a lower probability of staying below 1.5°C peak warming. Using the WGI emulators, we find that the median probability of staying below 1.5°C s in the lowest category (C1) has dropped from about 46% in the SR1.5 scenarios to 38% among the AR6 scenarios*."

[919] As UNEP also concludes in Exhibit MD-002, UNEP 2025, "Emissions Gap Report 2025", p. 39: "*Previous editions of the Emissions Gap Report have highlighted these and other implications of delayed and insufficient action, including for the possibility of limiting global warming to 1.5°C with no or limited overshoot, in accordance with scenarios assessed by the IPCC AR6 and used in the preceding sections. Most of these no or limited overshoot scenarios (91 out of 97) already imply a period of several decades of limited overshoot (<0.1°C) in which the median temperature projection would peak at no more than 1.6°C before returning to 1.5°C by 2100 (see tables 4.1 and 4.2). As such, limited overshoot of 1.5°C is not a new issue in the context of the temperature goal of the Paris Agreement.*"

848. Following the global reduction path set out in paragraph 818 will therefore not result in global emissions remaining within the carbon budget and warming actually being limited to 1.5°C. These are therefore actually 1.6°C scenarios with a probability of returning to 1.5°C at the end of this century. So, by definition, they already entail greater risks than scenarios without an overshoot of 1.5°C (but which are no longer achievable now).

> This problem is further exacerbated by the fact that the global reduction pathway in paragraph 843 assumed that the world would start taking climate action from 2020 onwards. However, from 2020 to the present, global emissions have only increased (with the exception of the coronavirus period) and the expansion of carbon-intensive infrastructure has continued. As a result, cumulative emissions in the period up to 2025 were already too high relative to the global reduction pathway, and the lock-in of emissions caused by carbon-intensive infrastructure has increased. The lock-in can only be reversed by decommissioning this carbon-intensive infrastructure before the end of its economic life (see chapter 11.4 for more on this). This means that even if the emission reductions from the global reduction pathway are successfully achieved, global warming will still exceed 1.6°C.[920]

849. In order to succeed in reducing the temperature to 1.5°C after such an overshoot, it must be possible to remove CO_2 from the atmosphere on a large scale and store it underground in the second half of this century. Whether this is possible is highly uncertain. The only way in which this could be possible is through the development and large-scale deployment of Carbon Dioxide Removal (referred to hereafter as: "**CDR**") technologies.

850. However, CDR is not yet available on a large scale, and it is widely recognised within the scientific community that it is highly uncertain whether CDR will become available on the required scale and in a timely manner. [921] Moreover, the ecosystems that can store CO_2 are very vulnerable and come under greater pressure with every further increase in global warming, according to the IPCC.[922] In addition, the upscaling of CDR is "*tightly limited by techno-economic, social, political, institutional and sustainability constraints*", according to the IPCC." [923, 924] Nevertheless, this CDR hypothesis – and therefore also the associated major uncertainties and risks – is already "baked into" the global reduction pathway from which the reduction percentages in the table in paragraph 438 have been distilled. The problem is that, due to the lack of global climate action in recent years, it has now become impossible to limit the temperature increase (by the end of this century) to 1.5°C *without* the use of CDR. Because the carbon budget is almost depleted, almost every tonne of CO_2 emitted from today on will need to be removed from the atmosphere in the future, with all the associated costs and risks entailed, UNEP concludes:

> *"With the carbon budget nearly depleted, almost every tonne of CO2 emitted from today on needs to be removed from the atmosphere in the future to bring warming back to 1.5°C, entailing substantial costs and high risks."*[925]

851. Just like the IPCC, UNEP also warns for the major risks associated with an overshoot and the (ever-increasing) dependence on CDR. In this context, UNEP emphasises the need to take immediate and unprecedented mitigation measures to limit the magnitude and duration of overshoot to the lowest possible level:

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[920] Exhibit MD-002, UNEP 2025, "Emissions Gap Report 2025", p. 39: "*Continued construction of carbon-intensive infrastructure since 2020 is also locking in continued high emissions unless its lifetime is curtailed (Stockholm Environment Institute, Climate Analytics and the International Institute for Sustainable Development 2025). Given global inaction and continued lock-in since 2020, the cumulative emission reductions over the 2020s assumed under the 1.5°C scenarios by the IPCC are no longer fully achievable and exceedance of this temperature limit is getting closer (box 4.2).*" For a more detailed explanation, see Exhibit MD-002, UNEP 2025, "Emissions Gap Report 2025", p. 39, Box 4.2.

[921] Exhibit MD-184, Nature Climate Change 2024, "Editorial: Cautious carbon removal", p. 1.

[922] See, e.g., Exhibit MD-044, IPCC 2022, AR6, WGII, TS, TS.C.1.4, p. 56 (TS. C. 1.4) and SPM B.1.2, p. 9.

[923] IPCC 2022, AR6, WGIII, pp. 354-355 (https://www.ipcc.ch/report/ar6/wg3/downloads/report/IPCC_AR6_WGIII_FullReport.pdf).

[924] Exhibit MD-001, IPCC 2023, AR6, SYR, H3, p. 87. The global reduction pathway for a 50% probability of 1.5°C assumes that 220 $GtCO_2$ will have been removed from the atmosphere by the end of the century in order to reduce the temperature by 0.1°C. again. For every 0.1°C of temperature reduction, more than 5.5 years of current annual CO_2 emissions would need to be removed from the atmosphere and permanently stored. That is an incredible quantity. By way of comparison: in 2022, 0.002 $GtCO_2$ was removed from the atmosphere by CDR techniques, see Exhibit MD-130, UNEP "Emissions Gap Report 2023: Broken Record – Temperatures hit new highs, yet world fails to cut emissions (again)", p. XXVI: "*Direct removals through novel CDR methods [...] are currently miniscule at 0.002 $GtCO_2$ annually*." However, the total quantity of modelled CDR in the global reduction pathway is even higher than 220 $GtCO_2$, because these scenarios also model CDR to achieve net zero emissions, see Exhibit MD-036, IPCC 2022, AR6, WGIII, SPM, C.3.5 SPM, footnote 53, p. 25.

[925] Exhibit MD-002, UNEP 2025, "Emissions Gap Report 2025", pp. 41–42.

"[...] due to the continued delay in deep emission cuts, 1.5°C pathways now imply temporary exceedance of this temperature limit. This merely stresses the imperative of immediate and unprecedented levels of mitigation to limit the magnitude and duration of overshoot to the lowest possible level, thereby also minimising the increased reliance on uncertain, risky and costly CO_2 removal methods."[926]

852. The overshoot that the global reduction pathway in the table in paragraph 818 starts out from already requires – in the words of the IPCC – "*massive deployment*" of CDR.[927] If the world achieves lower emission reductions than this pathway assumes, even more CDR will have to be deployed. In addition, there is still uncertainty about the possibility of actually turning down the "thermostat" according to the IPCC.[928] In other words, even if mankind manages to scale up CDR quickly enough, it is still uncertain whether the global temperature can actually be reduced to the necessary level. It is therefore uncertain whether an overshoot can be reversed.

853. In this context, it is also important to note that any form of overshoot carries significant risks.

854. It was already explained in chapter 5 how much greater the risks and dangers are if the 1.5°C temperature limit is exceeded. An overshoot of 1.5°C of warming, even if temporary, will increase the risks and consequences associated with climate change, including the likelihood of tipping points being passed. It is therefore not surprising that the IPCC explicitly warns for the dangers of an overshoot (even if temporary):

"Overshoot of a warming level results in more adverse impacts, some irreversible, and additional risks for human and natural systems compared to staying below that warming level, with risks growing with the magnitude and duration of overshoot (high confidence). Compared to pathways without overshoot, societies and ecosystems would be exposed to greater and more widespread changes in climatic impact drivers, such as extreme heat and extreme precipitation, with increasing risks to infrastructure, low-lying coastal settlements, and associated livelihoods (high confidence)." [929]

855. UNEP also points out that every increment of further warming increases the probability of tipping points being triggered, and that it is highly unlikely that all risks and hazards will reverse proportionally if the world manages to return global warming to 1.5°C after an overshoot:

"Each increment of global warming also increases the probability of triggering climate tipping points such as a West Antarctic Ice Sheet collapse, leading to abrupt and irreversible changes (Armstrong McKay et al. 2022), and it is highly unlikely that all risks and hazards will reverse proportionately if global warming is returned to 1.5°C after a period of overshoot (Schleussner et al. 2024)."[930]

856. Overshooting the 1.5°C limit will in any case lead to irreversible adverse impacts on certain ecosystems such as polar, mountain and coastal areas, according to the IPCC:

"Overshooting 1.5°C will result in irreversible adverse impacts on certain ecosystems with low resilience, such as polar, mountain, and coastal ecosystems, impacted by ice-sheet melt, glacier melt, or by accelerating and higher committed sea level rise (high

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[926] Exhibit MD-002, UNEP 2025, "Emissions Gap Report 2025", p. XX. See also p. 41: "*Two imperatives that have also been continuously stressed in previous Emissions Gap Reports thus emerge: immediately implementing aggressive mitigation to minimise overshoot, while deploying CDR to achieve net-zero emissions and subsequently reverse global warming*." The goal has now become twofold: reducing emissions as quickly as possible and, in addition, scaling up CDR.

[927] IPCC 2022, AR6, WGIII, pp. 354-355 (https://www.ipcc.ch/report/ar6/wg3/downloads/report/IPCC_AR6_WGIII_FullReport.pdf).

[928] Ibid, p. 354.

[929] Exhibit MD-001, IPCC 2023, AR6, SYR, H3, p. 87. See also p. 77: "*The likelihood of abrupt and irreversible changes and their impacts increase with higher global warming levels (high confidence). As warming levels increase, so do the risks of species extinction or irreversible loss of biodiversity in ecosystems such as forests (medium confidence), coral reefs (very high confidence) and in Arctic regions (high confidence). Risks associated with large-scale singular events or tipping points, such as ice sheet instability or ecosystem loss from tropical forests, transition to high risk between 1.5°C to 2.5°C (medium confidence).*"

[930] Exhibit MD-002, UNEP 2025, "Emissions Gap Report 2025", p. 42. See also p. XX: *"Every fraction of a degree of global warming matters. Each additional 0.1°C of global warming is associated with an escalation of the damages, losses and adverse health impacts that are already being experienced at current levels of global warming, and which hit the poorest and most vulnerable the hardest. Furthermore, the risks of irrevocable impacts and of triggering climate tipping points that would lead to abrupt and irreversible climate changes, increase with every increment of global warming."*

confidence). [931]

857. Overshooting also reduces the possibilities for adaptation. With the current warming level, adaptation limits have already been reached.[932] At 1.5°C, more limits will be reached, according to the IPCC.[933]

858. A (temporary) overshoot of the 1.5°C limit will also lead to a substantial increase in the risk of additional greenhouse gas emissions caused by, for instance, wildfires, tree mortality, drying of peatlands and thawing of permafrost, making it more difficult to return the temperature to 1.5°C after an overshoot:

> *"Overshoot increases the risks of severe impacts, such as increased wildfires, mass mortality of trees, drying of peatlands, thawing of permafrost and weakening natural land carbon sinks; such impacts could increase releases of GHGs making temperature reversal more challenging (medium confidence)."* [934, 935]

859. The above findings are crucial, because the IPCC clarifies the significant risks involved if the 1.5°C limit is exceeded even temporarily. The best available climate science therefore leaves no doubt that a (temporary) overshoot is particularly dangerous. This means that the overshoot that is already inherent in the global reduction path as included in the table in paragraph 818 referred to by Milieudefensie also entails these dangers. It is therefore all the more evident that the reduction percentages of the discussed global reduction path must be regarded as the absolute minimum of what needs to be achieved globally.

860. In this chapter, Milieudefensie has demonstrated that steep and fast global emissions reductions are necessary and that the reduction percentages included in the table in paragraph 818 should be considered the absolute minimum, because even these reductions still entail very large and significant risks to people and the environment. In the following chapter, Milieudefensie will set out what measures Shell must take in order to make its minimum necessary contribution to achieving this global target.

11.3 SHELL'S REDUCTION OBLIGATION

11.3.1 Introduction

861. A first and crucial pillar for pursuing a 1.5°C climate policy is that Shell must make an equitable contribution (a "*fair share*") to preventing dangerous climate change and limiting global warming to 1.5°C by reducing its emissions. The UN Race to Zero and the UN Expert Report discussed in chapter 7 demonstrate that the following starting-points apply when emission reduction targets are set for companies:

a. companies must demonstrate maximum ambition to achieve (net) zero CO^2 emissions as quickly as possible, but by 2050 at the latest;

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[931] Exhibit MD-001, IPCC 2023, AR6, SYR, H3, p. 87.
[932] Exhibit MD-044, IPCC 2022, AR6, WGII, TS, TS.D.2.1 and TS.D.2.2, p. 84.
[933] Exhibit MD-044, IPCC 2022, AR6, WGII, TS, TS.D.2, p. 84 and p. 85. See also TS.C.1.2, p. 55, and Exhibit MD-043, 2022, AR6, WGII, SPM, C.3, p. 26.
[934] Exhibit MD-001, IPCC 2023, AR6, SYR, H3, p. 87. See also Exhibit MD-044, IPCC 2022, AR6, WGII, TS, TS.C.13.2, p. 69*: "Overshoot substantially increases the risk of carbon stored in the biosphere being released into the atmosphere due to increases in processes such as wildfires, tree mortality, insect pest outbreaks, peatland drying and permafrost thaw (high confidence). These phenomena exacerbate self-reinforcing feedbacks between emissions from high-carbon ecosystems (which currently store around 3030–4090 GtC) and increasing global temperatures*."
[935] The UNEP also warns for the consequences of higher climate sensitivity and the "feedbacks" associated with tipping points (such as melting permafrost). See: Exhibit MD-002, UNEP 205 p. 40, "Emissions Gap Report": *"The level of carbon dioxide removal (CDR) needed to first achieve net-zero CO2 emissions and then reverse global warming to 1.5°C after a period of overshoot, set out in section 4.5.2, is subject to large uncertainties and risks. Most studies assume central estimates of climate sensitivity and other Earth system characteristics (box 4.4), but given uncertainties in the Earth system response and the challenge of eliminating all anthropogenic CO2 emissions, markedly larger amounts of CDR could be required to stabilise global warming after overshoot (Schleussner et al. 2024)*." See also p. 42, Box 4.4.

b. companies must set ambitious and credible interim targets for the short and medium term on the road to the above-mentioned goal of net zero CO_2 emissions that represent a fair share of the global reduction target;

c. the (interim) targets should cover all Scope 1, 2 and 3 emissions and should aim for absolute CO_2 emission reductions.

862. The OECD guidelines and the UNGP also discussed in chapter 7 similarly state that companies have their own responsibility to achieve percentage-based reduction targets and thus reduce their Scope 1, 2 and 3 emissions in absolute terms to protect human rights and the climate. According to these guidelines and principles, these reduction targets must be aligned with the global temperature target and climate science for the short, medium and long term. This is consistent with the starting-points that were just discussed.

863. In its judgment of 12 November 2024 in the first climate case against Shell concerning the reduction target for 2030,[936] the Court of Appeal already found, in ground 7.67, that Shell has an obligation to make an appropriate contribution to the climate targets of the Paris Agreement. The Court of Appeal also found, in grounds 7.27, 7.53, 7.57 and 7.111, that Shell has an obligation to reduce its CO_2 emissions in Scope 1, 2 and 3. So the Court of Appeal has also recognised that Shell has an obligation to reduce its CO_2 emissions in line with the climate objectives of the Paris Agreement (i.e. the 1.5°C target). This, too, is consistent with the starting-points that were just discussed.

864. It is now possible to work out what Shell's overall reduction targets should be, as a minimum, expressed in percentages.

865. The application of the principle of hazardous negligence means, firstly, that Shell is obliged to exercise a very high degree of caution, in light of the very serious danger posed by the climate change that Shell is contributing to. This also follows from the application of the precautionary principle, the CBDR principle and the principle of intergenerational justice, and from their application the starting-points for determining the scope of Shell's obligation in concrete terms also follow (see chapter 9.2.6).

866. Of particular importance in this regard is that Shell, in light of the CBDR principle, is obliged to make a fair contribution to the global reduction target ("fair share"). After all, Shell can be considered to be an influential Western company in several respects; it has both substantial emissions and large transition capabilities and a large historical responsibility. These are all relevant circumstances under the above-mentioned climate protocols (as evidenced by e.g. the reference to the CBDR principle and the need to take on a fair share of the global target) for asking Shell to take on an above-average responsibility and requiring it to reduce its emissions faster than the global average.

867. This is also evident for the following reason. When the UN Climate Convention was adopted, a greater-than-average responsibility was assigned to the industrialised countries that were members of the OECD (at the time) – together with a few emerging economies. The reason for this was that these developed (Annex-I) countries[937]

[936] Court of Appeal of The Hague 12 November 2024, ECLI:NL:GHDHA:2024:2099.

[937] See: https://unfccc.int/process/parties-non-party-stakeholders/parties-convention-and-observer-states.

must take the lead in the UN climate regime because of their historical responsibility for the climate problem and their above-average knowledge, expertise and transition capabilities (also in a financial and institutional sense), in line with the CBDR principle.[938] As explained in chapters 6.4.3 and 6.6.1, this principle is operationalised in (for instance) Article 4(2) of the UN Climate Convention and Article 4(4) of the Paris Agreement. Through these Articles, developed countries have committed themselves under treaty law to take the lead in addressing the climate challenge and have committed to absolute emission reduction targets for their nation-wide economies. For developing countries, less stringent obligations apply under the Paris Agreement. They must continue to strengthen their mitigation efforts and are encouraged to gradually transition to emission reduction targets for their entire economies. As a result, developed economies are obliged under treaty law to achieve faster absolute emission reductions than the global average reduction path, while developing economies are allowed to follow a slower reduction path. Together, the developed and the developing economies then follow the global reduction path to 1.5°C on average.[939]

868. The above is relevant to companies that are part of the above-mentioned developed and developing economies respectively. As explained in chapter 7 (more specifically in paras. 406 and 423), the CBDR principle in the climate protocols also applies to companies. This means that companies that are part of the economies of developed (Annex-I) countries must take the lead individually in the same way as the economies they are part of. It is widely recognised that states cannot achieve the reduction targets on their own and that independent action by the private sector is crucial to achieving the reduction targets. The starting-point therefore is that a company that is based in an Annex-I country and is primarily supplying its services and products in Annex-I countries is considered to have a greater responsibility for the climate problem and is deemed to have greater-than-average knowledge, expertise and transition capabilities. The latter is partly because its customers and other business relations in these rich industrialised countries also have greater transition capabilities. This means that such a company (together with its above-mentioned customers and business relations) will be able and indeed required to undergo the transition necessary to meet the climate challenge at a higher speed. In view of the treaty agreements made, this is also necessary. As explained, it is only possible for the world as a whole to follow the (average) global reduction path identified by the IPCC, if the developed (Annex-I) countries and the companies operating within them give shape to their climate action faster than the global average, allowing the developing countries to move more slowly than the global average in line with the treaty agreements. If the developed economies and the companies operating within these economies only follow the global average reduction path, the consequence will be a world that fails to meet the climate targets, in violation of the Paris Agreement, customary law and human rights.

869. There are various circumstances that show that Shell must also be considered as a company with greater-than-average responsibility, which is able and required to move faster than the global average. To mention a few relevant circumstances:

a. Shell is a group based in the United Kingdom (an "Annex-I country" under the UN Climate Convention,

[938] This follows from Article 3(1) of the UN Climate Convention, in which the principle of intergenerational justice, the principle of fairness, also known as “equity”, and the CBDR principle are enshrined: "*The Parties should protect the climate system for the benefit of present and future generations of humankind, on the basis of equity and in accordance with their common but differentiated responsibilities and respective capabilities. Accordingly, the developed country Parties should take the lead in combating climate change and the adverse effects thereof*."

[939] As explained in the previous chapter, all countries must contribute to the 1.5°C target with their "*highest possible ambition*", which means, among other things, that the level of ambition to be reflected in a country's NDCs has not been left to the discretion of the contracting parties. In order to comply with the treaty obligations under the Paris Agreement, the NDCs submitted by countries must collectively be capable of limiting global warming to 1.5°C. See: ICJ 23 July 2025, No. 187 (“Obligations of States in respect of climate change”), paras. 224 and 242.

an OECD country and one of the wealthier countries in the world);

b. sixty-six per cent of Shell's turnover originates from OECD countries;[940]

c. 62% of Shell's petrol stations are located in OECD countries;[941]

d. Shell is the second largest private oil and gas company in the world in terms of turnover (after ExxonMobil), only three state-owned companies in the oil and gas sector are larger (Saudi Aramco, Sinopec and Petro China)[942] and Shell is also one of the largest companies in the world, regardless of sector;

e. in 2022, Shell's reported Scope 1, 2 and 3 emissions accounted for around 3.3% of global CO_2 emissions in the energy sector.[943]

870. Shell's substantial emissions and its (historical) contribution to the climate problem were already discussed by Milieudefensie in chapter 10.3.3, and Shell's large transition capabilities are evident from chapter 10.5.

871. As said, these circumstances play a role when the emission reductions required of Shell are determined. The UN Race to Zero and the UN Expert Report explicitly formulate the expectation that the reduction targets of non-state actors should represent a *"*fair share" of the required global average reductions. This makes it clear that, in the above-mentioned circumstances relating to Shell, this *"*fair share" must translate into reduction percentages that exceed these global averages (see paras. 403 and 423). This is relevant to Shell's reduction obligation with regard to its Scope 1, 2 and 3 CO_2 emissions. As discussed earlier in the summons (see the Box: What are Scope 1, 2 and 3 emissions?), Scope 3 emissions are mainly the emissions associated with the combustion of the oil and gas products sold by Shell, and the total Scope 3 emissions represent approx. 95% of Shell's total emissions. This means that Shell's Scope 1 and 2 emissions represent around 5% of its total emissions. The next chapter will discuss Shell's reduction obligation for these Scope 1, 2 and 3 CO_2 emissions.

