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Conclusie

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CONCLUSION

F.F. Langemeijer and M.H. Wissink

In the matter between

The State of the Netherlands (Ministry of Economic Affairs and Climate Policy)

and

Stichting Urgenda

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1 Facts and course of the proceedings

1.1 In its judgment of 9 October 2018, The Hague Court of Appeal (abbreviated hereinafter as the Court of Appeal) affirmed the judgment of The Hague District Court (abbreviated hereinafter as the District Court).[1] Section 2 of the Court of Appeal's judgment is premised on all of the facts established in paras. 2.1-2.78 of the District Court's judgment of 24 June 2015. In addition to this, the Court of Appeal made its own findings of fact in paras. 3.1-3.7 and at 4.26 of its judgment. Those findings of fact were a work in progress up to and including 28 May 2018, the day on which the oral arguments on appeal were concluded. Finally, the Court of Appeal set out the most important elements of the overview of facts, and the conclusions it drew as a result, in para. 44.[2]

1.2 In this first chapter, we will provide only a brief recitation of the established facts as an introduction. We will discuss the relevant facts in more detail when addressing the individual complaints in the grounds for cassation. Where necessary, we have added sources for the facts established by the Court of Appeal.

The greenhouse effect

(i) Since the beginning of the industrial revolution,[3] mankind has been using energy on a large scale: energy that is primarily obtained by burning fossil fuels (coal, oil and gas), thus releasing carbon dioxide. This compound of carbon and oxygen is generally referred to by its chemical formula: CO2. Part of the CO2 that is released is emitted into the atmosphere, where it remains for hundreds of years or more and is partly absorbed by the ecosystems in forests and oceans. This absorption capacity is continuously decreasing due to deforestation and the warming of the oceans.

(ii) CO2 is the most significant greenhouse gas and, in tandem with other greenhouse gases, it keeps the heat radiated by our planet in the atmosphere. This is called the 'greenhouse effect'. The greenhouse effect increases proportionately with the amount of CO2 that winds up in the atmosphere, which in turn warms the planet at an increasing rate. It is important to note that the planet's climate system is slow to respond to the emission of greenhouse gases: the full warming effect of the greenhouse gases being emitted today will not be felt for another 30 to 40 years. In addition to CO2, other greenhouse gases include methane, nitrous oxide and fluorinated gases.

(iii) Concentrations of greenhouse gases in the atmosphere are expressed as 'ppm', parts per million. The term 'ppm CO2 equivalent' is used to express the total concentration of all greenhouse gases, in which respect the concentration of all of the other, non-CO2 greenhouse gases is converted into CO2 equivalents based on their warming effect..[4]

Climate change and the 2ºC target

(iv) There is a direct, linear connection between greenhouse gas emissions caused by mankind, which are partly caused by the burning of fossil fuels, and the warming of the planet. The Court of Appeal noted that the average temperature of the planet is already approximately 1.1ºC higher than it was at the start of the industrial revolution. The current concentration of greenhouse gases in the atmosphere is approximately 401 ppm. In recent decades, worldwide emissions of CO2 have increased by 2% each year.

(v) The rise in the planet's temperature can be prevented or reduced by ensuring that less greenhouse gas is emitted into the atmosphere. This is referred to as 'mitigation'. Measures can also be taken to anticipate the effects of climate change, such as raising dikes in low-lying areas. The taking of such measures is referred to as 'adaptation'.[5]

(vi) The climatology field and the global community long ago reached a consensus entailing that the average temperature of the planet may not rise by more than 2ºC in comparison to the average temperature of the pre-industrial era. If the concentration of greenhouse gases in the atmosphere has not risen above 450 ppm by the year 2100, there is a reasonable chance that this objective (hereinafter: 'the 2ºC target') will be achieved. In recent years, new insights have shown that the temperature can only safely rise by no more than 1.5ºC, which translates into a greenhouse gas concentration level of no more than 430 ppm in the year 2100.[6]

(vii) When viewed in light of the maximum concentration level of 430 or 450 ppm in the year 2100 and the current concentration level (401 ppm), it is clear that the world has very little room left when it comes to the emission of greenhouse gases. The worldwide room that still remains is referred to as the carbon budget.[7] The Court of Appeal held that the chance that the rise in temperature could still be limited to the target of 1.5ºC has become extremely slim.[8]

(viii) Warming of more than 2ºC in comparison to the pre-industrial era would cause *inter alia*: flooding as a result of the rise in sea level; heat stress as a result of more intense and longer-lasting heat waves, increases in respiratory ailments associated with deteriorating air quality, droughts (with devastating forest fires), increased spread of infectious diseases, severe flooding as a result of torrential rainfall, and disruptions of the production of food and the supply of drinking water. Ecosystems, flora and fauna will be eroded and there will be losses in terms of biodiversity. As Urgenda has asserted and the State has not refuted, an inadequate climate policy will result in the second half of this century in hundreds of thousands of victims in Western Europe alone.[9]

(ix) One striking aspect of all of this is that the increase in the concentration of greenhouse gases in the atmosphere could result in the climate change process reaching a tipping point, leading to an abrupt change in climate for which neither mankind nor nature can prepare. According to the AR5 report to be discussed below, risks increase 'at a steepening rate' at such tipping points under warming of 1 to 2°C (in comparison to the average temperature in the pre-industrial era).[10]

IPCC reports

(x) The Intergovernmental Panel on Climate Change (IPCC) was created in 1988 under the auspices of the United Nations by the World Meteorological Organization (WMO) and the United Nations Environment Programme (UNEP). The IPCC's objective is to obtain insight into all aspects of climate change through scientific research. The IPCC is not just a scientific organisation; it is an intergovernmental organisation as well. It has 195 members, including the Netherlands. Since its inception, the IPCC has published five reports with accompanying working group reports about the state of the art of climatology and climate developments.[11] Particularly relevant to these proceedings are the fourth report from 2007 and the fifth report from 2013-2014.[12]

(xi) The IPCC published its Fourth Assessment Report in 2007 (abbreviated hereinafter as: AR4). According to the District Court, this report stated that a temperature increase of 2°C above the level of the pre-industrial era will entail the risk of a dangerous, irreversible change in the climate.[13]

(xii) After an analysis of various reduction scenarios, Chapter 13 of the report from the third Working Group of experts states that in order to be able to achieve a maximum volume of 450 ppm in the year 2100, the emissions of greenhouse gases by the countries listed in Annex I to the

UNFCCC (including the Netherlands) must be 25% to 40% lower in the year 2020 than they were in the year 1990.[14]

(xiii) The IPCC published its Fifth Assessment Report in 2013-2014 (abbreviated hereinafter as: AR5). This report established *inter alia* that the planet is warming as a result of the increase in the concentration of CO2 in the atmosphere since the beginning of the industrial revolution, and that this is being caused by human activities, in particular by the burning of fossil fuels and deforestation.[15] In the AR5 report, the IPCC concluded that if the concentration of greenhouse gases in the atmosphere is stabilised at around 450 ppm in the year 2100, the chance that the global temperature increase would remain under 2ºC is 'likely', meaning higher than 66%. In this respect, it must be kept in mind that 87% of the scenarios included in AR5 were based on assumptions regarding *negative* emissions; in other words: the possible removal of CO2 from the atmosphere.

United Nations Framework Convention on Climate Change (UNFCCC) and the climate conferences

(xiv) The UNFCCC was concluded in 1992.[16] The objective of this framework agreement is to achieve stabilisation of greenhouse gas concentrations in the atmosphere at a level that would prevent dangerous anthropogenic interference with the climate system (Article 2 UNFCCC). Article 3 states the principles according to which the parties will allow themselves to be guided in achieving this objective.[17] The parties to the UNFCCC are referred to as Annex I countries (including the Netherlands) and non-Annex I countries. According to Article 4(2) of the convention, the Annex I countries must take the lead, in an international context, in combating climate change and the adverse effects thereof. They have committed to reducing greenhouse gas emissions. They must periodically report on the measures they have taken with the objective of achieving, either individually or collectively, a return to the emissions level of 1990.[18]

(xv) Article 7 UNFCCC governs the Conference of the Parties (hereinafter: 'COP'). The COP usually meets annually at climate conferences. The COP is the supreme body of the UNFCCC, it being understood that in general, the COP's decisions are not legally binding.[19]

(xvi) During the climate conference in Kyoto in 1997 (COP-3), the Kyoto Protocol was agreed between a number of Annex I countries, including the Netherlands.[20] The reduction targets for the period 2008-2012 were laid down in this protocol. According to Annex B to this protocol, the then-Member States of the EU should apply the premise of a reduction target of 8% in comparison to the reference year 1990.

(xvii) The Bali Action Plan was adopted at the climate conference in Bali in 2007 (COP-13). The Bali Action Plan acknowledged the necessity of drastic emissions reductions, citing the aforementioned AR4. That quote regarded *inter alia* the page in the report of the third Working Group of experts for AR4 which contains the table ('Box 13.7') referred to in footnote 14 above, which states that if the Annex I countries wished to achieve the 450 ppm scenario, emissions of greenhouse gases would have to be 25%-40% lower than they were in 1990.[21]

(xviii) No agreement could be reached during the climate conference in Copenhagen in 2009 (COP-15) regarding a successor to, or an extension of, the Kyoto Protocol.[22] During the next climate conference in Cancun in 2010 (COP-16), in the Cancun Agreements (Decision 1/CP.16), the parties involved set the long-term target of maximising the rise in temperature at 2ºC in comparison to the average temperature in the pre-industrial era – along with the possibility of a more stringent target of a maximum of 1.5ºC. The preamble refers to the urgency of a major reduction in emissions.[23]

(xix) In Cancun, the parties to the Kyoto Protocol stated that the Annex I countries had to continue to take the lead in combating climate change and that, given AR4, this 'would require Annex I Parties as a group to reduce emissions in a range of 25-40 per cent below 1990 levels by 2020'. The parties to the Kyoto Protocol urged 'Annex I Parties to raise the level of ambition of the emission reductions to be achieved by them individually or jointly, with a view to reducing their aggregate level of emissions of greenhouse gases in accordance with the range indicated by Working Group III to the Fourth Assessment Report of the Intergovernmental Panel on Climate Change'. In the 'Cancun Pledges', the EU countries as a group declared their willingness to achieve

a 20% reduction by 2020 (in proportion to the emissions in the reference year 1990), and offered to achieve a 30% reduction if other countries were to undertake to achieve similar reduction targets.[24]

(xx) During the climate conference in Doha in 2012 (COP-18), all Annex I countries were called upon to increase their reduction targets to at least 25%-40% in 2020. An amendment to the Kyoto Protocol was adopted in which the European Union committed to a reduction of 20% in 2020 in comparison to the emissions in the reference year 1990, and offered to reduce emissions by 30% if other countries were to undertake to achieve similar reduction targets. This condition was not met. The Doha Amendment did not enter into force.[25]

The Paris Agreement (2015)

(xxi) In 2015, the Paris Agreement was concluded during the climate conference in Paris (COP-21).[26] According to the Court of Appeal, the system of the Paris Agreement differs from that of the UNFCCC. The parties to the convention are no longer striving to reach global emissions agreements. Each contracting State will be called to account for its own responsibilities. The Paris Agreement stipulates that global warming must be kept 'well below 2°C' above pre-industrial levels, pursuing efforts to limit the temperature increase to 1.5°C above pre-industrial levels (Article 2). The parties must prepare ambitious national climate plans that become progressively more ambitious over time (Article 3).[27]

The UNEP reports of 2013 and 2017

(xxii) Since 2010, UNEP has issued annual reports on the difference between the desired emissions level and the reduction targets to which the parties have committed: this is referred to as the 'emissions gap'.[28] The UNEP reports of 2013 and 2017 are particularly relevant to these proceedings. The 2013 annual report stated for the third time in a row that the parties had failed to fulfil their commitments and that greenhouse gas emissions had risen rather than fallen. UNEP also noted that the Annex I countries together had failed to achieve the emissions targets that were considered necessary to achieve the 25%-40% reduction referred to in the aforementioned Box 13.7 of the report of the third Working Group of experts for AR4. UNEP concluded that it becomes less and less likely that emissions will be low enough by 2020 to be on a least-cost pathway towards meeting the 2°C target. Although later reduction actions could ultimately lead to the same temperature targets, according to UNEP these would be more difficult, costlier and riskier.[29]

(xxiii) In the 2017 report, UNEP stated that in light of the Paris Agreement, 'enhanced pre-2020 mitigation action' was more urgent than ever. UNEP noted that if the emissions gap that had been identified was not closed by 2030, it would be extremely unlikely that the 2°C target could still be reached. This was why, according to UNEP, more ambitious reduction targets were needed for 2020.[30]

European climate policy: ETS Directive and Effort Sharing Decision

(xxiv) Article 191 of the Treaty on the Functioning of the European Union ('TFEU') sets out the Union's environmental targets. The EU formulated directives to implement its environmental policy. The ETS Directive is one of these.[31] The abbreviation 'ETS' stands for: *Emissions Trading System*. This system entails that companies in the ETS sector may only emit greenhouse gases in exchange for the surrender of emissions rights. These emissions rights may be bought, sold or retained. The total volume of greenhouse gases which ETS companies may emit in the period 2013-2020 decreases by 1.74% annually until, in 2020, a 21% reduction is achieved in comparison to the year 2005.

(xxv) The Council determined that the European Union must reduce greenhouse gas emissions by at least 20% in 2020, 40% in 2030, and 80%-95% in 2050, measured in each case in comparison to emissions in the reference year 1990. Based on the Effort Sharing Decision[32], it was determined within the EU that for non-ETS sectors, the reduction target of 20% in 2020 means that the Netherlands will have to achieve an emissions reduction of 16% in comparison with emissions in

2005.

(xxvi) According to current [meaning: at the time of the Court of Appeal's judgment] expectations, the European Union *as a whole* will achieve an emissions reduction of 26%-27% in comparison to emissions in 1990. [33]

National climate policy and the results of that policy

(xxvii) Based on a 2007 programme entitled *'Schoon en zuinig'* [Clean and economical], in the period 2007-2011 the Netherlands applied the premise of a reduction target of 30% in 2020 comparison to the emissions level in the reference year 1990. In a letter of 12 October 2009, the then-Minister of Housing, Spatial Planning and the Environment (*Volkshuisvesting, Ruimtelijke Ordening en Milieubeheer* - 'VROM') informed the Dutch House of Representatives about the Netherlands' negotiations objective within the context of the climate conference in Copenhagen in 2009 (COP-15). This letter stated *inter alia*:

'The total of emission reductions proposed by the developed countries so far is insufficient to achieve the 25%-40% reduction in 2020, which is necessary to stay on a credible track to keep the 2ºC target within reach.'[34]

(xxviii) After 2011, the Dutch reduction target was adjusted to the EU-level reduction of 20% in 2020 (in other words, for the Netherlands, a reduction of 16% in the non-ETS sector and 21% in the ETS sector, each time in comparison to emissions in 2005); and of at least 40% in 2030, and 80%-95% in 2050, in each case in comparison to emissions in 1990.[35]

(xxix) In the most recent Government Agreement (2017), the government announced that it would strive to achieve an emissions reduction of at least 49% in 2030 in comparison to emissions in 1990. According to this government agreement, the EU reduction target of 40% in 2030 was not sufficient to achieve the 2°C target, let alone the 1.5°C ambition laid down in the Paris Agreement.

(xxx) Dutch CO2 emissions *per capita of the population* are relatively high in comparison with other industrialised countries.[36] Of the total volume of Dutch greenhouse gas emissions, 85% consists of CO2. Dutch CO2 emissions have barely decreased since 1990 and have even risen in recent years. In the period 2008-2012, the Netherlands achieved a reduction of CO2 equivalent emissions of 6.4%. The reduction is attributable to greenhouse gases other than CO2. In that same period, the fifteen largest EU Member States achieved an emissions reduction of 11.8%, and the EU *as a whole* achieved a reduction of 19.2%.

(xxxi) The District Court's judgment was premised on the Netherlands achieving a reduction in 2020 of 14%-17% in comparison to 1990 levels. On appeal, the Court of Appeal noted that in 2017, the Netherlands had been expected to achieve a 23% reduction in 2020, taking a margin for uncertainty of 19%-27% into account.[37] This difference is largely attributable to a new calculation method which is more consistent with that used by the IPCC, as a result of which the theoretical reduction percentage is achieved earlier even though the situation is effectively more serious.[38] In 2017, the most recent year prior to the disputed Court of Appeal's judgment, greenhouse gas emissions in the Netherlands had fallen by 13% in comparison to emissions in 1990.[39]

The dispute in and out of court

1.3 Urgenda is a citizens' platform (an NGO) with members from various domains in society . Urgenda is involved In the development of plans and measures to prevent climate change. Urgenda's legal form is that of a foundation under Dutch law, whose object according to its by-laws is: to stimulate and accelerate the transition processes to a more sustainable society, beginning in the Netherlands.[40] Urgenda's position is that the State is doing too little – in the interest of preventing dangerous climate change – to mitigate global warming and keep the average temperature from rising by no more than 2°C in comparison to the average temperature in the pre-industrial era.

1.4 The government's care is directed at keeping the country habitable and protecting and improving the environment (See Article 21, Dutch Constitution). Since 2017, responsibility for the environment has been part of the duties of the Minister of Economic Affairs and Climate Policy.[41]

1.5 On 12 November 2012, Urgenda requested the State to commit to reducing Dutch CO2 emissions as of 2020 by 40% in comparison to 1990 levels. The State denied this request on 11 December 2012.[42] In these proceedings, Urgenda is requesting, to the extent relevant in cassation, that the State be ordered to reduce Dutch greenhouse gas emissions by the end of 2020 by at least 25% in comparison to Dutch emissions in the reference year 1990. The State acknowledges the climate problem and the need to reduce greenhouse gas emissions, as well as the aforementioned 2°C target. The State nevertheless disputes the necessity of reducing Dutch emissions by at least 25% in comparison to 1990 levels before the end of the year 2020. The State believes it is only bound by the emissions restrictions agreed in the EU context. According to the State, being able to select the pathway to be followed in achieving the reductions envisaged for 2030 and 2050, after taking all of the practical options and relevant interests into account, is part of its discretionary power. The State emphasises that the worldwide climate problem can only be addressed on a global scale and that the State is complying with all of its treaty obligations and the international agreements relating thereto.[43]

Societal and political debate: Dutch Climate Act

1.6 The societal and political debate regarding the greenhouse effect and climate problems has continued outside the context of this case. That debate intensified after the District Court rendered its judgment in the case brought by Urgenda against the State. In this respect, for a better understanding of the procedural documents in cassation that refer to this, it need only be noted that on 12 September 2016, members of the Dutch House of Representatives introduced a legislative proposal for a Climate Act. The bill offers 'a context for developing policy for the irreversible and gradual reduction of Dutch greenhouse gas emissions for the purpose of mitigating global warming and climate change'.[44] The bill was passed by the House of Representatives on 20 December 2018 and by the Senate on 28 May 2019.[45] The Climate Act has since been promulgated and with the exception of Article 7, it entered into effect on 1 September 2019.[46]

1.7 The Climate Act does not contain a standard for greenhouse gas emissions in 2020. Article 2 of this act speaks of 'a framework for developing policy for the irreversible and gradual reduction of greenhouse gas emissions in the Netherlands to a level that is 95% lower in 2050 than it was in 1990, for the purpose of mitigating global warming and climate change'. The second paragraph of this article continues: 'In order to achieve this target for 2050, Our Ministers in this area will work to reduce greenhouse gas emissions by 49% in 2030 and to ensure that the generation of electricity is completely CO2-neutral in 2050'. The act provides for the periodic adoption of a climate plan. The first climate period relates to the period from 2021 through 2030 (Article 4(3)).[47]

1.8 Finally, with regard to the out-of-court debate, it is worth noting that Climate Consultations have been organised in which a large number of stakeholder organisations have participated. Five 'sector tables' for electricity, development, industry, agriculture and land use, and mobility are working on a draft climate agreement.[48] On 10 July 2018, the main points of a proposal were submitted to the government,[49] and the final proposal was submitted on 21 December 2018 – and thus after the date on which the disputed Court of Appeal's judgment was rendered.[50] On 28 June 2019 – after the debate in cassation had been closed – the Minister of Economic Affairs and Climate Policy sent a climate agreement to the President of the Senate.[51]

The proceedings in the first instance

1.9 In the first instance, after amending its claim, and to the extent relevant in cassation, Urgenda requested the District Court to order the State to limit the collective volume of Dutch greenhouse gas emissions such that this volume would be reduced by 40% at the end of the year 2020, or at least by a minimum of 25% in comparison to the volume in the year 1990.[52]

1.10 In the first instance, Urgenda litigated both on its own behalf and in its role as representative *ad litem* of the 886 individuals listed in Appendix A to the initiating summons of 20 November 2013.

1.11 Urgenda provided, briefly summarized, the following as substantiation for its claim for the reduction order. The greenhouse gas emissions from the Netherlands are contributing to a dangerous change in the climate. The Netherlands' share of worldwide emissions is excessive, in both absolute and relative terms (per capita of the population). This means that Dutch emissions, for which the State as a sovereign power has systemic responsibility, are unlawful, and in particular violate rules of unwritten law pertaining to proper social conduct towards Urgenda (Article 6:162(2) DCC), as well as Articles 2 and 8 ECHR. Under both national and international law, the State is obliged, in the interests of preventing dangerous climate change, to ensure the reduction of the Dutch emissions level. This duty of care entails that in 2020, the Netherlands must achieve a reduction in greenhouse gas emissions of 25%-40% in comparison to emissions in 1990. A reduction of this magnitude is necessary to have any hope of achieving the 2°C target. This is also the most cost-effective option.[53]

1.12 What follows is a summary of the defences put forward by the State, to the extent still relevant in cassation. According to the State, Urgenda lacks standing to the extent that it is acting on behalf of current or future generations in countries other than the Netherlands. Apart from this, the reduction order as sought cannot be granted because no unlawful acts have been committed (and there is no real threat that such will be committed) against Urgenda that are attributable to the State. Furthermore, the requirements of Article 3:296 DCC (court order) and of Article 6:162 DCC (unlawful act) have not been met. There is no basis in either national or international law for a duty that legally requires the State to take measures in order to achieve the reduction target as sought. Dutch climate policy does not violate Articles 2 and 8 ECHR. Granting the reduction order being sought would also be contrary to the State's margin of appreciation and the system of the separation of powers.[54]

1.13 In its judgment of 24 June 2015 (ECLI:NL:RBDHA:2015:7145), the District Court denied the claims for a lack of interest to the extent that Urgenda had instituted these claims on behalf of 886 individual claimants (see paras. 4.10 and 4.109 of the District Court's judgment). To the extent Urgenda is was acting on its own behalf, the District Court held that it did have standing: these are the types of claims that the Dutch legislature wanted to make possible by means of Article 3:305a DCC (para. 4.6 of the District Court's judgment). As, according to its by-laws, Urgenda acts in the interest of a sustainable society that extends beyond the country's borders, it can also base its claims on the assertion that Dutch greenhouse gas emissions may affect persons outside of the country's borders (para. 4.7 of the District Court's judgment). Where Urgenda is acting on behalf of future generations, it is also striving to serve the interest that future generations have in a sustainable society as referred to in its by-laws (para. 4.8 of the District Court's judgment).

1.14 To the extent Urgenda is acting on its own behalf, the District Court partially granted the reduction order as sought. The District Court ordered the State to 'limit the joint volume of Dutch annual greenhouse gas emissions, or have them limited, such that this volume will have been reduced by at least 25% at the end of 2020 compared to the level of the year 1990'. All additional or other claims were denied.[55]

1.15 At 4.C (paras. 4.11-4.34 of the District Court's judgment), the District Court discussed the current state of the art in climatology and climate policy. According to the District Court, the Dutch reduction target was below the standard considered necessary in the areas of climatology and international climate policy. That standard entails that the prevention of dangerous climate change requires Annex I countries (including the Netherlands) to reduce their greenhouse gas emissions by 25%-40% in 2020 in order to achieve the 2°C target (see para. 4.31(vi) of the District Court's judgment). According to the District Court, the dispute hinges on the question of whether the State is failing to meet its duty of care by applying a reduction target for the year 2020 that is lower than the 25%-40% reduction in comparison to the 1990 standard considered necessary according to climatology experts and international climate policy (para. 4.34 of the District Court's judgment).

1.16 At 4.D (paras. 4.35-4.93 of the District Court's judgment), the District Court discussed the question of the legal duty borne by the State. In this respect, the District Court applied the three elements provided for in Article 6:162 DCC, namely: (i) has a subjective right been infringed, or (ii) has the State acted in violation of a statutory obligation or (iii) in violation of rules of unwritten law pertaining to proper social conduct? In paras. 4.36-4.44, the District Court examined whether the State acted in violation of a statutory obligation. The District Court concluded that the State's international law obligations under the UNFCCC, the provisions contained in the Kyoto Protocol and the no-harm principle only entailed obligations to other states. These are not treaty provisions that are 'binding on all persons' as referred to in Article 93 of the Dutch Constitution. Urgenda cannot directly rely on those provisions (para. 4.42 of the District Court's judgment). However, when substantively interpreting open standards and terms under national law, including the societal standard of due care, courts may indeed assign a certain 'reflex effect' to such international law obligations (para. 4.43 of the District Court's judgment). This also applies to compliance with open standards under European law (para. 4.44 of the District Court's judgment).

1.17 The District Court then examined whether any of Urgenda's subjective rights had been violated. The District Court answered this question in the negative. According to the District Court, Urgenda was not entitled to rely on Article 2 or Article 8 ECHR because it could not be considered a direct or an indirect 'victim' within the meaning of Article 34 ECHR (para. 4.45 of the District Court's judgment). Articles 2 and 8 ECHR and the ECtHR's substantive interpretation thereof may very well serve as a source of inspiration for the substantive interpretation of open private-law standards (para. 4.46 of the District Court's judgment).

1.18 In paras. 4.53-4.82, the District Court examined whether the State was acting in violation of a duty of care ensuing from unwritten law pertaining to proper social conduct. In so doing, the District Court took into account the doctrine of hazardous negligence (the criteria from the Netherlands Supreme Court's judgment in *Kelderluik*[56]; see para. 4.54 of the District Court's judgment), as well as the State's discretionary power (see para. 4.55 of the District Court's judgment) and the targets and principles of international climate law and the law of the European Union, including the principle of a high level of protection, the precautionary principle and the prevention principle (see Article 191(2) TFEU; see paras. 4.56-4.62 of the District Court's judgment). The District Court focused its examination on the question of 'whether according to objective standards the reduction measures taken by the State to prevent hazardous climate change for humanity and the environment are sufficient, also in view of the State's discretionary power' (para. 4.63 District Court's Judgment).