11.3.2 **Shell's reduction obligation for Scope 1, 2 and 3 CO_2 emissions**

872. The global emission reduction target as discussed above has been converted by the IEA into sectoral reduction pathways, including reduction pathways for the oil and gas sectors respectively. Milieudefensie expects Shell to reduce its Scope 1, 2 and 3 CO_2 emissions in absolute terms in line with the IEA oil and gas emission reduction pathways for developed economies. This is because Shell, as explained, operates within these developed economies with the vast majority of its activities and generates the vast majority of its revenue there (see para. 868). Shell must therefore start out from the reduction pathway for the economies in which it operates to determine its independent emission reduction obligation, and these are the economies that can move faster than the global average. Milieudefensie is therefore basing its principal emission reduction demand for Shell's CO_2 emissions (in Scope 1, 2 and 3) on the reduction pathway for "advanced economies" from the IEA's NZE scenario.

[940] Calculation based on the turnover per country as included in Shell's Tax Contribution Report 2024.
[941] Based on the numbers of petrol stations as listed on Shell's website https://find.shell.com/ (last accessed on 5 February 2026).
[942] See https://companiesmarketcap.com/oil-gas/largest-oil-and-gas-companies-by-revenue/ (last accessed on 5 February 2026).
[943] The global CO_2 emissions in the energy sector in 2022 were 36.8 Gt (source: https://www.iea.org/reports/co2-emissions-in-2022). Shell's Scope 1, 2 and 3 emissions in 2022 were 1.23 Gt (source: https://www.shell.com/investors/results-and-reporting/annual-report-archive/_jcr_content/root/main/section_812377294/tabs/tab_1219767661/text.multi.stream/1742905354181/24ff673614_687df7a13f18ce0cbd126cd73bc788/shell-annual-report-2022.pdf). This amounts to 3.34%.

873. In this context, it is important, according to Milieudefensie, to note that the IEA has brought together its expertise in the area of the energy markets and the global energy infrastructure in the NZE scenario. In the scenario, the IEA takes into account elements ranging from policy developments, technology deployment, investments and supply chains to infrastructure, innovation and costs. The IEA's approach also factors in the various circumstances of individual countries and regions:

> *"The IEA tracks hundreds of thousands of energy sector data points that cover elements ranging from policy developments, technology deployment, investment and supply chains to infrastructure, innovation and costs. This data-driven approach feeds the model used to develop the NZE Scenario, which also factors in the various circumstances of individual countries and regions in great detail. This allows the NZE Scenario to take account of the feasibility of scaling up emissions reduction options at the speed and scale required across various regions, sectors and technologies, and to integrate concerns about equity (Box 2.1)."*[944]

874. In its scenario, the IEA therefore takes account of the emission reduction options of different regions, sectors and technologies and the speed and scale required in this connection. This makes it a suitable (and relatively granular) 1.5°C scenario to base emission reduction targets on. Just like the global reduction pathway identified by the IPCC, the IEA NZE scenario is a reduction scenario that assumes an overshoot of the 1.5°C target, with all the risks this entails (as discussed in the previous chapter).[945] It is therefore not unreasonable to determine Shell's emission reduction obligation in concrete terms on the basis of the NZE scenario. This scenario can be seen as the minimum requirement for what Shell must do to fulfil its legal duty and act in line with the 1.5°C target.

875. The fact that the IEA takes account of the different emission reduction capabilities across various countries, regions and sectors means that the reduction target is not the same for every part of the world in the IEA NZE scenario. Developed countries, with greater transition capabilities and more financial resources, which are also responsible for the lion's share of historical emissions (especially when measured per capita), will have to become sustainable more quickly than developing countries with smaller transition capabilities, fewer financial resources and less historical responsibility, according to the NZE scenario. As also explained in chapter 9.2.6.3, the IEA factors in the CBDR principle in its modelling.[946]

876. As a result, the IEA starts out from a difference in the reduction speed of "*advanced economies*" (by which the IEA means the OECD countries)[947] and *"emerging markets and developing* economies" or "EMDEs" (non-OECD countries) in its 2023 NZE scenario update, which means that OECD countries must reduce their emissions faster than non-OECD countries.[948]

877. In its NZE scenario, the IEA also makes clear how fast CO_2 emissions in the oil and gas sector must decrease in OECD countries. Milieudefensie is asking Shell to reduce its CO_2 emissions in Scopes 1, 2 and 3 in absolute terms in line with these emission reduction pathways for oil and gas. For the interim target years 2035, 2040 and 2050, this results in the following reduction percentages relative to the base year 2022 used by the IEA:

[944] Exhibit MD-099, IEA 2023, "Net Zero Roadmap, A Global Pathway to Keep the 1.5 °C Goal in Reach, 2023 Update", p. 57 (under "Spotlight"). See also Exhibit MD-185, IEA 2021, "A closer look at the modelling behind our global Roadmap to Net Zero Emissions by 2050", p. 2: *"The NZE Scenario builds on our best understanding of the availability and prospects of technologies, potential for behavioural changes, as well as a fair and balanced approach towards each country's own circumstances*."
[945] Ibid, p. 56.
[946] Ibid, p. 59. The IEA refers to this as "equity", as does the IPCC (see footnote 845).
[947] Ibid, p. 213. The IEA uses this term to refer to the OECD countries plus Bulgaria, Croatia, Cyprus, Malta and Romania.
[948] Ibid, p. 59, Box 2.1, "Integrating equity into the NZE Scenario design*"*.

Emission reductions[949]	2035	2040	2050
Principally: relative to 2022	oil: -70% gas: -78%	oil: -86% gas: -89%	oil: -98% gas: -98%

878. When these reduction figures are compared with the global average CO_2 emission reduction pathway as identified by the IPCC (discussed in the previous chapter), it is noticeable that the CO_2 emissions in the oil and gas sector in developed economies must decrease much faster than global CO_2 emissions as a whole.[950]

879. This is an important point. After all, in its ruling of 12 November 2024 in the first climate case against Shell, the Court of Appeal found that the global reduction path identified by the IPCC cannot be taken as the starting point for Shell's emission reduction obligation because "it concerns a global reduction, which amounts to 45% on balance. This means that there are sectors and companies in countries that need to achieve higher reductions and that there are sectors and companies in countries that have lower reduction obligations."[951] According to the Court of Appeal, the reduction to be achieved by the oil and gas sector, within this global reduction target, is smaller compared to the one to be made by the coal sector. "Although the share of oil and gas in global emissions is higher than that of coal, the greatest gains can be achieved, in the shorter term, by ending the combustion of coal," according to the Court of Appeal.[952] Milieudefensie is challenging these findings of the Court of Appeal in the appeal taken to the Dutch Supreme Court and believes that the Court of Appeal's judgment disregards important climate science insights and international legal principles, such as the CBDR principle.[953] Whatever the case may be, the foregoing shows that – in the words of the Court of Appeal – "*sectors and companies in countries [...] that need to achieve higher reductions*" must realise higher CO_2 emission reductions in the oil and gas sector in the period 2035-2050 than the global average reduction path. As explained in this summons, Shell is clearly one of the companies in countries that must achieve higher emission reductions than the global average.

880. However, in case this Court should find that some consideration should be given to the fact that not all of the Shell Group activities take place and not all turnover is generated in developed economies, Milieudefensie in the alternative puts before this Court for consideration that Shell should be ordered to reduce its oil and gas-related Scope 1, 2 and 3 CO_2 emissions in absolute terms in line with the IPCC's global reduction pathway. This results in the following reduction percentages for Shell's oil and gas activities (relative to the base year of 2019 mentioned by the IPCC):

Emission reductions[954]	2035	2040	2050
In the alternative: relative to 2019	oil and gas: -65%	oil and gas: -80%	oil and gas: -99%

881. As explained, this reduction pathway concerns all global CO_2 emissions and not just CO_2 emissions from oil and gas, but given the emission reduction pathway for oil and gas in developed economies shown above, it is certainly

[949] This table and the absolute reduction percentages mentioned in it have been compiled on the basis of the Extended Dataset accompanying the International Energy Agency's World Energy Outlook 2023.
[950] This applies in particular to the start of the reduction path. For example, CO_2 emissions from oil and gas in developed countries decrease 5% and 13% faster than the global average CO_2 emission reduction percentage of 65% (even leaving to one side the difference in the reference year of 2019 vs. 2022). In later years, this difference will become less significant.
[951] Court of Appeal of The Hague 12 November 2024, ECLI:NL:GHDHA:2024:2099, ground 7.73.
[952] Court of Appeal of The Hague, 12 November 2024, ECLI:NL:GHDHA:2024:2099, ground 7.74.
[953] Including the fact that modelled reduction scenarios that provide for (excessively) large reductions in coal place the reduction burden on developing countries to an excessive degree, contrary to the CBDR principle and the agreements made in the treaty. This is a fact that is confirmed by, among other organisations, the IPCC, the IEA and UNEP (see chapter 9.2.6.3).
[954] Exhibit MD-001, IPCC 2023, AR6, SYR, Table SPM.1, p. 21.

not unreasonable to require Shell to reduce its emissions in line with this global average pathway.

882. Further in the alternative, Milieudefensie, finally, puts before this Court for consideration that Shell should be ordered to reduce its Scope 1, 2 and 3 CO_2 emissions in absolute terms in line with the global CO_2 reduction pathways for oil and gas from the NZE scenario. This results in the following reduction percentages relative to the year 2022:

Emission reductions[955]	**2035**	**2040**	**2050**
Further in the alternative: relative to 2022	oil: -51% gas: -56%	oil: -71% gas: -76%	oil: -92% gas: -95%

883. It can be inferred from the table above that the reduction percentages for CO_2 emissions in the oil and gas industry are lower than the global average CO_2 reduction path. As explained, this is to give developing economies more time to shape their climate action. However, a multinational company that mainly operates in developed economies, with large transition capabilities and a large historical responsibility, should actually not be allowed to benefit from this. With regard to this demand presented in the further alternative, Milieudefensie therefore *does* feel compelled to say that this represents the absolute minimum that Shell may be expected to do. It must be emphasised (once again) that the distribution of the carbon budget and the reduction pathways in the NZE scenario assume that advanced economies will move faster than the global average, so that the EMDEs can move more slowly than the global average, in line with the treaty agreements. However, if this does not happen because companies in advanced economies such as Shell and its customers only have to follow the global average reduction path from the NZE scenario, the CBDR principle and fair-share requirement will not be met, a disproportionate burden will be placed on the EMDEs and it will become even more unlikely that global warming can be limited to 1.5°C.

884. Milieudefensie therefore emphasises that Shell must start out from the advanced-economies reduction pathway, or in any event the IPCC's global pathway, for its climate policy. As long as it fails to do so, Shell cannot be said to be acting in line with the 1.5°C target. According to Milieudefensie, following the global CO_2 reduction pathway for oil and gas from the NZE scenario would therefore not be an adequate fulfilment of Shell's emission reduction obligation. Nevertheless, Milieudefensie has seen reason to include the IEA's global reduction pathway for oil and gas CO_2 emissions presented in "Further in the alternative" in order to serve as an absolute minimum. In any case, it is not clear why Shell, of all companies, should have to achieve lower reductions than those required globally on average in the oil and gas sector. Together, the three reduction pathways (from the one in "Principally" up to and including the one in "Further in the alternative") form a credible range within which the CO_2 oil and gas emission reductions can be determined for a multinational company that mainly operates in developed countries, and also a range within which this Court can also - if it sees fit - determine intermediate reduction percentages.

885. For the period until 2050, however, Shell currently has no overall absolute reduction target at all for its Scope 1, 2 and 3 emissions. This means there is a threat that Shell's emission reduction obligations will not be complied with. For this reason, Milieudefensie requests this Court to order Shell to reduce or cause to be reduced its annual Scope 1, 2 and 3 CO_2 emissions into the atmosphere associated with the activities and assets of the Shell Group, consistent with limiting global warming to 1.5°C, in such a manner that these CO_2 emissions will have been

[955] This table and the absolute reduction percentages mentioned in it have been drawn up on the basis of the IEA's NZE 2023 Update (Exhibit MD-099, IEA 2023, "Net Zero Roadmap, A Global Pathway to Keep the 1.5 °C Goal in Reach, 2023 Update", Table. A.4, p. 198).

reduced in absolute terms by the end of the years 2035, 2040 and 2050 by at least the reduction percentages set out in the table below:[956]

Emission reductions	2035	2040	2050
Principally: Relative to 2022 (advanced-economies pathway of the NZE scenario)	oil: -70% gas: -78%	oil: -86% gas: -89%	oil: -98% gas: -98%
In the alternative: relative to 2019 (IPCC's global pathway)	oil and gas: -65%	oil and gas: -80%	oil and gas: -99%
Further in the alternative: relative to 2022 (global pathway for the oil and gas industry in the NZE scenario)	oil: -51% gas: -56%	oil: -71% gas: -76%	oil: -92% gas: -95%

11.3.3 **Ancillary demands**

886. In addition to the emission reduction demands explained above, the relief sought by Milieudefensie includes a number of ancillary demands.

11.3.3.1 *Separate reduction targets for the production and trade divisions*

887. Approximately one-third of Shell's Scope 3 CO_2 emissions originate from oil and gas produced by Shell itself, while the remaining two-thirds originate from oil and gas produced by third parties, which Shell purchases and trades. Shell is the world's largest trader in oil and gas.[957] Shell trades around 12 million barrels of oil per day, which represents approximately 12% of daily oil demand.[958]

888. In the first climate case against Shell, Milieudefensie formulated its emission reduction demand in such a way that Shell could determine itself how it would distribute the emission reductions across its production and trading divisions. The reason for this was that Milieudefensie did not want to disproportionately restrict Shell and wanted to allow Shell some freedom as to how it would implement the reduction order, as long as Shell would ultimately emit less CO_2 into the atmosphere.

889. However, the Court of Appeal considered that this would enable Shell to comply with the reduction order (in theory) by shrinking its trading division (by two-thirds), which, according to the Court of Appeal, would not lead to a reduction in global CO_2 emissions. After all, according to the Court of Appeal, if Shell were to disappear (to a significant degree) as a trader (or the largest trader) in the oil and gas markets, this would have no impact whatsoever on the oil and gas sold (or their quantities and prices) and therefore also no impact on global CO_2 emissions.[959] This meant, in the view of the Court of Appeal, that Milieudefensie had no interest in its Scope 3 emission reduction demand. Milieudefensie believes that the Court of Appeal's ruling is based on various legal and factual errors and has therefore taken an appeal to the Dutch Supreme Court to challenge it.

890. Given that no clarity has yet been obtained from the Dutch Supreme Court on this matter, Milieudefensie

[956] The base years listed in this table are the base years used by the IEA and the IPCC respectively as starting-points in the relevant reduction scenarios.
[957] Exhibit MD-186, Bloomberg 30 March 2021, "Big Oil's Secret World of Trading", p. 7.
[958] Ibid.
[959] Court of Appeal of The Hague 12 November 2024, ECLI:NL:GHDHA:2024:2099, ground 7.111.

considers it prudent in the present case to demand that Shell be ordered to separately achieve the annual Scope 1, 2 and 3 CO_2 reductions, as explained in chapter 11.3.2, for the CO_2 emissions associated with the oil and gas and energy products obtained from oil and gas produced by the Shell Group itself, and for the CO_2 emissions associated with the oil and gas and energy products obtained from oil and gas produced by third parties, but traded and sold by the Shell Group. In this way, Milieudefensie in any event has an interest in its demands with regard to the oil and gas produced by Shell itself, and a further debate can be held on the oil and gas produced by third parties (often specifically for Shell) that are traded and sold by Shell.

11.3.3.2 *The reductions should be achieved as much as possible in a linear manner or faster*

891. Demand (2)(b) clarifies that Shell, in achieving the above-mentioned targets, must use its best endeavours to achieve its reductions from 2031 onwards in the direction of the relevant target years in a linear manner or faster each year.[960]

892. The great importance of this is already apparent from chapter 11.2, where it was described that the 1.5°C target will only remain within reach if (global) cumulative emissions do not exceed the carbon budget to be respected to keep the 1.5°C target within reach. If Shell reduces its emissions at a slower pace than linearly, Shell would be postponing the required reductions; this will result in cumulatively higher emissions and create a greater and unacceptable risk of exceeding the carbon budget. Put more simply: if Shell pursues a slower reduction path than a linear one, it would undermine the 1.5°C target. The figure included in paragraph 147 illustrates this point.

893. In their opinion regarding the *Urgenda* case, Procurator General Langemeijer and Advocate General Wissink also pointed to the legal significance of staying within the carbon budget and following a sufficiently rapid reduction path to that end (referring to the figure submitted in court by Urgenda, which is comparable to the figure included in this summons in paragraph 147):

> "From the fact that only a limited carbon budget remains to achieve the two-degree target, it follows that faster and greater greenhouse gas emission reductions offer a greater chance of achieving that target. [...] The [...] figure illustrates that it is not only necessary to look at reduction targets for a given year (such as a 49% reduction in emissions by 2030 relative to 1990), but also at the speed with which that reduction target is to be achieved in that year (referred to as "reduction pathways" in the figure below). The later emission reductions start to be achieved, the faster the carbon budget will be exhausted."[961]

894. There are also foreign judgments that confirm that a sufficiently fast reduction path must be followed. In the French *Notre Affairs à Tous* climate case, for example, it was ruled that the French state had exceeded its carbon budget for the period 2015-2018 and therefore had to compensate for that exceedance in the following years (as an additional reduction on top of the emission reductions already planned for that period).[962] Future carbon budget exceedances must be compensated in the same way. Put simply: according to the French Court, too, merely achieving future climate targets is not sufficient; it is important that cumulative emissions on the road to those targets do not result in the carbon budget being exceeded.

895. The ruling of the German Federal Constitutional Court in the *Neubauer* case also confirms that it is not only target levels and target years that matter, but also the reduction path leading up to them.[963] In this case, the Court ruled

[960] Milieudefensie's demands in this case concern Shell's reduction obligations in the post-2030 period.
[961] Opinion of Procurator General Langemeijer and Advocate General Wissink, 13 September 2019, ECLI:NL:PHR:2019:887 (*Urgenda*), para. 4.62.
[962] Tribunal Administratif de Paris 14 October 2021, Nos. 1904967, 1904968, 1904972, 1904976/4-1. See also Exhibit MD-187, Tribunal Administratif de Paris 14 October 2021, *Notre Affaire à Tous*, Unofficial English translation, pp. 43-46 (from para. 11, under "on the content of the injunction").
[963]

that the national climate targets in the German climate legislation are insufficient, because although they admittedly determine the annual emissions allowed until 2030 (leading to a 55% emission reduction by 2030), they do not prescribe how the legal target of net zero emissions by 2050 must be achieved. This results in a mismatch, according to the Court, in the German climate legislation between the reduction efforts up to 2030 and the post-2030 efforts because (with a 55% reduction target by 2030) the post-2030 reductions must be made with even greater speed and urgency.[964] According to the Court, this has consequences for future generations that are incompatible with the intergenerational justice principle (see chapter 9.2.6.4). In the words of the Court:

> *"The provisions irreversibly shift major emission reduction burdens to periods after 2030* […] *For this [climate] target to be reached, the reductions still necessary after 2030 will have to be achieved with even greater speed and urgency* […] *Provisions that allow for CO_2 emissions in the present time constitute an irreversible legal threat to future freedom because every amount of CO_2 that is allowed today narrows the remaining options for reducing emissions in compliance with Art. 20a GG* [...] *Another precondition of constitutional justification is that the provisions on the emission amounts do not lead to disproportionate burdens being placed on the future freedom of the complainants* […] *According to this requirement, one generation must not be allowed to consume large portions of the CO_2 budget while bearing a relatively minor share of the reduction effort if this would involve leaving subsequent generations with a drastic reduction burden and expose their lives to comprehensive losses of freedom*."[965]

896. In this case against Shell, too, legal significance must be attached to the consequences (which are unacceptable) of a reduction pathway that is too slow. The fact that a reduction pathway with excessively high cumulative emissions would undermine the 1.5°C target and place an unacceptable burden on future generations is as relevant for Shell's societal duty of care as it is for the duty of care of the Dutch, French and German states respectively. For this reason, Shell must ensure that it achieves its emission reductions as much as possible in a linear way (or faster) in the period between the base year and the target year.

11.3.3.3 *No emission reductions through divestment*

897. In the first court case against Shell, a discussion arose between the parties during the appeal proceedings as to whether Shell, if the reduction demands were to be awarded, would be allowed to implement them by transferring assets, or transferring oil and gas activities otherwise, to third parties.

898. As far as Milieudefensie is concerned, it is clear that the mere divestment of oil and gas activities cannot be regarded as a credible implementation of a court reduction order. After all, in that case, Shell would simply enable a third party to continue the activities concerned.

899. In the present legal proceedings, Milieudefensie is therefore explicitly demanding that if all or part of the emission reduction demands included in paragraphs (1) up to and including (4) of the relief sought are awarded, the Court should prohibit Shell from achieving those emission reductions by transferring assets or activities, at least insofar as the transfer of those assets or activities in any specific year cumulatively is related to more than 2% in Scope 1 and 2, or more than 0.5% of Shell's total annual emissions in Scope 3.

900. This means that if the divisions or activities divested by Shell in any specific year cumulatively are related to more than 2% or 0.5% of its Scope 1 and 2 or Scope 3 CO_2 emissions respectively, Shell must recalculate its base year. To give an indication of the scope of this obligation: Shell's global Scope 3 emissions in 2022 amounted to 1.17

[964] This means that a 45% reduction must be achieved within 20 years, whereas a much longer period was used for the 55% reduction. Moreover, the second part of the reduction target is much more difficult to achieve because all the easy reduction options (the "low-hanging fruit") have already been used in the first part.
[965] See also Exhibit MD-173, BVerfG 24 March 2021, *Neubauer*, English summary, p. 1, 2nd paragraph; p. 2, 8th paragraph and p. 3, 1st paragraph; p. 3, 2nd paragraph; p. 4, under a).

Gt (1174 Mt). This means that 0.5% of its global emissions is 6 Mt, after rounding. That 6 Mt is already more than the annual fossil CO_2 emissions of all citizens and businesses in a country such as the Democratic Republic of Congo or Nicaragua.

901. This requested recalculation concerns a method recognised by the GHG Protocol, on the basis of which companies can incorporate structural changes, such as mergers, demergers, acquisitions or divestments, into their emissions reporting. The GHG Protocol stipulates that such structural changes trigger recalculation, because otherwise companies would simply transfer emissions from one company to another:

> *"Companies are required to retroactively recalculate base year emissions when significant structural changes occur in the reporting organisation, such as mergers, acquisitions, or divestments. Structural changes trigger recalculation because they merely transfer emissions from one company to another without any change in emissions released to the atmosphere (e.g., an acquisition or divestment only transfers existing GHG emissions from one company's inventory to another)*." [966]

902. The GHG Protocol does not explicitly determine the threshold for performing a recalculation. Milieudefensie believes that this threshold should be set at 2% per year for Scope 1 and 2 cumulatively, and at 0.5% per year for Scope 3 cumulatively. This will ensure, on the one hand, that Shell does not have to perform a recalculation for every transaction, and, on the other, that Shell cannot achieve a large part of its reduction target each year simply by divesting subsidiaries, specific assets or projects.

903. Shell itself also recognises that a recalculation of its base year is called for in certain circumstances, but has made the threshold for this so high that it has not yet made any recalculation so far. After all, for Scope 1 and 2 emissions, Shell will only perform a recalculation if an individual transaction has an impact of at least 10% of its total Scope 1 and 2 emissions.[967] In the course of the year, Shell has divested business units on a regular basis, but those individual divestments have not reached that threshold value of 10%. As a result, Shell has achieved the largest part of its reductions in Scope 1 and 2 by means of divestments.[968] For Scope 3 emissions, Shell does not use any threshold for a recalculation in the case of divestments.[969] This means that Shell does not recalculate the base year of its Scope 3 emissions in the case of divestments.

904. The recognition that companies must implement policies to ensure that they do not simply transfer emissions to third parties can also be found in various other sources:

i. With regard to the phase-out of fossil fuels, the UN Expert Report states that the transfer of fossil fuel assets to new owners must be avoided: "*[t]he transition away from fossil fuels must […] avoid transference of fossil fuel assets to new owners*."[970]

ii. The UN Race to Zero emphasises the importance of phasing out fossil fuels and, in that context, points to the need for criteria to prevent perverse outcomes, such as *"simply passing fossil fuel assets from one owner*

[966] Exhibit MD-116, "GHG Protocol Corporate Value Chain (Scope 3) Standard", p. 104. It does not have to be a single transaction: several smaller changes can also be considered to be cumulatively significant, see also p. 104: "*Significant changes result not only from single large changes, but also from several small changes that are cumulatively significant*."
[967] Exhibit MD-003, Shell Annual Report 2025 (selected pages), p. 94: "*We measure our total combined Scope 1 and 2 GHG emissions performance compared with a 2016 baseline, on a net basis. The 2016 baseline may be recalculated if an acquisition or a divestment has an impact of more than 10% on total Scope 1 and 2 emissions.*"
[968] Exhibit MD-003, Shell Annual Report 2025 (selected pages), p. 88.
[969] Productie MD-003, Shell Annual Report 2025 (selected pages), p. 92: "*We measure our NCI performance compared with a 2016 baseline. The NCI targets and baseline are not adjusted for the impact of acquisitions and divestments, which could have a material impact on meeting the NCI targets.*"
[970] Exhibit MD-119, UN High-Level Expert Group on the Net-Zero Emissions Commitments of Non-State Entities 2022, "Integrity Matters: Net Zero Commitments by Businesses, Financial Institutions, Cities and Regions", p. 23.

to another."[971] The UN Race to Zero therefore considers simply shifting assets from one owner to another to be a perverse outcome that must be avoided.

iii. The IEA also points to the perverse outcomes of asset sales to meet emission reduction targets and emphasises that companies have a role to play in preventing that asset divestments lead to higher emissions.[972] In this context, the IEA stresses, among other things, the importance of transparency about the extent to which companies achieve emission reductions through divestments, rather than through actual efforts that lead to direct emission reductions.[973]

905. In short, it is important that Shell actually starts pursuing an adequate climate policy and is not given too much leeway to simply achieve emission reductions by transferring oil and gas activities to third parties. however, where appropriate, Shell must recalculate the emissions in the base year in relation to which its emission reductions must take place. That is what Milieudefensie is seeking to achieve with ancillary demand (5).

11.3.3.4*No use of Carbon Credits*

906. Milieudefensie is demanding that if all or part of the emission reduction demands included in paragraphs (1) to (4) of the relief sought are admitted, the Court should prohibit Shell from using Carbon Credits to comply with those demands.

907. The reasoning behind this is simple. Carbon Credits are certificates that supposedly prove that a certain (third) party has avoided, reduced or removed one tonne of CO_2(e) emissions. The use of such certificates to reduce the emissions of, in this case, the Shell Group itself (on paper) means, by definition, that Shell is not reducing its own (fossil) CO_2 emissions in absolute terms, but is paying someone else for allegedly avoided emissions (e.g. by protecting trees), emission reductions (e.g. by providing cooking appliances to replace cooking with firewood) or emission removal (e.g. by planting trees) in order to "compensate" its own (unabated) emissions. This is also referred to as "offsetting".

908. There is broad international consensus that companies should not use Carbon Credits to achieve their own reduction targets.

909. In this context, Milieudefensie refers to the UN Expert Report, which explicitly says that Carbon Credits "*cannot be counted toward a non-state actor's interim emissions reductions required by its net zero pathway*."[974] The UN Working Group on the issue of human rights and transnational corporations mandated by the UN Human Rights Council also clearly states that companies must phase out the use of fossil fuels and the production of emissions, and may not use carbon offsets (another term for *Carbon Credits*) to do so.[975]

910. This is a completely logical conclusion: companies should focus on reducing their Scope 1, 2 and 3 emissions, and thus the emissions within their own value chain, according to the UN Expert Group.[976]

[971] Exhibit MD-117, UNFCCC, "Interpretation Guide Race to Zero Expert Peer Review Group Version 2.0", p. 8, para. 5(c).
[972] Exhibit MD-131, IEA 2023, "The Oil and Gas Industry in Net Zero Transitions", p. 123.
[973] Ibid.
[974] Exhibit MD-119, UN High-Level Expert Group on the Net-Zero Emissions Commitments of Non-State Entities 2022, "Integrity Matters: Net Zero Commitments by Businesses, Financial Institutions, Cities and Regions", p. 19.
[975] Exhibit MD-123, UN Working Group on the issue of human rights and transnational corporations and other business enterprises 2023, "Information Note on Climate Change", p. 6, para. 19, under b.
[976] Exhibit MD-119, UN High-Level Expert Group on the Net-Zero Emissions Commitments of Non-State Entities 2022, "Integrity Matters: Net Zero Commitments by

911. In addition, Milieudefensie refers to the IEA's NZE scenario, in which the IEA also indicates that this scenario does not rely on any offsets from outside of the energy sector.[977] The IEA also warns that the use of Carbon Credits can detract from investments in direct emission reductions.[978]

912. In addition, Carbon Credits often concern forestry projects, also known as nature-based solutions ("NbS"). Protecting a forest or planting trees that store CO_2 – no matter how valuable this may be – can of course never "compensate" for the CO_2 emissions associated with the combustion of fossil fuels. Moreover, the permanence of that CO_2 storage in nature can never be guaranteed. Wildfires and other climate extremes are making nature increasingly vulnerable.

913. The IPCC therefore explicitly states that the use of NbS cannot be a substitute for the far-reaching emission reductions that are now necessary to prevent exceeding the 1.5°C danger threshold:

> *"NbS cannot be regarded as an alternative to, or a reason to delay, deep cuts in GHG emissions. (high confidence)"*[979]

> *"While NbS help us to adapt to climate change and reduce the amount of greenhouse gases in the atmosphere, it is important to note that there are limits to what they can do. To provide a safe environment for both people and nature, it will be essential to radically reduce greenhouse gas emissions, especially those from fossil-fuel burning in the near future."*[980]

914. Furthermore, Carbon Credits are demonstrably ineffective in most cases and therefore do not deliver on what they promise at all. An authoritative peer-reviewed study in "Nature" on Carbon Credit projects concluded that less than 16% of the issued Carbon Credits of the 2,346 projects studied actually represented emission reductions.[981] In other words, more than 84% of Carbon Credits are unreliable. In recent years, numerous studies have been published indicating that Carbon Credits are largely worthless.[982]

915. In an extensive study, scientists from the Universities of Oxford and Pennsylvania also concluded that offsetting is accompanied by intractable problems that have remained unresolved for two decades already and that this leads to undeniable over-crediting and undermining of climate mitigation.[983] The study therefore concludes that offsets (Carbon Credits) that do not involve permanent CO_2 removal should be phased out.[984]

Businesses, Financial Institutions, Cities and Regions", p. 19: "*Non-state actors must prioritise urgent and deep reduction of emissions across their value chain*."

[977] International Energy Agency 2021, "Net Zero by 2050 – A Roadmap for the Global Energy Sector", p. 92: "*Achieving net-zero energy-related and industrial process CO2 emissions by 2050 in the NZE does not rely on any offsets from outside the energy sector*." Available at https://www.iea.org/reports/net-zero-by-2050.

[978] Ibid, p. 36.

[979] IPCC, AR6, WGII, H.2, p. 203, available at https://www.ipcc.ch/report/ar6/wg2/downloads/report/IPCC_AR6_WGII_FullReport.pdf.

[980] IPCC AR6 WGII, H.2, p. 312, available at https://www.ipcc.ch/report/ar6/wg2/downloads/report/IPCC_AR6_WGII_FullReport.pdf.

[981] Probst, B.S., Toetzke, M., Kontoleon, A. et al., "Systematic assessment of the achieved emission reductions of carbon crediting projects", *Nat Commun* 15, 9562 (2024). https://doi.org/10.1038/s41467-024-53645-z, Abstract.

[982] See, for example, Financial Times, 23 January 2024, "*Carbon credits from cookstove emissions largely worthless, study finds*", available at https://www.ft.com/content/6a9d7ef7-2e30-4082-8ae0-3a722008ddab; The Guardian, 18 January 2023, "*Revealed: more than 90% of rainforest carbon offsets by biggest certifier are worthless, analysis shows*", available at https://www.theguardian.com/environment/2023/jan/18/revealed-forest-carbon-offsets-biggest-provider-worthless-verra-aoe; Climate Home News, 30 April 2024, "*Verra axing of Shell's rice-farming carbon credits in China fuels integrity fears*", available at https://www.climatechangenews.com/2024/08/30/verra-axing-of-shells-rice-farming-carbon-credits-in-china-fuels-integrity-fears/; Bloomberg 17 October 2025, "Majority of Carbon Credits From Tarnished Project Deemed Bogus", available at https://www.bloomberg.com/news/articles/2025-10-17/majority-of-carbon-credits-from-tarnished-project- deemed-bogus.

[983] Exhibit MD-188, Romm et al (2025), "Are carbon offsets fixable?", pp. 649–650 (Abstract) and pp. 670–671 (Summary Points). See also p. 668 (under "Conclusion"). See also a press release about the research in question: Exhibit MD-189, "University of Oxford (2025),"Carbon offsets have failed for 25 years, and most should be phased out – research" pp. 2-3: "*Academics at the University of Oxford and the University of Pennsylvania have conducted the most comprehensive review of evidence on the effectiveness of carbon offsetting to date and concluded that the practice is riddled with "intractable" problems. […] The authors call for the phasing out of most credits except those generated by permanent carbon dioxide removal*."

[984] Ibid, pp. 669–670: "*The world's focus must be on rapid and deep GHG emissions reductions with the goal of reaching near zero emissions by midcentury […] non-CDR offsets must be used with extraordinary caution and should be phased out by 2035. […] As Energy Australia, one of the country's largest electricity and gas providers, acknowledged in a May 2025 settlement agreement, "Burning fossil fuels creates greenhouse gas emissions that are not prevented or undone by carbon offsets*"." See also

916. Against this backdrop, the Australasian Centre for Corporate Responsibility (ACCR) has also concluded that fossil emissions should never be "offset" by means of Carbon Credits relating to nature-based solutions or avoided emissions.[985]

917. Despite the above, Shell nevertheless uses Carbon Credits to achieve its own (inadequate) climate targets and intends to continue doing so.[986] For this reason, Milieudefensie is demanding under (6) of the relief sought that Shell should be prohibited from making use of Carbon Credits for the purpose of achieving the emission reductions it is required to achieve.

11.3.3.5Further in the alternative: an order requiring Shell to achieve net zero CO_2 emissions by 2050 and a declaratory decision stating that Shell has a legal duty to achieve absolute emission reductions in Scope 1, 2 and 3.

918. Finally, Milieudefensie sees reason to seek the following, further in the alternative relative to its emission reduction demands described above, and therefore only insofar as the Court cannot award its principal and alternative emission reduction demands:

a. an order requiring Shell to reduce or cause to be reduced the annual Shell Group CO_2 emissions (Scope 1, 2 and 3) in absolute terms in such a manner that the Shell Group will have net zero CO_2 emissions in 2050 (demand (3));

b. a declaratory decision stating that Shell has a legal duty to reduce or cause to be reduced the annual Shell Group greenhouse gas emissions (Scope 1, 2 and 3) in absolute terms relative to the level in the reference year of 2024, with effect from 2031, consistent with limiting global warming to 1.5°C and the best available climate science (demand (4)).

919. These two demands, presented by Milieudefensie as "further in the alternative", are intended to serve as a fallback in the event that this Court should find that it is not possible, at this point in time, to set percentage-based reduction pathways for Shell for the intervening years until 2050. Milieudefensie has taken an appeal to the Dutch Supreme Court to challenge the assessment framework used by the Court of Appeal in the first climate case for the assessment of the Scope 3 CO_2 emission reductions and the conclusion drawn from it.[987] On this point, too, the Court of Appeal's ruling is based on several legal and factual (scientific) errors. Since no clarity has been obtained yet from the Dutch Supreme Court on this matter, the above demands are presented as "further in the alternative" just to be safe. After all, even if no percentage-based reduction pathways can be determined for Shell for the period up to 2050, it can still be concluded that there is scientific and political consensus globally that in order to limit global warming to 1.5°C, the moment of net zero emissions must be achieved around 2050. Shell will also have to contribute to this. In this context, it is also relevant that the District Court already established in 2021 that there is "broad international consensus that every company must work independently towards the goal of net zero emissions by 2050"[988], a finding against which no ground of appeal was raised by

p. 671 (under 6).

[985] Exhibit MD-190, ACCR 2025, "Injecting integrity: aligning the use of offsets in company transition plans with science", p. 2 and p. 13

[986] Exhibit MD-003, Shell Annual Report 2024 (selected pages), p. 96 and Exhibit MD-198, Shell Energy Transition Strategy 2024, p. 41("*Carbon credits can make an important contribution to our target to become a net-zero emissions energy business*.") and p. 50, where Shell makes it clear that it is reducing (or rather diluting) the average CO_2 intensity of its oil and gas portfolio by selling more electricity and using carbon credits.

[987] Court of Appeal of The Hague 12 November 2024, ECLI:NL:GHDHA:2024:2099, grounds 7.67 and 7.96.

[988] District Court of The Hague 26 May 2021, ECLI:NL:RBDHA:2021:5337, grounds 4.4.34, 4.4.36 and 4.4.52.

Shell at the time. Moreover, Shell itself also indicates that it wants to be at net zero by 2050 (but this is a "goal" that has been formulated in a non-committal way, in the same way that all its other goals are subject to various disclaimers). For this reason, Milieudefensie is demanding that Shell be ordered to reduce its CO_2 emissions to (net) zero in 2050 (demand (3)).

920. In addition, Milieudefensie is seeking a declaratory decision stating that Shell must reduce its annual Scope 1, 2 and 3 CO_2 emissions in absolute terms, consistent with limiting global warming to 1.5°C and the best available climate science (demand (4)). After all, every climate scenario shows that CO_2 emissions must decrease every year and that there can certainly not be any further increase in emissions. This declaratory decision will enable Shell to reduce its CO_2 emissions every year with maximum freedom and determine its own emission reduction speed, as long as there is still a credible emission reduction pathway that can be linked to the 1.5°C target and the developments in climate science regarding the way in which that target should be achieved.

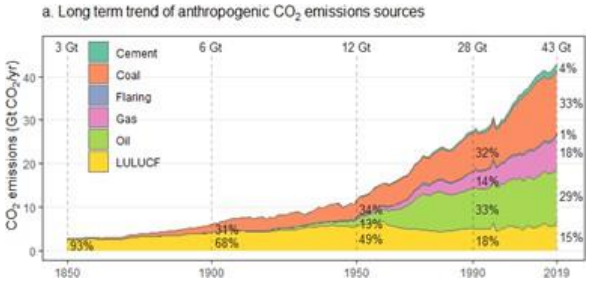
11.4 NO NEW OIL AND GAS FIELDS

921. A second and crucial pillar for pursuing a 1.5°C-compliant climate policy, which Shell is required to pursue based on the doctrine of hazardous negligence, human rights law, the legal principles discussed, soft law and other objective points of reference, is that Shell must cease the development and production of new oil and gas fields. After all, the carbon budget with a 50% probability of 1.5°C is already exceeded with the operation of the existing fossil-fuel infrastructure alone, and new oil and gas fields are therefore incompatible with the goal of limiting global warming to 1.5°C by the end of this century. Also, new oil and gas fields obstruct the energy transition needed to limit global warming to 1.5°C for various reasons. The good news here is that new oil and gas fields are actually not needed to provide the world with sufficient oil and gas in a 1.5°C scenario; the oil and gas production from the existing producing fields and fields under development is sufficient for this purpose.

922. This chapter will discuss the scientific and institutional sources in which these irrefutable conclusions are drawn. Milieudefensie will first provide the necessary background information for a proper understanding of the robustness of these conclusions and of the need to order Shell to cease the development and production of new fields. The following applies in this regard.

923. It is evident that the climate crisis is, essentially, a fossil-fuel crisis. No less than 81% of global CO_2 emissions are caused by the production and combustion of oil, coal and gas. Global CO_2 emissions are thus largely determined by the use of these fossil fuels. This is evident from, among other things, the following figure from the 2022 IPCC report:[989]

[989] Exhibit MD-037, IPCC 2022, AR6, WGIII, TS, figure TS.3 on p. TS-16.



924. This figure from the IPCC shows that the consumption of oil, coal and gas accounts for 29%, 33% and 18% of global CO_2 emissions respectively.[990]An additional 1% of CO_2 emissions is caused by the flaring of gases released during the extraction and processing of oil and gas. Therefore the use and extraction of oil, coal and gas jointly account for 81% of annual global CO_2 emissions.[991]

925. The emissions from the fossil-fuel sector thus account for more than four-fifths of global CO_2 emissions. Adequate climate action therefore hinges on an adequate reduction of the quantity of fossil fuels produced and burned.

926. This fact has been known for a very long time.

927. As Milieudefensie explained in chapter 10.3.4, Shell already foresaw in 1998, according to its brochure "Climate Change, what does Shell think and do about it", that the total emissions associated with the conventional oil and gas reserves (petroleum and natural gas) known and probably already available at that time would already cause the CO_2 concentration in the atmosphere to almost rise above the 450 ppm limit.[992] At that time, this was already the foreseeable limit for the CO_2 concentration in the atmosphere to limit global warming to 2°C.[993] Shell had also calculated that if unconventional oil and gas reserves (such as shale gas and tar sands oil) were developed, those unconventional reserves alone would cause the CO_2 concentration to rise to 550 ppm. In short, it was already perfectly clear to Shell in 1998 – 28 years ago – that tackling climate change would require limiting the development of global oil and gas reserves. And that was the situation under a 2°C scenario.

928. In the years that followed, many warnings were given about the need to limit the exploitation of fossil fuels. In 2009, an important study was published in the scientific journal "Nature", which concluded that only 43% of global fossil reserves could be burned by 2050 in order to still maintain a 50% probability of limiting global warming to below 2°C.[994]

929. During that period, the phenomenon of the carbon bubble and its financial risks became known all over the world. The carbon bubble is the term used to describe the overvaluation of fossil-fuel companies and fossil-fuel

[990] The IPCC data refer to the year 2019. The UNEP Emissions Gap Report 2023 states that 86% of total CO_2 emissions are related to energy consumption and energy production, of which 37% comes from coal, 29% from oil and 20% from gas, see Exhibit MD-130, UNEP "Emissions Gap Report 2023: Broken Record – Temperatures hit new highs, yet world fails to cut emissions (again)", p. 34. With regard to the period 2010-2019, the IPCC states 81-91% in WGI: "*Of the total anthropogenic CO2 emissions, the combustion of fossil fuels was responsible for 81–91%*", see IPCC, "The Physical Science Basis. Contribution of Working Group I to the Sixth Assessment Report of the Intergovernmental Panel on Climate Change 2021", p. 676, available at https://www.ipcc.ch/report/ar6/wg1/downloads/report/IPCC_AR6_WGI_FullReport_small.pdf.
[991] As shown in the IPCC figure, the other sources of CO_2 are: cement production (4%) and land use (15%). Land use is referred to with the abbreviation LULUCF, which stands for Land Use, Land Use Change, Forestry.
[992] See chapter 10.3.4, with reference to Exhibit MD-153, Shell 1998, "Climate Change: What does Shell think and do about it?", p. 6, where it can be read that this concerns already discovered fields and undiscovered reserves with (at least) a 50% probability ("proven plus undiscovered resources at the 50% probability level").
[993] See also the judgment of the Dutch Supreme Court 20 December 2019, ECLI:NL:HR:2019:2006, ground 2.1, para. (6) (under "Climate change and its consequences").
[994] Exhibit MD-191, Oil Change International, "The Sky's Limit, Why the Paris Climate Goals Require a Managed Decline of Fossil Fuel Production" (September 2016), p. 14, which describes the scientific developments surrounding the determination of carbon budgets and its consequences for the amount of fossil fuels that can be extracted and burned.

assets on financial markets if global warming is actually limited in line with the global climate target and fossil-fuel reserves can therefore no longer be monetised and must be written off, resulting in what is referred to as *"stranded assets*". In 2011, Carbon Tracker first warned of this carbon bubble and the associated stranded assets[995]. This warning was ultimately echoed by the then Governor of the Bank of England, Mark Carney, who stated in 2014 that the vast majority of fossil-fuel reserves cannot be burned if global warming would be limited in line with the climate targets.[996] In his famous "Tragedy of the Horizon" speech, Carney explained in detail that climate change could threaten financial stability and cause investors to suffer heavy losses, partly because of these stranded assets.[997] This speech was the starting point for further initiatives aimed at getting companies to disclose information about their CO_2 emissions and about how they plan to transition to the net-zero world of the future: a world in which a large proportion of coal, oil and gas reserves cannot be burned.