1.19 In that context, the District Court addressed the following, in the order given: (i) the nature and scope of the harm resulting from climate change, (ii) the knowledge and foreseeability of this harm, (iii) the chance that a dangerous climate change will materialise, (iv) the nature of the acts or omissions on the part of the State, (v) the onerousness of the precautionary measures and (vi) the State's discretionary power (paras. 4.63 and 4.64-4.82 of the District Court's Judgment).

1.20 The District Court announced its conclusions in paras. 4.83-4.93. Given the severity of the impact of climate change and the significant chance that a dangerous climate change will occur without mitigating measures, the State has a duty of care to take mitigating measures. Because limiting the concentration of greenhouse gases in the atmosphere to 450 ppm is necessary to prevent dangerous climate change, the State must take measures that will reduce emissions of greenhouse gases so that this limitation can be achieved. It is an established fact that the State's current emissions policy is inadequate (paras. 4.83-4.84 of the District Court's judgment): the state has opted for a reduction target of less than 20% for 2020. Given the cumulation effect, a postponement as advocated by the State (namely: a less-stringent reduction between 2015 and 2030 and a sharp reduction starting in 2030) will significantly contribute to the risk of dangerous climate change. This postponement is therefore not an adequate and acceptable alternative to the necessary reduction by 25%-40% in 2020 in comparison to 1990 emissions levels – a reduction that has been scientifically proven and acknowledged (para. 4.85 of the District Court's judgment).

The State has not asserted that a reduction of 25%-40% in 2020 would result in a disproportionate burden for the Netherlands or for the State. Given the State's discretionary power, the District Court saw no sufficient grounds to oblige the state to comply with a reduction level in excess of 25% (the lower limit for the aforementioned standard of 25%-40%; see para. 4.86 of the District Court's judgment).

1.21 The District Court then examined whether the unlawful conduct can be attributed to the State, the possibility of harm and the causal link between the acts of the State and that harm, and the relativity requirement (paras. 4.87-4.91 of the District Court's judgment). The District Court concluded that the State had acted unlawfully towards Urgenda by basing its acts on a reduction target for 2020 of less than 25% in comparison to emissions levels in 1990 (para. 4.93 of the District Court's judgment).

1.22 Finally, the District Court discussed the defence asserting that the order being sought by Urgenda was contrary to the system of the separation of powers. The District Court rejected this defence (paras. 4.94-4.102 of the District Court's judgment).[57]

The proceedings on appeal

1.23 The State filed an appeal against the District Court's judgment with The Hague Court of Appeal. With 29 grounds for appeal, the full scope of the dispute was presented to the Court of Appeal.[58]

1.24 Urgenda, litigating on its own behalf,[59] instituted a cross-appeal, asserting a single ground for appeal. This ground was aimed at the District Court's opinion that in light of Article 34 ECHR, Urgenda could not rely on Articles 2 and 8 ECHR in these proceedings. Urgenda did not object to the District Court's refusal to issue a reduction order that extends beyond the 25% reduction in 2020.[60] The appeal was not directed against the rejection of its other claims.

1.25 On balance, the only outstanding question on appeal was whether the State was obliged to reduce, or to ensure the reduction of, greenhouse gas emissions at the end of 2020 by 25% in comparison to Dutch emissions levels in 1990. Like the District Court, the Court of Appeal answered this question in the affirmative.

1.26 In its judgment of 9 October 2018 (ECLI:NL:GHDHA:2018:2591), the Court of Appeal sustained Urgenda's ground in the cross-appeal. The District Court failed to appreciate that Article 34 ECHR only concerns access to the European Court of Human Rights (ECtHR) (para. 35). Assuming that individuals who fall under the State's jurisdiction may invoke Articles 2 and 8 ECHR, which have direct effect, before a Dutch court, Urgenda is entitled to do so on their behalf under Article 3:305a DCC. The Court of Appeal rejected the State's grounds in the principal appeal (para. 76).[61] The Court of Appeal then affirmed the District Court's judgment and declared its own judgment to be immediately enforceable regardless of any appeal.[62]

1.27 Briefly summarised, the Court of Appeal held as follows. There is no dispute as to Urgenda's standing to pursue its claim to the extent that it is representing the current generation of Dutch residents. It is without a doubt plausible that the current generation of Dutch residents will have to deal with the adverse effects of climate change in their lifetime if global emissions of greenhouse gases are not adequately reduced. This means that the question of whether Urgenda has standing to pursue its claims on behalf of future generations of Dutch residents and current and future generations of foreigners need not be addressed (para. 37). Urgenda has a sufficient interest in its claim, as there is a real threat of dangerous climate change (para. 38).

1.28 If the State knows that there is a real and immediate risk, it has a positive duty pursuant to Articles 2 and 8 ECHR to take preventive measures (para. 43). The State has a wide margin of appreciation when it comes to choosing the measures to be taken (para. 42). Based on the facts and circumstances proven during the proceedings (para. 44), it is appropriate to speak of a real

threat of dangerous climate change, resulting in the serious risk that the current generation of Dutch residents will be confronted with loss of life and/or disruption of family life. Pursuant to the provisions of Articles 2 and 8 ECHR, the State is obliged to offer protection against this real threat (para. 45).

1.29 With regard to the unlawful acts that were asserted, the Court of Appeal's opinion can be summarised as follows (paras. 46-53):

- The parties agree that global greenhouse gas emissions must be brought to a halt in 2100. The parties do not disagree on the reductions that will be necessary in the interim, those being emissions reductions of 80%-95% in 2050 and 49% in 2030. What must be examined is whether the State has acted unlawfully in respect of Urgenda by failing to reduce, or failing to ensure the reduction of, greenhouse gas emissions by at least 25% by the end of 2020 despite the aforementioned real threat (para. 46).

- A substantial effort must be made in order to achieve a reduction of 49% in 2030. It is also an established fact that it is desirable to start the reduction efforts at the earliest stage possible in order to limit the total emissions in this period. If the equal distribution constituting the State's premise for the reduction target of 49% in 2030 were extrapolated to the present, the result would be a reduction target of 28% before the end of the year 2020 (para. 47).

- In both AR4 and AR5, the IPCC also assumes that a concentration level of 450 ppm may not be exceeded if the 2ºC target is to be achieved. According to AR4, for that level to be achieved, the total emissions by Annex I countries (of which the Netherlands is one) must be 25% to 40% lower in 2020 than in 1990 (para. 48). AR5 gives no reason to assume that the reduction scenario from AR4 has become outdated. The Court of Appeal therefore assumed that an emissions reduction of 25%-40% must be achieved in 2020 if the 2ºC target is to be achieved (para. 49).

- Incidentally, even in the 450 ppm scenario, there will still be a real risk that the 2ºC target will not be met, even despite the fact that it has since been acknowledged that, to be safe, the temperature rise would have to be much closer to 1.5ºC than to 2ºC. Therefore, neither the 450 ppm scenario nor the reduction target of 25%-40% in 2020 based on that scenario is overly pessimistic (para. 50).

- The State has known about the reduction target of 25%-40% for a long time. This reduction target has been referenced at climate conferences since AR4 was published in 2007.[63] That may not have established a directly binding legal standard, but it does confirm that a reduction of at least 25%-40% in 2020 is required to prevent dangerous climate change (para. 51).

- Lastly, the Court of Appeal held that it is relevant that until 2011, the State's reduction target for 2020 was 30% because the State was convinced that a reduction of less than 25%-40% in 2020 would not be credible to keep the 2ºC target within reach. No scientific substantiation was provided for the adjustment of the Netherlands' reduction target for 2020; in particular, the State failed to substantiate why a reduction of only 20% per 2020 should now be considered credible in an EU context (para. 52). The Court of Appeal is of the opinion that a reduction obligation of at least 25% by the end of 2020, as ordered by the District Court, is in line with the State's duty of care (para. 53).

- In the findings that follow, the Court of Appeal discussed the State's defences, including the argument that the ETS system precludes farther-reaching reduction measures (para. 54) and State's reliance on the waterbed effect and carbon leakage (paras. 55-58). The fact that climate change is a worldwide problem that the State cannot solve on its own does not relieve the State of its obligation to take measures in its territory, within its capabilities, which, in concert with the efforts of other states, provide protection from the hazards of dangerous climate change (para. 62). According to the Court of Appeal, the fact that there is no complete scientific certainty regarding the effectiveness of the reduction order does not entitle the State to refrain from taking further measures (para. 63).

1.30 Finally, the Court of Appeal rejected the State's reliance on the system of the separation of powers. The Court of Appeal held that measures were called for because the State was violating

human rights, and that the reduction order imposed on the State allowed it sufficient room to choose how it would comply with that order (para. 67). The District Court had not issued a prohibited order to enact legislation, either (para. 68). The Court of Appeal emphasised that it was obliged to apply treaty provisions with direct effect – such as Articles 2 and 8 ECHR – if the Netherlands is a party to the treaty in question (para. 69). The Court of Appeal held that the State was failing to fulfil its duty of care pursuant to Articles 2 and 8 ECHR by not reducing emissions by at least 25% by the end of 2020. By so doing, the State is acting unlawfully. The Court of Appeal therefore declined to address the State's grounds regarding the doctrine of hazardous negligence (para. 76).

The proceedings in cassation

1.31 The State instituted its appeal in cassation in good time, and seeks the reversal of the Court of Appeal's judgment and such further relief as the Supreme Court deems appropriate.[64]

1.32 In cassation, Urgenda submitted a Defence, which it concluded with a motion to deny the request for cassation.

1.33 On 24 May 2019, the parties had their attorneys argue orally their positions based on the Written Arguments they submitted. A further Written Explanation was provided by the State on that same day. Urgenda declined to provide a further Written Explanation on that day.

1.34 On 21 June 2019, the State submitted a Reply and Urgenda a Rejoinder, after which the parties requested the Supreme Court to render judgment.[65]

1.35 For the benefit of non-Dutch readers, we note that new findings of fact are not given in proceedings for cassation: the court in cassation is bound by the Court of Appeal's findings of fact. The Supreme Court limits its examination to the grounds on which the appeal in cassation is based. Grounds are the reasons a litigant asserts for the reversal of the disputed judgment. A judgment can be reversed if certain procedural requirements have not been met or if the law has been violated – although the latter does not apply to the laws of foreign states. The factual basis for the grounds is limited to the disputed judgment and the procedural documents.[66]

2 Introductory considerations

Ground for the reduction order; layout of this chapter

2.1 The duty of care accepted by the District Court and the Court of Appeal – the obligation to reduce greenhouse gas emissions from Dutch territory by 25% as of the end of 2020 in comparison to 1990 – is not part of any written national or international law *as such*. The District Court derived this duty of care from the open standard of Article 6:162(2) DCC. The Court of Appeal identified a treaty-law basis for this duty of care in the open standards of Articles 2 and 8 ECHR. To that extent, the reasoning underlying the two judgments differs. However, the specific, substantive interpretation of the duty of care – the factual substantiation for the reduction order based on insights drawn from climatology, the targets of international climate policy and the standards and principles of international law – is largely the same in the reasoning of both the District Court and Court of Appeal.[67]

2.2 To promote a thorough understanding of the reasons offered by the District Court and the Court of Appeal, this chapter discusses introductory considerations regarding tort law, including the doctrine of hazardous negligence as applied by the District Court, and Articles 2 and 8 ECHR as applied by the Court of Appeal.

The requirements of standing for a class action are discussed first (para. 2.3 *et seq.*), followed by a segue into the meaning of the causality requirement (para. 2.10 *et seq.*). We then discuss the judicial review of lawfulness under Dutch law and the general standard of care (para. 2.14 *et seq.*), devoting special attention to the doctrine of hazardous negligence (see para. 2.20 *et seq.*). The carry-over effect of international law on Dutch law (in the context of the judicial review of lawfulness) is then discussed in para. 2.26 *et seq.*

After that, attention is turned to the European Convention on Human Rights (ECHR). After several introductory remarks about the scope of protection (see para. 2.34 *et seq.*), attention will be devoted to ECtHR case law on positive obligations pursuant to Articles 2 and 8 ECHR (para. 2.41 *et seq.*). Afterwards, in para. 2.50 *et seq.*, we will examine whether the Court of Appeal was entitled to base its reduction order on those articles. To that end, we discuss four main lines of ECtHR case law (para. 2.53 *et seq.*). In Chapter 3, we discuss the State's complaints regarding the human rights-law aspects of the order. The technical climatological aspects of the order will be discussed in Chapter 4.

Protection of general interests in a class action

2.3 Pursuant to Article 3:305a DCC, a legal entity like Urgenda may institute a legal claim to protect the 'similar interests' of other parties to the extent it promotes such interests pursuant to its by-laws (para. 1). The legal entity may be held to lack standing if it has not made sufficient efforts to achieve the object of the claim through negotiations with the defendant, or if the interests of the persons on whose behalf the claim was instituted are not sufficiently safeguarded by that claim (para. 2). The legal claim cannot be intended to obtain an award of monetary compensation (para. 3).[68]

2.4 Article 3:305a DCC offers a basis for both 'group actions' and 'general interest actions'. Where group actions are involved, the collective interests of a specific or specifiable number of individuals are represented. General interest actions involve a legal entity representing general interests that cannot be individualised because they accrue to a much larger, and thus diffuse and unspecific group of persons.[69]

2.5 According to the history of this statutory provision, ideological interests can also be represented in a class action. Societal divisiveness about the value that must be attributed to such interests or the manner in which those interests must be weighed against other, conflicting interests do not deprive a claimant of standing in a class action in the Netherlands.[70] Nor does the fact that 'diffuse' interests are involved, in the sense that addressing the harmful effect of a violation of the right being invoked on individuals is difficult, form an impediment.[71] Building on this, the Supreme Court has held that the fact that a substantial portion of the individuals whose interests a class action is intended to protect *disagree* with the objective of the claim also does not preclude a claim pursuant to Article 3:305a DCC. According to the Supreme Court, the decisive factor in a given case is whether it involves 'similar interests' within the meaning of Article 3:305a(1) DCC. That requirement is met if the interests in question lend themselves to consolidation such that the effective and efficient legal protection of the stakeholders can be advanced.[72]

2.6 In accordance with the foregoing, the parliamentary history and case law accept that a class action to protect the living environment can be instituted without this requiring an identifiable group of individuals in need of protection.[73] An argument that also applies in such cases is that efficient and effective legal protection can be advanced if, rather than litigating the same issue against the government separately, individuals opt instead to debate the issue (exchange arguments) on a collective level. As stated, the District Court did not address the issue of standing to the extent Urgenda was acting as the representative *ad litem* for the 886 individual claimants in the first instance.[74] The District Court held that Urgenda had standing to the extent it was acting on its own behalf, including to the extent it was representing the interests of persons outside of Dutch territory and future generations.[75] The Court of Appeal did not address the State's grounds

regarding that issue, because according to the Court of Appeal, there is no dispute that Urgenda has standing to the extent it is acting on behalf of the current generation of Dutch residents against greenhouse gas emissions in Dutch territory.[76]

Requirement of a sufficient interest in cases seeking orders or injunctions

2.7 As an extension of the issue of standing just discussed – the question of whether environmental interests are eligible for protection based on Article 3:305a DCC – there is the question of whether Urgenda has a sufficient interest, as meant in Article 3:303 DCC, in the court order it is seeking. The Court of Appeal answered that question in the affirmative in para. 38. None of the complaints in cassation are directed against that opinion.[77] The requirement of a sufficient interest also plays an auxiliary role in the complaints on the effect of the reduction order.[78]

2.8 Article 3:296 DCC allows a court to order a party to perform its legal obligation to another party if that other party institutes a claim to that effect. Granting a claim for an order or injunction that is intended to prevent a future violation of a standard does not require that all the requirements for liability pursuant to an unlawful act, as laid down in Article 6:162 DCC (unlawfulness, attributability, harm, causal connection and relativity) must be met. What is required is that (i) the defendant is under a legal obligation to the claimant and (ii) the claimant has a sufficient interest in preventing the imminent breach of that obligation. The first follows from Article 3:296 DCC ('he who is obliged to another...'). The second follows from Article 3:303 DCC ('A person has no right of action where he lacks sufficient interest.').

2.9 In the context of a claim for an injunction pursuant to an unlawful act, the Supreme Court has put it in the following terms: there must be a 'specific interest' in the injunction, in the sense that there is a 'specific and real threat' that the prohibited actions will be taken.[79]

Requirement of causality in cases seeking orders or injunctions

2.10 The foregoing implies that the granting of an order or injunction pursuant to Article 3:296 DCC in connection with Article 6:162 DCC requires no demonstrable or imminent harm, nor any connection with an unlawful act that has already been committed. It does, however, require an imminent impairment of interests as a result of the feared unlawful act.[80] This follows on the one hand from the aforementioned requirement of a sufficient interest as laid down in Article 3:303 DCC and, on the other, from the unlawfulness requirement as laid down in Article 6:162 DCC. 'Unlawfulness' is a relative term, of course, in the sense that the violation of a standard is only unlawful in respect of persons whose interests are protected by the standard that has been violated (Article 6:162(1) DCC; *cf*. also Article 3:296(1) DCC and Article 6:163 DCC).[81] Furthermore, many 'unlawful act standards' – including the safety standard applied by the District Court to determine whether there was an issue of hazardous negligence and the standard applied by the Court of Appeal relating to the government's 'positive obligations' in respect of situations which are hazardous to the living environment – are essentially based on a weighing of interests. The court never proceeds to such a weighing of interest if the claimant does not qualify as an 'interested party'; in other words, a potential 'victim' of the violation of the law.[82]

2.11 The literature also refers to the difficulties that the foregoing can cause in the context of climate change. Climate change is a global problem that is attributable to many causes. The reduction of greenhouse gas emissions by one country will not eradicate the worldwide danger of climate change. When it comes to small countries like the Netherlands, reductions have only a limited effect on global emissions. This gives rise to the question of whether Urgenda has a sufficient interest in the reduction order it seeks. More specifically, there is a question of whether the imminent impairment of interests resulting from climate change may be effectively counteracted by obliging just the Netherlands to a certain degree or certain speed of reduction.[83]

2.12 All things considered, the issue is a causality problem that is part and parcel of all cases of

environmental harm.[84] Harm to the living environment usually occurs gradually, due to a multitude of factors, as a consequence of pollution that does not stop at a country's borders.[85] This does not seem to be an insurmountable obstacle to holding polluters liable for any resulting harm. In the *Kalimijnen* judgment, which concerned the harm caused by the discharge of salt into a river, the Supreme Court accepted the possibility that each polluter would be held liable for a percentage of the harm that corresponded to its share in the pollution.[86] This 'linear' approach – to be distinguished from 'joint and several' liability for all harm, is also recognised in international environmental law.[87] The literature also refers to Article 47(1) of the Articles on Responsibility of States for Intentionally Wrongful Acts as established by the International Law Commission: '*Where several States are responsible for the same internationally wrongful act, the responsibility of each State may be invoked in relation to that act*.'[88]

2.13 By analogy, it might also be assumed that a claimant has a sufficient interest in being granted the order or injunction it is seeking if the order or injunction could contribute to preventing the asserted imminent impairment of interests.[89] An illustrative example, and one that is also cited by Urgenda,[90]is the US Supreme Court's decision in the case of *Massachusetts v. Environmental Protection Agency*. Very briefly put, that case concerned the question of whether the US Environmental Protection Agency (EPA) was bound to regulate the emission of CO2 as an air pollutant. The US Supreme Court answered that question in the affirmative, holding *inter alia*:

'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 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.'[91]

Violation of human rights as an unlawful act

2.14 As stated, a defendant must have a legal duty to the claimant in order for an order or injunction to be granted. Such a legal duty may be based on *inter alia* Article 6:162(2) DCC. That provision defines an 'unlawful act' as: (i) the violation of a right, (ii) an act or omission breaching a duty imposed by law and (iii) an act or omission breaching a rule of unwritten law pertaining to proper social conduct.

2.15 The impairment of human rights that are protected by the constitution and/or treaty law may fall within the scope of the first or second category of unlawfulness referred to in the previous paragraph. Human rights may also influence the substantive interpretation of an unwritten rule of law (the third category).[92] The District Court chose the latter route in this case, by attributing a 'reflex effect' to (*inter alia*) Articles 2 and 8 ECHR[93] in the context of reviewing the unwritten law. The disputed judgment does not indicate with certainty whether the Court of Appeal was applying Articles 2 and 8 ECHR directly or indirectly, by way of Article 6:162(2) DCC.[94] Regardless, when specifically interpreting the duty of care derived from Articles 2 and 8 ECHR, the Court of Appeal relied not only on ECtHR case law, but also on treaties, principles of international climate law, and non-binding international climate policy instruments, such as the various COP decisions cited by the Court of Appeal. The question of the extent to which such international legal sources have a carry-over effect on national legal order (directly via Articles 2 and 8 ECHR, or indirectly via Article 6:162(2) DCC) is discussed in paras. 2.26 *et seq*. below.

2.16 For the sake of completeness, we note that the constitutional right to environmental protection anchored in Article 21 of the Constitution ('It shall be the concern of the authorities to keep the country habitable and to protect and improve the environment') must be interpreted as an 'instructional standard' aimed at the government.[95] It is against this backdrop that this provision has played only a subordinated role in these proceedings. [96]

Violation of the standards of due care as an unlawful act

2.17 The third category of unlawful act referred to in Article 6:162(2) DCC which the District Court

applied can be traced back to the *Lindenbaum/Cohen* judgment from 1919.[97] Since that judgment, it has generally been accepted that engagement in an act or omission breaching a rule of unwritten law pertaining to proper social conduct also constitutes an unlawful act.

2.18 Characteristic for this category of unlawful act is its contextual nature: what the unwritten law entails in a given set of circumstances must be assessed on a case-by-case basis. This comes down to a weighing of interests.[98] In the *Kalimijnen* judgment referred to above, which regarded environmental pollution resulting from discharges of salt into a river, the Supreme Court held that when answering the question of whether the discharges of salt were contrary to the unwritten law of generally accepted standards and thus constituted an unlawful act against the users of the river downstream, account had to be taken 'on the one hand, of the nature and weight of the interests served by the discharges and, on the other, the interests served by the downstream use'. Building on this, the Supreme Court held 'that in weighing these opposing interests, special weight must be assigned to the interests of the downstream user to the extent that said person might, in principle, expect the river not to be excessively polluted by major discharges'.[99]

2.19 A standard that depends on the circumstances of the case can be challenged on the ground that it offers insufficient legal certainty. The literature thus also shows that, when possible, the courts must base specific interpretations of standards of care on objective assumptions.[100] The following are examples of what might serve as objective assumptions: non-binding guidelines and codes of conduct (both of which are 'soft law'), as well as treaty provisions and principles of international law which do not have direct effect. We revisit this topic in para. 2.30, *et seq.*

Points of view on unlawful hazardous negligence (Kelderluik factors)

2.20 An assessment framework has been developed in case law for the review of due care in cases involving hazardous negligence. These are situations in which the perpetrator has caused a hazard to persons or property to arise and/or has allowed such hazard to continue to exist. The societal standard of due care requires persons to refrain from exposing others to a hazard greater than what is reasonably responsible in the given circumstances. More specifically, this means that depending on the circumstances, adequate precautionary measures must be taken to eliminate the hazard or at least to reduce it to socially acceptable proportions.[101]

2.21 Most cases of hazardous negligence regard a hazard created by the perpetrator himself. The doctrine also applies to persons who have put another person in jeopardy through negligence. In particular, this concerns persons who owe a special duty of care to potential victims, such as managers of buildings and building sites.[102] However, the government's liability as a supervisory authority in respect of hazardous activities perpetrated by others is also linked to the doctrine of hazardous negligence.[103]

2.22 In the *Kelderluik* ('Cellar hatch') judgment, the Supreme Court formulated points of view on the unlawfulness assessment in cases involving hazardous negligence. These points of view concern (i) the probability that potential victims would not exercise the required attention and due care, (ii) the chance that accidents would ensue as a result, (iii) the seriousness of the possible consequences, and (iv) the onerousness of precautionary measures.[104] These '*Kelderluik* factors' were repeated in later case law, and supplemented with additional points of view, such as (v) the 'normality' of precautionary measures and (vi) the nature of the conduct.[105]

2.23 The *Kelderluik* factors focus on hazardous negligence situations. Although these do not constitute a framework for applying societal standards of due care in general,[106] these factors are still applied even in cases which do not involve hazardous negligence (analogously, supplemented with additional points of view, if necessary).[107] In this respect, it is relevant that the *Kelderluik* factors are in line with basic notions about handling risks. They are grounded in legal and economic principles and are also accepted, in similar phrasing, in other legal systems. One example is the 'Learned Hand' formula[108] in Anglo-American legal systems.[109] The *Principles of European Tort Law*

and the *Oslo Principles on Global Climate Obligations* contain comparable assessment frameworks.[110] The *Kelderluik* factors show similarities to the viewpoints which the ECtHR maintains in its case law on positive obligations in environmentally hazardous situations (to be discussed below).[111]

Hazardous negligence as ground for obligations in connection with the climate?

2.24 In this case, as explained, the District Court applied the *Kelderluik* factors, supplemented by other viewpoints, such as the discretionary power to which the government is entitled. Some authors have criticised the application of the doctrine of hazardous negligence. In their opinion, this doctrine is intended for simple accident situations and is not suitable for assessing government policy in issues that are as complicated as climate change.[112] Other authors believe that the doctrine of hazardous negligence is the perfect framework for addressing the dangers of climate change. In this regard, they refer to the broad applicability of the *Kelderluik* factors as a general framework for dealing with risks.[113]

2.25 In various commentaries on the contested judgment, the application of treaty law binding on all persons (Articles 2 and 8 ECHR) is deemed a more legitimate approach from the constitutional perspective than assigning 'reflex effect' to non-binding treaty provisions within the context of Article 6:162(2) DCC.[114] It can be added to this that human rights appear to be increasingly internationally acknowledged as a possible basis for 'climate obligations' of the government (see section 2.79 *et seq*. below). Nevertheless, the human rights approach of the Court of Appeal has been criticised (see section 2.51 et seq. below).

Direct effect and/or reflex effect of international law

2.26 Both in the Court of Appeal's human rights approach and in the District Court's reasoning based on Article 6:162 DCC, standards and principles of international law and non-binding instruments of international climate policy play an important role in the substantive interpretation of the State's obligations in relation to the dangers of climate change.

2.27 For some time now, the Dutch Constitution has contained provisions that make it possible for the court to also incorporate treaty law in its judgment, in addition to the applicable laws. Article 93 of the Dutch Constitution stipulates that provisions of treaties and resolutions by international organisations that may be binding on all persons by virtue of their contents will become binding after they have been published. Article 94 of the Dutch Constitution stipulates that statutory regulations in force within the Kingdom do not apply if such application is in conflict with provisions of treaties or of resolutions by international institutions that are binding on all persons. This constitution provision has made it possible for the court, when assessing a submitted claim, to dis-apply a statutory regulation on the grounds of it conflicting with a provision of a treaty that is binding on all persons.[115]

2.28 The concept of 'provisions of treaties (...) that may be binding on all persons by virtue of their contents' is interpreted by the Supreme Court as follows:

'The question as to what extent a provision of a treaty has direct effect within the meaning of Articles 93 and 94 of the Dutch Constitution must be answered by means of its interpretation. This interpretation should be based on the standards set out in Articles 31-33 of the Vienna Convention on the Law of Treaties of 23 May 1969 (Bulletin of Treaties, 1972, 51, and 1985, 79). (...) If it does not follow from either the text or the treaty's history that the provision of the treaty was not meant to have direct effect, the content of that provision is decisive. The question is whether it is unconditional and sufficiently precise to be applied as a positive right in the national legal order without reservation (see Supreme Court 1 April 2011, ECLI:NL:HR:2011:BP3044, NJ 2011/354 (…)). If the result to be achieved under a provision of a treaty in national law is unconditional and sufficiently precise, the mere fact that the legislator or the government is allowed freedom of choice or policy as to the measures to be taken to achieve that result does not

preclude the provision from having direct effect. Whether that effect exists depends on whether the provision can function as a positive right in the context in which it is invoked. Contrary to what the State argues, the mere existence of freedom of choice or policy does not mean that there can be no direct effect. (Cf. Supreme Court 09 April 2010, ECLI:NL:HR:2010:BC4959, NJ 2010/388 (SGP))'.[116]

2.29 Advocate General P. Vlas made the following comments on this standard:[117]

'What is new is that the Supreme Court has considered that the direct effect of a treaty provision depends on the question of whether "the provision can function as a positive right in the context in which it is invoked'. The Supreme Court therefore seems to accept a contextual, or relative, approach to the direct effect of treaty provisions. As a result, depending on the context in which it is invoked, a treaty provision will have direct effect in one case and not in another, and the assessment of the direct effect of a treaty provision and the assessment of its compatibility with that provision will become more closely intertwined.'

2.30 Treaty provisions that are not 'binding on all persons' within the meaning of Articles 93 and 94 of the Dutch Constitution can only have an *indirect* impact on the finding of unlawfulness. First of all, the interpretation of rules of national law is 'treaty-based' where possible, in accordance with the principle of international law that States are presumed to want to comply with their treaty obligations. Secondly, in implementing open standards, the national court will take international law into account as much as possible (irrespective of whether or not it has direct effect). This is the concept of reflex effect. It should be noted that it is not always possible to make a clear distinction between the two figures.[118]

Soft law as a source of international law

2.31 The distinction between direct effect, interpretation in accordance with the treaty and reflex effect has become more vague with the rise of 'soft law' within the context of international law. This refers to a wide variety of non-binding international instruments, such as guidelines, action plans, conference statements and non-binding resolutions of international organisations. Although these instruments are not legally binding in themselves, significance is increasingly attributed to them in the implementation of generally formulated obligations under international law[119] and, by extension, in the implementation of open standards in national law.[120] The ECtHR uses this technique as well,[121] in the context of the common ground method to be discussed below. Moreover, it has been argued in the literature that it is not so much the legal status of the instrument that should be decisive for the classification as hard law or soft law, but rather the actual substance of the rule laid down therein, i.e. whether or not that rule is suitable for application as a binding law.[122] This approach is somewhat comparable to the 'contextual' criterion from the *Smoking Ban* judgment discussed in para. 2.28.

2.32 History shows that soft law not seldom acts as a trailblazer for hard law: initially non-binding action plans and declarations of intent can later result in enforceable obligations under international law.[123] N.J. Schrijver refers to this process as 'crystallization'.[124]Climate change is cited as an example of a field of law in which soft law has developed into hard law over the years, although it should be noted that by no means all of the objectives that the international community has set for itself in this respect have ultimately been enshrined in binding treaties.[125] But this does not alter the fact that soft law can also play an important role in this subject. For instance, the authors of the *Oslo Principles on Global Climate Obligations* argue the following:

'The repeated pledges by world leaders, in and outside the COP framework, and the urgent need to come to grips with the looming threats advocated by these leaders may in themselves not amount to legal obligations, but they are not meaningless either. Taken together with other legal bases, they help to crystallise enforceable obligations on countries.'[126]

2.33 Fleuren concludes that this has put the concept of 'direct effect' into perspective. He endorses

this outcome and, to that extent, the judgments of the District Court and the Court of Appeal.[127] Schrijver, Loth and Van Gestel are also positive about the way in which the District Court has linked national and international law in this case.[128] Other authors are critical on this point. Briefly put, their opinion is that the limits of the judiciary's duty in forming law are exceeded when reflex effect is assigned to non-directly binding treaty provisions and (all the more) by assigning reflex effect to non-binding international instruments.[129]

Protection of human rights under the ECHR

2.34 Article 1 ECHR provides that the Contracting Parties shall secure to everyone within their jurisdiction the rights and freedoms defined in Section I of the Convention. This obligation on States to respect human rights determines in many respects the scope of the legal protection provided by the ECHR. First of all, this shows that human rights apply primarily in the (vertical) relationship between government and citizens (see section 2.35 below). Secondly, this shows that the legal protection offered by the ECHR is, in principle, territorial (see section 2.36). Thirdly, it follows from Article 1 ECHR that human rights must be protected *effectively* and *actively* (see sections 2.37 and 2.38) and that such protection must be provided primarily at *national* level (see section 2.39). Finally, it is important that the ECHR requires a *minimum level of protection* and therefore does not oppose additional protection at national level (see section 2.40 below).

2.35 *Individual legal protection* Human rights are originally intended as an instrument to protect individuals from government interference. Although national law also attributes 'horizontal effect' to human rights,[130] the legal protection offered by the ECHR is still dominated by 'a search for a fair balance between the demands of the general interest of the community and the requirements of the protection of the individual's fundamental rights'.[131] This emphasis on individual legal protection is also expressed in Article 34 ECHR, which only grants a right of complaint to individuals and organisations who themselves are a victim of a human rights violation.[132] An '*actio popularis*' to promote human rights in general is therefore, in principle, not possible under the ECHR.[133] However, this limitation is not absolute: as will be shown below, the ECHR also offers 'general protection to society' in certain situations (see section 2.59 below) and the ECtHR has stretched the victim requirement in appropriate cases in order to ensure effective legal protection (see sections 2.58 and 2.62 below).

2.36 *Territorial legal protection* According to the ECtHR, the concept of jurisdiction in Article 1 ECHR must principally be interpreted in a territorial sense. The point is whether the victim is on the territory of the Contracting State. Exceptions to this territoriality principle have also been accepted by the ECtHR in the context of extraterritorial activities of a State, such as violations of human rights by diplomats or military personnel in respect of victims outside the territory of the State.[134] Whether cross-border environmental damage also falls within the scope of this exception has not yet been decided in the ECtHR case law. The existing ECtHR case law does seem to offer bases for this,[135] as does the case law of other human rights courts.[136]

2.37 *Principle of effective interpretation* According to established case law, the provisions of the ECHR must be interpreted and applied in such a way that the rights guaranteed therein are practical and effective. This follows from 'the object and purpose of the Convention as an instrument for the protection of individual human beings',[137] according to the ECtHR. This is in line with the interpretation standard of Article 31(1) of the Vienna Convention on the Law of Treaties.[138] Application of the principle of effective interpretation referred to here generally leads to an extensive interpretation of the ECHR. The stretching of the 'victim' requirement is an example of this.[139]

2.38 *Positive obligations* The positive obligations from Articles 2 and 8 ECHR to be discussed below can also be regarded as an application of the principle of effective interpretation. The idea is that effective protection of human rights not only requires the government to refrain from violating these rights, but under certain circumstances also requires it to make an active effort to prevent

human rights from being compromised by third parties or external factors (such as natural disasters).[140] This means that a violation of positive obligations often involves multiple causality, in the sense that the human rights violation is caused by a combination of factors, including negligence on the part of the government.[141] In this respect, the positive obligations do not require an absolute guarantee against human rights violations (see section 2.53 below in this context).

2.39 *Principle of subsidiarity* The ECtHR deduces from Article 1 ECHR that the protection of ECHR rights must be offered primarily by the national authorities, including national courts. The ECtHR has assigned itself a subsidiary role in this respect.[142] The principle of subsidiarity referred to here also forms the backdrop for the margin of appreciation doctrine to be discussed below, which the ECtHR uses to grant national authorities a margin of appreciation in appropriate cases.[143] While this may evoke associations with the constitutional principle of the separation of powers, the principle of subsidiarity is not dominated by judicial restraint.[144] On the contrary: the ECtHR requires national courts to assess human rights claims 'with particular rigour and care', 'as a corollary of the principle of subsidiarity'.[145] The margin of appreciation doctrine therefore cannot serve – or at most only serve by analogy – as a basis for a cautious approach on the part of the national court in human rights issues (see section 2.69 below).

2.40 *Minimum protection* Article 53 ECHR provides that the Convention is without prejudice to the protection of human rights under national laws and/or treaties. In other words, the ECHR requires a minimum level of protection and leaves Contracting Parties free to provide additional protection. Comparative law research from 2014 has shown that national courts generally seek alignment with the minimum level of protection required by the ECtHR.[146] As far as the assessment of laws in a formal sense[147] on the basis of the ECHR is concerned, the Dutch court is not allowed to offer additional protection:

'Pursuant to Article 93 of the Dutch Constitution, the Dutch court must apply the provisions of the ECHR that are binding on all persons. This means that it is also obliged to interpret those provisions, it being understood, however, that the division of tasks between the national court and the ECtHR means that the national court, in its interpretation of the provisions of the ECHR, must comply with the established case law of the ECtHR. It is true that Article 53 ECHR leaves the Contracting States free to offer more far-reaching protection than ensues from the provisions of the ECHR, but Articles 94 and 120 of the Dutch Constitution imply that the Dutch court may only dis-apply enacted legislation or provisions thereof if that legislation is incompatible with provisions of treaties and resolutions of international organisations that are binding on all persons. In view of what has just been considered, however, such incompatibility cannot be assumed on the basis of an interpretation by the national – Dutch – court of the concept of property in Article 1 FP that deviates from the established case law of the ECtHR with regard to that treaty provision.'[148]

Positive obligations from Article 2 ECHR

2.41 The following is a brief inventory of the ECtHR case law relevant to this case concerning positive obligations from Articles 2 and 8 ECHR. For the sake of brevity, reference is made to the case law reports drawn up by the Directorate of the Jurisconsult of the ECtHR, in which the relevant case law is presented more extensively, also indicating the corresponding sources.[149]

2.42 Article 2 ECHR protects the right to life. This Article not only prohibits the intentional deprivation of life, but also stipulates the positive obligation to take measures to protect the right to life.[150] Article 2 ECHR also applies to life-threatening situations. The positive obligation to protect against the danger to life is twofold. It covers on the one hand the obligation to provide an adequate legal framework (see the first sentence of Article 2 ECHR) and, on the other hand, the obligation to take actual precautionary measures. This positive obligation applies to *inter alia* dangerous industrial activities, regardless of whether these have been carried out by public or private operators, and in the context of natural disasters. According to established case law, Article 2 ECHR does not offer

an absolute guarantee against every conceivable danger.[151]

2.43 The ECtHR has developed an assessment framework for cases where individuals are threatened by violent behaviour by others, such as dangerous criminals and psychiatric patients. In such cases, there is a positive obligation under Article 2 ECHR to protect the person or persons at risk. According to established case law, this obligation, also known as the *Osman* obligation,[152] must not impose an 'impossible or disproportionate burden' on the national authorities. That is why the ECtHR attaches to this the condition that the authorities 'knew or ought to have known at the time of the existence of a real and immediate risk to the life of an identified individual or individuals from the criminal acts of a third party and that they failed to take measures within the scope of their powers which, judged reasonably, might have been expected to avoid that risk'. The ECtHR also accepted the *Osman* obligation in cases where the potential victims could not be identified in advance, for example in the case of random victims of violent persons. In this specific context, according to the ECtHR, Article 2 ECHR offers general protection to society.[153]

2.44 With a focus on activities that are dangerous, or dangerous to the environment, Article 2 ECHR primarily requires the Contracting States of the Treaty to provide for 'a legislative and administrative framework designed to provide effective deterrence against threats to the right to life'.[154] As regards the choice of measures to reduce the danger, the authorities of the Contracting States have been afforded a 'margin of appreciation'. Again, the measures should not create an 'impossible or disproportionate burden' for the national authorities. This is even more true in 'difficult social and technical spheres' in which the ECtHR awards a 'wide margin of appreciation' to Contracting States. In the assessment of measures taken by a Contracting States, significance is attributed to, among other things, 'domestic legality', the 'domestic decision-making process' and the underlying facts, the 'complexity of the issue', 'the origin of the threat', and the extent to which the danger is susceptible to 'mitigation'. When undertaking or authorising dangerous activities, the State in question must ensure that risks are limited to 'a reasonable minimum'.[155]

2.45 The ECtHR has on several occasions accepted a violation of Article 2 ECHR with regard to a natural or environmental disaster. This concerned, for instance, a gas explosion at a rubbish tip,[156] a mudslide caused by natural disaster,[157] a flood caused by poor water management,[158] and exposure to asbestos at a shipyard.[159]

Positive obligations from Article 8 ECHR

2.46 Article 8 ECHR protects the right to respect for private and family life. It offers comprehensive protection, which in part builds on from Article 2 ECHR. Where Article 2 ECHR does not apply (e.g. in situations that affect the quality of life but are not life-threatening), it is sometimes possible to fall back on Article 8 ECHR.[160]

2.47 Article 8 ECHR also applies to environmental issues, among other things. Although the ECHR does not involve the right to protection of the living environment in general, where environmental pollution has direct consequences for the right to respect for private and family life (in particular the home) and is sufficiently serious. Article 8 ECHR can be applied without requiring that the health of the complainant be threatened. Socially acceptable forms of nuisance (such as 'environmental hazards inherent to life in every modern city') are not within the scope of protection offered by Article 8 ECHR.[161]

2.48 Article 8 ECHR requires in environmental matters that States take 'reasonable and appropriate measures' to protect individuals from 'serious damage to their environment'. States have an 'extensive margin of appreciation' in this regard. The ECtHR assesses whether a 'fair balance' has been struck between the interests at stake. The ECtHR also understands this to include economic interests.[162]

2.49 In several cases of (serious) environmental damage, the ECtHR has ruled that Article 8 ECHR had

been violated. Examples of this include cases concerning environmental pollution and nuisance from a waste treatment plant,[163] environmental nuisance and health risks from a gold mine,[164] severe noise pollution from catering establishments,[165] air pollution and health risks from a steel plant,[166] nuisance and health damage due to traffic measures,[167] environmental pollution from a coal mine,[168] safety risks caused by stray dogs,[169] environmental nuisance due to a waste crisis,[170] groundwater contamination from an illegal cemetery,[171] and environmental pollution from a power station.[172]

Human rights as a basis for climate commitments?

2.50 The case law of the ECtHR on positive obligations under Articles 2 and 8 ECHR, which was discussed a moment ago, is casuistic. Much of the case law concerns fairly clear cases in which, although possibly involving many victims, the danger or environmental damage can be traced back to a certain activity at a certain location (a rubbish tip, a steel plant, a power plant, *et cetera*). Some cases concern larger-scale activities, involving more actors and more divergent interests (hospitality industry policy, traffic measures, stray dogs, waste policy). Even in the more small-scale cases, general/more general interests and policy themes sometimes play a role in the background (spatial planning, water management, environmental policy, disaster management).

2.51 Some authors have argued that Articles 2 and 8 ECHR are not suitable for application to the danger of climate change. In their opinion, particularly problematic is the fact that climate change does no threaten a specific group of potential victims that can be demarcated; it potentially threatens the world's entire population. Moreover, climate change is not caused by one single country or one single source of emissions, but the result of the conduct of many countries and many sources of emissions all over the world. This means that climate change transcends the balancing of general and individual interests that is characteristic for human rights (cf. para. 2.35 above). Combating the danger of climate change requires an assessment of conflicting *general* interests and, according to these authors, that is not what human rights are intended for.[173] Other authors consider the human rights approach of the Court of Appeal to be pre-eminently suitable for the assessment of this case.[174]

2.52 The question of whether human rights protect not only people as individuals but also humanity as a whole does not need to be answered in these cassation proceedings. This case concerns the question of whether the ECtHR case law on positive obligations under Articles 2 and 8 ECHR offers starting points for assuming an obligation on the State to reduce, or ensure the reduction of, the emission of greenhouse gases from the Dutch territory by 25% by the end of 2020 as compared to the emissions in 1990. In the following paragraphs, four main lines from the ECtHR case law will be discussed, which could provide starting points – taking into account the climatological insights, objectives of international climate policy and standards and principles of international law referred to by the District Court and Court of Appeal – for the assumption of such an obligation.

First main line: preventive legal protection under Articles 2 and 8 ECHR

2.53 The positive obligations that the ECtHR has derived from Articles 2 and 8 ECHR are of a preventive nature. In the *L.C.B./United Kingdom* judgment, a precursor to the aforementioned *Osman* judgment, the ECtHR already considered that it comes down to whether the government has done what could be expected of it 'to prevent the applicant's life from being avoidably put at risk'.[175] This preventive nature is inherent to the concept of positive obligations as such: they are intended to ensure that the government makes an effort to prevent human rights from being compromised by third parties or external factors.[176] It is important to note that this is not an obligation of result: the fact that a person dies does not necessarily imply a violation of the right to life.[177] In the words of Gerards, positive obligations are characterised by the fact that they 'help to ensure the effective enjoyment' of the human right in question.[178] This is without prejudice to the fact that the ECtHR often places high demands on the efforts to be made by the government and that such demands may involve the need to ensure a certain minimum level of protection (see

paras. 2.63 et seq. below).

2.54 The question is therefore not whether Articles 2 and 8 ECHR protect against future dangers – which they do – but *how far* this preventive protection goes. According to the ECtHR, the aforementioned *Osman* obligation to protect those at risk – which is also applied, by analogy, to environmental disasters and dangerous situations[179] – applies if the government is aware of a 'real and immediate risk' for persons. In the literature, questions have been raised with regard to the second element of this criterion: the requirement of immediacy. Referring to various ECtHR judgments, Sanderink argues that this requirement has hardly any added value, because it mainly concerns the *reality* of the risk.[180] Gijselaar and De Jong conclude from the ECtHR case law that the point is whether the risk is *avoidable*: if not, there is an 'immediate risk', even though it will only materialise in the longer term.[181] Emaus argues in a more general sense that the ECtHR case law is governed by a 'precautionary principle'.[182]

2.55 The *Taşkin and others/Turkey* judgment offers support for this playing down of the requirement of immediacy. In that case, the complainants claimed a violation of Article 8 ECHR on account of environmental risks associated with the use of cyanide in the operation of a gold mine. The Turkish government defended itself by arguing that these risks were 'hypothetical' because they could only emerge in 20 to 50 years. The ECtHR dismissed this defence by ruling that the risks had been identified in several environmental reports. The risks were therefore sufficiently closely linked to the right to private and family life of those living in the vicinity of the gold mine, as protected by Article 8 ECHR. The ECtHR continued:

'If this were not the case, the positive obligation on the State to take reasonable and appropriate measures to secure the applicant's rights under paragraph 1 of Article 8 would be set at naught.'[183]

2.56 This finding confirms the preventive nature of the positive obligations. More specifically, it shows that a violation of these obligations does not merely emerge when the risk is almost materialising (the proverbial 'point of no return'). Risks threatening to occur in the long term, in this case a term of several decades, may also force the government to take preventive measures. The applicability of Articles 2 and 8 ECHR therefore does not require an 'acute' or 'immediate' danger.[184]

2.57 Even if there is scientific uncertainty about the exact nature of the extent of risks that will or may materialise only over a longer period of time, this does not automatically relieve the government of its obligation to take precautionary measures. This is clear from the *Tătar/Romania* judgment, in which the ECtHR held that the continued operation of a gold mine was in violation of Article 8 ECHR, in connection with potential health risks for people living nearby, which risks had not been conclusively proven. The ECtHR referred in this context to the precautionary principle ('*le principe de précaution*'), which has been accepted in international environmental law (see para. 2.74).[185] This also shows that in the context of positive obligations, the ECtHR does not require imminent damage and a causal link, nor require irrefutable proof of such: a *real risk* being caused by the government's actions is sufficient.[186]

2.58 Preventive enforcement of human rights can be problematic from a procedural point of view, as far as the procedure before the ECtHR is concerned. After all, on the basis of Article 34 ECHR, complaints can only be submitted by persons who demonstrably qualify as victims. However, the ECtHR has stretched the victim requirement in favour of 'potential victims' and 'inevitable victims'. While it is true that the mere risk of a future human rights violation is insufficient to establish standing for a complaint to the ECtHR, if the government has taken specific steps or rendered decisions that could lead to the alleged human rights violation, such as in the case of an intended deportation or extradition in violation of the ECHR, complaints about this can be brought in Strasbourg. Even if an alleged violation of human rights is not yet an issue but is inevitable in the long run, such as in the event of rules relating to taxes or inheritances that will only be applied in the event of a person's death, standing has been accepted with complaints about this.[187] In this way, the preventive protective scope of the ECHR is also guaranteed from a procedural point of

view.

Second main line: general legal protection under Articles 2 and 8 ECHR

2.59 In section 2.43, it was shown that States are obliged under Article 2 ECHR to take measures to protect persons at risk. This *Osman* obligation is not only intended to protect specific persons who are known in advance to be at risk, but also, in certain cases, to provide 'general protection to society' ('*une protection générale de la société*').[188] This is obvious, as the threat emanating from violent persons can affect random victims who cannot be individualised in advance. The nature of the danger calls for a wider scope of application in such cases.

2.60 The positive obligations under Article 8 ECHR have also been assigned a general scope of protection. For example, the ECtHR held in *Di Sarno and others/Italy* and *Cordella and others/Italy* that the environmental damage in question (a waste crisis and environmental pollution caused by a steel plant, respectively) affected the entire population of the region ('*l'ensemble de la population*'). In both cases, the ECtHR ruled that Article 8 ECHR had been violated.[189] Another illustrative example is the *Stoicescu/Romania* judgment, in which a violation was ruled to have been committed in connection with the fact that the complainant had been attacked by stray dogs. The Romanian authorities had long been aware of the danger posed by stray dogs - which had developed into 'a public health and safety issue' - but had done nothing to curb it. The circumstance that the stray dogs obviously did not specifically target the complainant, and the authorities therefore could not foresee that and in what way she would become a victim of such an attack, did not prevent the ECtHR from assuming a violation of Article 8 ECHR. Van de Westelaken argues that the requirement that the potential victims must be identifiable, as laid down in the *Osman* judgment, has thus been abandoned.[190]

2.61 In the event of dangers and environmental damage that threaten the whole region or society as a whole, Articles 2 and 8 ECHR proportionally offer protection to the whole region or society as a whole. This is in line with the *principle of effective interpretation* (see para. 2.37 above): in this category of 'untargeted' dangers and environmental damage, setting the requirement that potential victims must be identifiable would undermine the protection offered by Articles 2 and 8 ECHR.

2.62 In procedural terms, as well, the ECHR offers scope for general legal protection where necessary to safeguard the effectiveness of the human rights concerned. An example of this is the ECtHR case law on 'secret surveillance'. According to this case law, the mere existence of national legislation allowing secret surveillance is sufficient to establish standing for a complaint based on Article 8 ECHR from persons subject to that legislation, regardless of whether they actually are or have been exposed to secret surveillance.[191] This expansion of the victim requirement enables an abstract assessment of surveillance legislation in the light of Article 8 ECHR. The rationale underlying is, again, the *principle of effective interpretation*: precisely because citizens cannot know whether they are subject to secret surveillance, Article 34 ECHR cannot be applied in full. Otherwise, the protection offered by Article 8 ECHR would be rendered illusory.

Third main line: assessment of safety and environmental policy under Articles 2 and 8 ECHR

2.63 A third main line concerns the margin of appreciation that is afforded to governments, according to the ECtHR, in choosing measures to implement their positive obligations. The ECtHR also applies this margin of appreciation in the context of dangerous activities and environmental damage, but this does not prevent the ECtHR from making an in-depth assessment of the policy choices made by governments. The minimum in this regard is that the measures taken by governments must be appropriate with a view to reducing the danger or the environmental damage in question. More specifically, this means that the measures must be taken in good time and must – at least potentially[192] – be effective; see also sections 4.216-4.217 below.[193]

2.64 An illustrative example is the *Öneryildiz* judgment, which involved a gas explosion at a Turkish rubbish tip. The Turkish authorities, who had been aware of the risk of explosion for many years but had done nothing to protect the inhabitants of a nearby slum, argued that the resettlement of those inhabitants was a large-scale and costly operation and that humanitarian considerations prevented an immediate evacuation of the slum. The ECtHR rejected those arguments and ruled that Article 2 ECHR had been violated. The ECtHR indicated exactly what measures the Turkish government should have taken and how it should have weighed the interests involved:

'107. The Court acknowledges that it is not its task to substitute for the views of the local authorities its own view of the best policy to adopt in dealing with the social, economic and urban problems in this part of Istanbul. (…).

However, even when seen from this perspective, the Court does not find the Government's arguments convincing. The preventive measures required by the positive obligation in question fall precisely within the powers conferred on the authorities and may reasonably be regarded as a suitable means of averting the risk brought to their attention. The Court considers that the timely installation of a gas-extraction system at the Ümraniye tip before the situation became fatal could have been an effective measure without diverting the State's resources to an excessive degree in breach of Article 65 of the Turkish Constitution (see paragraph 52 above) or giving rise to policy problems to the extent alleged by the Government. Such a measure would not only have complied with Turkish regulations and general practice in the area (…), but would also have been a much better reflection of the humanitarian considerations the Government relied on before the Court.'

The inhabitants of the slum also invoked violation of their right to property, as protected by Article 1 of the First Protocol to the ECHR. The Turkish government countered this by arguing that the construction of the slum was illegal and that spatial planning was subject to its discretion. The ECtHR rejected that argument as well. In this context, the ECtHR considered that the discretion of national governments 'in no way dispenses them from their duty to act in good time, in an appropriate and, above all, consistent manner'. [194]

2.65 The fact that the ECtHR can, if necessary, also make an in-depth assessment of the *timing* of precautionary measures is evident from the *Budayeva and others/Russia* judgment, concerning a mudslide caused by poor water management. The Russian government argued in its defence that the timing and severity of the mudslides could not be accurately predicted. The ECtHR ignored this because the government had not explained which measures it had taken to protect the inhabitants of the at-risk area. The ECtHR ruled that Article 2 ECHR had been violated and endorsed the complainants' view that 'implementing safety measures could have, and should have, taken place earlier'. In his accompanying annotation, Janssen concluded that the ECtHR performs an in-depth assessment of the evidence submitted by governments, and that reliance on the margin of appreciation has no chance of success if the government has no explanation for its failure to act adequately.[195]

2.66 In the context of Article 8(2) ECHR, as well, which generally affords the national authorities a greater margin of discretion or appreciation than Article 2 ECHR[196], the ECtHR can go a long way in assessing the policy choices made. The *Fadeyeva/Russia* judgment on air pollution and health risks caused by a steel plant is a case in point. In para. 68, the ECtHR stated first and foremost:

'Article 8 has been invoked in various cases involving environmental concern, yet it is not violated every time that environmental deterioration occurs: no right to nature preservation is as such included among the rights and freedoms guaranteed by the Convention (see *Kyrtatos v. Greece*, no. 41666/98, ECHR 2003-VI, par. 52). Thus, in order to raise an issue under Article 8, the interference must directly affect the applicant's home, family or private life.'