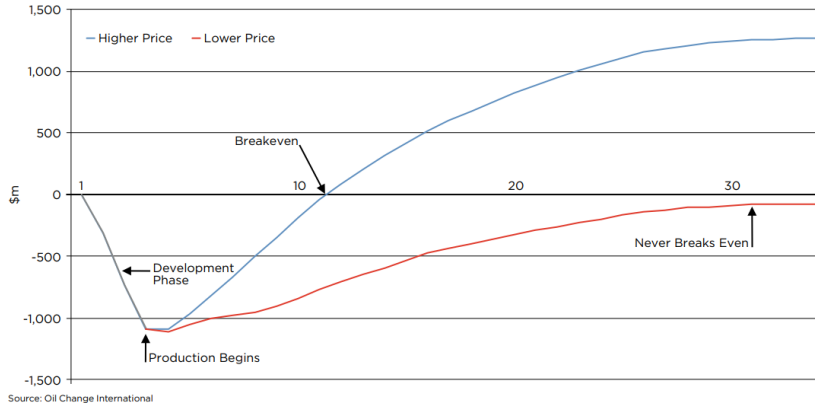
930. As explained in chapter 6.5, significant scientific evidence has been presented since 2009 based on which global warming should be limited to 1.5°C, and in the years that followed, the global community also rallied behind this global goal, particularly with the adoption of the Paris Agreement in 2015 and the subsequent decisions of the Conference of the Parties.

931. In 2016, Oil Change International, in collaboration with 14 other international organisations, published a study in response to this which concerned the phase-out of fossil fuels in accordance with the Paris Agreement. The report (entitled "The Sky's Limit, Why the Paris Climate Goals Require a Managed Decline of Fossil Fuel Production") shows on the basis of IPCC findings regarding the remaining carbon budget that the expected CO_2 emissions associated with the producing oil and gas fields and those under development at that time would already exceed the carbon budget for 1.5°C.[998] The report concludes that one of the most fundamental steps towards a smooth and fair energy transition is to stop developing new fields, operate the existing fields and fields under development over the coming decades and simultaneously scale up renewable energy sources significantly.[999]

932. Ceasing the development of new fields is crucial to prevent a further carbon lock-in and make room for the rapid upscaling of renewable energy. As explained in detail in chapter 8.2, investments in (capital-intensive) fossil-fuel projects create an infrastructural lock-in. In addition to what was already discussed in that chapter, this carbon lock-in caused by fossil-fuel production will be examined in more detail here.

933. The development of new oil and gas fields requires large capital investments in the start-up phase, particularly during the construction of the extraction infrastructure for a field. These costs are then recouped over a long period of time. This can be illustrated by the figure below.[1000]

[995]Carbon Tracker 13 July 2011, "Unburnable Carbon: Are the World's Financial Markets Carrying a Carbon Bubble?", available at https://carbontracker.org/reports/carbon-bubble/.
[996] The Guardian, 13 October 2014, "Mark Carney: most fossil fuel reserves can't be burned", available at https://www.theguardian.com/environment/2014/oct/13/mark-carney-fossil-fuel-reserves-burned-carbon-bubble.
[997] Mark Carney, 29 September 2015, "Breaking the Tragedy of the Horizon – climate change and financial stability' speech", available at https://www.bankofengland.co.uk/-/media/boe/files/speech/2015/breaking-the-tragedy-of-the-horizon-climate-change-and-financial-stability.pdf.
[998] Exhibit MD-191, Oil Change International, "The Sky's Limit, Why the Paris Climate Goals Require a Managed Decline of Fossil Fuel Production" (September 2016), pp. 5-6 (executive summary).
[999] Ibid, pp. 7–8.
[1000] The figure has been taken from Exhibit MD-191, Oil Change International, "The Sky's Limit, Why the Paris Climate Goals Require a Managed Decline of Fossil Fuel Production" (September 2016), p. 35.



934. An oil or gas company will invest in a new oil or gas field if it is predicted, at the time of taking the investment decision, that after years of investment (indicated by the arrow "Development Phase" in the figure), the break-even point will be reached in the longer term and the field will therefore yield sufficient profit from that time onwards. This is illustrated by the blue line in the figure. However, an oil or gas company will refrain from investing in a new field if the expected revenues in the longer term are insufficient to recoup the investment, as shown by the red line in the figure. However, once the investment decision has been made and the resulting investments to bring a new field into production have taken place (indicated by the arrow "Production Begins" in the figure), it is in the company's interest to continue production from the field as long as the market price of oil or gas exceeds the marginal operational production costs. This is the case if the market price at least covers the costs of producing one additional unit of oil or gas. Production is therefore to a certain extent independent of the actual demand for oil and gas. In the blue-line scenario, the company will continue production in order to maximise its profits. However, the company will also continue production in the red-line scenario, where the oil or gas price is low (e.g. due to low demand for oil and gas or an oversupply) and it is clear that the oil or gas company will never fully recoup its investment. After all, shutting down the project would always be worse, financially. In short, once a field has been developed and is producing, it will continue to produce: the future production is "locked in".

935. Because of the above, oil and gas companies will not be inclined to shut down fields prematurely once production has started. As a result, the supply of oil and gas will remain high (even if it is not profitable) and so the price of oil and gas will be low. This lock-in creates a huge obstacle for the required change. While Shell and other oil and gas companies often claim they are merely "meeting demand" by producing oil and gas and continuing to invest in new oil and gas fields, this overlooks the fact that the (new and continuing) supply of oil and gas actively influences the demand for fossil fuels through the associated low prices, and that this fossil-fuel supply makes the transition to renewable energy less attractive. A persistently high supply of fossil fuels maintains and further increases the demand for fossil fuels, creating an economic and social barrier to change. This is, of course, in addition to all the political activities that oil and gas companies engage in to keep demand high, as also explained in chapter 8. It was partly against this background that the Court of Appeal of The Hague found in the first Shell case that "the use of fossil fuels imposed by the supply side of the market [can] seriously delay the energy transition."[1001]

[1001] Court of Appeal of The Hague 12 November 2024, ECLI:NL:GHDHA:2024:2099, grounds 7.59-7.61.

936. Shell is also aware of this carbon lock-in effect. This is evident, among other things, from the open letter it wrote to its investors on 16 May 2014, noting that it did not expect its investments to become redundant, because the energy transition would take decades due to the *"long-lived nature of the infrastructure and many assets in the energy system*".[1002]

937. As the IPCC has noted, locked-in fossil-fuel infrastructures and business models keep society dependent on fossil fuels, and the fossil-fuel energy system therefore is a barrier to the acceptance and implementation of new and cleaner renewable energy technologies:

> *"Still existing locked-in infrastructures and business models advantages fossil fuel industry over renewable and energy efficient end use industry. The fossil fuel energy generation and delivery system therefore epitomises a barrier to the acceptance and implementation of new and cleaner renewable energy technologies*."[1003]

938. As discussed in chapter 6.7, the IPCC published the IPCC SR1.5 report requested by COP21 in 2018, which also warns very explicitly for the danger of the carbon lock-in for the energy transition. The IPCC found that postponing rapid emission reductions would lead to a greater economic and institutional lock-in of carbon-intensive infrastructure through the continued investments in and use of carbon-intensive technologies.[1004] According to the IPCC, postponing emission reductions in the period up to 2030 would make the transition more costly, risky and complicated.[1005] This is all the more true because the emissions associated with the operation of existing fossil-fuel infrastructures ("*committed emissions*") will already exceed the carbon budget.[1006] In the same SR1.5 report, the IPCC also collected and included modelled 1.5°C scenarios for the first time. As explained in chapter 6.7, the median emission reductions of these 1.5°C scenarios lead to a 45% CO_2 emission reduction in 2030 relative to 2010.

939. These first 1.5°C scenarios that the IPCC included in SR1.5 already confirmed that there is no more room for new oil and gas production, but also that new oil and gas production is virtually unnecessary in a credible 1.5°C reduction pathway. This is evident from, among other things, the "Overexposed" report by Global Witness, which, based on scenarios from the SR1.5 report and data from Rystad Energy, shows that the existing oil and gas fields will generally produce more than what is consistent with limiting global warming to 1.5°C until 2050 (based on the average oil and gas demand over that period in the selected IPCC 1.5°C scenarios).[1007] Global Witness therefore concludes that production from new oil and gas fields is not compatible with the goal of limiting global warming to 1.5°°.[1008]

940. In the first Shell case, these findings were explained in detail during the oral hearing in December 2020. In that first case, it was also discussed at length that Shell's policy anticipated a growth strategy for its oil and gas activities, substantial investments in new oil and gas fields and a significant increase in production.[1009] It is against this background that the following findings of the District Court of The Hague must be read: *"*[a] consequence of

[1002] As found by the Court of Appeal of The Hague on 12 November 2024, ECLI:NL:GHDHA:2014:2099, ground 7.60.
[1003] Exhibit MD-132, IPCC, AR6, WGIII (selected chapters), H5, p. 557. See also p. 558 (under 5.4.4).
[1004] IPCC SR1.5 report, chapter 2, p. 126, available at https://www.ipcc.ch/site/assets/uploads/sites/2/2022/06/SR1.5_Full_Report_LR.pdf.
[1005] Ibid (under para. 2.3.5). See also para. 338, with reference to Exhibit MD-101, IPCC 2018, SR1.5, SPM, p. 18 under D.1.3.
[1006] Ibid, p. 113: *"to keep warming below 1.5°C with a two-in-three (one-in-two) chance, the cumulative amount of CO2 emissions from 2018 onwards need to remain below a carbon budget of 420 (580) GtCO* […] *Committed fossil-fuel emissions from existing fossil-fuel infrastructure as of 2010 have been estimated at around 500 ± 200 GtCO2*".
[1007] Exhibit MD-192, Global Witness, 23 April 2019, "Overexposed, How the IPCC's 1.5°C Report Demonstrates the Risks of Overinvestment in Oil and Gas", pp. 2 and 10.
[1008] Ibid, p. 1.
[1009] District Court of The Hague 26 May 2021, ECLI:NL:RBDHA:2021:5337, ground 4.5.1 (where Milieudefensie's arguments are summarised) and grounds 4.5.2-4.5.3, in which the Court finds that "RDS has insufficiently refuted the position of Milieudefensie et al. that RDS's proposed investments in new explorations are inconsistent with the reduction target aimed for" and that "RDS's policy, policy intentions and ambitions for the Shell group are inconsistent with RDS's reduction obligation."

this urgent duty could therefore be that RDS refrains from making new investments in the extraction of fossil fuels and/or limits its production of fossil fuels"[1010] and "drastic measures and financial sacrifices may be required of Shell in order to combat CO_2 emissions and the dangerous climate change caused by them."[1011]

941. The above shows that it has been perfectly clear for many years that a firm limit applies to the total quantity of fossil fuels that can be burned in order to limit global warming to 1.5° C, and that this means that many oil and gas reserves cannot be burned. It has also been clear for some time that too many oil and gas projects threaten to be developed and operated in a way that is not reasonably compatible with the 1.5° limit, that the continued development of new oil and gas fields obstructs the energy transition and that the demand for oil and gas could be met with the existing fields if the energy transition is actually implemented with the required urgency.

942. In the years that followed, the broad consensus on the necessity *and* the possibility of ceasing the development of new oil and gas fields was even further confirmed by both scientific and institutional sources.

943. In May 2021, for example, the IEA published a 1.5°C scenario for the first time, just days before the ruling in the first-instance proceedings was handed down. According to the report *"*Net Zero by 2050 – A Roadmap for the Global Energy Sector", the carbon budget for 1.5°C (based on the IEA's assumption of a 50% probability of 1.5°C as included in the IPCC SR1.5 report) would already be significantly exceeded through the operation of the existing infrastructure:

> *"If today's energy infrastructure were to be operated until the end of its typical lifetime in a manner similar to the past, we estimate that this would lead to cumulative energy-related and industrial process CO_2 emissions between 2020 and 2050 of just under 650 Gt CO_2. This is around 30% more than the remaining total CO_2 budget consistent with limiting global warming to 1.5 °C with a 50% probability (see chapter 2)."* [1012]

944. In the same report, the IEA also made it clear that there is no need whatsoever for investments in new oil and gas fields in the NZE scenario:

> *"Beyond projects already committed as of 2021, there are no new oil and gas fields approved for development in our pathway, and no new coal mines or mine extensions are required.*[1013]
>
> *"The trajectory of oil demand in the NZE means that no exploration for new resources is required and, other than fields already approved for development, no new oil fields are necessary."*[1014]
>
> *"No new natural gas fields are needed in the NZE beyond those already under development. Also not needed are many of the liquefied natural gas (LNG) liquefaction facilities currently under construction or at the planning stage."*[1015]

945. The publication of the first NZE report sent a very important signal to the global community ahead of COP26 in Glasgow *and* to the fossil-fuel industry. Illustrative in this regard is the headline of the Financial Times in response to the report: *"*Energy groups must stop new oil and gas projects to reach net zero by 2050, IEA says".[1016]

[1010] District Court of The Hague 26 May 2021, ECLI:NL:RBDHA:2021:5337, ground 4.4.39.
[1011] Ibid, ground 4.4.53
[1012] International Energy Agency 2021, "Net Zero by 2050 – A Roadmap for the Global Energy Sector", p. 39, available at https://www.iea.org/reports/net-zero-by-2050.
[1013] Ibid, p. 21.
[1014] Ibid, p. 101.
[1015] Ibid, pp. 102-103.
[1016] Financial Times, 18 May 2021, "Energy groups must stop new oil and gas projects to reach net zero by 2050, IEA says", available at https://www.ft.com/content/2bf04fff-5b2f-4d96-a4ea-ff55e029f18e.

946. The IEA reached the same conclusion in its update of the NZE scenario for 2023 and also in other publications[1017].

947. In 2022, an important peer-reviewed study by Trout et al. also appeared, in which the committed emissions of the fossil-infrastructure were mapped once again. The central conclusion of that study is that 40% of the developed fossil-fuel reserves must be left in the ground in order to still stay within a credible carbon budget for 1.5°C.[1018] This conclusion goes further than the NZE scenario. The reason for this is that the NZE scenario also relies heavily on technologies such as CCS, which are not yet commercially available and which the IEA itself acknowledges as one of the greatest uncertainties in its own scenario.[1019] If these uncertainties materialise, the phase-out of fossil-fuel production will therefore have to take place much faster.

948. The findings of Trout et al. were subsequently also adopted by UNEP in the UNEP Emissions Gap Report of 2023 entitled *"*Broken Record – Temperatures hit new highs, yet world fails to cut emissions (again)". This was already demonstrated in chapter 8.2 with the UNEP figure included there (based on the findings of Trout et al.), which shows that the full operation of existing and planned coal, oil and gas infrastructures over the lifetime of those projects would result in 936 Gt of CO_2 emissions, which is 3.5 times the carbon budget still available (and significantly depleted) at that time for a 50% probability of 1.5°C. Oil and gas fields jointly represent almost twice the remaining carbon budget for 1.5°C of emissions[1020].

949. The UNEP therefore concluded that there is no room for new fossil-fuel infrastructure globally, unless a larger part of the existing infrastructure is decommissioned.[1021] However, new oil and gas fields are being opened all the time, contrary to any logic climate action.

950. The above shows that even the existing reserves of fossil fuel – specifically oil and gas – cannot be used up if global warming is to be limited to 1.5°C, and that this existing fossil-fuel supply must be phased out as quickly as possible. This also explains the international community's call during COP28 to accelerate the movement away from fossil fuels in this critical decade; there is certainly no room for expanding fossil-fuel production with new oil and gas fields. Ceasing investments in new oil and gas fields is therefore a basic condition for limiting global warming to 1.5°C.

951. As the editors of the renowned scientific journal "Nature*"* succinctly summarised in their editorial on COP28, *"*COP28: the science is clear — fossil fuels must go":

> *"There is only one viable path forward, and that is for everybody to phase out almost all fossil fuels as quickly as possible."*[1022]

952. It was explained in chapter 7.2.5 that this "no new fields" standard is already an essential part of the recommendations of the UN Expert Group for credible net-zero climate policies by non-state actors. In chapter

[1017] Exhibit MD-099, IEA 2023, "Net Zero Roadmap, A Global Pathway to Keep the 1.5°C Goal in Reach, 2023 update", p. 75.
[1018] Exhibit MD-193, Trout (2022) "Existing fossil fuel extraction would warm the world beyond 1.5 °C", abstract: "*We find that staying within a 1.5 °C carbon budget (50% probability) implies leaving almost 40% of 'developed reserves' of fossil fuels unextracted*."
[1019] Ibid, p.8: "*One reason our study reaches a stronger conclusion than the IEA (2021) finding that no additional fields and mines are needed is that the IEA scenario includes some CDR and significant carbon capture and storage (CCS) of fossil fuel emissions. The IEA acknowledges that CCS availability is one of the greatest uncertainties in its scenario; three decades of efforts to deploy CCS have largely failed (Wang et al 2021*)."
[1020] Exhibit MD-130, UNEP "Emissions Gap Report 2023: Broken Record – Temperatures hit new highs, yet world fails to cut emissions (again)", pp. 34-35. It should be noted that the figure from the UNEP Emissions Gap Report 2023 starts out from a carbon budget of 250 $GtCO_2$ at the beginning of 2023. As explained above, the carbon budget is now 130 $GtCO_2$, at the beginning of 2025.
[1021] Ibid.
[1022] Exhibit MD-194, Nature 2023, "COP28: the science is clear — fossil fuels must go", p. 225.

7.2, reference was also made to other authoritative sources showing that non-state actors must have a clear policy for the 1.5°C-compliant phase-out of fossil fuels, in addition to the emission reduction targets they must set to achieve net zero by 2050 (at the latest).

953. Furthermore, the IEA also recognises that the fossil-fuel supply is too large for a 1.5°C scenario and that too much is being invested in it. This is why the IEA also indicates that little or no investment in new oil and gas fields is needed and that even some of the existing fields will have to be closed before the end of their (technical) lifespan.[1023] According to the IEA, too much LNG infrastructure (liquefaction capacity) has already been built, so that from the mid-2020s onwards there is a risk of a global supply surplus.[1024]

954. The IEA warns that we can no longer delay the hard choices necessary to reach global net zero emissions by 2050. If these hard choices are further delayed, this will only make the transition more difficult. To quote the IEA: "*Further delaying the hard choices necessary to reach global net zero emissions by 2050 would make the problems substantially worse, and much harder to solve.*"[1025]

955. The IPCC also recognises the risk of waiting longer and allowing the fossil-fuel infrastructure to continue to grow. For example, the IPCC states that continuing on the same road and following the current national climate plans (NDCs) until 2030 will make it impossible to limit the temperature increase to 1.5°C. But that is not all. The IPCC also warns that it will then even become much more difficult to limit global warming to 2°C, precisely because of the continued buildup of fossil-fuel infrastructure that will take place between now and 2030:

> *"Pathways following Nationally Determined Contributions (NDCs) announced prior to COP26 until 2030 reach annual emissions of 47-57 CO_2eq by 2030, thereby making it impossible to limit warming to 1.5°C with no or limited overshoot and strongly increasing the challenge to limit warming to 2°C* […] *Accelerating emission reductions after following an NDC pathway to 2030 would be particularly challenging because of the continued buildup of fossil fuel infrastructure that would be expected to take place between now and 2030."*[1026]

956. The IPCC also makes it clear that climate action will not succeed if only sustainable alternatives are provided; to achieve the target, something must also change in the dominant position of the fossil-fuel industry in order to overcome the carbon lock-in (as already discussed in chapter 8). To quote the IPCC:

> *"Overcoming the carbon lock-in is not simply a matter of the right policies or switching to low-carbon technologies. Indeed, it would mean a radical change in the existing power relations between fossil fuel industries and their governments* [...]*"* [underlining added by counsel] [1027]

957. Scaling up renewable energy will therefore not be sufficient. Steps must also be taken to ensure that the production and use of fossil fuels shrinks and the carbon budget is not exceeded. Discontinuing investment in new oil and gas fields is a basic prerequisite for limiting the temperature increase to 1.5°C in this context and is necessary to create the space for the accelerated expansion of an energy system based on renewable energy sources.

[1023] Exhibit MD-099, IEA 2023, "Net Zero Roadmap, A Global Pathway to Keep the 1.5 °C Goal in Reach, 2023 Update", p. 76.
[1024] Exhibit MD-196, IEA 2023, "World Energy Outlook 2023" (selected pages), pp. 139–140.
[1025] Exhibit MD-099, IEA 2023, "Net Zero Roadmap, A Global Pathway to Keep the 1.5 °C Goal in Reach, 2023 Update", pp. 150–151.
[1026] IPCC AR6 WGIII, Chapter 3, Executive Summary, p. 298, available at https://www.ipcc.ch/report/ar6/wg3/downloads/report/IPCC_AR6_WGIII_FullReport.pdf. In AR6, the IPCC starts out from the NDCs announced up to COP26.
[1027] Exhibit MD-132, IPCC, AR6, WGIII (selected chapters), p. 1745.

958. On 31 March 2025, 11 leading scientists from various American universities issued an urgent warning that fossil fuels and the fossil-fuel industry are causing interrelated crises that threaten people, animals and a liveable future. This peer-reviewed analysis provides an overview of the state of science in this field and concludes that *"stopping fossil fuel expansion and rapidly phasing out fossil fuel production and use is necessary not only to prevent catastrophic damages from the climate crisis but also to stem the interconnected public health, environmental justice, biodiversity extinction, and petrochemical pollution crises worsened by fossil fuels*.[1028]

959. The scientists also emphasised that the necessary transition away from fossil fuels will provide innumerable societal and planetary benefits and that there are also affordable clean alternatives that can replace fossil fuels, yet the main obstacle is a lack of political will, "*which has been stymied by the entrenched political and financial influence of the fossil fuel industry*."[1029] In short, the political and economic influence of the fossil-fuel industry is the main obstacle to adequate climate action, while the solutions for a cleaner, affordable energy system are within reach.

960. Despite all of the above, Shell is firmly committed to a fossil-fuel future; a future in which climate targets will not be met. According to its Energy Transition Strategy 2024, Shell plans to keep its oil production stable in the coming years (which will require investments in new oil fields to compensate for the decreased production in existing fields) and to significantly increase the production *and* purchase and sale of LNG in the coming years.[1030] Based on statements made by Shell, the Court of Appeal then established that Shell still planned to invest USD 100 billion in upstream oil and gas activities between 2023 and 2030 and that between 50-60% of those investments would go to fields that were not yet producing oil and gas in 2024.[1031]

961. According to data from Rystad Energy, the world's leading energy sector analysis company, Shell's gas production will increase until at least 2030.[1032] The period after that is currently outside Shell's own planning window, but Shell clearly does not intend to reduce production or stop approving new fields at this point: Shell refers in its own plans to "*sustaining production into the 2030s*"[1033] and Shell has no target whatsoever to reduce its absolute emissions after 2030 in the period up to 2050. For this reason, its net-zero target in 2050, without any goal or plan to actually work towards it, is the definition of "greenwashing" that the UN Expert Report, for example, aims to prevent (see paragraphs 419 et seq. of this summons).

962. Data from Rystad Energy also shows that Shell still has 700 undeveloped oil and gas fields (or stakes in them).[1034] If Shell were to decide to develop and fully operate these fields, this would result in an estimated 5.2 Gt (5,200 Mt) of CO_2 emissions.[1035] Between the Court ruling of 26 May 2021 and April 2025, Shell had already approved 32 new oil and gas projects.[1036] The operation of these 32 new oil and gas projects alone would result in an

[1028] Exhibit MD-197, Wolf et al (2025), "Scientists' warning on fossil fuels", p. 12.
[1029] Ibid, p. 1 (Abstract): "The necessary transition away from fossil fuels will provide innumerable societal and planetary benefits and forge a path forward to sustaining life on Earth" and pp. 13–14.
[1030] Exhibit MD-198, "Shell Energy Transition Strategy 2024", p. 21: "*Grow leading LNG position, Keep oil production stable*", p. 22: "*We plan to grow our LNG business by 20-30% compared with 2022*." In its most recent annual report, Shell makes it clear that these plans are unchanged; see Exhibit 003, Shell Annual Report 2025 (selected pages), p. 5 and p. 9.
[1031] Court of Appeal of The Hague 12 November 2024, ECLI:NL:GHDHA:2024:2099, grounds 3.49 and 3.50 as well as ground 7.60.
[1032] Exhibit MD-199, Global Witness/Milieudefensie May 2025, "Developing Disaster, How Shell's Fossil Fuel Expansion Plans Continue to Fuel the Climate Crisis", pp. 4 and 25. Shell confirmed production growth during this decade in its Capital Markets Day 2025, see Exhibit MD-200, Shell Capital Markets Day Slides 2025, p. 39 (slide 25): "*Growing production with focus on the gas value chain*" and p. 40: "*Across IG and Upstream combined, we expect a total production growth rate of 1 per cent per year through the decade*."
[1033] Exhibit MD-200, Shell Capital Markets Day Slides 2025, p. 41 (slide 26).
[1034] Exhibit MD-199, Global Witness/Milieudefensie May 2025, "Developing Disaster, How Shell's Fossil Fuel Expansion Plans Continue to Fuel the Climate Crisis", p. 4, p. 20.
[1035] Ibid, p. 4 and p. 21.
[1036] Ibid, p. 5.

estimated 972 Mt of CO_2 emissions.[1037] By way of comparison: that is almost seven times the total annual emissions of all citizens and businesses in the Netherlands.[1038]

963. Furthermore, the Global Oil & Gas Exit List for 2025 shows that Shell has been one of the world's largest investors in new field exploration over the past three years.[1039] This means that Shell is still expanding its portfolio and has also still actively explored in "new frontiers" in recent years: these are areas where there is no oil and gas infrastructure at all yet. According to its 2024 Annual Report, Shell is active in 23 countries in oil and/or gas exploration, and in 23 countries in oil and/or gas development and/or production.[1040]

964. Due to the lock-in effect of investments in new oil and gas fields described above, Shell is not only betting its money on a future without effective climate action, but is also actively helping to create that future. If all oil and gas companies – such as Shell – continue to invest in oil and gas production that is incompatible with the 1.5°C target, the future will be locked into a path that is inconsistent with this temperature target. After all, the fossil-fuel industry will then continue to fight tooth and nail against the transition pathway to 1.5°C, because it will not be willing to write off its investments.

965. The need to stop developing new oil and gas fields has also been discussed extensively in the first Shell case, in which Milieudefensie had demanded a 45% reduction in CO_2 emissions by 2030 relative to the 2019 level. Milieudefensie has consistently explained in this context that it would be feasible for Shell to comply with the reduction order, as this order would even allow it to continue operating the oil and gas fields that are now producing. If Shell had stopped approving new oil and gas fields and ceased the development of fields in September 2022, the emissions associated with Shell's production activities would already have fallen by approximately 45% by 2030.[1041]

966. Against the backdrop of the debate on the compatibility of new oil and gas fields with the 1.5°C target, the Court of Appeal found that "*the use of fossil fuels imposed by the supply side of the market could seriously delay the energy transition*", that it is plausible, in that light, that fossil-fuel supply must be limited in order to achieve the climate targets and that the societal duty of care of oil and gas companies requires them to take responsibility and therefore "*consider, when deciding on investments in fossil-fuel production, the negative consequences that a further expansion of fossil-fuels supply will have for the energy transition*."[1042] To this, the Court of Appeal added that Shell's proposed investments might be at odds with this, but did not comment on this specifically, because the only question before the Court was whether Shell could be required to reduce its global emissions by 45% or any other percentage by 2030.

967. In this lawsuit, Milieudefensie is specifically seeking an order requiring Shell to cease, continue to cease and not restart the production of oil and gas from fields for which the final investment decision was taken after (principally) 1 January 2022, or at least on one of the dates set out in the alternative demands (demands (7)(a) up to and including (d) of the relief sought by Milieudefensie).

[1037] Ibid.
[1038] Ibid.
[1039] Exhibit MD-201, Urgewald 4 November 2025, "Global Oil & Gas Exit List 2025: Expansion Outpacing Climate Action", p. 2 and the accompanying image.
[1040] Exhibit MD-003, Shell Annual Report 2025 (selected pages), p. 47.
[1041] Oil Change International 30 September 2022, "Shell's Fossil Fuel Production Still Pushing the World Towards Climate Chaos", p. 4, available at https://oilchange.org/publications/shell-fossil-fuel-production-climate-chaos/.
[1042] Court of Appeal of The Hague 12 November 2024, ECLI:NL:GHDHA:2024:2099, grounds 7.59-7.61.

968. In this chapter, it was explained in detail - in addition to what was already discussed in chapters 7 and 8, that Shell must be deemed to have known, for many years, that it was objectively necessary to stop developing new oil and gas fields in order to gradually phase out oil and gas production and thereby also reduce the lock-in of fossil-fuel infrastructure.

969. Given Shell's knowledge and the exceptionally inhibiting effect of investments in new fields, Milieudefensie principally believes that Shell should have stopped making final investment decisions for new oil and gas fields within a reasonable period of time after the date on which the IEA published its first NZE scenario. That is why 1 January 2022 is the principal date requested for the issue of the injunction as formulated by Milieudefensie in the relief sought. This is partly against the background of the fact that, at the latest since the Paris Agreement in 2015, when virtually all countries worldwide committed themselves under treaty law to limiting global warming to 1.5°C, it was or should have been clear to Shell that increasing oil and gas production would pose major risks to the climate approach and the associated energy transition, as even the existing fields would already exhaust the carbon budget. Instead, the then CEO of Shell stated in response to the Paris Agreement, "I will pump up everything I can pump up".[1043] An analysis of credible scenarios from the 2018 SR1.5 report subsequently showed that the existing fields could already meet the demand for oil and gas to a significant degree. In view of all this, Milieudefensie believes that Shell's societal duty of care requires that it should not have approved new oil and gas fields anymore after 1 January 2022 – well after the IEA had also clarified that no new oil and gas fields are needed on the road to net zero emissions in 2050 – and should therefore stop producing oil and gas from fields for which the final investment decision was only taken after that date.

970. In the alternative, Milieudefensie requests the Court to set the reference date for discontinuing new oil and gas fields at 12 November 2024, the date of the Court of Appeal's judgment in which it was found that Shell's investments in new oil and gas fields might be at odds with Shell's societal duty of care.

971. Insofar as this Court should consider it inappropriate to grant an injunction with effect from a date lying in the past, Milieudefensie demands (in the further alternative) a halt to new fields with effect from the date of this summons, or at least (in the ultimate alternative) with effect from the date of the judgment to be given in this case.

972. Demand (8) of the relief sought is an ancillary demand aimed at also having the "no new fields" standard applied to the Shell Group's trading division. After all, Shell does not only produce oil and gas itself. As explained in chapter 11.3.3.1, approximately two-thirds of the Shell Group CO_2 emissions are caused by the sale by Shell of oil, gas and energy products obtained from oil and gas (such as petrol, diesel, kerosene, fuel oil or LNG) produced by third parties rather than by the Shell Group. Some of these third parties are being financed and facilitated otherwise by Shell by means of credits and guarantees, subject to the agreement that Shell can subsequently purchase the oil and gas produced by the third parties from these parties and sell them via its trading unit, Shell Trading.[1044] What this means in fact is that Shell is partly outsourcing the production of oil and gas and so is kick-starting new oil and gas production in order to safeguard that it can also continue to purchase large volumes of oil and gas in the future. In this manner, Shell therefore also has an important and driving role in the development of new oil and gas production by producers other than Shell.

[1043] NOS 4 February 2016, "*Topman Shell: ik pomp alles op wat ik kan oppompen*" (Shell top executive: I will pump up everything I can pump up), available at https://nos.nl/nieuwsuur/artikel/2084934-topman-shell-ik-pomp-alles-op-wat-ik-kan-oppompen.
[1044] Exhibit MD-202, Data Desk (2024), "Shell Trading, an overview of Shell's trading unit, p. 1, p. 13 and p. 14.

973. Seeing everything that has been discussed in this chapter 11.4, it is also important that Shell stops trading and selling oil, gas or energy products produced from oil and gas from new oil and gas fields, insofar as Shell or other Shell Group entities know or can reasonably know that this oil or gas or these energy products produced from oil and gas originate from oil and gas fields for which the final investment was taken after a reference date to be determined by the District Court, as mentioned in demand (7) (from "Principally" up to and including "In the final alternative").

974. Finally, demand (9) seeks to prevent Shell from simply transferring the oil or gas fields or the rights to develop such fields or the rights to produce from such fields, to third parties. After all, in that case Shell would enable those third parties to extract oil and gas in violation of the "no new fields" standard, and the carbon lock-in would not be reduced. For this, too, it concerns oil and gas fields (or the rights in oil and gas fields) for which the final investment decision was taken after a reference date to be determined by the court, as set out (from "principally" until "in the final alternative") in demand (7).

11.5 CONCLUSION: SHELL IS BREACHING ITS SOCIETAL DUTY OF CARE

975. It has been clear to Shell for a long time what it can and must do to contribute to preventing dangerous climate change. After all, there can be no doubt about the danger of climate change, the global emission reductions needed to avert that danger and Shell's legal responsibility to contribute to this. It is equally clear what climate measures Shell's contribution must consist of as a minimum, and that Shell must be deemed capable of actually making this contribution.

976. Nevertheless, Shell has opted for an inadequate climate policy: it has no targets or concrete plans to reduce its total Scope 1, 2 and 3 emissions. Its ambition to achieve net zero emissions in 25 years' time can rightly be called a marketing slogan. A slogan that means nothing more and nothing less than a confirmation that Shell has no intention whatsoever to proactively bring down its oil and gas sales.

977. Because Shell is required to take the described climate measures on the basis of its legally enforceable duty of care under Section 6:162(2) DCC, Shell is committing an unlawful act that must be stopped, or at least Shell is threatening to commit an unlawful act that must be prevented. It is this unlawfulness that Milieudefensie is protesting against, and why Milieudefensie is requesting this Court to order Shell to take the climate measures described in this chapter, as formulated in more detail in the relief sought. Shell is obliged to do so on the basis of its legal duty, and the interest in and urgency of complying with that legal duty by means of an injunction imposed under Section 3:296 DCC is evident and greater than ever.

978. To conclude this summons, Milieudefensie will also discuss both the effectiveness defence that Shell might raise and the defences that Shell has already raised in response to Milieudefensie's notice of liability in more detail in the following chapters, and explain that these defences are untenable.

12 THE DEMANDED CLIMATE MEASURES ARE EFFECTIVE

12.1 INTRODUCTION

979. It is conceivable that Shell will also argue in this case that granting Milieudefensie's demands would not be effective viewed from a global perspective, for example because the fields that Shell will not develop or the emission reductions that Shell will achieve will not, or will hardly, lead to a reduction in global greenhouse gas

emissions. Shell is expected to argue, in the same way as in the first climate case, that its emission reductions will be offset by an increase in the emissions from others and/or that others will develop the oil and gas fields that Shell will not develop.

980. Such an effectiveness defence may take the form of both a cause-and-effect defence under Section 6:162 DCC and a challenge of the existence of an interest on the part of Milieudefensie within the meaning of Section 3:303 DCC.

981. When assessing such a defence, it should first and foremost be realised that it is sufficient to demonstrate that there is a real threat of danger against which the party being sued must take measures. Moreover, this case concerns a preventive action, not an action for damages (just as in the *Urgenda* case and the first *Shell* case, among other cases).

982. The effectiveness defence runs counter to established Dutch case law, has also been rejected in judgments of foreign courts and disregards the broad international acknowledgment that the climate measures sought not only make a direct contribution to combating climate change, but also have important (indirect) effects that help to accelerate global climate action (including the "flywheel effect").

983. Milieudefensie will explain this below, where the ruling of the Court of Appeal of The Hague on Shell's effectiveness defence in the first case will also be discussed; the Dutch Supreme Court is expected to rule on this matter in the first half of 2027.

12.2 **DUTCH CASE LAW**

984. In the preceding chapters, Milieudefensie has explained that the unlawfulness of Shell's inadequate climate policy consists of Shell's failure to take the climate measures demanded by Milieudefensie, and that Shell's societal duty of care requiring it to take these climate measures follows from a large number of objective points of reference. Many of these objective points of reference – including various UN initiatives and partnerships, expert reports, soft law (such as the UNGP and the OECD guidelines) and climate protocols for companies – are based on the premise that companies such as Shell have an *individual* opportunity and responsibility to make an effective contribution to global climate goals by taking *individual* climate measures, including absolute Scope 1, 2 and 3 emission reductions.

985. This is relevant for two reasons.

986. The first reason is that it has been established, as evidenced by the above-mentioned objective points of reference, that Shell's Scope 1, 2 and 3 emissions increase the concentration of greenhouse gases in the atmosphere and thus contribute to the risk of climate change, and that by taking the (individual) climate measures demanded by Milieudefensie, an effective contribution can be made to the (global) climate targets. The (individual) emission reductions to be achieved with these climate measures will contribute to the necessary (global) greenhouse gas emission reductions; this contribution will be of considerable significance in the case of Shell, given its high greenhouse gas emissions, which are surpassed only by the four superpowers China, the US, India and Russia.[1045] Furthermore, the atmospheric greenhouse gas emissions are ultimately determined, in any

[1045] The footprint of the other 193 signatories to the UN Climate Convention is only a fraction of that of Shell's. For example, the CO_2 footprint of another industrial

event to the extent relevant to the onset of dangerous climate change, by the combined Scope 1, 2 and 3 emissions of all individual companies, so that even the reduction by one of them will or can also have a positive effect on combating climate change. Furthermore, the ruling of the Court of Appeal in the case against Shell shows that all (large) companies have a duty of care to reduce emissions; this means that not only Shell will have to take adequate climate measures, but such action may also be expected from other companies, including other oil and gas producers and their customers. Moreover, climate action by individual (state and non-state) actors will strengthen the confidence in – and thus the effectiveness of – global climate action (the "flywheel effect"; see chapter 7 above), which will certainly also apply to climate action by Shell as one of the five largest and most influential oil and gas companies in the world.[1046]

987. A second reason is that the above-mentioned individual ability and responsibility to take individual climate measures, as evidenced by the above-mentioned objective points of reference, form the core of Shell's societal duty of care that Milieudefensie is calling Shell to account for in this case. The unlawfulness that Milieudefensie seeks to address with its demands consists of the fact that Shell's climate policy – in violation of that duty of care – does not provide for the relevant individual climate measures. If Milieudefensie's demands requiring Shell to take these measures are admitted, the unlawfulness that Milieudefensie is calling Shell to account for will be addressed and Shell's violation of the law will thereby be ended. This means that awarding Milieudefensie's demands is sufficiently effective.

988. According to Milieudefensie, the award of a plaintiff's demand by the court is sufficiently effective, under Dutch law, if that award will effectively contribute to removing the unlawfulness of the acts or omission of the party sued. In other words, what a plaintiff demands must be an effective measure against the (individual) unlawful act or omission of the party sued, but not necessarily against the (wider) problem that is also contributed to by other parties.

989. The fact that this legal principle actually applies is evident from established case law of, among other judicial bodies, the Dutch Supreme Court. In the *Urgenda* case, for example, the effectiveness defence raised by the Dutch state was rejected, because the state has a share of the responsibility that must be capable of being enforced. As the Dutch Supreme Court put it:

> *"The defence that the state's own share in the global greenhouse gas emissions is only very small and that reducing emissions from the state's own territory will make little difference on a global scale cannot be accepted either. After all, accepting these defences would mean that a country could simply shirk its share of the responsibility by pointing to other countries or to its small share. If, on the other hand, this defence is ruled out, each country can be held effectively accountable for its share of the emissions and the chance that all countries will actually make their contributions is the largest [...] In this context, it is also important to note that, as discussed in 4.6 above with regard to the carbon budget, every reduction in greenhouse gas emissions will have a positive effect on combating dangerous climate change. After all, every reduction means that more room remains in the carbon budget. The defence that an obligation for individual states to reduce greenhouse gas emissions is ineffective because other countries will continue to emit greenhouse gases is also invalid for this reason: no reduction can be considered negligible."* [1047]

990. The Dutch Supreme Court followed the opinion of Procurator General Langemeijer and Advocate General Wissink on this point. Langemeijer and Wissink also referred in their opinion to the ruling of the US Supreme Court in the famous *Massachusetts v. EPA* case of 2 April 2007, in which Massachusetts had demanded that the

superpower such as the United Kingdom is not even 1/3rd of Shell's footprint , and the footprint of the Netherlands is only 1/9th of that of Shell.

[1046] In terms of turnover, Shell is the fifth largest oil and gas company in the world, as already explained earlier in this summons, see also https://companiesmarketcap.com/oil-gas/largest-oil-and-gas-companies-by-revenue/ (last accessed on 5 February 2026).

[1047] Supreme Court 20 December 2019, ECLI:NL:HR:2019:2006, grounds 5.7.7 and 5.7.8.