The Russian government defended itself by arguing that air pollution had been significantly reduced over a period of twenty years and that further reduction was a long-term process. The ECtHR rejected that argument and ruled that Article 8 ECHR had been violated. In that context, the ECtHR noted that previous reduction plans 'did not achieve the expected results' and that the 'deadline for bringing the plant's emissions below dangerous levels' had been extended

repeatedly. The ECtHR did not consider it sufficient that 'significant progress' had been made compared to the distant past. According to the ECtHR, progress in recent years had been 'very slow', noting that 'in certain years pollution levels increased rather than decreased'. The ECtHR recognised that the environmental problem could not be solved in a short period of time. Against this backdrop, it formulated the following assessment framework:

'Indeed, it is not the Court's task to determine what exactly should have been done in the present situation to reduce pollution in a more efficient way. However, it is certainly in the Court's jurisdiction to assess whether the Government approached the problem with due diligence and gave consideration to all the competing interests. In this respect the Court reiterates that the onus is on the State to justify, using detailed and rigorous data, a situation in which certain individuals bear a heavy burden on behalf of the rest of the community.'

In this case, the ECtHR considered that the Russian government did not succeed in providing evidence of 'due diligence', in particular because it had not clarified the precise nature of the reduction policy in respect of the steel plant.[197]

2.67 The due diligence criterion from the *Fadeyeva/Russia* judgment was repeated in the 2017 *Jugheli and others/Georgia* judgment and the 2019 *Cordella and others/Italy* judgment. Both of these judgments concerned environmental pollution (by a power plant and steel plant, respectively) and in both judgments it was concluded on the basis of a careful and in-depth assessment of the governments' considerations that the environmental policy pursued did not meet the due diligence requirement ('*diligence voulue*').[198]

2.68 The margin of appreciation that is afforded to governments, according to the ECtHR, in environmental matters is therefore certainly not unlimited and absolute. An important point of view for the ECtHR seems to be whether the environmental policy pursued is consistent, properly substantiated and in line with national laws and regulations. In the literature, this is also referred to as the 'rule of law' criterion.[199] If the government violates national rules or is unable to justify its own policy, the ECtHR will adopt a stricter stance. In such cases, there seems to be a smaller margin of appreciation. An illustrative example is the *Dubetska and others/Ukraine* judgment, concerning environmental pollution from a coal mine. The ECtHR found that the government's policy towards the coal mine was characterised by 'numerous delays and inconsistent enforcement'. In spite of the 'wide margin of appreciation' that the ECtHR afforded in principle to the government in this case, the ECtHR ruled that Article 8 ECHR had been violated because the coal mine violated national rules and the government had done nothing to protect people living nearby from the pollution.[200]

2.69 With regard to the above, it must be borne in mind that the margin of appreciation arises from the principle of subsidiarity enshrined in Article 1 ECHR.[201] This principle entails that the protection offered by the ECHR must be realised primarily by the national authorities (including the national courts). The ECtHR does not act as a 'fourth instance', as if it were the country's highest judiciary: it assesses complaints about violations of the treaty. The ECtHR has considered the following on this matter:

'The doctrine of the margin of appreciation has always been meant as a tool to define relations between the domestic authorities and the Court. It cannot have the same application to the relations between the organs of the State at the domestic level.'[202]

For this reason, national courts are not required to exercise restraint in those areas where the ECtHR affords the national authorities a margin of appreciation.[203] In the literature, the opposite is argued: where the ECtHR exercises restraint on account of the principle of subsidiarity, the national courts must perform a more in-depth assessment.[204] The *Fabris/France* judgment supports this approach.[205] Incidentally, it cannot be inferred from this that the *Fabris/France* judgment encourages an extensive substantive interpretation of the ECHR. The foregoing is also without prejudice to the possible existence of other reasons for restraint on the part of the court (e.g. on the basis of the national relationships between the state powers, to be discussed in Chapter 5 below). The concept of a margin of appreciation takes on a different meaning in that case, in which

the focus is no longer on the relationship between the ECtHR and the national court. Application by the national court raises the question of what margin of discretion or appreciation the national court affords the authorities in its own country. It already follows from the text of the treaty that generally speaking, this margin is more limited with regard to the right protected in Article 2 ECHR than with regard to the rights protected in Article 8 ECHR.[206]

Fourth main line: the ECtHR's common ground method

2.70 The last main line that deserves to be mentioned concerns the way in which the ECtHR interprets human rights in areas where the ECHR does not provide a definitive answer to the precise content of the obligations incumbent on the Contracting States. The ECtHR considers the ECHR to be 'a living instrument which (...) must be interpreted in the light of present-day conditions'.[207] In connection with this, the Court applies the 'common ground' or 'consensus' method when answering new questions of law. This method of determining the law entails that the ECtHR seeks to tie in with views that are widely shared in the Contracting States and in an international context. In this context, in addition to the national case law in the Contracting States, the ECtHR can also consider non-ratified treaties and 'soft law' in its assessment; the concept of 'soft law' has already been discussed in sections 2.31 *et seq*. above.[208]

2.71 In the *Demir and Baykara/Turkey* judgment, the ECtHR described the common ground method as follows:

'85.The Court, in defining the meaning of terms and notions in the text of the Convention, can and must take into account elements of international law other than the Convention, the interpretation of such elements by competent organs, and the practice of European States reflecting their common values. The consensus emerging from specialised international instruments and from the practice of contracting States may constitute a relevant consideration for the Court when it interprets the provisions of the Convention in specific cases.

86.In this context, it is not necessary for the respondent State to have ratified the entire collection of instruments that are applicable in respect of the precise subject matter of the case concerned. It will be sufficient for the Court that the relevant international instruments denote a continuous evolution in the norms and principles applied in international law or in the domestic law of the majority of member States of the Council of Europe and show, in a precise area, that there is common ground in modern societies (…).'[209]

It is already clear from this description that in order to find common ground, full consensus between the Contracting States is not required. For example, in 2002 the ECtHR accepted a right to recognition of gender reassignment despite 'the lack of a common European approach' towards the subject matter.[210] The ECtHR referred to 'the clear and uncontested evidence of a continuing international trend'.[211]

2.72 The common ground method is somewhat comparable to the reflex effect that national courts, in implementing open standards into national law, can attribute to treaty provisions and 'soft law' that have no direct effect.[212] This explains why the Court of Appeal in its contested judgment reached the same conclusion on the basis of Articles 2 and 8 ECHR as the District Court did on the basis of Article 6:162 DCC: for the concrete implementation of the reduction obligation, the District Court and the Court of Appeal sought to draw on the same climatological insights, objectives of international climate policy and principles of international law.

2.73 The ECtHR case law so far does not provide a definitive answer to the question of whether and, if so, precisely which positive obligations arise from Articles 2 and 8 ECHR with regard to climate change.[213] This does not mean that the national court should refrain from rendering an opinion on the matter. The following may be relevant in this context.

The common ground method and international environmental law

2.74 International environmental law is a specific part of international law that is governed by its own rules and principles.[214] Particularly important in this case are the 'no harm rule', which means that a State may not use or allow the use of its own territory for activities that harm other States, and the 'precautionary principle', according to which a lack of scientific certainty should not be a reason to postpone effective and proportionate measures to prevent serious and irreversible damage, to the environment.[215] Following the example of the District Court, the Court of Appeal based its opinion in part on these rules and principles of environmental law.[216]

2.75 Focusing on climate change issues,[217] relevant is the fact that Article 2 UNFCCC requires States to reduce greenhouse gas emissions 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. The principles formulated in Article 3 UNFCCC (i.e. the principles of equity, precaution and sustainability) referred to by the Court of Appeal in para. 7 are particularly important in this context.

2.76 Of particular importance is the principle of equity, which means, among other things, that Contracting States must take action against climate change in accordance with their 'common but differentiated responsibilities and respective capabilities'. More specifically, it emerges from this principle that the countries considered to be industrially developed countries at the time the UNFCCC was concluded, including the Netherlands, 'should take the lead' in combating climate change and its adverse consequences (Article 3(1) UNFCCC), as the Court of Appeal also found in para. 9. Wewerinke-Singh deduces from this that, in a human rights approach to climate change, 'the standard of care may differ from one State to another'.[218]

2.77 The reduction commitments agreed upon in the Kyoto Protocol between a number of Annex I countries for the period 2008-2012 have, according to prevailing insights, the status of minimum standards. They do not relieve states of their general obligations under international law, such as obligations under human rights conventions or the no harm rule. This is clear from the statements made by some countries upon signing the UNFCCC,[219] but also follows from the nature of the Kyoto Protocol itself.[220]

2.78 From an international environmental law point of view, the Paris Agreement is important as well. This agreement recognised 'the need for an effective and progressive response to the urgent threat of climate change'. It also stipulates that the global warming should remain 'well below 2ºC', but preferably aiming for 1.5ºC. To achieve this goal, the Contracting Parties, including the Netherlands, set the objective 'to reach global peaking of greenhouse gas emissions as soon as possible (…) and to undertake rapid reductions thereafter in accordance with best available science'.[221]

The common ground method and human rights-based climate commitments

2.79 From a human rights perspective, relevant is the fact that in recent years the link between climate change and human rights has been increasingly explicitly established at the international level. For instance, the contribution of the UN High Commissioner for Human Rights to the 2015 climate conference in Paris includes the following:

'Climate change impacts, directly and indirectly, an array of internationally guaranteed human rights. States (duty-bearers) have an affirmative obligation to take effective measures to prevent and redress these climate impacts, and therefore, to mitigate climate change, and to ensure that all human beings (rights-holders) have the necessary capacity to adapt to the climate crisis.'[222]

This does not, however, exclusively concern Articles 2 and 8 ECHR. An explicit reference to human rights can be found in the introduction of the aforementioned Paris Agreement (2015):

'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.' [223]

2.80 The 2015 UNEP report '*Climate Change and Human Rights*' formulates five human rights obligations in relation to climate change, including mitigation and adaptation obligations.[224] In this context, reference can also be made to a '*Statement on the human rights obligations related to climate change*' by the UN Special Rapporteur on Human Rights and the Environment. With reference to the '*Framework principles on human rights and the environment*'[225] drawn up earlier in UN context, the Special Rapporteur argues that it follows from this that humans rights require States 'to establish, implement and enforce effective laws and policies to reduce greenhouse gas emissions'.[226] Reference should also be made to the previously mentioned *Oslo Principles on Global Climate Obligations*, drawn up by a group of experts in the field of international law, human rights and environmental law. It argues, including on the basis of human rights, that States with excessive emissions of greenhouse gases are obliged to reduce emissions 'within the shortest time feasible'.[227]

2.81 The international sources refer in turn to national court decisions in climate cases.[228] A national court judgment referred to in many of these international sources, in addition to the judgments by the District Court and the Court of Appeal in the *Urgenda* case, is the *Leghari* judgment rendered by the Lahore High Court in 2015. In summary, this case concerned the question of whether the Pakistani government was obliged to implement a 2012 policy framework, the 'National Climate Policy and Framework', which included mitigation and adaptation measures. The Pakistani court considered, with reference to various national and international sources, that 'the delay and lethargy of the State in implementing the Framework offend the fundamental rights of the citizens'. In an interim decision, that court established, among other things, a 'Climate Change Commission', to monitor the implementation of the climate policy.[229]

2.82 In her study into climate obligations under international law, Wewerinke-Singh concludes that human rights oblige States to adapt and mitigate.[230] In their recent preliminary advice for the Dutch Lawyers' Association, Arts and Scheltema defended the view that human rights only impose an *adaptation obligation* on States – i.e. to address the consequences of climate change – and not a *mitigation* obligation – i.e. to prevent dangerous climate change by reducing emissions.[231] In general, this point of view does not seem to be supported by the international sources discussed above.[232] Hey and Violi state in their 2018 preliminary advice for the Association of International Law that the climate cases that have been instituted throughout the world thus far relate to mitigation measures.[233] Spier rejects the view expressed by Arts and Scheltema. According to him, it is actually the view 'that excessive emissions are a human rights violation (...) that is rapidly gaining ground'.[234] Spier points out, moreover, that adaptation alone is far from enough to eliminate all the consequences of climate change.[235]

2.83 From an ECHR perspective, it can be added that the ECtHR seems to prefer mitigation (prevention) over adaptation (harm reduction). Illustrative is the *Kolyadenko/Russia* judgment, which concerned a flooded residential area because a large volume of water had to be released from a reservoir after heavy rains. According to the ECtHR, the Russian authorities should have prevented the flooding by keeping a nearby river clean 'with a view to mitigating, if not preventing, the risk and consequences of flooding in the event of the urgent evacuation of water from the reservoir'.[236] In the ECtHR's view, adaptation is in order where mitigation is impossible or cannot be demanded of States, such as in the case of unavoidable natural disasters. This is clear, for example, from the *Özel et al./Turkey* judgment concerning the collapse of buildings due to an earthquake, in which the ECtHR considered:

'La Cour observe que les séismes sont des évènements sur lesquels les États n'ont pas de prise et pour lesquels la prévention ne peut consister qu'à adopter des mesures visant à la réduction de leurs effets pour atténuer au maximum leur dimension catastrophique. À cet égard, la portée de l'obligation

de prévention consiste donc essentiellement à adopter des mesures renforçant la capacité de l'État à faire face à ce type de phénomènes naturels violents et inattendus que peuvent être les tremblements de terre.' [237]

2.84 The international legal sources just discussed seem able to provide common ground for the finding *that* Contracting States are obliged by virtue of human rights to seriously reduce greenhouse gas emissions from their territory: a far-reaching best-efforts obligation. The legal sources in question do not answer the questions of *within what time period* and *to what extent* reduction is required. In order to answer that question, the District Court and Court of Appeal have sought to establish a connection with, among other things, the various COP decisions that have been rendered in UN context since the publication of the AR4 report.[238] The Court of Appeal's reasoning based on this is contested in grounds for cassation 4 through 8. Those complaints are discussed in Chapter 4 of this opinion.

3 Substantiation of the order under human rights law (grounds for cassation 1-3)

3.1 The first three grounds for cassation relate to the substantiation of the order under human rights law. These grounds are aimed at various opinions of the Court of Appeal and basically concern three subjects, each of which are discussed below in separate sections.

Requirement of specific risks for residents of the Netherlands? (grounds for cassation 1.1 and 2)

3.2 Ground for cassation 1 is aimed at paras. 40-43, where the Court of Appeal explained the legal framework, specifically: Articles 2 and 8 ECHR and the interpretation thereof. Ground for cassation 1.1 is of an introductory nature. The complaint entails that in its description and further application of the legal framework, the Court of Appeal based itself on an incorrect interpretation of the law. In particular, the Court of Appeal allegedly failed to appreciate that in order to assume a positive obligation under Article 2 and/or Article 8 ECHR, there must be a real and immediate risk of violation of the rights protected under Article 2 and/or Article 8 ECHR of 'specific or specifically identifiable persons or groups' that are located within the jurisdiction of the State. That complaint is fleshed out in ground for cassation 2, which is directed against paras. 44-45.

3.3 In para. 45, the Court of Appeal concluded that there was 'a real threat of dangerous climate change, resulting in the serious risk that the current generation of citizens will be confronted with loss of life and/or a disruption of family life'. The Court of Appeal ruled that on the basis of Articles 2 and 8 ECHR, the State is obliged to provide protection against this real threat. The State does not dispute the facts on which the Court of Appeal based these opinions as set out in para. 44. Its complaints are directed against the consequences that the Court of Appeal has attached to the facts in para. 45. [239] These complaints entail the following.

3.4 First, the State has argued that also in view of Article 1 ECHR, Articles 2 and 8 ECHR merely give rise to obligations in respect of persons who are subject to the jurisdiction of the State.[240] According to the State, this means that a positive obligation as presumed by the Court of Appeal can only exist if the risk identified by the Court of Appeal of dangerous climate change occurs specifically *in the Netherlands*, or at least with regard to persons who are located within the jurisdiction of the State of the Netherlands (within the meaning of Article 1 ECHR). Considered in that light, in the opinion of the State this ruling is legally incorrect or insufficiently substantiated (ground for cassation 2.1).[241]

3.5 Secondly, the State has argued that in view of the territoriality principle in Article 1 ECHR, decisive is where the *consequences* of the emission of greenhouse gases in the Netherlands occur. If the Court of Appeal is of the opinion that the State is obliged on the basis of Articles 2 and 8 ECHR to

take reduction measures regardless of the location on the planet where the consequences of the emission of greenhouse gases in its territory occur, in the opinion of the State that opinion is incorrect: on the basis of those articles, the State can only be obliged to take reduction measures that prevent or limit the consequences of climate change in respect of persons who are subject to the jurisdiction of the State as referred to in Article 1 ECHR (ground for cassation 2.2).

3.6 Thirdly, the State has argued that in order to assume a reduction obligation based on Article 2 or Article 8 ECHR, the State must know, or at least ought to know, of the specific consequences of climate change on a demarcated area designated for human habitation. The State has emphasised that the ECHR does not entail any *general* right to protection of the environment.[242] According to the State, Article 8 requires a causal connection between the activity (here: the emission of greenhouse gases) and the specific negative impact on an individual's human rights caused by that activity. A negative impact on society as a whole is insufficient. This is why the Court of Appeal could not base the State's positive obligation on the *general* consequences of climate change mentioned in para. 44 - at least not without further reasons. By extension, the State has argued that the Court of Appeal ought to have investigated 'the probability of said consequences (...) occurring in a demarcated area within the Netherlands designated for human habitation' (ground for cassation 2.3).

3.7 In summary, the State has argued that the Court of Appeal ought to have established: which specific rights protected by Articles 2 and/or 8 ECHR are at risk of being violated by the consequences of climate change mentioned in para. 44 and in what way, and which persons or groups that are located within the jurisdiction of the State are exposed to that risk (ground for cassation 2.4).

3.8 Fifthly, the State has argued that in order to assume a positive reduction obligation based on Article 2 or Article 8 ECHR, a threat must exist that is not only real but also *immediate*. In the opinion of the State, it must be plausible that the consequences named by the Court of Appeal in para. 44 'will also materialise in the short term'. This is not the case, according to the State, because for the time being, the 2ºC target being exceeded is not at issue. If the Court of Appeal has applied the precautionary principle, its decision is also incorrect, or at least incomprehensible without further reasons. According to the State, that principle exclusively applies to 'clearly identifiable risks to a certain living environment'. The Court of Appeal did not establish such risks for the Netherlands. In the opinion of the State, the fact that the consequences of climate change cannot be avoided in the long term if a reduction of at least 25% has not been realised by the end of 2020 does not entail the existence of 'consequences of climate change that will materialise in the short term' (briefly put, according to ground for cassation 2.5).

3.9 Sixthly, the State has complained that the Court of Appeal failed to appreciate that an obligation to protect 'all residents of the Netherlands' against 'any form of dangerous consequences of climate change' cannot be based on Article 2 and/or Article 8 ECHR. Furthermore, in the opinion of the State the interests of the residents of the Netherlands are 'not congruent' on this point, because 'a measure that protects one resident may have harmful impact on another resident' (ground for cassation 2.6).

3.10 These complaints can be discussed jointly. First and foremost: the issue addressed by these grounds for cassation was not discussed on appeal. The State has acknowledged the climate risk and the need to reduce greenhouse gas emissions, and has also endorsed the 2°C target advocated by Urgenda. In addition, the State has made no reservation requiring specific risks *for residents of the Netherlands* in order to presume a reduction obligation borne by the State, nor has it argued that such specific risks are absent.[243] The ground for cassation does not provide any references in the procedural documents on appeal to the State’s assertions addressing this issue.[244] This means that these complaints may remain moot, as a new defence may not be conducted in proceedings for cassation.[245] We will briefly discuss the complaints nevertheless.

3.11 In the previous chapter, it already emerged that in defining the scope of protection of Articles 2 and 8 ECHR, weight should be assigned to the *nature* of the danger involved; see section 2.59. With 'untargeted' risks, such as earthquakes or harm to the living environment, with a view to the principle of effective interpretation the requirements to be imposed on the specification of the interests involved are not as high, as discussed in section 2.37 above. In that sense, Article 2 ECHR offers 'general protection to society' in such cases. Positive obligations to protect society may also ensue from Article 8 ECHR (see section 2.60 above). Demonstrable damage or threat of damage is not required in assuming a violation of Articles 2 and 8 ECHR, nor required when pronouncing an order based on Article 3:296 DCC. The issue is whether there is a real risk of harm to the interests of individuals protected by Articles 2 and 8 ECHR (cf. section 2.57 above).

3.12 The danger of climate change due to an increase in the planet's temperature is characterised by the fact that this is a global threat to the lives and family lives of individuals throughout the world, in a manner that makes it impossible to exhaustively specify who will suffer as a result, where on the planet, and at what time. This conclusion does not prejudice the fact that certain groups of residents may be especially vulnerable to certain consequences of climate change. For example, the increased sea level feared - one of the harmful consequences of climate change mentioned in para. 44 - threatens people living in low areas in particular, including large parts of the Netherlands.

3.13 The State acknowledges all of this: it is the essence of its position that climate change is a global issue that must be addressed globally.[246] The fact that the dangers of climate change cannot be translated into *specific* risks for *individual* persons can be deemed a fact that is generally known. The court may indicate which threats are involved, as the Court of Appeal did at the third and fourth bullet points of para. 44. However, the State is asking the Court of Appeal to do the impossible by demanding a specification of the dangers caused by climate change to specific or specifically identifiable individuals or groups located within the jurisdiction of the State. Put differently: if the opinion as argued by the State were followed, Articles 2 and 8 ECHR would not offer any more protection against climate change than possibly obliging the State to take adaptation or other measures *after the fact* to combat the *consequences* of climate change. As explained, some authors do indeed defend that position.[247]

3.14 Weighing the facts as established is reserved for the Court of Appeal; those facts cannot be weighed again in proceedings for cassation. It emerged in Chapter 2 that the case law of the ECtHR offers starting points for the obligation of the State to reduce, or ensure the reduction of, the emission of greenhouse gases, as assumed by the Court of Appeal. This is because the ECHR requires *effective* and *active* protection of the rights safeguarded by Articles 2 and 8 ECHR (see section 2.37 et seq.). If possible, that protection must be realised through *preventive action* (section 2.53 et seq.), and it extends to *society as a whole* in specific cases. The position that human rights may oblige states to mitigate is also gaining support in the international context (section 2.79 et seq.). In light of the common ground method applied by the ECtHR itself, the latter is an important viewpoint that supports the reduction obligation derived by the Court of Appeal from Articles 2 and 8 ECHR.

3.15 The Court of Appeal based its reduction order on the sum of the specific risks in para. 44 that - also - threaten residents of the Netherlands, and not on one general climate risk that threatens the entire world's population. The literature refers to an 'accumulation of the threatened violations of the human rights of individuals'.[248] It would be extraordinary for a violation of collective human rights not to be covered by Articles 2 and 8 ECHR while each of some innumerable violations on a smaller scale *would* fall within the scope of those articles. The circumstance that Article 34 ECHR does not allow an *actio popularis* does not detract from this. Article 34 ECHR merely governs access to the ECtHR, as held by the Court of Appeal in para. 35, which is not disputed in these proceedings for cassation.

3.16 There is no violation of the principle of territoriality in view of the foregoing, as the Court of

Appeal limited its judgment to the interests of residents of *the Netherlands*.[249] Ground for cassation 2.2 fails for this reason.

3.17 The State's assertion that for the time being, there is no 'immediate' threat to the Netherlands (ground for cassation 2.5) does not change the foregoing. Firstly, the positive obligations from Articles 2 and 8 ECHR are of a preventive nature. According to the ECtHR, the fact that the threatening danger may not materialise for decades to come does not rule out the need to take precautionary measures now, even if the exact nature and scope of those risks are still uncertain (see section 2.53 et seq. above). Secondly, the danger on which the Court of Appeal based the reduction order is not hypothetical: it already latently exists. The latter will also be addressed when discussing the second question.

3.18 Following the foregoing, the other complaints need no separate discussion. The conclusion is that ground for cassation 1.1 and all of the complaints from ground for cassation 2 fail.

Margin of appreciation in respect of the reduction pathway (grounds for cassation 1.2 and 1.3)

3.19 Grounds for cassation 1.2 and 1.3 - directed against paras. 40-43 - concern the question of whether and, if so, to what extent the State is entitled to any margin of appreciation in determining its policy in respect of reducing the emission of greenhouse gases. Referring to the case law of the ECtHR discussed above in section 2.47 et seq. on the application of Article 8 ECHR to environmental issues, the State advocates a 'wide margin of appreciation'. The Court of Appeal was only entitled to assess whether the State has found a fair balance between the individual and general interests to be weighed. The choice of the 'reduction pathway' - meaning the time and speed at which measures to reduce emissions are taken - is included in its margin of appreciation, according to the State. The State believes this involves one of its key objections to the challenged opinion.[250] Grounds for cassation 8.3 and 8.4 elaborate on this with more targeted complaints in connection with the State's position that a 'postponed' reduction pathway - meaning a less far-reaching reduction in the period until the end of 2020 and increasing reduction efforts in the respective subsequent periods until 2030 and 2050 - will also lead to the realisation of the 2ºC target.[251]

3.20 The margin of appreciation assigned by the ECtHR to national authorities in the application of Articles 2 and 8 ECHR, with the ensuing fair balance criterion, is not intended to govern internal domestic relationships, such as the national court in respect of the national executive or the legislator. The margin of appreciation doctrine ensues from the principle of subsidiarity, which entails that the legal protection offered by the ECHR must be primarily realised on the national level. Against that backdrop, the national court is not necessarily required to exercise restraint in areas where the ECtHR applies a margin of appreciation (see section 2.69).

3.21 The State argues in favour of analogous application of the margin of appreciation doctrine by the national courts.[252] Henceforth in this conclusion, we will presume by way of assumption that the margin of appreciation doctrine is suitable for analogous application in national relationships: the State is basically saying that it is entitled to a wide margin of discretion and appreciation. Relevant is the fact that the ECtHR assigns a wide margin of appreciation to the national authorities in its assessment of certain cases of violation of Article 8 ECHR; the second paragraph of that article governs the possibility of intervention by authorities in the exercise of one of the protected rights from the first paragraph of that article. By contrast, Article 2 ECHR has no second paragraph that allows restrictions. Within the context of Article 2 ECHR - life-threatening situations - as a rule the ECtHR does not apply any margin of appreciation. This does not prejudice the fact that in the assessment of positive obligations based on Article 2 ECHR, the ECtHR assigns a certain margin of appreciation to the national authorities, by not requiring measures that result in an 'impossible or disproportionate burden' (see section 2.43 et seq. above).