EPA (the American federal environmental agency) should take stricter measures to reduce emissions in the automotive sector in the US to combat climate change.[1048] One of EPA's defences was that stricter emission reduction measures in the US automotive sector would only lead to minor emission reductions, which would, moreover, be completely offset by the increase in CO_2 emissions in India and China. This defence was not accepted by the US Supreme Court as an argument for the EPA to refrain from taking reduction measures in the automotive sector. According to the US Supreme Court, it was undisputed that the American emissions that the EPA refused to regulate were substantial in themselves and that, although the positive effect of the EPA's regulation would be more than offset by emission increases in China and India, regulation by the EPA would nevertheless contribute to slowing down and mitigating the process of climate change. The US Supreme Court expressed this as follows:

> *"Its* [an] *erroneous assumption that a small incremental step, because it is incremental, can never be challenged in a federal judicial forum. Yet accepting that premise would doom most challenges to regulatory action. Agencies, like legislatures, do not generally resolve massive problems in one fell regulatory swoop.*
> […]
> *While it may be true that regulating motor-vehicle emissions will not by itself reverse global warming, it by no means follows that we lack jurisdiction to decide whether the EPA has a duty to take steps to slow or reduce it.*
> […]
> *A reduction in domestic emissions would slow the pace of global emissions increases, no matter what happens elsewhere."* [1049]

991. In another case against the Dutch state, the Court of Appeal of The Hague ruled in 2024, with reference to the *Urgenda* judgment, that the possible supply of F-35 parts by countries other than the Netherlands does not prevent the Dutch state from being held accountable for the unlawfulness of its own supplies. The defence raised by the state (and rejected by the Court of Appeal) in this case bears a strong resemblance to the defence that one party's emission reductions will be (or can be) offset by another party's emission increases:

> *"The state has also argued that the actual interest of Oxfam Novib et al. in these proceedings is negligible, if not nil, because Israel will get the F-35 parts anyhow (possibly with a delay), for example through direct delivery by the US. The Court of Appeal cannot speculate about or anticipate whether other countries will supply the F-35 parts to Israel if the Netherlands would stop doing so, and the Court of Appeal cannot assess either whether that would be lawful.* […] *The interest of Oxfam Novib et al. in preventing the unlawful export of military goods from the Netherlands to Israel is not negated by the fact that other countries may also be acting unlawfully by taking over the deliveries."*[1050]

992. The principle on which these considerations are based is also evident from the *Pirate Bay* judgment of the Dutch Supreme Court, which further illustrates that this principle also applies to relationships between private actors. In this case, the foundation Stichting Brein had sought an injunction against two internet providers to block the website "The Pirate Bay", a torrent site that infringed copyrights because software was made available illegally. One of the defences raised by the internet providers was that the injunction would be ineffective, because a reduction in the visits to The Pirate Bay would not result in fewer copyright infringements, seeing that there were also other torrent sites available to use. This defence – which is also very similar to the defence that one party's emission reductions are offset by another party's emission increases – was also rejected by the Dutch Supreme Court.[1051]

[1048] Supreme Court 20 December 2019, ECLI:NL:HR:2019:2006, opinion of F.F. Langemeijer and M.H. Wissink, paras. 2.10 up to and including 2.13.
[1049] US Supreme Court, *Massachusetts v. Environmental Protection Agency*, 549 U.S. 497 (2007), 2 April 2007, pp. 21-23 (opinion of the court).
[1050] Court of Appeal of The Hague 12 February 2024, ECLI:NL:GHDHA:2024:191, ground 5.45. The Dutch Supreme Court gave judgment in this case on 3 October 2025 (ECLI:NL:HR:2025:1435). It follows from that judgment that the Minister had to reassess the export licence for F-35 parts to Israel within six weeks; the criterion to be applied by the Minister should be whether granting the licence would entail a clear risk of serious violations of international humanitarian law. The Supreme Court's judgment does not detract from the Court of Appeal's ruling cited here that, for the assessment of the interest of Oxfam Novib et al. in this case, it was irrelevant whether other countries would supply the F-35 parts in response to the Netherlands' withdrawal of the export licence for F-35 parts. This is evidently the state's own responsibility.
[1051] Dutch Supreme Court 13 November 2015, ECLI:NL:HR:2015:3307, grounds 4.2.2 and 4.2.3.

993. As said, the above-mentioned defence was also raised in the first Shell case. However, according to the District Court, this defence did not preclude a reduction order. In rejecting the defence, the District Court took as its starting-point – bearing in mind the role of non-state actors – that Shell (RDS) has an individual, independent responsibility to do its part in combating dangerous climate change.[1052] The District Court went on to find that this responsibility is not negated by the fact that combating climate change also requires action by many other state and non-state actors. In this regard, the District Court indicated that every greenhouse gas emission reduction, no matter how small, will help to combat climate change:

> *"RDS has argued that the reduction obligation will have no effect or will even be counterproductive* [...] *What is also important to note here is that any greenhouse gas emission reduction will have a positive effect on combating dangerous climate change. After all, every reduction means that more room remains in the carbon budget. The District Court acknowledges that RDS cannot solve this problem on a global scale on its own. However, this does not relieve RDS of its individual share of responsibility to do its part with regard to the Shell group emissions over which it has control and influence*." [1053]

994. On appeal, Shell again argued that a reduction order would not be effective, an argument that the Court of Appeal partly went along with. By doing so, the Court of Appeal has misinterpreted the case law discussed in this chapter and applied an incorrect test. Milieudefensie is therefore addressing this in its appeal taken against the Court of Appeal's judgment to the Supreme Court. Furthermore, the Court of Appeal's judgment fails to recognise that the effectiveness defence has also been rejected by foreign courts. Milieudefensie will explain this in more detail below.

12.3 OTHER RELEVANT CASE LAW

995. Various authoritative decisions by foreign courts also show that (and why) an effectiveness defence cannot succeed.

996. In addition to the above-mentioned ruling by the US Supreme Court in the 2007 *Massachusetts v. EPA* case (see paragraph 965), Milieudefensie first refers to the 2024 *Held v. Montana* ruling by the Montana Supreme Court. This case concerned the lawfulness of a provision in the Montana Environmental Policy Act ("MEPA") *forbidding* the state of Montana, when granting permits, to consider the greenhouse gas emissions of new energy projects (the "MEPA Limitation"); according to sixteen children and young people from Montana (including Rikki Held), this resulted in a violation of their rights to a clean and healthy environment under the Montana Constitution.[1054] The US Supreme Court confirmed this view and, in its reasoning, rejected the effectiveness defence put forward by the state of Montana (referring, among other things, to the above-mentioned US Supreme Court ruling in *Massachusetts v. EPA*).

997. According to the US Supreme Court, the non-application of the MEPA Limitation would hardly contribute to combating climate change in general, but *would* redress the state's infringement of the (constitutional) rights relied on by the Plaintiffs. The US Supreme Court also recognised that accepting the effectiveness defence would mean that the state would be effectively immunised from any legal review of its compliance with (constitutional) obligations. In the words of the Supreme Court:

> "*It may be true that the MEPA Limitation is only a small contributor to climate change generally, and that declaring it unconstitutional*

[1052] District Court of The Hague 26 May 2021, ECLI:NL:RBDHA:2021:5337, grounds 4.4.16, 4.4.49-4.4.52 and 4.4.54.
[1053] District Court of The Hague 26 May 2021, ECLI:NL:RBDHA:2021:5337, ground 4.4.49.
[1054] Supreme Court of Montana, *Held et al. v. the State of Montana*, 2024 MT 312, DA 23-0575, 18 December 2024.

will do little to reverse climate change. But our focus here, as with Plaintiffs' injuries and causation, is not on redressing climate change, but on redressing their constitutional injuries [...]

Thus, the question is whether legal relief can effectively alleviate, remedy, or prevent Plaintiffs' constitutional injury, not on whether declaring a law unconstitutional will effectively stop or reverse climate change. [...]

Plaintiffs allege that the MEPA Limitation causes a violation of their constitutional rights, which is their injury. Declaring that law unconstitutional and enjoining the State from acting in accordance with it will effectively alleviate that constitutional injury—that the State is acting in opposition to its affirmative constitutional duty through the MEPA Limitation—even if other statutes not at issue here also cause constitutional injuries. […]

Moreover, we recognise that denying Plaintiffs standing under the State's arguments would effectively immunise from review an important constitutional question to the public. […]

Plaintiffs have standing for the declaratory and injunctive relief they seek because they allege that the MEPA Limitation violates their right to a clean and healthful environment and declaring it unconstitutional will alleviate the harm that that statute causes to their constitutional right."[1055]

998. Within the European legal system, Milieudefensie refers to the ruling of the German Federal Constitutional Court in the *Neubauer* case, in which the effectiveness defence also came up for discussion. In this ruling, the Court emphasised that any greenhouse gas emissions above the remaining carbon budget would further increase the risk of climate change. The fact that the climate measures by the German federal government cannot avert dangerous climate change in themselves does not exempt that government, according to the Court, from its obligation to take climate measures. The fact that this, in itself, is not sufficient to prevent dangerous climate change, because this also requires reductions by other states, does not alter this, according to the Court; on the contrary, this actually underlines the responsibility of the German federal government to do its part. After all, by doing so, that government will strengthen the mutual confidence between states that climate change can be successfully combated through cooperation:

"There is a direct causal link between anthropogenic climate change and concentrations of human-induced greenhouse gases in the Earth's atmosphere […] With every amount of CO_2 emitted over and above a small climate-neutral quantity, the Earth's temperature rises further along its irreversible trajectory and climate change also undergoes an irreversible progression. If global warming is to be halted at a specific temperature limit, nothing more than the amount of CO_2 corresponding to this limit may be emitted. The world has a so-called remaining CO_2 budget. If emissions go beyond this remaining budget, the temperature limit will be exceeded." [1056]

Either way, the obligation to take national climate action cannot be invalidated by arguing that such action would be incapable of stopping climate change. It is true that Germany would not be capable of preventing climate change on its own. Its isolated activity is clearly not the only causal factor determining the progression of climate change and the effectiveness of climate action. Climate change can only be stopped if climate neutrality is achieved worldwide. In view of the global reduction requirements, Germany's 2% share of worldwide CO_2 emissions (BMU, Climate Action in Figures, 2020 edition, p. 12) is only a small factor, but if Germany's climate action measures are embedded within global efforts, they are capable of playing a part in the overall drive to bring climate change to a halt […].

The state may not evade its responsibility here by pointing to greenhouse gas emissions in other states (cf. VG Berlin, Judgment of 31 October 2019 - 10 K 412.18 -, para. 74; also BVerwG, Judgment of 30 June 2005 - 7 C 26/04 -, para. 35 f.; High Court of New Zealand, Judgment of 2 November 2017, CIV 2015-485-919 [2017] NZHC 733, para. 133 f.; Court of Appeal of The Hague, Judgment of 9 October 2018, 200.178.245/01, no. 64; Supreme Court of the Netherlands, Judgment of 20 December 2019, 19/00135, no. 5.7.7; United States Court of Appeals for the Ninth Circuit, Judgment of 17 January 2020, no. 18-36082, p. 19 f.). On the contrary, the particular reliance on the international community gives rise to a constitutional necessity to actually implement one's own climate

[1055] Ibid, paras. 51 up to and including 53.
[1056] BVerfG 24 March 2021, *Neubauer*, Official English translation, grounds 119 to 203, available at https://www.bundesverfassungsgericht.de/SharedDocs/Downloads/EN/2021/03/rs20210324_1bvr265618en.pdf?_blob=publicationFile&v=2.

action measures at the national level – in international agreement wherever possible. […] Its own activities should serve to strengthen international confidence in the fact that climate action – particularly the pursuit of treaty-based climate targets – can be successful […]*"*[1057]

999. In the Belgian *Klimaatzaak* case, the effectiveness defence did not stand in the way of the obligation to take climate measures either. In this case, the Brussels Court of Appeal ordered the Belgian federal State and the Brussels and Flemish Regions to achieve an emission reduction of at least 55% by 2030, despite their defence that the impact of emissions on Belgian territory is minimal on a global scale.[1058] According to the Brussels Court of Appeal, the emission reductions by the Belgian federal State and the Brussels and Flemish Regions – which are relatively small on a global scale – will make it possible to limit dangerous climate change as much as possible. This is partly because it will strengthen mutual confidence between states, in the same way as the German Federal Constitutional Court had found. In the words of the Brussels Court of Appeal (unofficial translation):

"However, part of this harm (the so-called dangerous global warming and excessive harm to the remaining carbon budget) has not yet occurred and the risk of it occurring can be limited if Belgium, like other countries, does its part in the fight against global warming."[1059]

Contrary to what the Belgian State has specifically asserted (its conclusions in paragraph 402, p. 225), the order to take sufficient and appropriate measures to achieve a specific target, namely the reduction of greenhouse gas emissions on Belgian territory, is perfectly compatible with the violations of Articles 2 and 8 ECHR found above. Pursuing this target and putting it into practice will make it possible to reduce the risk of limiting dangerous global warming as much as possible, end the violations found above and is the only way of ensuring the effective protection of constitutional rights guaranteed internationally. […]

The national contributions of each state party to the UNFCCC, including Belgium, to reduce greenhouse gas emissions are the most important tool available to the world to prevent and limit the risk of dangerous global warming. These international agreements are based on the mutual confidence of the participating states that each of them will contribute to the efforts needed to achieve the desired result, and the contribution of each state, including a "small" state such as Belgium (on a global scale), thus plays a decisive role in the fight against global warming. Requiring the Belgian State and the Flemish and Brussels Regions to reduce their greenhouse gas emissions by 2030 constitutes both the most appropriate compensation in kind for the damage already caused and prevents future harm [...].[1060]

1000. As a final example of European case law in which the effectiveness defence was rejected by a court of law, Milieudefensie refers to the *KlimaSeniorinnen* ruling of the ECtHR. In this ruling, the ECtHR also confirmed the principle that an individual actor cannot evade their share of responsibility in the climate challenge by pointing to the responsibilities of others. In this context, the ECtHR referred, among other things, to the (widely recognised) CBDR principle (see chapter 9.2.6.3):

"For its part, the Court notes that while climate change is undoubtedly a global phenomenon which should be addressed at the global level by the community of States, the global climate regime established under the UNFCCC rests on the principle of common but differentiated responsibilities and respective capabilities of States (Article 3 § 1). This principle has been reaffirmed in the Paris Agreement (Article 2 § 2) and endorsed in the Glasgow Climate Pact (cited above, paragraph 18) as well as in the Sharm el-Sheikh Implementation Plan (cited above, paragraph 12). It follows, therefore, that each State has its own share of responsibilities to take measures to tackle climate change and that the taking of those measures is determined by the State's own capabilities rather than by any specific action (or omission) of any other State (see Duarte Agostinho and Others, cited above, §§ 202-03). The Court considers that a respondent State should not evade its responsibility by pointing to the responsibility of other States, whether Contracting

[1057] Ibid, grounds 202 and 203.
[1058] Brussels Court of Appeal 30 November 2023, 2021/AR/15gs 2022/AR/737 and 2022/AR891, grounds 259, 260 and 261. See also Exhibit MD-174, Brussels Court of Appeal 30 November 2023, *Klimaatzaak*, unofficial English translation.
[1059] Ibid, ground 278.
[1060] Ibid, grounds 282 and 283.

Parties to the Convention or not.[1061]

1001. The ICJ has also concluded that a state cannot evade its share of responsibility by pointing to the responsibility of others. Each state must individually comply with their mitigation obligations and other obligations laid down by the ICJ in its Advisory Opinion on the Obligations of States in respect of Climate Change.[1062] According to the ICJ, the wrongful conduct can be attributed to a state on the basis of its individual obligations to contribute to solving the collective problem of climate change. In this context, the individual wrongful act of a state is not necessarily related to the emissions as such, but to the fact that the state is not fulfilling its individual obligations in an international context while being required to do so under treaty law and international customary law.[1063] This means there is an individual responsibility, which is unrelated to the responsibilities of others, and therefore, according to the ICJ, any aggrieved state can also take legal action against any other state that has failed to comply with its climate obligations.[1064]

1002. Finally, the Inter-American Court of Human Rights has also concluded in its advisory opinion that climate obligations, including the mitigation obligation, apply to each member state individually. The fact that all states must take effective climate measures individually follows, among other things, from the protection based on human rights law that each state must individually offer to its citizens.[1065]

12.4 WIDER EFFECTS

1003. In paragraph 962 et seq. above, Milieudefensie discussed that the effectiveness defence already fails because of the starting-point that it is sufficient, for awarding the demanded climate measures, that the climate measures address the unlawfulness that Milieudefensie is holding Shell accountable for in this case; this criterion is met in this case. In case more effectiveness should actually be required, Milieudefensie refers to the explanation given in paragraph 961. The following is also important to note.

1004. The demanded climate measures cannot only be regarded as leading to a greenhouse gas emission reduction in a direct sense, but they will also have wider effects that contribute to the success of global climate action in a more indirect manner, namely by strengthening mutual confidence in the fulfilment of individual responsibilities (or shares of responsibilities). In this context, Milieudefensie points to the "flywheel effect" of emission reductions by large (state *and* non-state) emitters, as described in chapter 7.

1005. The fact that the flywheel effect also has legal relevance is evident from the great importance attached to it by the German Federal Constitutional Court and the Brussels Court of Appeal. As shown above, these Courts have explicitly recognised that the fulfilment by large emitters of their individual responsibilities will strengthen mutual confidence, which will accelerate the solution of the climate problem.

1006. Apart from the flywheel effect, an award of Milieudefensie's demands by this Court would also have wider effects that this Court should consider when assessing the effectiveness defence. As far as Milieudefensie is concerned, it would prefer its interests to be sufficiently looked after without having to take legal action. However, if legal proceedings are unavoidable nevertheless, like in this case, they can also be expected to strengthen the global

[1061] ECHR 9 April 2024, ECLI:CE:ECHR:2024:0409JUD005360020, para. 442. See also para. 478.
[1062] ICJ 23 July 2025, "Advisory Opinion on the Obligations of States in respect of Climate Change".
[1063] ICJ 23 July 2025, "Advisory Opinion on the Obligations of States in respect of Climate Change", para. 427.
[1064] ICJ 23 July 2025, "Advisory Opinion on the Obligations of States in respect of Climate Change", para. 431.
[1065] Inter-American Court of Human Rights, "Advisory Opinion OC-32/25 of 29 May 2025, Climate Emergency and Human Rights", Chapter VI.

tackling of climate change. The influence that legal proceedings have on global climate action, in addition to the direct consequences of the court cases for the parties involved, has now even been recognised by the IPCC:

> *"Systemic climate litigation that seeks an increase a country's ambition to tackle climate change has been a growing trend since the first court victories in the Urgenda case in the Netherlands [...] In May 2021, the Hague District Court of the Netherlands issued a groundbreaking judgment holding energy company Royal Dutch Shell (RDS) legally responsible for greenhouse gas emissions from its entire value chain (Macchi and Zeben 2021).* […] *These litigation cases also impact on the financial market without directly involving specific financial institutions into the case (Solana 2020) but somehow aim to change their risk perceptions and attitude on high carbon activities (Griffin 2020).* […] *The outcomes of climate litigation can affect the stringency and ambition of climate governance (McCormick et al. 2018; Eskander et al. 2021).* […] *But these cases can also have impacts outside of the legal proceedings before, during and after the case has been brought and decided (Setzer and Vanhala 2019). These impacts include changes in the behaviour of the parties (Peel and Osofsky 2015; Pals 2021), public opinion (Hilson 2019; Burgers 2020), financial and reputational consequences for involved actors (Solana 2020), and impact on further litigation (Barritt 2020). Individual cases have also attracted considerable media attention, which in turn can influence how climate policy is perceived (Nosek 2018; Barritt and Sediti 2019; Paiement 2020; Hilson 2019). While there is evidence to show the influence of some key cases on climate agenda-setting (Wonneberger and Vliegenthart 2021), it is still unclear the extent to which climate litigation actually results in new climate rules and policies (Peel and Osofsky 2018; Setzer and Vanhala 2019; Peel and Osofsky 2020) and to what degree this holds true for all cases (Jodoin et al. 2020). However, there is now increasing academic agreement that climate litigation has become a powerful force in climate governance (Bouwer 2018; Peel and Osofsky 2020; United Nations Environment Programme 2020; Burgers 2020)."* [1066] (underlining added by counsel)

1007. There is no doubt that the flywheel effect discussed above and the (wider) effects mentioned by the IPCC can also be expected in the event of decisive climate action by Shell (if this Court awards Milieudefensie's demands). Shell's emissions are very substantial and Shell's systemic relevance is also undeniable in other respects, given, among other things, its LNG fleet (the largest in the world),[1067] its global distribution network,[1068] its financing of independent oil producers[1069] and its trading division (the largest in the world).[1070]

1008. For all the above reasons, too, the judgment of the Court of Appeal of The Hague on Shell's effectiveness defence in the case against Shell is untenable. After all, it is based on the Court's reasoning that "a possible signalling function of a reduction order [...] is too speculative.[1071] This finding is at odds with the legal significance that was specifically attributed to this signalling function by, among other courts, the German Federal Constitutional Court and the Brussels Court of Appeal, and fails to do justice to the increasing scientific acknowledgment of the wider effect of climate litigation by the IPCC.

12.5 **CONCLUSION**

1009. In this chapter, Milieudefensie has explained that the climate measures it is demanding from Shell are effective. An award of Milieudefensie's demands would mean that the violation of the standard that Milieudefensie is holding Shell accountable for would be redressed, or at least significantly reduced. Moreover, such an award would also mean – as also evidenced by the many sources cited by Milieudefensie in this summons – that Shell will start to effectively contribute to limiting dangerous climate change (or the global greenhouse gas emissions causing that change). This means that if Shell should raise the defence that the measures sought are ineffective, either as a cause-and-effect defence or as a lack-of-interest defence, this defence fails.

[1066] IPCC 2022, AR6, WGIII, H13, par. 13.4.2, pp. 13-30 and 13-31 (see https://www.ipcc.ch/report/ar6/wg3/downloads/report/IPCC_AR6_WGIII_FullReport.pdf).
[1067] Exhibit MD-202, Data Desk (2024), "Shell Trading, an overview of Shell's trading unit", p. 7.
[1068] Exhibit MD-202, Data Desk (2024), "Shell Trading, an overview of Shell's trading unit", pp. 1, 7, 10, 12.
[1069] Exhibit MD-202, Data Desk (2024), "Shell Trading, an overview of Shell's trading unit", pp. 1, 13, 14.
[1070] Exhibit MD-202, Data Desk (2024), "Shell Trading, an overview of Shell's trading unit", p. 5.
[1071] Court of Appeal of The Hague 12 November 2024, ECLI:NL:GHDHA:2024:2099, ground 7.109.