3.22 The Court of Appeal did not fail to appreciate all of this. Its opinion was based on the following

steps: the State endorses that in order to prevent dangerous climate change, the increase in the world's temperature must be less than 2ºC (para. 30). If this target is not realised, there is a serious risk that the current generation of residents of the Netherlands will be faced with loss of life or disruption of their family life (para. 45). In order to realise the 2ºC target, reducing emissions by 25 to 40% in 2020 is deemed necessary (para. 46 et seq.). A reduction obligation of 25% at the end of 2020 is therefore in line with the State's duty of care as ensues from Articles 2 and 8 ECHR (para. 53).

3.23 This strongly abbreviated depiction of the reasoning shows that the Court of Appeal did not base its opinion on the - future and general - danger of climate change as such, but rather based it on the specific, already latently existing danger that the 2ºC target will not be realised, with all of the risks this involves for residents of the Netherlands. For various reasons, the Court of Appeal deems a reduction of at least 25%, to be realised in 2020, necessary in order to rein in this danger, to wit: the danger of not realising the 2ºC target, with all of the ensuing consequences. The complaints directed against this opinion will be discussed in Chapter 4. Furthermore, the Court of Appeal acknowledges that the Netherlands cannot solve the climate issue on its own (para. 62).

3.24 The basis on which the Court of Appeal based its opinion that below the minimum of 25% reduction in 2020, the State has no margin of appreciation in respect of the reduction pathway, also follows from the foregoing. The 2ºC target is established between the parties. A reduction of at least 25% before the end of 2020 is necessary, according to the Court of Appeal's reasoning, if that target is to be realised. The State does not have the discretion to choose to postpone this reduction until a later point in time, as this would insufficiently rein in the danger of the 2ºC target not being realised. Incidentally, in the choice of the measures to be taken and the instruments to be used to that end, the State does have the margin of appreciation it is advocating (para. 74).

3.25 Regardless of the outcome of the complaints about the technical climatological substantiation of this opinion of the Court of Appeal, to be discussed in Chapter 4, the reasoning applied by the Court of Appeal *in itself* certainly *is* in line with the case law of the ECtHR regarding positive obligations based on Articles 2 and 8, respectively, of the ECHR. It was already demonstrated above that within the context of dangerous activities and harm to the environment, the ECtHR intensively assesses the policy considerations as weighed by the national authorities. More specifically, it was shown that their margin of appreciation does not relieve states of their obligation to 'act in good time, in an appropriate and, above all, consistent manner' (see section 2.64 above). The complaints are based on an incorrect interpretation of the law in so far as they entail that the margin of appreciation doctrine impedes an intensive or other assessment by the court of the time and speed of the reduction measures.[253]

3.26 With all of the foregoing, it must not be forgotten that the Court of Appeal certainly did assign a certain margin of appreciation to the State in various respects. A margin of appreciation was taken into account in the opinion that departing from a necessary reduction in emissions of 25-40% in 2020, the order issued does not go beyond a reduction of 25% in 2020. Furthermore, like the parties, the Court of Appeal departed from the 2ºC target and the 450 ppm scenario rather than from the target of 1.5ºC laid down in the Paris Agreement. The Court of Appeal emphasised all of this in para. 50, where it held that it did not apply 'overly pessimistic starting points' in determining the State's duty of care.

3.27 The conclusion is that grounds for cassation 1.2 and 1.3 miss the mark.

No standing due to lack of similar interests? (ground for cassation 3)

3.28 Ground for cassation 3 is directed against paras. 35-38, where the Court of Appeal held that Urgenda has standing by virtue of Article 3:305a DCC and has a sufficient interest in the reduction order being sought. The State has questioned whether the interests of residents of the Netherlands protected by Articles 2 and 8 ECHR in connection with climate change are *similar*

interests within the meaning of Article 3:305a(1) DCC. The State has not disputed Urgenda's standing to bring a class action to protect the living environment. The purport of the complaints is that the Court of Appeal should have held that Urgenda has no standing in so far as its claim is based on Articles 2 and 8 ECHR.[254] To that end, the State has argued that the ECHR 'only guarantees individual rights' and does not protect 'society as a whole'. The similarity requirement from Article 3:305a DCC therefore entails, in the opinion of the State, that the Court of Appeal should have determined 'which interests protected by Article 2 and/or Article 8 ECHR are impacted in what way and in respect of which individuals or groups'.

3.29 It must be noted first and foremost that this question, like the first question on which it elaborates (see section 3.10 above), was not discussed in the fact-finding instances. As concluded by the Court of Appeal in para. 37, it was 'not in dispute' between the parties that Urgenda has standing in so far as it is taking action against the emission of greenhouse gases in the territory of the Netherlands on behalf of the current generation of Dutch residents. The State is disputing this conclusion in the proceedings for cassation. In this regard, the State refers to its assertion that pursuant to Article 34 ECHR, Urgenda cannot directly rely on Article 2 and/or Article 8 ECHR.[255] In the State's opinion, the Court of Appeal should have interpreted this assertion as a defence as to standing. In the alternative, the State has argued that the Court of Appeal should have investigated *at its own initiative* whether the interests being served by Urgenda with reliance on Articles 2 and 8 ECHR are 'similar' within the meaning of Article 3:305a DCC (ground for cassation 3.5).

3.30 In para. 35 the Court of Appeal answered the question of whether the victim requirement from Article 34 ECHR impedes Urgenda's reliance on the ECHR rights of Dutch residents within the context of a class action pursuant to Article 3:305a DCC. There, the Court of Appeal ruled that Article 34 ECHR merely governs access to the ECtHR, and does not impede reliance on ECHR rights in a class action pursuant to Article 3:305a DCC. This opinion rightly[256] was not disputed in the proceedings for cassation.

3.31 This question of the 'carry-over effect' must be distinguished from the question of standing discussed here, and therefore from the question of whether the interests being served by Urgenda are similar within the meaning of Article 3:305a(1) DCC. According to the current status of the case law, the similarity requirement from Article 3:305a(1) DCC does not create a standing requirement to be assessed by the court at its own initiative. The interest requirement laid down in Article 3:303 DCC - which is partly an extension of the similarity requirement (cf. section 2.7) - should be applied by the court at its own initiative according to prevailing insights.[257]

3.32 In any event, there is no room for application by the court of the similarity requirement at its own initiative when the facts mutually asserted by the parties give no point of reference for doing so. In this case, as explained, there was no discussion in the proceedings before the District Court and the Court of Appeal about the nature of the climate danger (cf. section 3.10 above). Consequently, the similarity of the interests involved was not a subject of discussion between the parties. The State's positions in this regard in its grounds for cassation - phrased generally, with no reference to the relevant sources in the procedural documents[258] - are new elements of the debate that are inadmissible in proceedings for cassation. There was no room for an investigation of the similarity requirement by the Court of Appeal at its own initiative. Superfluously, the following is noted in this regard.

3.33 The case law of the ECtHR regarding positive obligations from Articles 2 and 8 ECHR offers no support for the position argued by the State that the ECHR 'only protects individual rights'. On the contrary: the ECtHR has ruled that Article 2 ECHR offers 'general protection to society' in certain cases, and has also assigned a general scope of protection to Article 8 ECHR where the ECtHR deemed this necessary for the sake of the effectiveness of the rights involved. The generality of State's position that the case law being referred to 'always [concerns] damage that has already been suffered by a specific group of people, and caused by a specific act or omission by these

national authorities',[259] is incorrect. For example, the complainant in the *Stoicescu/Romania* case (about stray dogs[260]) was not part of a 'specific group' and had not yet suffered damage at the time the government was obliged to take measures to protect her from that danger. We also refer to the judgment in the *Campeanu/Romania* case.[261]

3.34 Furthermore, systematic interpretation of the ECHR[262] does not seem to support the State's position, according to which the scope of protection of Articles 2 and 8 ECHR is limited by the victim requirement from Article 34 ECHR. Articles 2 and 8 ECHR are in Section I of the convention, the title of which is 'Rights and Freedoms'. Article 34 is in Section II, entitled 'European Court of Human Rights'. The latter section contains procedural provisions governing access to the ECtHR, as rightly concluded by the Court of Appeal in para. 35, focusing on Article 34 ECHR, undisputed in the proceedings for cassation.

3.35 The principles of effective interpretation and subsidiarity inherent in Article 1 ECHR provide no support for the State's position, either. Those principles actually advocate assigning full effect to ECHR rights on the national level, from the procedural aspect, as well (cf. sections 2.37 and 2.39 above). It is not in dispute that Article 3:305a DCC offers the necessary room for the representation of general environmental and other interests in a class action on the national level. It is simply a fact that ECHR rights are applied in national practice in class actions by virtue of Article 3:305a DCC.[263] The Supreme Court also assesses general policy choices made by the national authorities based on Articles 2 and 8 ECHR outside of the framework of class actions.[264] The Administrative Jurisdiction Division of the Council of State does so, as well.[265] Its recent decision on gas extraction in Groningen and the accompanying earthquake risk is an example of this. Briefly put, the Division ruled with reference to Articles 2 and 8 ECHR that the Minister must more comprehensibly explain the manner in which gas extraction will be terminated and the reasons why that termination cannot be realised more quickly.[266]

3.36 The conclusion is that the complaints in ground for cassation 3 fail.

4. **Reduction of greenhouse gas emissions in the Netherlands by at least 25% in 2020 (grounds for cassation 4-8)**

Introduction

4.1 This part of the opinion concerns the substantiation of the Court of Appeal's rulings that a reduction of greenhouse gas emissions in the Netherlands of at least 25% (as compared to 1990) in 2020 is necessary and in line with the State's duty of care.[267] That substantiation has both factual and juridical components. In short, this concerns the following. The parties concur on the 2ºC target. It has been established as fact that in order to realise the 2ºC target, greenhouse gas emissions must be reduced more than they currently are. This scientific climate insight can be translated into a certain reduction target for the Netherlands - of at least 25% in 2020 - based on various points of reference. The ruling that the Netherlands must individually endeavour to contribute to achieving the 2ºC target, even though the Netherlands cannot prevent global warming on its own, without contributions from other countries, is a legal opinion.

4.2 This part of the opinion firstly provides a summary of the legal and factual information on which the Court of Appeal based its rulings.

To that end, inventory is then taken of the relevant legal and policy framework, in particular in so far as that framework pertains to targets for the reduction of greenhouse gases (section 4.5 et seq.). This is followed by a discussion of the IPCC reports relevant to the debate in this case, specifically the Fourth Assessment Report from 2007 ('AR4'), in which the reduction target applied by the Court of Appeal of 25-40% is mentioned, and the most recent Fifth Assessment Report from 2013-2014 ('AR5') (section 4.34 et seq.).

4.3 We will then discuss the facts established by the Court of Appeal in respect of climate change, with a further assessment of the connection between the 2ºC target, the carbon budget and emission reductions (section 4.49 et seq.). Next we will summarise the Court of Appeal's assessment of the facts, culminating in its opinion that the Netherlands must reduce greenhouse gas emissions in 2020 by at least 25% as compared to 1990 (section 4.54 et seq.).

4.4 After this, the State's complaints directed against this in grounds for cassation 4 through 8 will be summarised and discussed based on the subjects mentioned in section 4.84 et seq.

The legal and policy framework [268]

4.5 **UNFCCC**. On the international level, the 1992 UN Climate Convention is the basis for the climate agreements relevant to these proceedings. See in this regard section 1.2(xiv) et seq. The following subjects are discussed in more detail below: (i) Annex I countries, (ii) the COPs, and (iii) the Paris Agreement.

4.6 **Annex I countries**. In part, the UN Climate Convention is based on the principle that 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' (Article 3(1)).

In Article 4(2), the UN Climate Convention describes the obligations of the developed country parties and the other parties included in Annex I. In the procedural documents, these parties are referred to as the Annex I Countries. The Netherlands is one of the Annex I countries.

The Annex I countries undertook obligations that include adopting policy and taking corresponding measures regarding the mitigation of climate change, including policy and measures adopted by regional organisations for economic integration. The premise in that regard is that these developed countries should take the lead in reversing trends in the area of anthropogenic emissions in the long term (see Article 4(2)(a) of the UN Climate Convention and the principle of 'differentiated responsibilities and respective capabilities' referred to above). They must also periodically communicate about the policy and the measures taken, with the objective of individually or collectively returning to their 1990 levels (Article 4(2)(b) of the UN Climate Convention).

4.7 In Article 4(3-5), the UN Climate Convention describes the obligations of the developed country parties and the other developed parties included in Annex II. The Netherlands is also one of the Annex II countries. Briefly put, these countries make financial means available to the parties that are developing countries, along with environmentally-friendly technologies and know-how. Therefore, Annex II does not comprise a group of developing countries.[269]

4.8 ***Conference of the Parties*** **(COP)**. The COP is the supreme body of the UN Climate Convention (Article 7(1) of the UN Climate Convention). The COP 'shall keep under regular review the implementation of the Convention and any related legal instruments that the Conference of the Parties may adopt, and shall make, within its mandate, the decisions necessary to promote the effective implementation of the Convention'. (Article 7(2) of the UN Climate Convention.) In addition, the COP's powers include making recommendations (Article 7(2)(g)) and adopting regular reports on the implementation of the Convention (Article 7(2)(f)).

4.9 As is evident from Article 7(2) of the UN Climate Convention, the COP may adopt legal instruments and make other decisions. Examples of these include the Kyoto Protocol and the Paris Agreement, which are treaties.[270]

Nevertheless, in general COP decisions are not legally binding[271], and in that sense they are not a source of international law. They are, however, regularly deemed to be 'soft law' as referred to in section 2.31 of this opinion.[272]

In these proceedings, various COP decisions have been pointed out in which direct or indirect reference is made to a reduction target for Annex I countries of 25-40% in 2020 as compared to 1990. These decisions are mentioned below in section 4.13 et seq. It is not in dispute that these COP decisions are not decisions or provisions that have direct, binding effect.[273]

4.10 To the extent still relevant,[274] in referring to COP decisions a distinction can be made between:

- CP decisions: 'Decisions adopted by the Conference of the Parties'; and

- CMP decisions: 'Decisions adopted by the Conference of the Parties serving as the meeting of the Parties to the Kyoto Protocol'.

4.11 An overview of a few of the COPs (climate conferences) relevant to these proceedings is given below.

4.12 COP-3 was held in Kyoto, Japan, in 1997, resulting in the Kyoto Protocol.[275] In it, various, but not all,[276] Annex I countries mutually agreed on specific reduction levels for the period 2008-2012 (see section 1.2(xvi)).

The 'commitments' under the Kyoto Protocol may be jointly satisfied; states then join forces in what is referred to as a 'bubble' (Articles 3 and 4 of the Kyoto Protocol). On that basis, the EU Member States jointly committed to a reduction level for the period 2008-2012.[277] However, if the EU Member States were to fail to satisfy the joint obligations, individual Member States are responsible for their agreed individual obligations, according to Article 4(5) of the Kyoto Protocol.[278]

4.13 COP-13 was held on Bali in 2007, at which the Bali Action Plan was created, containing agreements on mitigation, adaptation, technological collaboration and financial support (see section 1.2(xvii)).[279] The preamble to the Bali Action Plan includes the following references to the IPCC's AR4 Report, discussed below at 4.39:

'*Recognizing* that deep cuts in global emissions will be required to achieve the ultimate objective of the Convention and emphasizing the urgency1 to address climate change as indicated in the Fourth Assessment Report of the Intergovernmental Panel on Climate Change,'

with a reference in footnote 1 to various pages of the AR4 Report:[280]

'Contribution of Working Group III to the Fourth Assessment Report of the Intergovernmental Panel on Climate Change, Technical Summary, pages 39 and 90, and Chapter 13, page 776.'

Said page 776 contains Box 13.7 as referred to below, stating a reduction target for the Annex I countries of 25-40% in 2020 as compared to 1990.

4.14 COP-16 was held in Cancun in 2010. At this COP, the parties adopted the Cancun Agreements (see section 1.2(xviii)-(xix)).[281] In their 'Cancun Pledges', the parties laid down their specific reduction targets, with the EU pledging to reduce the emission of greenhouse gases by 20% as compared to 1990 by the end of 2020. The EU explicitly offered to reduce the emission of greenhouse gases by 30% if the other developed countries, among others, committed to a similar reduction.[282]

During this COP, the countries that were party to the Kyoto Protocol adopted a decision,[283] which refers in its preamble to the outcome of the AR4 Report and the reduction target included therein for Annex I countries, as a group, of 25-40% in 2020 as compared to 1990:[284]

'*Also recognizing* that the contribution of Working Group III to the Fourth Assessment Report of the Intergovernmental Panel on Climate Change, *Climate Change 2007: Mitigation of Climate Change*, indicates that achieving the lowest levels assessed by the Intergovernmental Panel on Climate Change to date and its corresponding potential damage limitation would require Annex I Parties as a group to reduce emissions in a range of 25–40 per cent below 1990 levels by 2020, through means that may be available to these Parties to reach their emission reduction targets,'

4.15 During COP-17, held in Durban in 2011, the countries that were party to the Kyoto Protocol also adopted a decision referring to a reduction percentage for the Annex I Countries of 25-40% in 2020 as compared to 1990:[285]

'*Aiming to ensure* that aggregate emissions of greenhouse gases by Parties included in Annex I are reduced by at least 25–40 per cent below 1990 levels by 2020, noting in this regard the relevance of the review referred to in chapter V of decision 1/CP.16 to be concluded by 2015,'.

4.16 The eighteenth COP, held in Doha, Qatar in 2012, adopted the Doha Amendment (see section 1.2(xx)).[286] This amendment amended Annex B of the Kyoto Protocol, but never went into force.[287] Where the first version of this Annex concerned the 'first commitment period' 2008-2013, in the amendment the emission reduction levels were determined for the 'second commitment period' 2013-2020.[288] For the EU, this amendment entailed EU Member States committing to a 20% reduction in 2020 as compared to 1990.

The Doha Amendment mentions a reduction percentage for the Annex I Countries of 25-40% in 2020 as compared to 1990:[289]

'7. *Decides* that each Party included in Annex I will revisit its quantified emission limitation and reduction commitment for the second commitment period at the latest by 2014. In order to increase the ambition of its commitment, such Party may decrease the percentage inscribed in the third column of Annex B of its quantified emission limitation and reduction commitment, in line with an aggregate reduction of greenhouse gas emissions not controlled by the Montreal Protocol by Parties included in Annex I of at least 25 to 40 per cent below 1990 levels by 2020;'.

4.17 At the next COP-19, held in Warsaw in 2013, reference was made to this part of the Doha Amendment in Decision 1/CP.19, para. 4(c):

'(c) Urging each developed country Party to revisit its quantified economy-wide emission reduction target under the Convention and, if it is also a Party to the Kyoto Protocol, its quantified emission limitation or reduction commitment for the second commitment period of the Kyoto Protocol, if applicable, in accordance with decision 1/CMP.8, paragraphs 7–11;'.

4.18 At the COPs in 2014 (Lima)[290] and 2015 (Paris)[291] reference was made to 1/CP.19, paras. 3 and 4. Urgenda believes this is another reference to the reduction target of 25-40%.[292] According to Urgenda, the COP decisions adopted after Paris no longer specifically referred to this reduction target.[293] The State believes that reference to the reduction target of 25-40% was only made in the decisions of the COPs in Cancun, Durban and Doha.[294] According to the Court of Appeal, this percentage was referred to in the COPs held in Bali, Cancun, Doha and Warsaw.[295]

4.19 **Paris Agreement**.[296] The Paris Agreement adopted in Paris in COP-21 in (also the Paris Climate Agreement)[297] was already briefly stated in paragraph 1.2 (xxi). Briefly put, the objective of the Paris Agreement is to improve implementation of the UN Climate Convention and the objective, reinforcing the global response to the threat of climate change. In the Paris Agreement, the parties strive to achieve this by limiting the increase of the worldwide average temperature to 2°C, and by continuing to endeavour to limit the increase to 1.5°C (Article 2(1) and at a).

4.20 All of the parties are required to make an ambitious, nationally determined contribution ('NDC') to the global response to climate change, and to give notice of this contribution (Article 3). With a view to the aforementioned temperature objective, the parties are endeavouring to achieve the peak level of the emission of greenhouse gases as soon as possible. The parties also acknowledge that the parties to the agreement that are developing countries will reach this peak later (Article 4(1)). The parties are to take national mitigation measures (Article 4(2)). Each subsequent nationally determined contribution of a party must go further than its nationally determined contribution at that time and must reflect the highest possible level of ambition (Article 4(3)).

4.21 According to the Paris Agreement, all countries must contribute to limiting the emission of greenhouse gases.

Like with the UN Climate Convention, the Paris Agreement is based on a number of - largely similar - principles, including the equity and the principle of common but differentiated responsibilities and respective capabilities, in the light of different national circumstances (preamble and Article 2(2)). The parties that are developed countries must continue taking the lead by undertaking economy-wide absolute emission reduction targets.

The distinction between Annex I countries and other countries is no longer included in the Paris Agreement. Briefly put, this is based on the fact that some non-Annex I countries, such as China, India, Brazil and Indonesia, have since developed to such an extent that they are responsible for a large part of global greenhouse gas emissions.[298]The Paris Agreement does not change the UN Climate Convention, however, as a result of which the distinction between Annex I countries and other countries still exists, at least formally.[299]

4.22 In the preamble to the COP decision to adopt the Paris Agreement, reference is made to the urgent need to do something about the significant gap between the reductions of greenhouse gas emissions that were pledged and those that are needed:[300]

'*Emphasizing* with serious concern the urgent need to address 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 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,

Also emphasizing that enhanced pre-2020 ambition can lay a solid foundation for enhanced post-2020 ambition,

Stressing the urgency of accelerating the implementation of the Convention and its Kyoto Protocol in order to enhance pre-2020 ambition,'.

All this is fleshed out in this COP decision at para. 105 et seq. concerning 'Enhanced action prior to 2020', to which reference was already made in a footnote to section 4.18.

4.23 **The European Union** Article 191 TFEU contains the EU's environmental objectives, providing for example:

'Article 191

1. EU policy on the environment shall contribute to pursuit of the following objectives:

- preserving, protecting and improving the quality of the environment;

- protecting human health;

- prudent and rational utilisation of natural resources;

- promoting measures at international level to deal with regional or worldwide environmental problems, and in particular combating climate change.

2. EU policy on the environment shall aim at a high level of protection taking into account the diversity of situations in the various regions of the EU. It shall be based on the precautionary principle and on the principles that preventive action should be taken, that environmental damage should as a priority be rectified at source and that the polluter should pay. (…).'

4.24 As indicated, the EU has committed to a 20% reduction of greenhouse gas emissions in 2020 as compared to 1990, with a conditional offer of a 30% reduction.[301]

4.25 A reduction target of 30% in 2020 is reported in the European Council's conclusions of 8/9 March 2007:[302]

'30. The European Council reaffirms that absolute emission reduction commitments are the backbone of a global carbon market. Developed countries should continue to take the lead by committing to collectively reducing their emissions of greenhouse gases in the order of 30 % by 2020 compared to 1990. They should do so also with a view to collectively reducing their emissions by 60 % to 80 % by 2050 compared to 1990.'

The negotiated contribution referred to is then stated in section 4.24: a pledge of 20% and a conditional offer of 30%.

4.26 The size of the contribution was subject to previous discussions. This is evident from, for example, the EC's announcement of 10 January 2007 (COM(2007) 2 final) referred to by the District Court in para. 2.60:

'The Council has agreed that developed countries will have to continue to take the lead to reduce their emissions between 15 to 30 % by 2020. The European Parliament has proposed an EU CO2 reduction target of 30 % for 2020 and 60 to 80 % for 2050.'

In this announcement, the EC proposed to the EU (at 1):

'in the context of international negotiations the objective of 30 % reduction in greenhouse gas emissions (GHG) by developed countries by 2020 (compared to 1990 levels). This is necessary to ensure that the world stays within the 2ºC limit. Until an international agreement is concluded, and without prejudice to its position in international negotiations, the EU should already take on a firm independent commitment at this time to achieve at least a 20% reduction of GHG emissions by 2020, by means of the EU emission trading scheme (EU ETS), other climate change policies and actions in the context of the energy policy. This approach will allow the EU to demonstrate international leadership on climate issues.'

4.27 The EU's pledge of 20% in 2020 is lower than the 25-40% mentioned in AR4, as also noted, for example, in the EESC's advice of July 2008 referred to in para. 2.61 of the District Court's judgment. As explained, this was politically motivated.

4.28 By contrast, the EC's announcement of 10 January 2007, cited above in section 4.26, refers to a 'necessary' reduction target of 30% in 2020 in connection with the 2ºC target.[303] Recital 6 of Directive 2009/29/EC links a reduction of 30% in 2020 in so many words to scientific insights when referring to the objective:

'to achieving an overall reduction of more than 20 %, in particular in view of the European Council’s objective of a 30 % reduction by 2020 which is considered scientifically necessary to avoid dangerous climate change.'

4.29 The EU adopted various directives and decisions for the implementation of its environmental policy. Reference can be made in particular to the ETS Directive already briefly mentioned in section 1.2 at (xxiv)-(xxv) and to what is known as the Effort Sharing Decision.

4.30 **ETS Directive** The Directive concerning a scheme for greenhouse gas emission allowance trading,[304] known as the ETS Directive, is from 2003 and has since been amended by, for example, Directive 2009/29 EC[305] and by Directive 2018/410.[306]

The ETS only applies to large, energy-intensive companies like large power plants and refineries.[307] Companies in the EU that are subject to the ETS system may only emit greenhouse gases if they surrender emission allowances. These emission allowances may be bought, sold or retained.[308] Certain industrial sectors are awarded certain quantities of emission allowances in order to prevent 'carbon leakage', for example.[309] As of 2019, a Market Stability Reserve (MSR) will withdraw certain quantities of emissions from the market, temporarily or otherwise.[310]

According to Directive 2009/29 EC, the total volume of greenhouse gases which ETS companies may emit in the period 2013-2020 decreases annually until, in 2020, a 21% reduction is achieved

in comparison to the year 2005.[311] Directive 2018/410 tightens the ETS system, including by making it possible to cancel certain emission allowances.[312]

4.31 ***Effort Sharing Decision*** . Decision no. 406/2009/EC[313], states that with a view to regulation of emissions in the non-ETS sectors, developed countries, including the EU Member States, should continue to take the lead by committing to collectively reducing their emissions of greenhouse gases in the order of 30% by 2020 compared to 1990 However, the European Council decided that until a global and comprehensive agreement for the period after 2012 is concluded, and without prejudice to its position in international negotiations, the Community makes a firm independent commitment to achieve at least a 20% reduction of greenhouse gas emissions by 2020 compared to 1990.[314] Based on the Effort Sharing Decision[315], it was determined that was within the EU, for non-ETS sectors, the reduction target of 20% in 2020 means that the Netherlands will have to achieve a emissions reduction of 16% as compared to emissions in 2005.

4.32 **The Netherlands**. The government's concern is to keep the country habitable and to protect and improve the environment.[316] The ETS Directive has been translated into Dutch legislation. The Climate Act recently took effect (see paras. 1.6-1.7). The Netherlands is a party to the UN Climate Convention, the Kyoto Protocol and the Paris Agreement.

4.33 As mentioned earlier (section 1.2 at (xxvii)-(xxix)), the Netherlands applied the premise of a reduction target for 2020 of 30% as compared to 1990. This objective was adjusted in 2011 to a reduction within the EU context of 20% in 2020, at least 40% in 2030 and 80-95% in 2050, always as compared to 1990.[317] The Climate Act envisages a reduction of 49% in 2030 and 95% in 2050.

IPCC reports AR4 and AR5 [318]

4.34 In cassation, a major part of the discussions pertain to the meaning of the IPCC Reports AR4 and AR5. The IPCC was already mentioned in section 1.2 at (x)-(xi). Below, we will discuss (i) the IPCC's working method, and the two Assessment Reports relevant in these proceedings: (ii) AR4 from 2007 and (iii) AR5 from 2013/14.

4.35 **IPCC's working method**. The IPCC's work is divided over three Working Groups. Working Group I studies existing scientific knowledge in respect of the climate system and the climate change. Working Group II is charged with studying the consequences of climate change on the environment, the economy and society. Working Group III discusses the possible strategies in response to these changes. The Working Groups perform their work based on the 'Principles Governing IPCC Work' and the accompanying 'Procedures for the preparation, review, acceptance, adoption, approval and publication of IPCC reports'.[319] The procedures[320] address matters including dealing with uncertainties in the Assessment Reports.[321]

4.36 Each part of an Assessment Report by one of the three Working Groups comprises (i) a Summary for Policymakers, (ii) the actual chapters of the report, and possibly (iii) a Technical Summary. An Assessment Report also contains a Synthesis Report, which summarises the three reports made by the three Working Groups.

4.37 The various parts of an Assessment Report are subject to 'different levels of formal endorsement', to wit: 'acceptance', 'adoption', or 'approval'.[322] In descending order of the seriousness of the procedure, these variations entail the following:[323]

- Approval: 'that the material has been subject to detailed, line by line discussion and agreement.';

- Adoption: 'a process of endorsement section by section (and not line by line) used for the longer report of the Synthesis Report as described in section 4.4 and for Overview Chapters of Methodology Reports.'; and

- Acceptance: 'that the material has not been subject to line by line discussion and agreement, but nevertheless presents a comprehensive, objective and balanced view of the subject matter.'

4.38 The following levels of approval apply to the various parts of an Assessment Report:[324]

'A. In general, IPCC Reports are accepted by the appropriate Working Group. Reports prepared by the Task Force on National Greenhouse Gas Inventories are accepted by the Panel. Summaries for Policymakers are approved by the appropriate Working Groups (Section 4.2) and subsequently accepted by the Panel (Section 4.4). Overview chapters of Methodology Reports are adopted, section by section, by the appropriate Working Group or in case of reports prepared by the Task Force on National Greenhouse Gas Inventories by the Panel (Section 4.4). In the case of the Synthesis Report the Panel adopts the underlying Report, section by section, and approves the Summary for Policymakers. The definition of the terms 'acceptance', 'adoption' and 'approval' will be included in the IPCC published Reports (Section 4.6).

B. Technical Papers are not accepted, approved or adopted by the Working Groups or the Panel but are finalised in consultation with the Bureau, which will function in the role of an Editorial Board (Section 5).

C. Supporting Materials are not accepted, approved or adopted (Section 6).'

4.39 **Fourth Assessment Report (AR4)**.[325] In the Synthesis Report AR4, the following is reported regarding the consequences of a temperature increase of 2°C above the pre-industrial level:[326]

'Confidence has increased that a 1 to 2°C increase in global mean temperature above 1990 levels (about 1.5 to 2.5°C above pre-industrial) poses significant risks to many unique and threatened systems including many biodiversity hotspots.'

4.40 Table 3.10 of the report by Working Group III offers insight into the possibilities for not exceeding the 2°C limit.[327] A summary is given of the connection between various emissions scenarios, stabilisation objectives and temperature changes. Account was also taken of climate sensitivity of likely (>66%) 2-4.5°C. The 'climate sensitivity' reflects the extent to which the temperature is expected to respond to twice the greenhouse gas concentration in the atmosphere. The report goes on to depart from a 'best estimate' climate sensitivity of 3°C.

Table 3.10: *Properties of emissions pathways for alternative ranges of CO_2 and CO_2-eq stabilization targets. Post-TAR stabilization scenarios in the scenario database (see also Sections 3.2 and 3.3); data source: after Nakicenovic et al., 2006 and Hanaoka et al., 2006)*

Class	Anthropogenic addition to radiative forcing at stabilization (W/m^2)	Multi-gas concentration level (ppmv CO_2-eq)	Stabilization level for CO_2 only, consistent with multi-gas level (ppmv CO_2)	Number of scenario studies	Global mean temperature C increase above pre-industrial at equilibrium, using best estimate of climate sensitivity[c)]	Likely range of global mean temperature C increase above pre-industrial at equilibrium[a)]	Peaking year for CO_2 emissions[b)]	Change in global emissions in 2050 (% of 2000 emissions)[b)]
I	2.5-3.0	445-490	350-400	6	2.0-2.4	1.4-3.6	2000-2015	-85 to -50
II	3.0-3.5	490-535	400-440	18	2.4-2.8	1.6-4.2	2000-2020	-60 to -30
III	3.5-4.0	535-590	440-485	21	2.8-3.2	1.9-4.9	2010-2030	-30 to +5
IV	4.0-5.0	590-710	485-570	118	3.2-4.0	2.2-6.1	2020-2060	+10 to +60
V	5.0-6.0	710-855	570-660	9	4.0-4.9	2.7-7.3	2050-2080	+25 to +85
VI	6.0-7.5	855-1130	660-790	5	4.9-6.1	3.2-8.5	2060-2090	+90 to +140

Notes:
a. Warming for each stabilization class is calculated based on the variation of climate sensitivity between 2°C –4.5°C, which corresponds to the likely range of climate sensitivity as defined by Meehl *et al.* (2007,Chapter 10).
b. Ranges correspond to the 70% percentile of the post-TAR scenario distribution.
c. 'Best estimate' refers to the most likely value of climate sensitivity, i.e. the mode (see Meehl *et al.* (2007,Chapter 10) and Table 3.9

4.41 According to the Report, departing from a climate sensitivity of 3°C, a temperature increase of no more than 2°C can only be achieved if the concentration of greenhouse gases in the atmosphere stabliseds at around 450 ppm:[328]

'This 'best estimate' assumption shows that the most stringent (category I) scenarios could limit global mean temperature increases to 2°C–2.4°C above pre-industrial levels, at equilibrium, requiring emissions to peak within 10 years. Similarly, limiting temperature increases to 2°C above pre-industrial levels can only be reached at the lowest end of the concentration interval found in the scenarios of category I (i.e. about 450 ppmv CO2-eq using 'best estimate' assumptions). By comparison, using the same 'best estimate' assumptions, category II scenarios could limit the increase to 2.8°C–3.2°C above pre-industrial levels at equilibrium, requiring emissions to peak

within the next 25 years, whilst category IV scenarios could limit the increase to 3.2°C–4°C above pre-industrial at equilibrium requiring emissions to peak within the next 55 years. Note that Table 3.10 category IV scenarios could result in temperature increases as high as 6.1°C above pre-industrial levels, when the likely range for the value of climate sensitivity is taken into account.'

4.42 Chapter 13 of Working Group III's report (p. 776), reduction targets for Annex I countries, among others, with a 450 ppm scenario are shown in Box 13.7:[329]

Box 13.7 The range of the difference between emissions in 1990 and emission allowances in 2020/2050 for various GHG concentration levels for Annex I and non-Annex I countries as a group[a]

Scenario category	Region	2020	2050
A-450 ppm CO_2-eq[b]	Annex I	–25% to –40%	–80% to –95%
	Non-Annex I	Substantial deviation from baseline in Latin America, Middle East, East Asia and Centrally-Planned Asia	Substantial deviation from baseline in all regions
B-550 ppm CO_2-eq	Annex I	-10% to -30%	-40% to -90%
	Non-Annex I	Deviation from baseline in Latin America and Middle East, East Asia	Deviation from baseline in most regions, especially in Latin America and Middle East
C-650 ppm CO_2-eq	Annex I	0% to -25%	-30% to -80%
	Non-Annex I	Baseline	Deviation from baseline in Latin America and Middle East, East Asia

Notes:

[a] The aggregate range is based on multiple approaches to apportion emissions between regions (contraction and convergence, multistage, Triptych and intensity targets, among others). Each approach makes different assumptions about the pathway, specific national efforts and other variables. Additional extreme cases – in which Annex I undertakes all reductions, or non-Annex I undertakes all reductions – are not included. The ranges presented here do not imply political feasibility, nor do the results reflect cost variances.

[b] Only the studies aiming at stabilization at 450 ppm CO_2-eq assume a (temporary) overshoot of about 50 ppm (See Den Elzen and Meinshausen, 2006).

Source: See references listed in first paragraph of Section 13.3.3.3

4.43 The Technical Summary of Working Group III's contribution to AR4/2007 (p. 90) also reports:

'Under most equity interpretations, developed countries as a group would need to reduce their emissions significantly by 2020 (10–40% below 1990 levels) and to still lower levels by 2050 (40–95% below 1990 levels) for low to medium stabilization levels (450–550ppm CO2-eq) (see also Chapter 3).'

4.44 **Fifth Assessment Report (AR5**).[330] AR5 is the IPCC's most recent Assessment Report. In that report, the IPCC's Working Group III concludes that if the concentration of greenhouse gases in the atmosphere stabilises in 2100 at about 450 ppm, there is a chance of more than 66% that the increase in the global temperature will remain below 2°C. In order to arrive at a concentration level of 450 ppm in 2100, global greenhouse gas emissions in 2050 must be about 40%-70% lower than those in 2010. In 2100, the total emissions must be reduced to nil, or to even less than in the year of comparison, according to the District Court while referring to the Summary for Policymakers in the report from Working Group III (the table mentioned below reports a bandwidth of -188 to -78%; also see paras. 4.147-4.149). Stabilisation at about 500 ppm in 2100 offers a chance of more than 50% - more likely than not - of realising the 2ºC target.[331]

4.45 The foregoing is also evident from the following table in the AR5 Synthesis Report (p. 83):

Table 3.1 | Key characteristics of the scenarios collected and assessed for WGIII AR5. For all parameters the 10th to 90th percentile of the scenarios is shown [a].

CO_2-eq Concentrations in 2100 (ppm CO_2-eq) [f] Category label (conc. range)	Subcategories	Relative position of the RCPs [g]	Change in CO_2-eq emissions compared to 2010 (in %) [c]		Likelihood of staying below a specific temperature level over the 21st century (relative to 1850–1900) [d,e]			
			2050	2100	1.5°C	2°C	3°C	4°C
<430	Only a limited number of individual model studies have explored levels below 430 ppm CO_2-eq [l]							
450 (430 to 480)	Total range [a,i]	RCP2.6	–72 to –41	–118 to –78	More unlikely than likely	Likely	Likely	Likely
500 (480 to 530)	No overshoot of 530 ppm CO_2-eq		–57 to –42	–107 to –73	Unlikely	More likely than not		
	Overshoot of 530 ppm CO_2-eq		–55 to –25	–114 to –90		About as likely as not		
550 (530 to 580)	No overshoot of 580 ppm CO_2-eq		–47 to –19	–81 to –59		More unlikely than likely [j]		
	Overshoot of 580 ppm CO_2-eq		–16 to 7	–183 to –86				
(580 to 650)	Total range	RCP4.5	–38 to 24	–134 to –50				
(650 to 720)	Total range		–11 to 17	–54 to –21		Unlikely	More likely than not	
(720 to 1000) [b]	Total range	RCP6.0	18 to 54	–7 to 72	Unlikely [k]		More unlikely than likely	
>1000 [b]	Total range	RCP8.5	52 to 95	74 to 178		Unlikely [k]	Unlikely	More unlikely than likely

Notes:

[a] The 'total range' for the 430 to 480 ppm CO_2-eq concentrations scenarios corresponds to the range of the 10th to 90th percentile of the subcategory of these scenarios shown in Table 6.3 of the Working Group III report.

[b] Baseline scenarios fall into the >1000 and 720 to 1000 ppm CO_2-eq categories. The latter category also includes mitigation scenarios. The baseline scenarios in the latter category reach a temperature change of 2.5°C to 5.8°C above the average for 1850–1900 in 2100. Together with the baseline scenarios in the >1000 ppm CO_2-eq category, this leads to an overall 2100 temperature range of 2.5°C to 7.8°C (range based on median climate response: 3.7°C to 4.8°C) for baseline scenarios across both concentration categories.

[c] The global 2010 emissions are 31% above the 1990 emissions (consistent with the historic greenhouse gas emission estimates presented in this report). CO_2-eq emissions include the basket of Kyoto gases (carbon dioxide (CO_2), methane (CH_4), nitrous oxide (N_2O) as well as fluorinated gases).

[d] The assessment here involves a large number of scenarios published in the scientific literature and is thus not limited to the Representative Concentration Pathways (RCPs). To evaluate the CO_2-eq concentration and climate implications of these scenarios, the Model for the Assessment of Greenhouse Gas Induced Climate Change (MAGICC) was used in a probabilistic mode. For a comparison between MAGICC model results and the outcomes of the models used in WGI, see WGI 12.4.1.2, 12.4.8 and WGIII 6.3.2.6.

[e] The assessment in this table is based on the probabilities calculated for the full ensemble of scenarios in WGIII using MAGICC and the assessment in WGI of the uncertainty of the temperature projections not covered by climate models. The statements are therefore consistent with the statements in WGI, which are based on the Coupled Model Intercomparison Project Phase 5 (CMIP5) runs of the RCPs and the assessed uncertainties. Hence, the likelihood statements reflect different lines of evidence from both WGs. This WGI method was also applied for scenarios with intermediate concentration levels where no CMIP5 runs are available. The likelihood statements are indicative only *(WGIII 6.3)* and follow broadly the terms used by the WGI SPM for temperature projections: likely 66–100%, more likely than not >50–100%, about as likely as not 33–66%, and unlikely 0–33%. In addition the term more unlikely than likely 0–<50% is used.

[f] The CO_2-equivalent concentration (see Glossary) is calculated on the basis of the total forcing from a simple carbon cycle/climate model, MAGICC. The CO_2-equivalent concentration in 2011 is estimated to be 430 ppm (uncertainty range 340 to 520 ppm). This is based on the assessment of total anthropogenic radiative forcing for 2011 relative to 1750 in WGI, i.e., 2.3 W/m², uncertainty range 1.1 to 3.3 W/m².

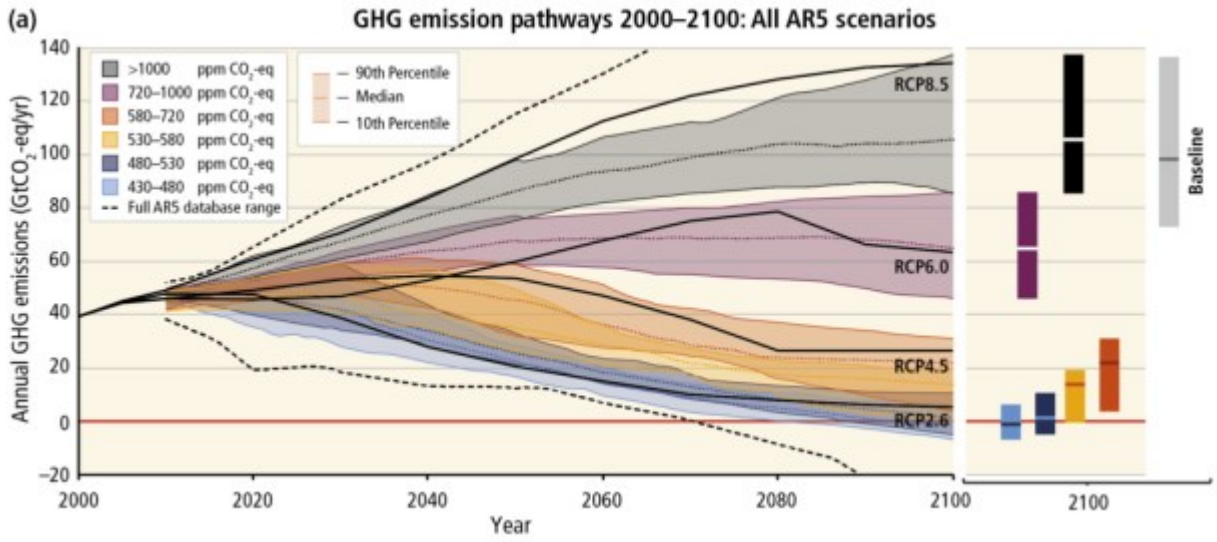
[g] The vast majority of scenarios in this category overshoot the category boundary of 480 ppm CO_2-eq concentration.

[h] For scenarios in this category, no CMIP5 run or MAGICC realization stays below the respective temperature level. Still, an *unlikely* assignment is given to reflect uncertainties that may not be reflected by the current climate models.

[i] Scenarios in the 580 to 650 ppm CO_2-eq category include both overshoot scenarios and scenarios that do not exceed the concentration level at the high end of the category (e.g., RCP4.5). The latter type of scenarios, in general, have an assessed probability of *more unlikely than likely* to stay below the 2°C temperature level, while the former are mostly assessed to have an *unlikely* probability of staying below this level.

[j] In these scenarios, global CO_2-eq emissions in 2050 are between 70 to 95% below 2010 emissions, and they are between 110 to 120% below 2010 emissions in 2100.

4.46 The AR5 Synthesis Report describes an emission pathway - *Representative Concentration Pathway* or RCP - to certain concentrations of greenhouse gases in the atmosphere with which the realisation of the 2ºC target is 'likely', meaning a chance of more than 66%. This is the 'RCP 2.6' scenario, as reported in the above Table 3.1 with a greenhouse gas concentration of 450 (430-480) ppm in 2100. RCP 2.6 and other RCPs are shown in the figure below, Figure 3.2 from the AR5 Synthesis Report (p. 82):



4.47 The IPCC Working Group III expects that absent additional reduction measures, Earth's temperature in 2100 will have increased by 3.7 to 4.8°C and the level of 450 ppm will have been exceeded in 2030:[332]

'Without additional efforts to reduce GHG emissions beyond those in place today, emissions growth is expected to persist driven by growth in global population and economic activities. Baseline scenarios, those without additional mitigation, result in global mean surface temperature increases in 2100 from 3.7 °C to 4.8 °C compared to pre-industrial levels (…) (median values; the range is 2.5 °C to 7.8 °C when including climate uncertainty (…) (*high confidence*). The emission scenarios collected for this assessment represent full radiative forcing including GHGs, tropospheric ozone, aerosols and albedo change. Baseline scenarios (scenarios without explicit additional efforts to constrain emissions) exceed 450 parts per million (ppm) CO2eq by 2030 and reach CO2eq concentration levels between 750 and more than 1300 ppm CO2eq by 2100. This is similar to the range in atmospheric concentration levels between the RCP 6.0 and RCP 8.5 pathways in 2100. For comparison, the CO2eq concentration in 2011 is estimated to be 430 ppm (uncertainty range 340 – 520 ppm).'

4.48 As mentioned earlier in section 1.2 at (xxii)-(xxiii), the UNEP has issued the same warning. In its Annual Report 2017, UNEP notes that if the 'emissions gap' is not overtaken by 2030, it is highly unlikely that the 2ºC target will still be achievable. Even if the reduction targets on which the Paris Agreement is based were to be implemented in full, 80% of the carbon budget still available within the context of the 2ºC target will have been consumed by 2030. Departing a 1.5°C target, the carbon budget will have been completely exhausted by then. This was why even more ambitious reduction targets are needed for 2020, according to the UNEP.

The facts; 2ºC target, carbon budget and emission reductions

4.49 Below, we will summarise the key facts established by the District Court and the Court of Appeal in respect of the necessity of reducing greenhouse gas emissions. Continuing along that line, we will then discuss the concept of the carbon budget and its effect on the speed at which the emission of greenhouse gases must be reduced (section 4.55). First, however, we would note the following regarding the establishment of facts in civil proceedings.

4.50 **The nature of the establishment of facts**. In these proceedings, the State and Urgenda have extensively discussed what they believe to be the relevant facts. Although they differ in terms of their opinion about the meaning that can be attached to the facts in respect of the admissibility of Urgenda's claim, the State and Urgenda largely concur on the relevant facts as such. This means that in principle, the civil court must depart from those facts.[333]

4.51 On that basis, therefore, the District Court established the relevant facts for the assessment of

Urgenda's claim.[334] Criticism is heard in the literature, however, of parts of facts established by the District Court - because it is 'doubtful', according to one author, 'that what the parties acknowledge reliably reflects the current state of the art'.[335] This criticism, which may remain moot, was not relevant on appeal, as the facts established by the District Court were not put to a discussion on appeal. This is why the Court of Appeal was required to depart from those facts.[336] As noted earlier (section 1.35), the Supreme Court does not conduct a new investigation of the facts in cassation.[337]

4.52 In these proceedings, therefore, it has been asserted without discussion that a connection exists between human activity and global warming, for example, and that consensus exists regarding the 2ºC target, and that the emission of greenhouse gases must be limited.

4.53 The State did point out certain uncertainties identified by the IPCC in respect of climate change and their consequences.[338] The Court of Appeal took such uncertainties into account in its assessment of the relevant facts.[339]

4.54 **The key facts** [340] Below, we will once again summarise the key facts; also see section 1.2(i) et seq. as introduction to the in-depth discussion that will follow.

(i) Greenhouse gases CO2 (carbon dioxide) is the most important greenhouse gas. Other greenhouse gases, such as methane, laughing gas, and fluorinated gases, may have a larger greenhouse effect - expressed as Global Warming Potential or GWP - albeit for a shorter period than CO2. In that sense, the Court of Appeal's opinion at 3.3 is apparently intended to mean that other greenhouse gases have a lower global warming potential than CO2 and degrade at another speed. This opinion is not disputed in cassation.

The concentration of greenhouse gases in the atmosphere is expressed using the unit parts per million, abbreviated as ppm. The abbreviation 'ppm CO2-eq' (parts per million CO2 equivalent) is used to indicate the concentration of all greenhouse gases combined, with the amount of greenhouse gases other than CO2 being converted into CO2 in terms of warming effect.

(ii) The greenhouse effect and climate change There is a direct, linear connection between greenhouse gas emissions caused by humans, which are partly caused by the burning of fossil fuels, and the warming of the planet. Once emitted, CO2 remains in the atmosphere for hundreds of years, if not longer.

The planet Earth is 1.1ºC warmer today than in the pre-industrial era. Global warming amounted to approx. 0.4ºC between 1850 and 1980. Since then, global warming has continued for another 0.7ºC to the current level of 1.1ºC; this global warming is expected to accelerate even more, in particular because greenhouse gas emissions only realise their full warming potential after thirty to forty years.

(iii) The 2ºC target Climate scientists and the global community concur that global warming must be kept amply below 2ºC, while a 'safe' temperature increase should not be more than 1.5ºC, all as compared to the pre-industrial level. Global warming of more than 2ºC in comparison to the pre-industrial era would cause, for example: flooding as a result of sea level rise; heat stress as a result of more intense and longer-lasting heat waves, increases in respiratory ailments associated with deteriorating air quality, droughts (with devastating forest fires), increased spread of infectious diseases, severe flooding as a result of torrential rainfall, and disruptions in the production of food and the supply of drinking water. Ecosystems, flora and fauna will be eroded and there will be losses in terms of biodiversity. An inadequate climate policy will result in the second half of this century to hundreds of thousands of victims in Western Europe alone.[341]

As global warming continues, not only the seriousness of the consequences will increase. The accumulation of greenhouse gases in the atmosphere could lead to the tipping point of the process of climate change, resulting in an abrupt climate change for which neither man nor nature can be adequately prepared. The risk of such a tipping point occurring increases at a steeping rate

when the temperature increases between 1-2ºC.[342]

(iv) Realising the 2ºC objective Global greenhouse gas emissions are still increasing. The emission of greenhouse gases remains high in the Netherlands, as well. Chances of reaching the 1.5ºC target are now very slim. In any event, limiting global warming to less than 2ºC will take enormous effort.

(v) The carbon budget In the realm of climate science, as well as in the global community, long ago a consensus was reached entailing that the average temperature of the planet may not increase by more than 2ºC in comparison to the average temperature during the pre-industrial era. If the concentration of greenhouse gases in the atmosphere has not risen above 450 ppm by the year 2100, there is a reasonable chance that this objective will be realised. Limiting global warming to no more than 1.5ºC - which is the objective of the Paris Agreement - will require a significant reduction in the global concentration of greenhouse gases, to less than 430 ppm. The current concentration in 2018 was about 401 ppm. This means that the concentration of greenhouse gases in the atmosphere may increase only to a very limited degree. The longer it takes to realise the necessary reduction in emissions, the larger the total quantity of greenhouse gas emissions, and the earlier the carbon budget will be exhausted.

(vi) The ultimate goal for 2100 and the reduction targets for 2050 and 2030 The ultimate goal is clear and not in dispute. Global greenhouse gas emissions must be brought to halt by 2100. The parties also have no quarrel as to the necessary interim reduction of 80-95% in 2050 as compared to 1990, and Urgenda endorses the government's proposed reduction target of 49% in 2030 as compared to 1990.

4.55 Below, we will discuss the connection between the 2ºC target, the carbon budget and the speed of greenhouse emission reductions in more detail based on the data and figures applied as premise by the District Court and the Court of Appeal. Those form the basis for the Court of Appeal's summary considerations reflected above in section 4.54.

4.56 **The 2ºC target and the carbon budget** What firstly follows from the facts as established is the importance of realising the 2ºC target. The facts also show that with a view to the 2ºC target, the concentration of greenhouse gases in the atmosphere may only increase to a limited degree, to wit to approx. 450 ppm. Given the current concentration of greenhouse gases in the atmosphere (2018: 401 ppm), there is only limited room for the emission of greenhouse gases before a concentration of 450 ppm is reached. This room is called the carbon budget.[343] The carbon budget limits the total of worldwide greenhouse gas emissions. Each ton of emissions reduces the remaining budget. The longer it takes to realise the necessary reduction in emissions, the larger the total quantity of greenhouse gas emissions, and - therefore - the earlier the carbon budget will be exhausted (see 4.54(v) above).