1010. This conclusion does not stand on its own, but also follows from all the Dutch and foreign court judgments discussed in this chapter. The courts' findings in these judgments apply equally to Shell. Also, as the *Urgenda* case shows, the fact of the matter is that if Shell's contribution to global emissions could not be protested against, no effective legal remedy would be available against the greatest conceivable danger. This would mean that no one could actually be held accountable as long as others are not doing enough either. A global challenge such as combating climate change would be doomed to fail from the outset if no one in the world could be required to take action. Everyone would then be able to hide behind the other major polluters, and the first steps towards gradually solving the problem could never be taken. It would also the undermine confidence that all actors with a responsibility in solving the climate problem will actually fulfil that responsibility (the abovementioned "flywheel effect").

1011. The climate problem cannot be solved at once with one major action, but requires that important state and non-state actors with a societal responsibility in the solution can also be held accountable if they do not, or not sufficiently, take on that responsibility. A court order requiring Shell to act in accordance with its responsibility must therefore be seen as an important step in the further solution of the climate problem. As recognised within the scientific community and by the IPCC, the case law discussed above has led to subsequent litigation, both in the Netherlands and abroad, and to a greater awareness within society that climate change is a danger that must be taken seriously and combated by both state actors and important non-state actors. In the same way, a judgment given against Shell will also contribute to averting dangerous climate change. Not only through the changes that Shell will have to undergo, but also through the broader message it will send to other large companies with relatively high emissions and their financiers, accountants and advisors. It will raise awareness that change is really necessary, strengthen confidence that important actors cannot neglect their responsibility here and thus help to bring about that change.

1012. What Milieudefensie wishes to say with the above is that a judgment against Shell in this case – just like the case law discussed above – will be an important next step in averting dangerous climate change. Not only will the measures to be taken by Shell in that case help to reduce the risk of dangerous climate change, but a judgment against Shell will also lead to follow-up steps in the Netherlands and abroad that will bring us closer to solving the problem. The fact that such a judgment will not solve the climate problem with one action does not detract from this. A chain of steps, none of which is decisive, but all of which are equally crucial, must solve the problem. Not least because there is hardly any time left to solve the problem and certainly no time to adopt a wait-and-see attitude. One can only hope that one of these steps will lead to a significant acceleration of global climate action in the coming years, because that is desperately needed. For the well-being of the world and for the interests that Milieudefensie represents, this case against Shell can be seen as an important instrument that, if the Court finds against Shell, will certainly leave its mark on the approach to tackle climate change and the progress of the sustainable climate transition.

13 DEFENCES OF SHELL

1013. As already discussed in the introduction and in chapter 3.4, Milieudefensie has written to the board of directors of Shell, led by CEO Wael Sawan, in letters dated 13 May 2025 and 20 February 2026.

1014. In its letters dated 13 June 2025 and 12 March 2026, Shell confined itself to a brief reaction to Milieudefensie.[1072] In this letter, Shell states, or at least suggests, that its current climate policy is adequate and that litigation against individual companies is not effective in promoting climate action and the energy transition.

1015. Milieudefensie has already explained in the previous chapters why Shell's climate policy is seriously inadequate and why what Shell is being demanded to do is certainly effective, and even the only way forward in combating dangerous climate change. Both of Shell's defences have therefore already been adequately addressed.

1016. Another defence raised by Shell is that it believes that climate action does not stand alone and cannot be the sole objective of the energy transition. Two other objectives are said to be at least as important (if not prevalent) here, namely the importance of energy supply security and the importance of energy affordability. Shell seems to be taking the position here that these are objectives that are fundamentally incompatible, meaning that (to a certain extent) a choice must be made in favour of either the one or the other. Serving people and the environment with adequate climate action would thus be restricted by the above-mentioned energy objectives to be served. And these energy objectives, according to Shell, require the continued significant investment in oil and gas and, in other words, cannot be achieved by shifting investment towards alternative energy sources and a more economical use of energy (energy efficiency).

1017. There are many reasons why this defence cannot succeed. However, because Shell has not substantiated its arguments, Milieudefensie will address Shell's defences relatively briefly at this stage and limit itself to two arguments that show that Shell's position is wrong.

1018. Firstly, the international community of states decided back in 2015 that climate change and energy interests can and must be addressed in synergistic ways and that these interests are not mutually exclusive, but rather complementary. Furthermore, tackling climate change has a special status that reaches further than the above-mentioned energy interests. This will be explained below.

1019. On 25 September 2015, the United Nations adopted the Sustainable Development Goals (SDGs) in Resolution 70/1.[1073] The SDGs comprise the current global sustainable development agenda for all countries. Every country is expected to implement this global agenda.

1020. The SDGs consist of 17 development goals that should be viewed as an integrated and holistic framework. The 17 goals are intended to end poverty, protect the planet and ensure peace and economic well-being for all. Against this backdrop, urgent action to combat climate change (SDG 13) and ensuring access to affordable, reliable, sustainable and modern energy for all (SDG 7) are, naturally, also part of the 17 SDGs.[1074]

1021. According to the global community, the 17 Sustainable Development Goals jointly form the framework for sustainable development in which the economic, social and environmental dimensions are linked and must start reinforcing each other. They therefore provide a good overview of the various social, economic and environmental interests that governments and others must promote synergistically across the globe.

1022. Within the Sustainable Development Goals, however, tackling climate change enjoys a special status. The UN

[1072] Exhibit MD-028, Letter from Shell to Milieudefensie dated 13 June 2025 and Exhibit MD-030, letter from Shell to Milieudefensie dated 12 March 2026.
[1073] Exhibit MD-129, UN Resolution 70/1 "Transforming our world: the 2030 Agenda for Sustainable Development".
[1074] Exhibit MD-129, UN Resolution 70/1 "Transforming our world: the 2030 Agenda for Sustainable Development", p. 19 and p. 23.

Resolution on the SDGs clarifies that the UN Climate Convention takes precedence and that the climate convention carries more weight than the resolution itself.[1075] The Resolution also recognises the special status of climate change by explicitly stating that its adverse impacts as such undermine the ability of all countries to achieve sustainable development.[1076]

1023. Climate change therefore stands in the way, for all countries, of achieving the Sustainable Development Goals. This fact is widely recognised internationally and within the scientific community. For example, the Executive Secretary of the UN Climate Convention and the Under-Secretary for Economic and Social Affairs wrote the following in the renowned scientific journal "Nature Climate Change":

> *"Climate change is more than just one of the 17 Sustainable Development Goals (SDGs) specified in the 2030 Agenda for Sustainable Development* [...] *It is a threat multiplier, with the potential to worsen some of humanity's greatest challenges, including health, poverty, hunger, inequality and ecosystem preservation, among others. Conversely, addressing climate change also offers humanity's greatest chance to positively impact these goals.* […] *In the bigger picture, the 2030 Agenda and the Paris Agreement are really about the same things. They provide our biggest opportunity for positive, systemic change that will ensure a resilient, productive and healthy environment for present and future generations."* [1077] (underlining added by counsel)

1024. The citation makes it clear that climate change stands in the way of achieving the Sustainable Development Goals, while a rapid climate response in line with the Paris Agreement pursues the same goal as the Sustainable Development Goals.

1025. The synergy and conditionality of climate action for sustainable development (including the energy interests implied therein) also follow from the Paris Agreement itself, which was concluded three months after the UN Resolution on Sustainable Development Goals.[1078]

1026. This is already evident from the central objective of the Paris Agreement in Article 2, which provides that the agreement seeks to strengthen the global response to the threat of climate change *"in the context of sustainable development and efforts to eradicate poverty*".[1079] Against this background and with this objective in mind, the 1.5˚ C temperature target was adopted and it was also agreed *to "[make] finance flows consistent with a pathway towards low greenhouse gas emissions and climate-resilient development*".[1080]

1027. The central objective of the Paris Agreement therefore clearly shows that tightening the temperature target to 1.5˚ C and redirecting financial flows towards low-greenhouse-gas development is also intended to promote sustainable development (including energy interests) and eradicate poverty.[1081]

[1075] Addressing climate change is the only one of the 17 goals that consistently comes with an asterisk as a footnote in the resolution. The footnotes each time clarify that the UN Climate Convention is and will continue to be the primary forum for the global response to climate change. The Sustainable Development Goals therefore do not take precedence over the treaty-based climate change response. This is actually logical, as a treaty has a higher legal status than a resolution. See also paragraph 31 of Exhibit MD-129, UN Resolution 70/1 "Transforming our world: the 2030 Agenda for Sustainable Development".

[1076] Exhibit MD-129, UN Resolution 70/1 "Transforming our world: the 2030 Agenda for Sustainable Development", p. 5 (under point 14): "*Climate change is one of the greatest challenges of our time and its adverse impacts undermine the ability of all countries to achieve sustainable development*."

[1077] Exhibit MD-203, Zhenmin et al (2019), "Tackling climate change to accelerate sustainable development", pp. 495–496.

[1078] Exhibit MD-129, UN Resolution 70/1 "Transforming our world: the 2030 Agenda for Sustainable Development", paras. 31 and 32 show that the UN resolution anticipates the Paris Agreement. These two documents were therefore drawn up in alignment with and with reference to each other.

[1079] Exhibit MD-084, Paris Agreement (original English version). See also the preamble: "*Emphasizing the intrinsic relationship that climate change actions, responses and impacts have with equitable access to sustainable development and eradication of poverty*" and "*Recognizing the fundamental priority of safeguarding food security and ending hunger, and the particular vulnerabilities of food production systems to the adverse impacts of climate change*".

[1080] Article 2, preamble, and under a) and c) of the Paris Agreement.

[1081] Similar considerations can be found in the preamble to the Paris Agreement: "*Emphasizing the intrinsic relationship that climate change actions, responses and impacts have with equitable access to sustainable development and eradication of poverty*" and "*Recognizing the fundamental priority of safeguarding food security and ending hunger, and the particular vulnerabilities of food production systems to the adverse impacts of climate change*".

1028. The fact that tackling climate change is synergistic with achieving the Sustainable Development Goals, and is even a prerequisite for them, is also reflected in the wording of SDG 7 on energy security. This goal reads as follows:

> *"Goal 7. Ensure access to affordable, reliable, sustainable and modern energy for all"* [1082]

1029. This wording shows that it is not merely access to affordable and reliable energy that must be ensured – the two components referred to by Shell – but that it must specifically concern sustainable and modern energy. This is understandable. After all, a focus on fossil-fuel energy security and the associated climate change would jeopardise all other Sustainable Development Goals.

1030. A rapid climate response, with a phase-out of fossil fuels (and their emissions and use) and a shift in investment from fossil energy to renewable energy in line with the central objective (in Article 2) of the Paris Agreement, is therefore necessary to achieve the Sustainable Development Goals and to provide energy security and affordability in line with SDG 7.

1031. With this elaboration of SDG 7 on the access to energy, the global community itself has already explicitly indicated how the synergy between climate action and energy security should be found, namely by focusing on sustainable energy and improving energy efficiency. This shows that Shell is wrong to pit energy interests against climate interests and demonstrates that climate action should not and need not be limited because of energy interests. These interests should and can be served within an adequate climate approach and the 1.5°C scenario required for it, partly in view of the special status of climate change as discussed above.

1032. From a legal perspective, too, climate interests have a different status than energy interests. Whereas the case law discussed in this summons shows that there is a human right to a safe climate and therefore to the prevention of dangerous climate change (certainly via the road of Articles 2 and 8 ECHR), there is no (human) right to affordable energy. Neither Dutch law, nor the ECHR recognises such a right.[1077] As a result, the energy interests referred to by Shell can certainly not outweigh the human rights of Dutch residents who are threatened by dangerous climate change. Energy interests are even subordinate to this, especially seeing that human dignity is not under threat if a 1.5°C scenario is followed and an adequate climate policy actually supports energy interests and other social interests.

1033. That brings Milieudefensie to the second reason why energy interests do not stand in the way of adequate climate action. The findings of the IEA, UNEP, ECB and IMF, for instance, show that a fast climate response, including the necessary reductions in oil and gas use, serves the interests of security of supply and affordability of energy, as well as the economic and financial stability interests in the broadest sense. Another reason why this applies is that the damage caused by dangerous climate change will have a much greater impact on society, the economy and the financial stability than the impact of a rapid 1.5°C energy transition. This means that the energy interests mentioned by Shell as well as the broader economic and financial interests of people and business will in fact benefit from a rapid climate response accompanied by a phase-out of oil and gas. All these interests will actually be negatively affected if investment in oil and gas continues, as Shell is advocating on the basis of its own commercial interests only.[1083]

[1082] Exhibit MD-129, UN Resolution 70/1 "Transforming our world: the 2030 Agenda for Sustainable Development", p. 14 and p. 19.
[1083] See the collection "*Recht & Energie – Loopt het recht achter de feiten aan?*" (Law & Energy – Is the law lagging behind reality?), 2023, chapter 3, "*Energie-armoede, staatssteun en de energietransitie*" (Energy poverty, state aid and the energy transition), by A.A. al Katib, T. Barkhuysen & Z. Bassi.

1034. Research performed by the ECB shows that the earlier and the faster the energy transition happens, the better.[1084] According to the ECB, a fast transition, with a halving of the oil and gas consumption in the EU by 2030, is clearly the most beneficial for businesses, households and banks alike. In the event of the current delayed energy transition in the EU, however, energy costs for households in 2030 will be no less than 50% higher than in 2022, according to the ECB.[1085] The research shows that it is in the best interest of businesses, households and banks, both economically and financially and also as far as their energy interests are concerned, that the energy transition happens rapidly and in a way that allows for a responsible and rapid shift away from oil and gas, according to the ECB, with oil and gas consumption already being halved in the period 2022-2030.

1035. Based on climate scenarios from the Network for Greening the Financial System (NGFS) – a group of 127 central banks and financial regulators – the IMF has also concluded that a fast energy transition is in the best interests of society.[1086] In the run-up to COP30, the NGFS also issued a statement on the economic costs of climate inaction (the NGFS Declaration on the Economic Cost of Climate Inaction). According to the NGFS, postponing climate action poses significant risks to economic growth and financial stability. Although the transition to a net-zero economy entails costs, these are significantly lower than the damage caused by increasingly extreme weather conditions and structural climate change. Recent NGFS scenarios show that climate disasters can cause significant regional GDP losses in the short term (3–5 years). These shocks can have global repercussions through disruptions to food supplies, energy prices and supply chains (so including the supply to the energy industry). According to the NFGS, postponing climate measures can also lead in the short term to lower economic activity, rising unemployment, lower disposable income and less budgetary scope for states.[1087] Delaying the necessary climate action could therefore lead to disruptions in energy prices and energy supply and to significant risks to financial stability. A fast energy transition is therefore the best way forward, also according to the IMF and the NGFS.

1036. In a recent article in Dutch newspaper Trouw, European Commissioner Wopke Hoekstra (European Commissioner for Climate, Net-Zero and Clean Growth) expressed similar views on the enormous economic impact of climate change on Europe and indicated that the solution for this should be found in renewable energy:

> *"The impact of global warming on people and society in Europe will be "phenomenal", says Hoekstra. This is because Europe is warming twice as fast as the rest of the world and can therefore expect a rise in temperature of at least 3 degrees. "Don't be under any illusions about the impact this will have on the economy," said Hoekstra. He expects the consequences of climate disasters to cost more than 10 per cent of national income.* […] *According to Hoekstra, solving the problem requires that the focus for next ten years is on electrification, batteries and renewable energy.* […] *This will result in 2 per cent economic growth."*[1088]

1037. The fact that a fast energy transition to renewable energy is the best way forward economically is also confirmed by UNEP. The UNEP Emissions Gap Report 2022 shows that the (economic) damage caused by climate change is already significantly greater at 1.5°C of warming than the costs of rapid climate action. With higher warming

[1084] Exhibit MD-182, Emambakhsh et al. 2023, ECB Occasional Paper Series, "The Road to Paris: stress testing the transition towards a net-zero economy", p. 8: "*The results show that – all other things being equal – the earlier the transition happens, the smaller the financial risk, and consequently the less policy support is required to mitigate the costs*."

[1085] Exhibit MD-182, Emambakhsh et al. 2023, ECB Occasional Paper Series, "The Road to Paris: stress testing the transition towards a net-zero economy", pp. 6-10 and 50-51.

[1086] IMF 5 December 2023, "*Benefits of Accelerating the Climate Transition Outweigh the Costs*", pp. 1-3, available at https://www.imf.org/en/blogs/articles/2023/12/05/benefits-of-accelerating-the-climate-transition-outweigh-the-costs.

[1087] The NGFS Declaration on the Economic Cost of Climate Inaction can be consulted at: https://www.ngfs.net/en/press-release/ngfs-issues-declaration-economic-cost-climate-inaction-cop30.

[1088] Trouw, 1 December 2025, "*Het wordt een tijd van 'stoelriemen vast' voor Nederland en de EU, zegt Eurocommissaris Hoekstra*" (It will be a time of "fasten your seat belts" for the Netherlands and the EU, says European Commissioner Hoekstra), available at: https://www.trouw.nl/buitenland/het-wordt-een-tijd-van-stoelriemen-vast-voor-nederland-en-de-eu-zegt-eurocommissaris-hoekstra~bc0b620d/.

(UNEP also looked at the damage at 2°C, 2.5°C and 3°C of warming), this climate damage will continue to increase, reaching truly alarming levels and a multiple of the costs of climate action. UNEP therefore also shows that the economy as a whole (i.e. including the energy interests linked to the economy) will always benefit more compared to a scenario where climate measures are postponed or delayed, as Shell seems to be advocating.[1089]

1038. As for the affordability of energy (which actually implies energy security, because a lack of energy will easily make affordability impossible), the IEA also confirms that a rapid climate response and the associated energy transition are the best way forward. The IEA takes particular account of the feasibility of the energy transition, while ensuring the security of fuel and electricity supplies. According to the IEA, energy affordability will improve by following the 1.5°C path of the IEA NZE scenario:

> "*By 2030 in the NZE Scenario, total household energy expenditure in emerging market and developing economies decreases by 12% from today's level, and even more in advanced economies*."[1090]

1039. It is therefore not true, as Shell would have us believe, that the affordability of energy would benefit from continuing investments in fossil fuels. The opposite is true, as the Executive Director of the IEA also aptly put in in response to the energy crisis resulting from Russia's attack on Ukraine:

> "*Today's crisis is a reminder of the unsustainability of our reliance on fossil fuels and can be a key turning point to move faster towards a cleaner, more affordable and more secure energy system*."[1091]

1040. After all, in response to this crisis, the IEA observed in its World Energy Outlook 2022 that high energy prices were a consequence of society's excessive dependence on volatile fossil energy and that the energy transition is the solution for this:

> *"High energy prices are causing a huge transfer of wealth from consumers to producers, back to the levels seen in 2014 for oil, but entirely unprecedented for natural gas. High fuel prices account for 90% of the rise in the average costs of electricity generation worldwide, natural gas alone for more than 50%. The costs of renewables and carbon dioxide have played only a marginal role, underscoring that this is a crisis where energy transitions are the solution, rather than the problem*."[1092]

1041. The IEA also indicates that consumers would have been better protected against the crisis if we had started the energy transition earlier, because fuel prices would then have risen less sharply:

> *"Climate policies and net zero emissions commitments were blamed in some quarters for contributing to the run-up in prices, but it is difficult to argue that they played a role. More rapid deployment of clean energy sources and technologies in practice would have helped to protect consumers and mitigate some of the upward pressure on fuel prices."*[1093]

1042. Recent research by TNO also shows specifically for the Netherlands that a rapid energy transition will benefit the energy security and offer protection against fossil-fuel price shocks. What applies to the world as a whole therefore also applies to the Netherlands. The research shows that making the energy system more sustainable

[1089] UNEP Emissions Gap Report 2022, pp. 31-32 (in particular Figure 4.1 "Estimated implications for global GDP of mitigation measures, co-benefits and climate damages", available at https://wedocs.unep.org/bitstream/handle/20.500.11822/40874/EGR2022.pdf?sequence=1&isAllowed=y.

[1090] Exhibit MD-099, IEA 2023, "Net Zero Roadmap, A Global Pathway to Keep the 1.5 °C Goal in Reach, 2023 Update", p. 17. See also IEA World Energy Outlook 2023, p. 187: *"In the NZE Scenario, bills fall by close to 40% to 2030 mainly thanks to higher energy efficiency gains from home retrofits, heat pumps, more efficient appliances and faster uptake of EVs. While these all require additional upfront capital costs, on average they generate larger savings over their lifetimes*", available at https://iea.blob.core.windows.net/assets/86ede39e-4436-42d7-ba2a-edf61467e070/WorldEnergyOutlook2023.pdf.

[1091] Exhibit MD-204, IEA 7 September 2022, "Executive Director rebuts three myths about today's global energy crisis", p. 1. See also Exhibit MD-205, Financial Times, 5 September 2022, "Three myths about the global energy crisis", p. 2.

[1092] Exhibit MD-206, IEA, World Energy Outlook 2022 (selected pages), p. 29

[1093] Exhibit MD-206, IEA, World Energy Outlook 2022 (selected pages), p. 35.

has a strongly dampening effect on the energy costs in the event of fossil-fuel price volatility.[1094]

1043. The TNO research confirms once again what has been clear for some time: a fast climate change response and energy transition is a strategy for economic stability. The more energy is generated from solar and wind power and other renewable sources, the less likely it is that geopolitical conflicts, sabotage or market shocks will disrupt households and businesses. Greater energy independence and energy security resulting from a more sustainable energy system will therefore go hand in hand with greater economic independence.[1095]

1044. In short, it is clear from both the global agreements in UN Resolution 70/1 and the Paris Agreement as well as from the scientific and institutional findings of, among other organisations, the IEA, UNEP, ECB, IMF and TNO, that the affordability and security of the supply of energy are best served by pursuing a 1.5°C policy and thus by shifting energy investments towards renewable energy and energy efficiency, rather than continuing to invest unnecessarily in fossil fuels, as advocated by Shell. The defence that climate action cannot keep up with a 1.5°C scenario in view of energy interests cannot therefore succeed.