4.57 **The carbon budget and the speed of the reductions** Therefore, it follows from the facts that the speed of the emission reductions is crucial. The earlier reductions commence, the more time before the remaining budget is exhausted. Conversely, the later a reduction is realised, the less time before the budget is exhausted. This means that the sooner reductions commence, the more time left for taking measures to combat climate change and its consequences.

The Court of Appeal refers to para. 4.32 of the District Court's judgment in this regard. The District Court also devoted attention to the carbon budget in para. 2.32 of its judgment. Those opinions by the District Court are included in the established facts from which the Court of Appeal departed. First we will discuss para. 2.32 and then para. 4.32 of the District Court's judgment.

4.58 In para. 2.32 of its judgment, the District Court referred to the UNEP Emissions Gap Report 2014. In that report, the question of when the world must be greenhouse gas neutral given the 2ºC target is discussed. Greenhouse gas neutral means: a net result of anthropogenic positive and

negative greenhouse gas emission of zero.[344]

Here, positive emission refers to the emission of greenhouse gases due to human activity. Negative emission refers to greenhouse gases being removed from the atmosphere by means of suitable technology.[345] This is sometimes referred to as Carbon Dioxide Removal (CDR) through means of Negative Emission Technologies (NET).[346] One example of this is BECCS: the production of energy through the combustion of biomass in which greenhouse gases are stored, known as bio-energy (BE), followed by the capture and storage of the greenhouse gases released during the combustion (carbon capture and storage: CCS).[347] For the record, CCS can also be used with processes in the energy or other sectors in which oil, coal or gas is combusted, but this does not result in negative greenhouse gas emissions.

Negative emissions play a part in scenarios in which the concentration of greenhouse gases in the atmosphere is temporarily higher than the concentration necessary in order to realise the 2ºC target, called 'overshoot'.[348]

4.59 The UNEP Report referred to by the District Court reflects the foregoing in this figure, departing from a carbon budget in 2012 of 1000 giga tons of greenhouse gases for the 2ºC target.

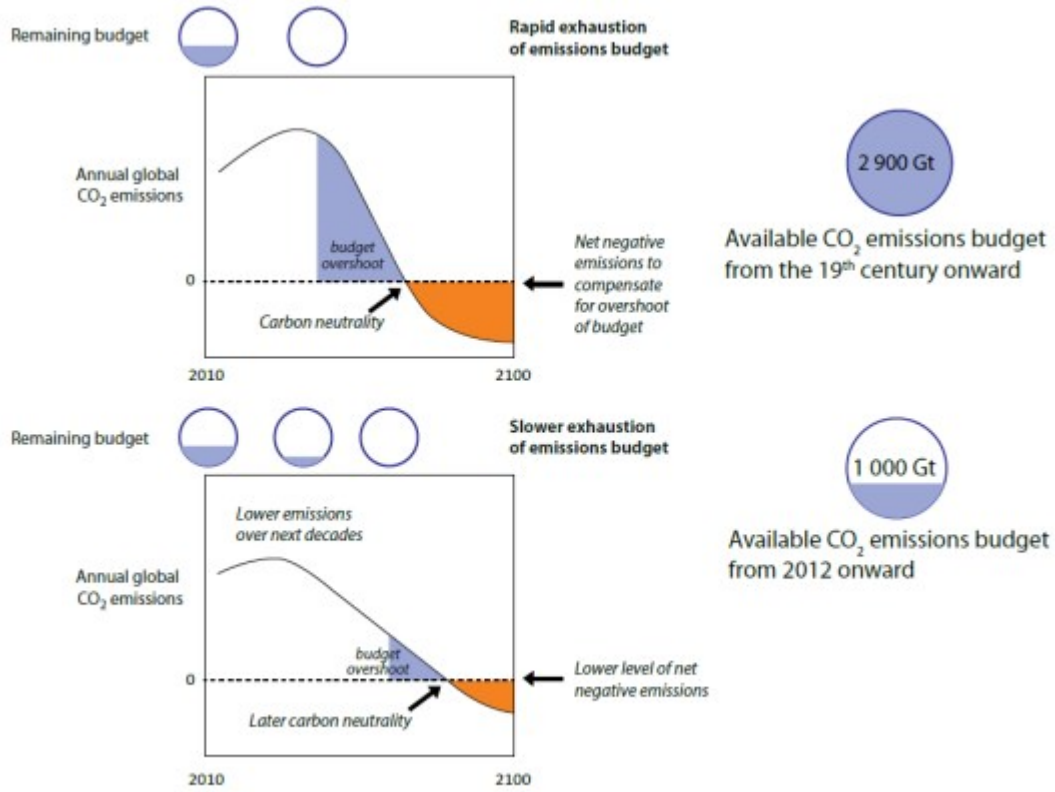


Figure ES.1: Carbon neutrality

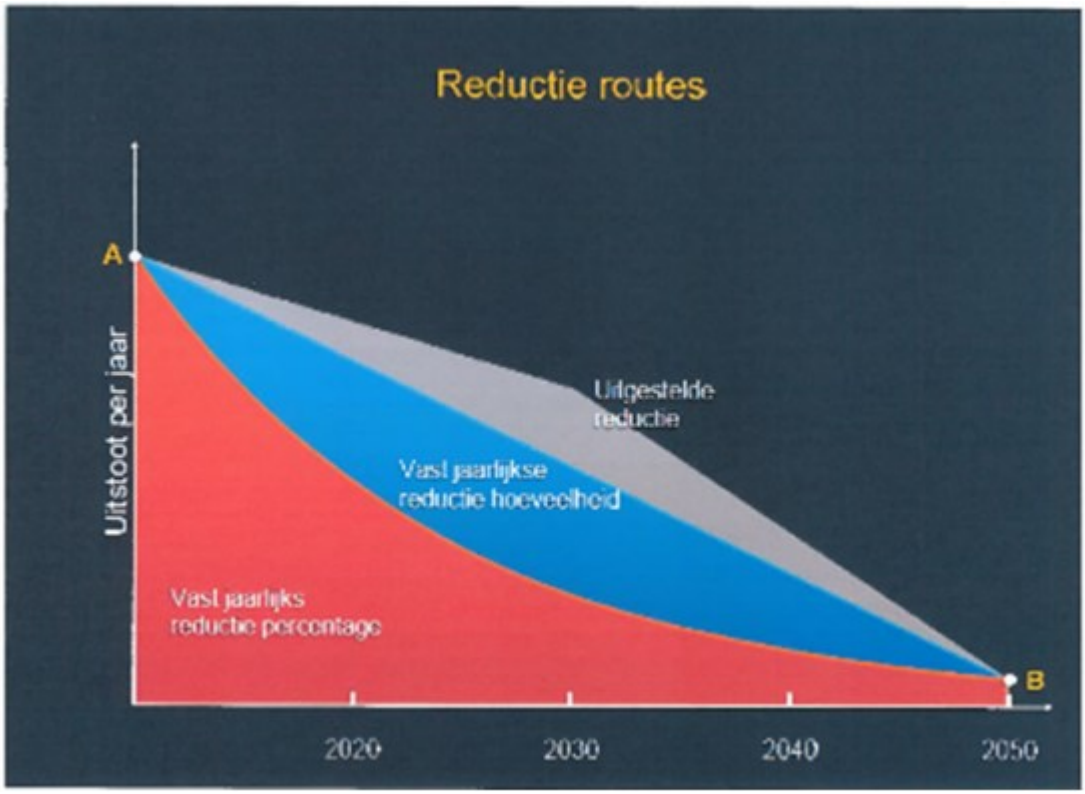
4.60 The top image of the figure in section 4.59 shows what happens if emissions are higher for the time being, and therefore if emissions are reduced at a slower rate. There are two main effects. Firstly, the remaining carbon budget is exhausted faster. As a result, the tipping point at which no emissions – positive emissions – are permitted is reached earlier. This means that intervention in the near and further future will have to be more far-reaching in order to still reach zero emissions quickly, from a relatively high level of emissions. This will probably be more difficult for society than a more gradual reduction of emissions.[349] Secondly, more negative emissions will be needed in the future. This means that the technologies necessary for this will be relied on more heavily.[350]

4.61 The bottom part of the figure in section 4.59 shows what happens if emissions are lower earlier, and therefore if emissions are reduced at a faster rate. In that event, the remaining carbon budget is exhausted more slowly. As a result, the tipping point at which no emissions - positive emissions - are permitted is reached later. There is more time to achieve the 2ºC target. Lower negative emissions will be needed, and the capture and storage of greenhouse gases can commence later.

This means that there will be more time before reliance on the technologies necessary for the capture and storage of greenhouse gases is needed.

4.62 It therefore follows from the fact that only a limited carbon budget remains for achieving the 2ºC target that reducing emissions faster and more will improve the chance of realising that target. In this regard the Court of Appeal refers in para. 44 to para. 4.32 of the District Court's judgment. There, three Urgenda figures are presented, the first of which is shown below. The first figure illustrates that not only the reduction targets for a certain year - such as 49% lower reductions in 2030 as compared to 1990 - but also the speed for realising that reduction target in that year must be taken into account (referred to as reduction pathways [*reductie routes*] in the figure shown below). The later emission reductions commence, the faster the carbon budget is exhausted. In order to prevent this, later reductions would need to be accelerated in order to make up for the 'backlog' incurred.

4.63 Figure 1(Urgenda)



Following the pathway entitled 'Fixed annual reduction percentage' [*vast jaarlijks reductiepercentage*], the red (lower) part reflects the quantity of greenhouse gas emissions and thus the part of the carbon budget consumed. Following the pathway entitled 'Fixed annual reduction quantity' [*vaste jaarlijkse reductiehoeveelheid*], this consumption is collectively comprised of the red section and the blue (middle) section. Following the pathway that Urgenda calls 'Postponed reduction' [*uitgestelde reductie*],[351] the consumption is collectively comprised of the red section, the blue section and the (top) grey section.

The other two Urgenda figures referred to by the Court of Appeal in para. 44 reflect the details of Urgenda's Figure 1. They illustrate that the EU is following the scenario called 'Postponed reduction' by Urgenda, based on the expected EU-wide reduction of 27% in 2020 and the EU reduction targets of 40% in 2030 and 80-95% in 2050. See para. 4.32 of the District Court's judgment for these figures.

4.64 The UNEP and Urgenda figures presented above in 4.59 and 4.63 only show the mechanisms described - meaning the mechanism in which postponing the reduction of greenhouse gases leads to faster consumption of the carbon budget remaining for realisation of the 2ºC target - even

when the reduction target for a certain year in the future, such as 2030 or 2050, remains the same.

4.65 The figures presented above do not show whether postponing reductions will already be problematic in the short term, or whether there is still so much room in the remaining carbon budget that postponing reductions will only become problematic if the reductions do not take place in the medium to long term. The following facts have been established in these proceedings with regard to the latter.

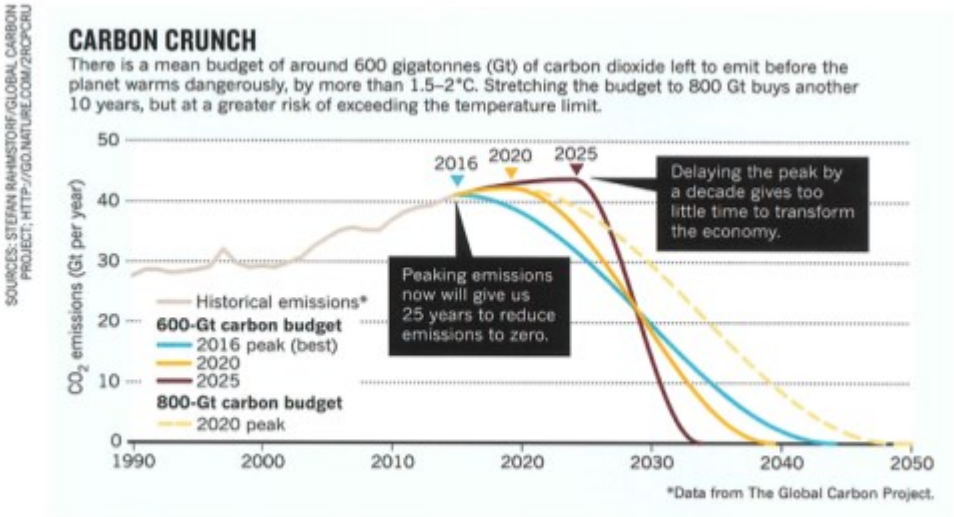
(i) Global greenhouse gas emissions are still increasing. The current (meaning: 2018) concentration of greenhouse gases is about 401 ppm, as a result of which the concentration may only increase to a limited extent.[352]

(ii) The IPCC[353] expects in AR5 that absent reduction measures, Earth's temperature will have increased by 3.7 to 4.8°C in 2100 and the level of 450 ppm will have been exceeded in 2030.[354] The IPCC[355] states in AR5 that '(…) *Delaying mitigation efforts beyond those in place today through 2030 is estimated to substantially increase the difficulty of transition to low-longer-term emissions levels and narrow the range of options consistent with maintaining temperature change below 2ºC relative to pre-industrial levels.*'[356]

(iii) The UNEP[357] concludes that with a view to achieving the 2°C target, there is an 'emissions gap'.[358] UNEP's 2017 Annual Report says that in light of the Paris Agreement, increased pre-2020 mitigation measures are more urgent than ever. The UNEP also remarks that if the emissions gap is not bridged by 2030, achieving the 2°C target is extremely unlikely. Even if the reduction targets on which the Paris Agreement is based were to be implemented in full, 80% of the carbon budget still available within the context of the 2ºC target will have been consumed by 2030. Departing a 1.5°C target, the carbon budget will have been completely exhausted by then. This was why even more ambitious reduction targets are needed for 2020, according to the UNEP[359]. The UNEP[360] concludes that '*later action scenario's*[361] *may not be feasible in practise and, as a result, temperature targets could be missed*' and that '*later-action scenario's pose greater risks of climate impacts*'.[362]

(iv) In its report of 18 November 2016 further to the Paris Agreement, the Netherlands Environmental Assessment Agency (*Planbureau voor de leefomgeving* - PBL)[363] describes the limited carbon budget and the need for a stringent climate policy throughout the world: a policy that must go much further than the existing policy of the countries involved. According to the PBL, the Netherlands' policy must be tightened in the short term to bring it in line with the Paris Agreement (with regard to the Paris targets of 2°C and 1.5°C).[364]

4.66 In addition, we would note that the speed of the consumption of the carbon budget is also illustrated by the following figure from a publication in *Nature* (2017), to which Urgenda referred.[365]



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4.67 Lastly, we would note that the feasibility of realising the 2°C target is also dependent on the use of technologies for the large-scale capture and storage of greenhouse gases in the future. As discussed earlier, reliance on such technologies in order to achieve the necessary negative emissions will increase as the commencement of the reduction of greenhouse gas emissions is postponed. The Court of Appeal pointed out that in 87% of the scenarios included in RCP2.6 from AR5 include premises that are related to negative emissions.[366]

The Court of Appeal's assessment of the facts

4.68 Based on the facts discussed above, the Court of Appeal held firstly that it is appropriate to speak of 'a real threat of a dangerous climate change' (para. 45).

The Court of Appeal went on to conclude that this threat 'result[s] in the serious risk that the current generation of citizens will be confronted with loss of life and/or a disruption of family life'. The State's complaints against this part of para. 45 were already discussed (section 3.2 et seq.).

4.69 The Court of Appeal subsequently explored the question that now has central focus: whether the State has acted unlawfully in respect of Urgenda by not reducing the emissions by at least 25% as at the end of 2020, despite the aforementioned real threats of danger (para. 46).

4.70 The Court of Appeal's opinion, already briefly summarised at 1.29, shows that it has assessed whether the threat of a dangerous climate change obliges the State to take precautionary measures in the form of reducing the emission of greenhouse gases in the Netherlands. Although the issue in this case can be considered unique, the courts are familiar with this form of assessment of situations involving dangers in itself (in general in that regard, see Chapter 2 of this opinion).

4.71 Below, we will discuss the individual steps taken by the Court of Appeal in its assessment of the situation. In doing so, we will suffice with the essence of the Court of Appeal's reasoning. The details of that reasoning will be discussed later, with parts 4-8 of the State's ground for cassation. We will not adhere to the sequence used by the Court of Appeal for its opinions. Some of the steps could be reflected in a different order, as the Court of Appeal has done, without detracting from the reasoning itself. We have made a distinction between the following steps.

4.72 (**(i) There is a real threat of a dangerous climate change** This fact (see para. 45) is the point of departure for the reasoning about the State's duty of care. To counter this danger, the 2ºC target with the corresponding concentration level of 450 ppm and therefore a certain carbon budget applies (para. 44). There is no dispute about the reduction targets for 2050 (80%-95%) and 2030 (49%) (para. 46).

4.73 (**(ii) In the short term – up to the end of 2020 – more must be done to reduce emissions.** See the conclusion in para. 71 and para. 47 on which it is based. As mentioned above, if no reduction measures are taken the IPCC expects the level of 450 ppm to have been exceeded by 2030 and according to UNEP it is highly unlikely that the 2ºC target can still be realised if the emissions gap has not been closed by 2030. In para. 47, the Court of Appeal ruled that this climatologically established need for greater reductions than at this time also applies to the situation in the Netherlands in 2020 with a view to achieving the reduction targets in 2030 and beyond. In the first place, the Court takes as a point of departure:

'47. (…) that the emission of all greenhouse gases combined in the Netherlands had dropped by 13%, relative to 1990, in 2017. Even if the new calculation method was not used for this (see para. 21 of this judgment),[367] a significant effort will have to be made between now and 2030 to reach the 49% target in 2030; much more efforts than the limited efforts the Netherlands has undertaken so far. (…)'

The Court of Appeal then referred to the consumption of the carbon budget in the period 2020 to

2030:

'(…) It is also an established fact that it is desirable to start the reduction efforts at as early a stage as possible in order to limit the total emissions in this period. Delaying the reduction will lead to greater risks for the climate. A delay would, after all, allow greenhouse gas emissions to continue in the meantime; greenhouse gases which linger in the atmosphere for a very long time and further contribute to global warming. In that context, the Court would like to point out to the warnings issued by the UNEP, cited in paras. 2.29 through to 2.31 of the judgment. See also the report of the PBL of 9 October 2017 (Exhibit 77 of the State) p. 60, where the PBL remarks that achieving the climate targets of the Paris Agreement not necessarily concerns achieving a low emission level in 2050, but rather and particularly achieving low cumulative emissions, considering the fact that each megaton of CO2 which is emitted into the atmosphere in the short term contributes to global warming. (…)'

Lastly, the Court of Appeal referred to the (linear) reduction pathway used by the State for the 2050 and 2030 reduction targets and the (non-linear) reduction pathway used by the State for the 2020 reduction target:

'(…) An even distribution of reduction efforts over the period up to 2030 would mean that the State should achieve a substantially higher reduction in 2020 than 20%. An even distribution is also the starting point of the State for its reduction target of 49% by 2030, which has been derived in a linear fashion from the 95% target for 2050. If extrapolated to the present, this would result in a 28% reduction by 2020, as confirmed by the State in answering the Court's questions.''

This last consideration shows that, with a view to the 2ºC target, the State started from the reduction target of 80%-95% by 2050, that it linearly infers from this the reduction target for 2030 (49%), but that it has set a less far-reaching target for 2020, i.e. (not-linearly 28% but) 20% at EU level (we will not reiterate that this target is broken down into the targets referred to in paras. 4.30-4.31 for the ETS sector and non-ETS sector).

4.74 (**(iii) Postponement is irresponsible**. Postponing reductions or higher reductions will lead to greater risks for the climate (paras. 47 and 52). The Court of Appeal held that, as there are clear indications now that the current measures will be insufficient to prevent dangerous climate change, measures that are safe, or at least as safe as possible, should be chosen, also on the basis of the precautionary principle (para. 73).

4.75 (**(iv) In particular, it is not possible to wait until 2030**. The State has argued that, according to AR5, the 2ºC target can still be achieved if certain reduction targets are achieved from 2030 onwards. The Court of Appeal has rejected this position: targets for 2030 and beyond do not take away from the fact that a dangerous situation is imminent, which requires interventions being taken now (para. 71). In particular, the Court of Appeal ruled that the State cannot rely on the RCP2.6 scenario from AR5 because this scenario is based mainly (87%) on so-called overshoot scenarios with negative emissions (para. 12). The possibility of removing (sufficient) greenhouse gas from the atmosphere in the future with certain techniques is highly uncertain and, as things stand at present, climate scenarios based on such techniques are not very realistic, according to the Court of Appeal (para. 49).

4.76 (**(v) Emissions must be reduced by at least 25% by 2020.** The Court of Appeal has specified its finding that more must be done in the short term to reduce emissions: by the end of 2020, emissions must be at least 25% lower than in 1990. Urgenda claims an emission reduction in 2020 of at least 25% compared to 1990, so it is up to the Court of Appeal to render an opinion on that (paras. 3.9 and 46). Achieving the 2ºC target will require a 25%-40% reduction in emissions by 2020 (para. 49). This emerges from AR4 (para. 48), is confirmed by the references to it in the various COP decisions (para. 51) and has not been overtaken by AR5 (para. 49). The 450 scenario and the resulting need for a 25%-40% reduction in emissions by 2020 are not based on excessively pessimistic assumptions (para. 50) and should be considered as a minimum (para. 73).

This reduction obligation is in line with the State's duty of care (paras. 53 and 73). For many years, the Dutch reduction target for 2020 was 30% compared to 1990 and it has been lowered to 20% at EU level without any climatological substantiation being provided (paras. 52 and 72).

4.77 (**(vi) The State's counterarguments do not hold**. See paras. 54-76. This includes the question of whether the Netherlands can be held individually responsible for its share, which on a global scale is minor, of greenhouse gas emissions and the State's reliance on its discretion.

4.78 In the literature, the question has been raised as to how the courts can determine precisely that the Dutch reduction of greenhouse gases must be (at least) 25% by 2020. It should be borne in mind that, in light of the applicable rules of law, the court[368] must (i) rule on the admissibility of a claim submitted to it and the points of contention involved, such (ii) on the basis of the facts established and proven in the proceedings. [369]

4.79 With regard to the point of contention in this case, the court was not asked to determine in abstract terms what reduction percentage should be pursued by the Netherlands in which year. For example, it has not been submitted to the court as to whether emission reductions in 2020 should be 24%, 25% or 26%. Nor did the debate address the question of what the reductions should be in 2019 or 2021.[370]

In this case, the court must ultimately decide on Urgenda's claim that the reduction in 2020 should be at least 25%.[371] It is therefore only about 2020 and only about the percentage of 25% or at least 25%. The court must assess whether sufficient facts and arguments have been presented to prove the need for *that* claimed reduction.

4.80 On the basis of scientific reports, the Court of Appeal ruled that in the short term more must be done to reduce emissions given the real threat of dangerous climate change. This brings the year 2020 into the picture. The Court of Appeal then had to assess whether the reduction in that year should be at least 25%, as Urgenda claims. No calculation model has been submitted to the Court of Appeal, if such a model could have even been submitted, from which it could be easily deduced how much more emissions should be reduced by 2020 than the 20% target set by the State at EU level. The Court of Appeal did have other information at its disposal.

From the available information – in particular information from IPCC AR4 and the references to it in COP decisions – the Court of Appeal concluded that a reduction of least 25% is indeed necessary to respond to the real threat of dangerous climate change. In this regard, the Court of Appeal considered its assessment of various risks, such as (i) the extent to which, with these reductions, the 450 ppm scenario offers 'certainty' to achieve the 2ºC target ('a reasonable chance' or 'no more than a 50% chance');[372] (ii) the extent to which the ordered reduction of 25% by 2020 helps to avert the threat ('high plausibility');[373] and (iii) the extent to which uncertainty about the State's ability to achieve a 25% reduction by 2020 is acceptable (not acceptable).[374] The Court of Appeal ruled that the Netherlands must make an individual contribution to the prevention of dangerous climate change, even if the Netherlands cannot solve the climate problem on its own.[375]

Summary of the State's complaints in grounds for cassation 4-8

4.81 The State has lodged a large number of complaints against the Court of Appeal's opinion expressed in paras. 4.72 et seq. In grounds for cassation 4 through 8, each of which consists of several subgrounds, the State directs complaints against (parts of) paras. 12, 15, 48, 49 and 62 (ground for cassation 4), paras. 12 and 50 through 53 (ground for cassation 5), para. 47 (ground for cassation 6), paras. 26, 60 and 62 (ground for cassation 7) and paras. 47 and 53 through 76 (ground for cassation 8).

4.82 The State essentially argues the following in grounds for cassation 4-8.[376] The State is not *legally* bound to a reduction target of 25% by 2020. This reduction target is not a standard agreed upon by the State or an internationally accepted standard. However, the State is bound by a 20%

reduction by 2020 at international and European level; this percentage will be amply met at EU level (i.e. 26% to 27%). The Court of Appeal should have taken this into account.

The 25% reduction target by 2020 is not necessary in a *factual* sense for the achievement of the 2ºC target. This necessity does not follow from the IPCC reports. The ordered additional reduction by the Netherlands in 2020 has no measurable effect on the global temperature increase.

Moreover, the reduction target of 25% by 2020 was once proposed as a target for a group of rich countries (the so-called Annex I countries to which the Netherlands belongs), but not as a target for an *individual* country such as the Netherlands. The Netherlands alone cannot solve the global climate problem.

It is up to the State to decide which reduction pathway to follow. The Court of Appeal is crossing the *discretion* afforded to the State.

4.83 We will discuss the complaints in grounds for cassation 4-8 below in as thematic a fashion as possible.[377] In delineating the various topics, we have identified three related themes, namely the need to reduce emissions, the individual responsibility of the Netherlands, and the effects of the order.

4.84 We will first of all discuss the complaints that challenge the *need for a reduction* of at least 25% by 2020 as such. This concerns the following points (paras. 4.89 et seq.).

(i) The legal nature of the reduction targets for 2020. It is discussed here whether the Court of Appeal assumed that the reduction target of 25%-40% by 2020 was laid down specifically in a legally binding agreement or standard and, if not, whether the Court of Appeal was allowed to assign reflex effect to that reduction target in specifying the State's duty of care. Also discussed is whether the reduction target set at EU level precludes the assignment of reflex effect and whether the Court of Appeal should have requested the ECJ for a preliminary ruling on the matter. This is addressed in grounds for cassation 4.8, 5.4 and 5.6.

(ii) The significance of the reduction target of 25%-40% by 2020 from AR4 for Annex I countries. The reduction order is based on an opinion on the need for further reductions in greenhouse gas emissions. If the Court of Appeal did not assume that the reduction target of 25%-40% by 2020 was specifically laid down in a legally binding agreement or standard, the question that arises is why significance has been attributed to the reduction target of 25%-40% by 2020 mentioned in AR4, which has been referred to in later COP decisions. This is addressed in grounds for cassation 4.1 and 5.4. [378]

(iii) This raises the question of whether this target has now been overtaken by AR5 or because the distinction between Annex I countries and other countries is outdated. This is addressed in grounds for cassation 4.2, 4.5, 4.6, 4.7, 5.2 and 5.4.