1045. In its last letter dated 12 March 2026, Shell, finally, also specifically addresses the alleged consequences of stopping investments in oil and gas fields. According to Shell, the production from conventional oil and gas fields is decreasing by, on average, 5.6 to 6.8% per year globally. Shell says that the demand for oil and gas cannot decrease that quickly, so that new production is required. Shell also cites the IEA, saying that if all investments in existing fields were to be stopped, global oil production would decrease by, on average, 8% per year. This is misleading.

1046. After all, Milieudefensie is not demanding that Shell must stop its investments in existing fields; its demand is directed at new fields. For this reason, the cited 8% is irrelevant.

1047. Also, the IEA makes it clear in, please note, the same report cited by Shell, that in its 1.5°C scenario no new conventional oil and gas fields are needed.[1096] This is an important conclusion. As already explained above, the IEA brings together all its knowledge of the energy markets and the global energy infrastructure together in its NZE scenario. So the IEA makes it clear that a fast phase-out of oil and gas is simply possible during the energy transition. This applies all the more to oil and gas in developed economies, in which Shell realises the largest part of its turnover. It is precisely this NZE scenario that Milieudefensie is actually basing its demands on.

14 EVIDENCE AND OFFER TO PRODUCE EVIDENCE

1048. Milieudefensie is providing evidence for its assertions by means of the Exhibits that are submitted in court with this summons. An overview of these Exhibits is annexed to the summons as **Annex A: List of Exhibits to the**

[1094] Exhibit MD-207, TNO (2025), "*Weerbaarheid van het energiesysteem tegen een energiecrisis*" (Resilience of the energy system to an energy crisis), p. 3 (summary), p. 17 (conclusion). See also the press release about this study by NVDE dated 18 December 2025, "*Nederland met duurzame energie vrijwil immuun voor nieuwe Oekrainecrisis – Nieuwe TNO-studie: Prijsschok fossiele energie tachtig procent kleiner bij een duurzaam energiesysteem*" (The Netherlands virtually immune to new Ukraine crisis with sustainable energy - New TNO study: Fossil energy price shock 80% smaller with a sustainable energy system), available at https://www.nvde.nl/nederland-met-duurzame-energie-vrijwel-immuun-voor-nieuwe-oekrainecrisis/.

[1095] See also the press release from the Dutch Sustainable Energy Association: https://www.nvde.nl/nederland-met-duurzame-energie-vrijwel-immuun-voor-nieuwe-oekrainecrisis.

[1096] Exhibit MD-099. IEA 2023, "Net Zero Roadmap, A Global Pathway to Keep the 1.5^0 C Goal in Reach", p. 58.

summons of 21 April 2026.

1049. Milieudefensie believes that it has already sufficiently proven and substantiated its assertions and arguments with the Exhibits and documents submitted in court in this case, but hereby offers to further substantiate its assertions and arguments – insofar as Milieudefensie is required to do so under Section 150 DCCP – by submitting additional documents, including evidence regarding the necessity of reduction measures and the reduction claims demanded as well as by having expert witnesses heard on such matters.

1050. Without prejudice to this offer to produce evidence, Milieudefensie believes that, given the amount of evidence supporting its assertions and arguments and the violation of the law addressed with this court case, it is now up to Shell to prove why, in light of the assertions in this summons, it cannot be required to do what Milieudefensie is demanding it should do.

15 DEMANDS

Given everything that was discussed in this summons, Milieudefensie is requesting this Court to do the following in a judgment that is provisionally enforceable as much as possible:

Emission reductions

(1) to order Shell to reduce or cause to be reduced the annual Scope 1, 2 and 3 CO_2 emissions into the atmosphere that are associated with the activities and assets of the Shell Group, consistent with limiting global warming to 1.5°C, in such a manner that these CO_2 emissions will have been reduced in absolute terms by the end of the years 2035, 2040 and 2050 by at least the reduction percentages set out in the table below[1097]:

Emission reductions	2035	2040	2050
Principally: relative to 2022	oil: -70% gas: -78%	oil: -86% gas: -89%	oil: -98% gas: -98%
In the alternative: relative to 2019	oil and gas: -65%	oil and gas: -80%	oil and gas: -99%
Further in the alternative: relative to 2022	oil: -51% gas: -56%	oil: -71% gas: -76%	oil: -92% gas: -95%

(2) to order Shell, regarding the reductions of the annual Shell Group CO_2 emissions into the atmosphere, described in demand (1):

(a) to separately achieve these reductions for the CO_2 emissions associated with the oil and gas and energy products obtained from oil and gas produced by the Shell Group itself and for the CO_2 emissions associated with the oil and gas and energy products obtained from oil and gas produced by third parties, but traded and sold by the Shell Group;

[1097] The table included here and the absolute reduction percentages mentioned herein are based on (i) principally: the reduction pathway for oil and gas in advanced economies in the NZE scenario, as follows from the Extended Dataset forming part of the International Energy Agency's World Energy Outlook 2023, (ii) in the alternative: the median global emission reductions resulting from the 1.5°C scenarios (no or low overshoot) as included in the IPCC's AR6 WGIII report, (iii) further in the alternative: the global reduction pathway for oil and gas in the NZE scenario as set out in the International Energy Agency's Net Zero Roadmap 2023 Update.

(b) to achieve these reductions with effect from 2031 as much as possible in a linear manner or faster;

(3) in the alternative, if demands (1) and (2) are not awarded: to order Shell to reduce or cause to be reduced the annual Shell Group CO_2 emissions (Scope 1, 2 and 3) in an absolute sense in such a manner that the Shell Group achieves net zero CO_2 emissions in 2050;

(4) in the alternative, if demands (1) and (2) are not awarded: to make a declaratory decision stating that Shell has a legal duty to reduce or cause to be reduced, with effect from 2031, the annual CO_2 emissions (Scope 1, 2 and 3) of the Shell Group in an absolute sense, relative to the level in the base year of 2024, consistent with limiting global warming to 1.5°C and the best available climate science;

Divestment

(5) to prohibit Shell from achieving the emission reductions described in demands (1) up to and including (4) by transferring assets or activities to third parties outside the Shell Group (through the transfer of shares, assets or otherwise), in the sense that Shell must recalculate the emission levels of the base years used for its emission reduction targets if the transfer of assets or activities in any specific year cumulatively is related to more than 2% of the total annual emissions in Scope 1 and 2, or by more than 0.5% of the total annual emissions in Scope 3;

Carbon Credits

(6) to prohibit Shell from making use of Carbon Credits for the purpose of achieving the emission reductions described in demands (1) up to and including (4);

No new fields

(7) to order Shell to achieve that the Shell Group ceases, continues to cease and does not start the production of oil and gas from fields for which the final investment decision was taken after:

(a) principally: 1 January 2022;

(b) in the alternative: 12 November 2024;

(c) in the further alternative: 21 April 2026;

(d) in the ultimate alternative: the date of the judgment;

(8) to order Shell to achieve that the Shell Group ceases, within three months of the date of the judgment, the trade and sale of oil, gas and energy products obtained from oil and gas produced by third parties in respect of which Shell or any other entity within the Shell Group knows or can reasonably know that they originate from fields for which the final investment decision was or is taken after a reference date to be determined by the Court, as mentioned in demand (7) (from “principally” up to and including “in the ultimate alternative”);

(9) to order Shell to achieve that the Shell Group does not sell or otherwise transfer any oil or gas fields and does not sell, transfer or otherwise grant rights to such fields or rights to the production from such fields, in the broadest sense of the word, to private or semi-private third parties for whom it is known or can reasonably be known that they intend to produce oil and gas from such fields; all this with regard to oil and gas fields (or rights to such fields) for which the final investment decision was or is taken after a reference date to be determined by the Court as mentioned in demand (7) (from “principally” up to and including “in the ultimate alternative”);

Concluding demands

both principally and in the (further and ultimate) alternative:

(10) in any event, to make any such decision as this Court may see fit, including awarding reduction percentages lower than those demanded in this relief sought, awarding part of the demands formulated in this relief sought, adjusting any reference date or reference year for the mentioned final investment decisions or the absolute emission reductions to be achieved, or awarding the demands as a significant best-effort obligation or obligation of means; and

(11) to order Shell to pay the costs of this lawsuit, including the fees of counsel and the disbursements, to be increased by the post-judgment costs, based on the court-applied scale of costs ("*liquidatietarief*"), which costs must be paid within fourteen days of the date of the judgment, and – in the event that the costs or post-judgment costs are not paid within the prescribed period – to be increased by the statutory interest on the costs and post-judgment costs, calculated from the above-mentioned final payment date.

Costs of the writ:
Bailiff mentioned above

This case is being handled by R.H.J. Cox, LL.M. (r.cox@paulussen.nl) of
Paulussen Advocaten N.V. in Maastricht (the Netherlands) (2878323)

Annex A: list of Exhibits to the summons of 21 April 2026

VERENIGING MILIEUDEFENSIE / SHELL PLC

Exhibit MD-001	IPCC 2023, AR6, SYR IPCC, 2023: *Climate Change 2023: Synthesis Report. Contribution of Working Groups I, II and III to the Sixth Assessment Report of the Intergovernmental Panel on Climate Change* [Core Writing Team, H. Lee and J. Romero (eds.)]. IPCC, Geneva, Switzerland, 184 pp., doi: 10.59327/IPCC/AR6-9789291691647. Online: https://www.ipcc.ch/report/ar6/syr/downloads/report/IPCC_AR6_SYR_FullVolume.pdf
Exhibit MD-002	UNEP 2025, "Emissions Gap Report 2025" United Nations Environment Programme (2025). Emissions Gap Report 2025: Off target – Continued collective inaction puts global temperature goal at risk [Olhoff, A., chief editor; Lamb, W.; Kuramochi, T.; Rogelj, J.; den Elzen, M.; Christensen, J.; Fransen, T.; Pathak, M.; Tong, D. (eds)]. Nairobi Online: https://wedocs.unep.org/rest/api/core/bitstreams/4830e1a8-14c0-44a5-a066-cdd2ba5b3e10/content
Exhibit MD-003	Shell Annual Report 2024 (selected pages) Shell plc Annual Report and Accounts for the year ended 31 December 2024 Online: https://www.shell.com/investors/results-and-reporting/annual-report/_jcr_content/root/main/section/promo/links/item0.stream/1773292272508/5e49e127579b77081f032b6088b348694aac0d14/shell-annual-report-2025.pdf
Exhibit MD-004	Shell Climate and Energy Transition Lobbying Report 2024 Shell plc Climate and Energy Transition Lobbying Report 2024, published 9 May 2025 Online: https://www.shell.com/sustainability/advocacy-and-political-activity/_jcr_content/root/main/section/simple/promo_copy_copy_copy/links/item0.stream/1746798498441/097ec9469a351908a2d97321d3ed486f6b883c81/shell-climate-and-energy-transition-lobbying-report-2024.pdf
Exhibit MD-005	R. Op het Veld, "De Strijd om Energie" (The Battle for Energy), 2023 R. Op het Veld, "*De strijd om energie: hoe de groeiende honger naar olie en gas de wereld in een crisis stort*" (The battle for energy: how the growing hunger for oil and gas is plunging the world into crisis), Business Contact, 2nd edition (2023)
Exhibit MD-006	InfluenceMap 2024, "The Carbon Majors Database: Launch Report" InfluenceMap, The Carbon Majors Database: Launch Report, April 2024 Online: https://influencemap.org/briefing/The-Carbon-Majors-Database-26913

Exhibit MD-007	Carbon Majors: 2023 Data Update

InfluenceMap, Carbon Majors: 2023 Data Update, March 2025

Online:
https://carbonmajors.org/briefing/The-Carbon-Majors-Database-2023-Update-31397

Exhibit MD-008	Chamber of Commerce excerpt regarding Milieudefensie

Excerpt from the trade register of the Chamber of Commerce regarding Vereniging Milieudefensie dated 11 February 2026

Exhibit MD-009	Milieudefensie Annual Report 2024

Vereniging Milieudefensie, Annual Report 2024, Amsterdam: Vereniging Milieudefensie 2024

Online:
https://milieudefensie.nl/over-ons/jaarverslagen/jaarverslag-inclusief-jaarrekening-2024.pdf

Exhibit MD-010	Milieudefensie, Articles of Association

Continuous text of the articles of association of Vereniging Milieudefensie as they read after the last deed of amendment of the articles of association (dated 27 December 2023)

Online:
https://milieudefensie.nl/actueel/statuten-juli2022/@@download/file/Statuten%20Verenging%20Milieudefensie%2027-12-23.pdf

Exhibit MD-011	Non-exhaustive overview of Milieudefensie's activities

Exhibit MD-012	Milieudefensie 1988, "Het gat in de ozonlaag" (The hole in the ozone layer) (selected pages)

Milieudefensie, "*Het gat in de ozonlaag – broeikasgaseffect – zure regen: wat hangt ons boven het hoofd*" (The hole in the ozone layer – greenhouse effect – acid rain: what is hanging over our heads?), Amsterdam: Milieudefensie 1988

Exhibit MD-013	Milieudefensie 1986, "*Schoonstroomkrant*" (Clean Energy Newspaper)

Milieudefensie, "*Schoonstroomkrant*", Amsterdam: Milieudefensie 1986

Exhibit MD-014	Albers et al. 1990, "Het Broeikaseffect, erop of eronder" (The Greenhouse Effect, sink or swim) (website printout)

R. Albers et al. (eds.) "Het broeikaseffect, erop of eronder, nationale verkenning aanpak CO_2 probleem, (The greenhouse effect, sink or swim, national exploration of the CO_2 problem), Amsterdam: Milieudefensie and Stichting Natuur en Milieu 1990 (printout from felnet.eu website)

Online:
https://catalog.felnet.eu/Record/dc70c397-56a7-4e78-ac39-f6be2045b8bd

Exhibit MD-015	Calmthout 1990, "*Het Broeikas Effect*" (The Greenhouse Effect) (selected pages)

M. Calmthout, "*Het Broeikas Effect, Inleiding in de problematiek van het Broeikasgaseffect*" (The Greenhouse Effect, Introduction to the problems of the greenhouse effect), Amsterdam: Milieudefensie 1990

Exhibit MD-016	Milieudefensie Annual Report 1990 (selected pages)

Vereniging Milieudefensie, Annual Report 1990, Amsterdam: Vereniging Milieudefensie 1991

Exhibit MD-017	Milieudefensie Annual Report 1991 (selected pages) Vereniging Milieudefensie, Annual Report 1991, Amsterdam: Vereniging Milieudefensie 1992
Exhibit MD-018	Milieudefensie Annual Report 1994 Vereniging Milieudefensie Association, Annual Report 1994, Amsterdam: Milieudefensie Association 1995
Exhibit MD-019	Buitenkamp 1992, "Duurzame Ontwikkeling in Nederland en Europa" (Sustainable Development in the Netherlands and Europe) (selected pages) M. Buitenkamp, "*Duurzame ontwikkeling in Nederland en Europa*", 1992
Exhibit MD-020	Milieudefensie 2006, "*Algemeen Beleidsplan 2006-2010: Uitzien naar 2010*" (General Policy Plan 2006-2010: Looking Ahead to 2010) (selected pages) Milieudefensie, "Algemeen Beleidsplan 2006-2010: Uitzien naar 2010", Amsterdam: Milieudefensie 2006
Exhibit MD-021	Milieudefensie Annual Report 2006 (foreword and summary) Vereniging Milieudefensie, Annual Report 2006, Amsterdam: Vereniging Milieudefensie 2007
Exhibit MD-022	Milieudefensie Annual Report 2007 (foreword and chapter "Climate and Energy") Vereniging Milieudefensie, Annual Report 2007, Amsterdam: Vereniging Milieudefensie 2008
Exhibit MD-023	Milieudefensie 2010, "*Algemeen Beleidsplan 2010-2015: Met Draagvlak naar Beweging"* (General Policy Plan 2010-2015: With Support Towards Movement) (selected pages) Milieudefensie, *"Algemeen Beleidsplan 2010-2015: Met Draagvlak naar Beweging"*, Amsterdam: Milieudefensie 2010
Exhibit MD-024	Geurts et al. 2009, "Versnelde Ontwikkeling van Duurzame energie in Nederland" Accelerated Development of Sustainable Energy in the Netherlands) (selected pages) F. Geurts and M. Rathmann (Ecofys; commissioned by Milieudefensie), "*Ontwikkeling van Duurzame Energie in Nederland, de rol van zon-PV & een verbeterd SED Systeem*" (*Accelerated Development of Sustainable Energy in the Netherlands, the role of solar PV & an improved SDE System),* Utrecht: Ecofys 2009
Exhibit MD-025	Milieudefensie 2016, "*Algemeen Beleidsplan 2016-2025: Samenwerken aan een Eerlijke Transitie*" (General Policy Plan 2016-2025: Working Together on a Fair Transition) (selected pages) Milieudefensie, "*Algemeen Beleidsplan 2016-2025: Samenwerken aan een Eerlijke Transitie",* Amsterdam: Milieudefensie 2016
Exhibit MD-026	UNDP 2024, "Peoples' Climate Vote 2024" (Executive Summary) United Nations Development Programme, "Peoples' Climate Vote 2024: Results", New York: UNDP 2024
Exhibit MD-027	Letter from Milieudefensie to Shell dated 13 May 2025 Online: https://milieudefensie.nl/actueel/dit-is-onze-brief-aan-shell

Exhibit MD-028	Letter from Shell to Milieudefensie dated 13 June 2025 Online: https://milieudefensie.nl/actueel/de-reactie-van-shell-op-de-eisen-in-onze-klimaatzaak-tegen-shell
Exhibit MD-029	Letter from Milieudefensie to Shell dated 20 February 2026
Exhibit MD-030	Letter from Shell to Milieudefensie dated 12 March 2026
Exhibit MD-031	IPCC 2021, AR6, WGI, SPM IPCC, 2021: Summary for Policymakers. In: Climate Change 2021: The Physical Science Basis. Contribution of Working Group I to the Sixth Assessment Report of the Intergovernmental Panel on Climate Change [Masson-Delmotte, V., P. Zhai, A. Pirani, S.L. Connors, C. Péan, S. Berger, N. Caud, Y. Chen, L. Goldfarb, M.I. Gomis, M. Huang, K. Leitzell, E. Lonnoy, J.B.R. Matthews, T.K. Maycock, T. Waterfield, O. Yelekçi, R. Yu, and B. Zhou (eds.)]. Cambridge University Press, Cambridge, United Kingdom and New York, NY, USA, pp. 3−32, doi:10.1017/9781009157896.001. Online: https://www.ipcc.ch/report/ar6/wg1/downloads/report/IPCC_AR6_WGI_SPM.pdf
Exhibit MD-032	IPCC 2021, AR6, WGI, TS Arias, P.A., N. Bellouin, E. Coppola, R.G. Jones, G. Krinner, J. Marotzke, V. Naik, M.D. Palmer, G.-K. Plattner, J. Rogelj, M. Rojas, J. Sillmann, T. Storelvmo, P.W. Thorne, B. Trewin, K. Achuta Rao, B. Adhikary, R.P. Allan, K. Armour, G. Bala, R. Barimalala, S. Berger, J.G. Canadell, C. Cassou, A. Cherchi, W. Collins, W.D. Collins, S.L. Connors, S. Corti, F. Cruz, F.J. Dentener, C. Dereczynski, A. Di Luca, A. Diongue Niang, F.J. Doblas-Reyes, A. Dosio, H. Douville, F. Engelbrecht, V. Eyring, E. Fischer, P. Forster, B. Fox-Kemper, J.S. Fuglestvedt, J.C. Fyfe, N.P. Gillett, L. Goldfarb, I. Gorodetskaya, J.M. Gutierrez, R. Hamdi, E. Hawkins, H.T. Hewitt, P. Hope, A.S. Islam, C. Jones, D.S. Kaufman, R.E. Kopp, Y. Kosaka, J. Kossin, S. Krakovska, J.-Y. Lee, J. Li, T. Mauritsen, T.K. Maycock, M. Meinshausen, S.-K. Min, P.M.S. Monteiro, T. Ngo-Duc, F. Otto, I. Pinto, A. Pirani, K. Raghavan, R. Ranasinghe, A.C. Ruane, L. Ruiz, J.-B. Sallée, B.H. Samset, S. Sathyendranath, S.I. Seneviratne, A.A. Sörensson, S. Szopa, I. Takayabu, A.-M. Tréguier, B. van den Hurk, R. Vautard, K. von Schuckmann, S. Zaehle, X. Zhang, and K. Zickfeld, 2021: Technical Summary. In Climate Change 2021: The Physical Science Basis. Contribution of Working Group I to the Sixth Assessment Report of the Intergovernmental Panel on Climate Change [Masson-Delmotte, V., P. Zhai, A. Pirani, S.L. Connors, C. Péan, S. Berger, N. Caud, Y. Chen, L. Goldfarb, M.I. Gomis, M. Huang, K. Leitzell, E. Lonnoy, J.B.R. Matthews, T.K. Maycock, T. Waterfield, O. Yelekçi, R. Yu, and B. Zhou (eds.)]. Cambridge University Press, Cambridge, United Kingdom and New York, NY, USA, pp. 33−144. doi:10.1017/9781009157896.002. Online: https://www.ipcc.ch/report/ar6/wg1/downloads/report/IPCC_AR6_WGI_TS.pdf
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Exhibit MD-082	IPCC, "Preparing Reports" (website printout, 26 February 2025) Online: https://www.ipcc.ch/about/preparingreports
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Online:
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Exhibit MD-084 Paris Agreement (original English version)

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The Undersigned, *mr. drs.* A.M. Ulot, sworn in as translator Dutch-English and English-Dutch by the District Court of Alkmaar and registered in the Dutch Official Register for Certified Translators and Interpreters (*Register Beëdigde Tolken en Vertalers)* under no. 1977, hereby certifies that the foregoing is a true and faithful translation of the attached document in the Dutch language.

In witness whereof I have hereunto set my hand and seal in Heiloo, the Netherlands, on this day, the 14th of April 2026.

Mr. drs. A.M. (Ann Maria) Ulot
Certified Translator