(iv) Another question that arises is whether further emission reductions in 2020 would be necessary if their postponement were to be offset by an acceleration of emission reductions in the period up to 2030. This is what grounds for cassation 5.5, 6.1, 6.2 and 6.3 are about.

(v) Lastly, there is the fact that Dutch policy until 2011 was aimed at a 30% reduction by 2020. This is what grounds for cassation 5.5 and 5.6 are about.

4.85 Secondly, we will discuss the complaints which, in our opinion, are not so much about the need for the emission reduction as such, but rather, at least in part, about the *individual responsibility of the Netherlands*. This concerns the following points (paras. 4.178 et seq.).

(i) Does the reduction target from AR4 of 25%-40% in 2020 for the Annex I countries as a group also apply to the Netherlands as an individual country? This is what grounds for cassation 4.3 and 7.1 through 7.5 are about.

(ii) The individual responsibility of the Netherlands for reducing Dutch emissions, given that the Netherlands alone cannot solve the global climate problem. This in particular is what ground for cassation 7.7 is about.

4.86 We will then discuss the complaints relating to the *effects of the additional Dutch emission reductions* if the reduction order is implemented (section 4.199). This is where, to a certain extent, the themes of 'necessity' and 'individual responsibility' meet.

This concerns, first of all, the need for these additional reductions if they only have a negligible impact on global warming (grounds for cassation 4.4 and 7.6). Secondly, the State argues that it is not necessary for the Netherlands to reduce emissions by at least 25% by 2020, because the EU as a whole will already be doing so (ground for cassation 5.6). Thirdly, the question is whether the positive effect of the reduction order on Dutch emissions could be offset by opposite effects abroad (grounds for cassation 8.5.1 and 8.5.2).

4.87 Fourthly, we discuss the *complaints about the application of the ECHR* by the Court of Appeal, which build on in part from grounds for cassation 1 and 2 (paras. 4.213 et seq.). In it, the State argues that the ECHR does not provide a basis for the reduction order because, supposedly, it would not be effective (ground for cassation 8.2.1), while the Court of Appeal attributed too little significance to other measures, such as adaptation measures (grounds for cassation 8.2.2-8.2.4). Furthermore, according to the State, the Court of Appeal took too little account of the margin of appreciation (ground for cassation 8.3) and failed to subject the reduction order to a fair balance review and proportionality review (ground for cassation 8.4).

4.88 Lastly, the *remaining complaints* of grounds for cassation 4 through 8 are discussed (paras. 4.236 et seq.). They cover various topics: the 450 ppm scenario (ground for cassation 5.2 (para. 1); the precautionary principle (ground for cassation 8.6); relativity (grounds for cassation 8.7.1-8.7.2); the remaining time until the end of 2020 (ground for cassation 8.8); the 1.5°C target (ground for cassation 8.10); and also the complaints in the various grounds for cassation that merely build on from others.

The legal nature of the reduction targets for 2020

4.89 This is the first of the five subthemes about the need for a reduction of at least 25% by 2020. These subthemes concern one or more of the following considerations of the Court of Appeal:

'12. (…) AR4 (IPCC Fourth Assessment Report, 2007):

This report describes that global warming of more than 2ºC results in a dangerous and irreversible climate change. To have a chance of more than 50% ('more likely than not') that the 2ºC threshold is not exceeded, the report states that the concentration of greenhouse gases in the atmosphere must stabilise at a level of about 450 ppm in 2100 (hereinafter: the '450 scenario'). Following an analysis of several reduction scenarios, the IPCC arrives at the conclusion in this report (see Box 13.7) that in order to achieve the 450 scenario, the total emission of greenhouse gases by Annex I countries, including the Netherlands, in 2020 must be 25-40% lower than in 1990. This report also describes that mitigation is generally better than adaptation. (…)

47. In the first place, the Court takes as a point of departure that the emission of all greenhouse gases combined in the Netherlands had dropped by 13%, relative to 1990, in 2017. Even if the new calculation method was not used for this (see para. 21 of this ruling), a significant effort will have to be made between now and 2030 to reach the 49% target in 2030; much more efforts than the limited efforts the Netherlands has undertaken so far. It is also an established fact that it is desirable to start the reduction efforts at as early a stage as possible in order to limit the total emissions in this period. Delaying the reduction will lead to greater risks for the climate. A delay would, after all, allow greenhouse gas emissions to continue in the meantime; greenhouse gases which linger in the atmosphere for a very long time and further contribute to global warming. In that context, the Court would like to point out to the warnings issued by the UNEP, cited in paras. 2.29 through to 2.31 of the judgment. See also the report of the PBL of 9 October 2017 (Exhibit 77 of the State) p. 60, where the PBL remarks that achieving the climate targets of the Paris Agreement not necessarily concerns achieving a low emission level in 2050, but rather and

particularly achieving low cumulative emissions, considering the fact that each megaton of CO2 which is emitted into the atmosphere in the short term contributes to global warming. An even distribution of reduction efforts over the period up to 2030 would mean that the State should achieve a substantially higher reduction in 2020 than 20%. An even distribution is also the starting point of the State for its reduction target of 49% by 2030, which has been derived in a linear fashion from the 95% target for 2050. If extrapolated to the present, this would result in a 28% reduction by 2020, as confirmed by the State in answering the Court's questions.'

48. In AR4, the IPCC concluded that a concentration level not exceeding 450 ppm in 2100 is admissible to keep the 2ºC target within reach. The IPCC then concluded, following an analysis of the various reduction scenarios (in Box 13.7), that in order to reach this concentration level, the total greenhouse gas emissions in 2020 of Annex I countries, of which the Netherlands is one, must be 25-40% lower than 1990 levels. In AR5, the IPCC also assumes that a concentration level of 450 ppm may not be exceeded in order to achieve the 2ºC target. (…)

49. (…) In order to assess whether the State has met its duty of care, the Court shall take as a starting point that an emission reduction of 25-40% in 2020 is required to achieve the 2ºC target.

50. Incidentally, the 450-scenario only offers a more than 50% ('more likely than not') chance to achieve the 2ºC target. A real risk remains, also with this scenario, that this target cannot be achieved. It should also be noted here that climate science has meanwhile acknowledged that a safe temperature rise is 1.5ºC rather than 2ºC. This consensus has also been expressed in the Paris Agreement, in which it was agreed that global warming should be limited to well below 2ºC, with an aim for 1.5ºC. The ppm level corresponding with the latter target is 430, which is lower than the level of 450 ppm of the 2ºC target. The 450-scenario and the identified need to reduce CO2 emissions by 25-40% by 2020 are therefore not overly pessimistic starting points when establishing the State's duty of care.

51. The State has known about the reduction target of 25-40% for a long time. The IPCC report which states that such a reduction by end-2020 is needed to achieve the 2ºC target (AR4) dates back to 2007. Since that time, virtually all COPs (in Bali, Cancun, Durban, Doha and Warsaw) have referred to this 25-40% standard and Annex I countries have been urged to align their reduction targets accordingly. This may not have established a legal standard with a direct effect, but the Court believes that it confirms the fact that at least a 25-40% reduction of CO2 emissions as of 2020 is required to prevent dangerous climate change.

52. Finally, it is relevant noting that up to 2011 the Netherlands had adopted as its own target a reduction of 30% in 2020 (see para. 19 of this ruling). That was, as evidenced by the letter from the Minister of Housing, Spatial Planning and the Environment dated 12 October 2009, because the 25-40% reduction was necessary 'to stay on a credible track to keep the 2ºC target within reach'. No other conclusion can be drawn from this than that the State itself was convinced that a scenario in which less than that would be reduced by 2020 was not feasible. The Dutch reduction target for 2020 was subsequently adjusted downwards. But a substantiation based on climate science was never given, while it is an established fact that postponing (higher) interim reductions will cause continued emissions of CO2, which in turn contributes to further global warming. More specifically, the State failed to give reasons why a reduction of only 20% by 2020 (at the EU level) should currently be regarded as credible, for instance by presenting a scenario which proves how – in concert with the efforts of other countries – the currently proposed postponed reduction could still lead to achieving the 2ºC target. The EU itself also deemed a reduction of 30% for 2030 necessary to prevent dangerous climate change (see para. 17 of this ruling).

53. The Court is of the opinion that a reduction obligation of at least 25% by end-2020, as ordered by the district court, is in line with the State's duty of care. (…).'

4.90 The complaints in grounds for cassation 4.8, 5.4 and 5.6 are directed first and foremost against

the considerations cited above, in particular paras. 12, 48, 51 and 52. They relate to the legal nature of the reduction targets for 2020.

Ground for cassation 4.8 (paras. 1 and 2) concern the findings that a concentration level of up to 450 ppm is 'permissible' and 'may not' be exceeded, and that in 2020 emissions 'should' be 25% to 40% lower. According to the State, the Court of Appeal thereby fails to recognise, put succinctly, that this concentration level (from AR4 and AR5) and this reduction target (from AR4) cannot be qualified as a standard and that they have no reflex effect in determining the State's obligations. Ground for cassation 5.4 (paras. 1 and 3 through 7) repeats these complaints and also projects them on the reference to the COP decisions.

Grounds for cassation 5.4 (para. 7) and 5.6 (para. 6) further argue that, among other things, the Court of Appeal wrongly failed to take account of the fact that the Netherlands will achieve the reduction targets that are binding at the international and European level.

Ground for cassation 5.6 (para. 6) also contains a related complaint, namely that the Court of Appeal's reasoning implies an opinion on the lawfulness of EU measures and that the Court of Appeal should have requested the ECJ for a preliminary ruling on the matter.

4.91 Briefly put, these complaints raise the question of (i) whether the Court of Appeal assumed that the reduction target of 25%-40% by 2020 is based on a legally binding agreement or standard; if this is not the case, (ii) whether the Court of Appeal could attribute significance to this reduction target in specifying the State's duty of care (reflex effect); (iii) whether the reduction targets set at EU level prevent the assignment of reflex effect; and (iv) whether the Court of Appeal should have requested the ECJ for a preliminary ruling on the matter.

As will be explained below, in our opinion these complaints do not hold.

4.92 **Binding agreement or standard?** On the first point, the State in and of itself rightly argues that the reduction target of 25%-40% in 2020 from AR4 is not based on a specific international agreement that is legally binding on the State.

The Court of Appeal did not assume this to be the case either. After all, the Court of Appeal has taken account of the international and European agreements entered into by the State and whether or not those agreements are legally binding on the State (paras. 3.7 and 5 et seq.). The Court of Appeal mentions the legally binding agreements made at EU level, the ETS Directive and the Effort Sharing Decision and the related reduction targets (paras. 16-18).

4.93 The grounds for cassation also raise the question of whether the Court of Appeal assumed the existence of a standard that is legally binding on the State (different from an agreement) in respect of the concentration level of 450 ppm in AR4 and AR5, the reduction target of 25%-40% in 2020 from AR4 and the decisions of the COPs. The State wonders whether the Court of Appeal has interpreted all this as 'necessary in a normative sense',[379] i.e. as international obligations.[380] The State has already indicated that it has doubts as to whether the Court of Appeal assumed this to be the case, but it has formulated a number of complaints against this to be sure.[381]

4.94 As the State rightly points out (in ground for cassation 4.8), the IPCC does not establish binding[382] standards, the IPCC does not determine when dangerous climate change occurs, and the IPCC does not determine the emission reduction policy to be pursued in order to achieve the 2ºC target.

The IPCC does, however, report on the relevant scientific insights with regard to, among other things, the consequences of a certain temperature increase, the concentrations of greenhouse gases that give rise to that increase and the reduction pathways that lead to the reduction of global warming to a certain temperature.

The District Court and Court of Appeal – rightly – took the latter as their starting point. For example, the District Court and Court of Appeal consider that the IPCC studies, assesses and reports on the most recent scientific, technical and socio-economic information produced worldwide. Such reports cover existing scientific knowledge on the climate system and climate

change; the impact of climate change on the environment, the economy and society and the possible strategies to respond to these changes.[383]

4.95 Now, the State derives from the formulation of certain legal findings the possibility that the Court of Appeal nevertheless assumed the existence of a specific binding standard. For example, the State points out (in ground for cassation 4.8) that the Court of Appeal refers in findings 12 and 48 to a concentration level that is 'permissible' and 'may not' be exceeded, and further refers to an emission that 'should' be 25%-40% lower in 2020. But this interpretation is incorrect.

4.96 It should be borne in mind that the descriptive formulation of the IPCC reports can be represented in a somewhat different way in the court's style of writing:

For example, the IPCC writes in AR4: '*Confidence has increased that a 1 to 2 oC increase in global mean temperature above 1990 levels (about 1.5 to 2.5 oC above pre-industrial) poses significant risks to many unique and threatened systems including many biodiversity hotspots.*'. The District Court presented this by formulating that the IPCC 'established that a global temperature rise of 2°C above the pre-industrial level (up to the year 1850) creates the risk of dangerous, irreversible change of climate'.[384]

The IPCC also writes in AR4: '*Similarly, limiting temperature increases to 2°C above pre-industrial levels can only be reached at the lowest end of the concentration interval found in the scenarios of category I (i.e. about 450 ppmv CO2-eq using 'best estimate' assumptions)*.' The District Court 'translates' this in such a way that, according to the report, 'a temperature rise of 2°C maximum can only be achieved when the concentration of greenhouse gases in the atmosphere is stabilised at about 450 ppm'.[385]

The Court of Appeal also took these findings of fact as its starting point. In its judgment, these findings are formulated even more concisely: 'There has been a general consensus in the climate science community and the world community for some time that the global temperature should not exceed 2ºC. If the concentration of greenhouse gases has not exceeded 450 ppm in the year 2100, there is a reasonable chance that this 2ºC target will be achieved.'[386]

4.97 Put succinctly, the circumstance that the Court of Appeal refers in findings 12 and 48 to a concentration level that is 'permissible' and 'may not' be exceeded is therefore only intended as a short presentation of the IPCC reports that is comprehensible to the reader of the judgment (with or without scientific training). It cannot be inferred from this that the Court of Appeal has interpreted the concentration level of 450 ppm from AR4 and AR5 (or the corresponding 2ºC target) as a specific standard formulated by the IPCC that is legally binding on States.

4.98 The same applies to the question of whether the Court of Appeal has interpreted the reduction target of 25%-40% in 2020 from AR4 as a legally binding standard. This can also be answered in the negative. The District Court[387] reproduced Box 13.7 from AR4 and describes its content as follows:

'Following an analysis of the various scenarios about the question which emission reductions are needed to achieve certain particular climate goals, the IPCC concluded that in order to reach a maximum of 450 ppm, the total emission of greenhouse gases by the Annex I countries (including the Netherlands, as explained below) must be lower than in 1990. In this scenario, the total emission of these countries will have to have been reduced by 80 to 95% in 2050 as compared to 1990.'

The Court of Appeal refers to this with the formulations it used in findings 12 and 48. This was not intended to represent anything other than that stated in Box 13.7 of AR4 of the IPCC.

4.99 Nor can it be said that the Court of Appeal has construed the decisions of the COPs as a legally binding standard. The Court of Appeal describes the COP as the supreme decision-making body of the UNFCCC, adding that 'the COP decisions are not always legally binding'.[388] This is in line with what has already been said about the role of the COP and of COP decisions (see section 4.9

above).

The Court of Appeal considers that the COP decisions are 'not standard with direct effect'. The State now presumes that the Court of Appeal may mean by this that these are in fact ‘standards’ (albeit without direct effect).[389] In our opinion, that is not what the Court of Appeal intended to say. After all, in the content of the COP decisions the Court of Appeal sees 'confirmation of the fact' that certain reductions are necessary.[390] The Court of Appeal considers the statements of the COPs to be facts confirming the need for certain reductions. It can also be noted that, as will be explained below (in section 4.133), the reference to '*this 25%-40% standard*' in para. 51 only expresses this concerns a legally non-binding statement about a ‘fair’ distribution of the reduction effort.

4.100 Finally, it follows from the above that the complaint in ground for cassation 4.8 (para. 3) that the Court of Appeal started from an incomprehensible interpretation of the State’s ground for appeal 2 cannot succeed. Contrary to what this complaint presupposes, the District Court and Court of Appeal did not assume that the IPCC '*establishes* norms, emission ceilings and emission reduction targets'.

4.101 It can be concluded that, in connection with the reduction target for 2020, the Court of Appeal did not assume the existence of an agreement or norm that legally binds the State. The complaints of the ground for cassation that do presume the Court of Appeal assuming such therefore cannot succeed.

4.102 **Reflex effect?** The question then arises as to whether the Court of Appeal could have attributed significance to the reduction target of 25%-40% by 2020 in specifying the State’s duty of care.

4.103 The State argues that its obligations under the ECHR must be given substance on the basis of its legally binding reduction agreements and concludes that these obligations may not be given substance on the basis of the reduction target of 25%-40% (grounds for cassation 4.8 (section 2) and 5.4 (section 5.4)).

4.104 This argument does not hold water. For the manner in which substance should be given to the State’s positive obligations under Articles 2 and 8 ECHR, we refer to the discussion of the common ground method in paras. 2.79 et seq. Contrary to what the State’s argument entails,[391] it does not follow from that discussion that the Court of Appeal, in assessing the State’s positive obligations under the ECHR, should focus exclusively on legally binding instruments, such as the reduction agreements that been agreed upon by the Member States at EU level. The court may also look at other sources, such as COP decisions and the underlying reference to the reduction target of 25%-40% in the 2007 IPCC Report (AR4). The same applies to the reduction pathways associated with the 25%-40% reduction target. In its judgment, the Court of Appeal has further explained why, in view of the need for emission reductions in order to achieve the 2ºC target, it attaches more importance to the reduction target of 25%-40% by 2020 than to the EU reduction target of 20% by 2020 (see paras. 4.72-4.76).

4.105 **Exclusive effect of EU reduction targets?** Even if the ECtHR allows for the 25-40% reduction target in 2020 to be taken into account, EU law might in theory force a different conclusion. This could be the case if EU law were to attribute exclusive effect to the reduction target of the ETS Directive and the Effort Sharing Decision. Exclusive effect in this context means that legally binding reduction agreements entered into by the State in an EU context explicitly or implicitly entail that the State cannot be obliged to comply with a certain, possibly more far-reaching reduction target on other legal grounds – such as the ECHR or Article 6:162 DCC.

4.106 In these proceedings, there is no evidence of the exclusive effect of the legally binding reduction agreements entered into by the State.

4.107 The international climate law background of the EU measures do not give rise to the notion that the EU measures have exclusive effect.

The EU Member States pursue a reduction policy collectively, as the EU, aimed at fulfilling their obligations under the United Nations Climate Change Convention, the Kyoto Protocol and the Paris Agreement (sections 4.12, 4.16 and 4.24). Whether the EU achieves its reduction targets is therefore relevant to the question of whether the Netherlands, as a party to these treaties, complies with its international obligations under the treaties. If this were not the case, the individual liability of the Netherlands under these conventions would come back into the picture.[392] However, a distinction must be made between compliance with the individual obligations of the Netherlands under the ECHR and compliance with these conventions. The content of the ECHR obligations of the Netherlands must be assessed independently. For the Kyoto Protocol, see section 2.77. The Paris Agreement refers to human rights,[393] but only establishes legal relationships between the contracting parties and, unlike the ECHR, does not pertain to the legal relationships between the State and those in its jurisdiction.[394]

4.108 In these proceedings, the State asserted that the European ETS system precludes the measures to be taken by the Netherlands to further reduce the emission of greenhouse gases.[395] However, this defence was rejected by the Court of Appeal in para. 54. The Court of Appeal held that Article 193 TFEU provides that protective measures adopted pursuant to Article 192 TFEU do not prevent a Member State from maintaining and introducing more stringent protective measures, provided that such measures are compatible with the Treaties. The State's ground for cassation does not specifically complain about the rejection of this defence.[396]

Superfluously: recital 17 of the Effort Sharing Agreement already shows that this Decision is without prejudice to stricter national targets for the non-ETS sectors. There has been no discussion about this in the proceedings. In short, a defence of exclusivity does not play a role in cassation.

4.109 **Request for preliminary ruling?** The last question to be discussed in this context is whether the Court of Appeal should have referred a question on EU law to the Court of Justice of the European Union (ECJ) for a preliminary ruling.

4.110 This point is raised in the final complaint of ground for cassation 5.6 (para. 6). This complaint is directed against the Court of Appeal's finding in para. 52 that the State does not observe its duty of care by complying with the 20% reduction by 2020 agreed at EU level. According to the State, this finding implies the opinion that the EU is acting unlawfully as well and/or that the ETS Directive and the Effort Sharing decision are unlawful. According to the complaint in ground for cassation 5.6, the Court of Appeal should not have rendered an opinion on this matter without requesting the Court of Justice of the European Union for a preliminary ruling on, for instance, the validity or legality of the EU measures in question.[397]

4.111 Similar questions have been raised in some commentaries on the District Court and Court of Appeal judgments and have been answered both in the negative[398] and, cautiously, in the affirmative.[399]

It should be borne in mind here that under EU law two types of questions must be distinguished. The first type of questions concerns interfaces between the reduction order and EU law in general. The second type of questions specifically concerns whether the reduction order challenges the legality of EU measures.

4.112 With regard to the first type of questions, the literature identified several interfaces between the reduction order and EU law.

It has been argued, for instance, that the ECJ should assess the significance of COP decisions, because the EU itself is also a party to the United Nations Climate Change Convention and the Kyoto Protocol. It has also been argued that the reduction order should be assessed against the

principle of sincere cooperation (Article 4(3) TEU), because this order could influence the international climate negotiating strategy of the EU.[400] It has even been suggested that the District Court's judgment in this case is 'inconsistent with EU law', because the requirements for state liability under EU law (so-called *Francovich* liability) have not been complied with and because Directive 2004/354/EC on environmental liability does not apply to cases in which the causes of the damage are diffuse, such as the present case.[401] This type of questions also includes the possible exclusive effect of the ETS system, which has been presented to and assessed by the Court of Appeal.

4.113 These questions all relate to the interpretation of EU law. The Court of Appeal could, if necessary, have referred questions to the ECJ for a preliminary ruling. However, it should be noted that the Court of Appeal was not obliged to do so. According to Article 267(3) TFEU, that obligation is borne only by a national court or tribunal against whose decisions there is no judicial remedy under national law. The Court of Appeal is not such a court or tribunal. Therefore, it is rightly not asserted in cassation that the Court of Appeal was obliged to refer the abovementioned questions of interpretation to the ECJ.

4.114 This is different for the second type of questions. The national court or tribunal does not have jurisdiction to rule that a provision of EU law is invalid, but must refer a question to the ECJ in that regard, even if it is not a 'highest national judiciary' as referred to in Article 267(3) TFEU.[402] This is the starting point for the complaint in the State's ground for cassation 5.6.

4.115 However, the complaint of this ground for cassation cannot succeed, because it is clear that the Court of Appeal has not given an opinion on the legality or validity of the EU measures or the Dutch laws and regulations based on them.[403]

4.116 The Court of Appeal assumed the legality, applicability and effect in the European and Dutch legal order of the ETS Directive, the Effort Sharing Decision and the Dutch laws and regulations based on them and did not raise any of this for discussion (such questions were not raised in these proceedings either).[404]

The Court of Appeal has ruled that, pursuant to Articles 2 and 8 ECHR, the Dutch State bears a duty of care to apply a more far-reaching reduction target for 2020 than the target set for the State at EU level. This opinion does not call into question the legality, applicability and effect of EU law, even indirectly. This is already apparent from the fact that the Court of Appeal assumes that Articles 192 and 193 TFEU offer the Netherlands the discretion to take more far-reaching measures in the ETS sector.[405]

4.117 Furthermore, the Court of Appeal acknowledged that the European reduction target for 2020 – to wit 20% reduction compared to 1990 with a conditional offer for 30% reduction if certain other countries were to do the same – was set at the time partly with a view to an international climate negotiation strategy.[406] The Court of Appeal did not take this political element into account in its assessment of the content of the Netherlands' obligations under Article 2 and 8 ECHR. The Court of Appeal has specified the content of those obligations on the basis of the facts established in these proceedings.[407]

4.118 Finally, it should be borne in mind that in these proceedings the District Court and Court of Appeal only gave an opinion on the necessary reduction effort of the Netherlands for 2020.

The Court of Appeal's considerations on the existence of a realistic threat of dangerous climate change are, of course, based on the global situation. Furthermore, it also follows unequivocally from the established facts that the current global reduction efforts are not sufficient to achieve the 2ºC target. However, the Court of Appeal's opinion on the need for further reduction in greenhouse gas emissions by 2020 is specifically concerned with the consequences of dangerous climate change for the Netherlands (para. 45) and with the reduction efforts made by the Dutch State (paras. 46 et seq.). The Court of Appeal held, among other things, that the Netherlands

emits a relatively high level of greenhouse gas per capita compared to other industrialised countries (para. 26) and that the Dutch GDP per capita is among the highest of the Annex I countries (para. 50); (ii) that in 2017 Dutch emissions fell by 13% compared to 1990 and that achieving the 2030 target will require a much greater reduction effort than has been the case to date (paras. 47 and 71); and (iii) that the Dutch reduction effort is far behind on that of Member States such as Germany, the United Kingdom, Denmark, Sweden and France (para. 56), while the EU as a whole is expected to exceed its own 2020 target by achieving a 26-27% reduction compared to 1990 (paras. 18 and 72).[408]

It therefore cannot be said that the court's opinion on the Dutch State's reduction efforts for 2020 can simply be generalised to other States or to the EU.

4.119 For the above reasons, the complaints of grounds for cassation 4.8, 5.4 and 5.6 (para. 6) fail. These complaints are essentially that the Court of Appeal has interpreted the 25%-40% reduction target for 2020 from AR4 and the decisions of the COPs as a legally binding agreement or standard; that this reduction target has no reflex effect; that the Court of Appeal does not take into account the binding reduction targets set at international and European level; and that the Court of Appeal should have requested the ECJ for a preliminary ruling.

The meaning of the reduction target of 25%-40% in 2020 from AR4

4.120 Now that it is clear that the Court of Appeal has not interpreted the 25%-40% reduction target from AR4 as a legally binding agreement or standard, the significance that the Court of Appeal has attributed to it can be considered. This brings us to the discussion of the second of the five subthemes about the need for a reduction of at least 25% by 2020.

4.121 The Court of Appeal has argued the need for a reduction of at least 25% in Dutch greenhouse gas emissions by 2020 on the basis of the proven facts and the State's obligation laid down in Articles 2 and 8 ECHR to act accordingly.

4.122 On the basis of this – correct – interpretation of the Court of Appeal's judgment, the State contests the actual significance that the Court of Appeal has attributed to the 25%-40% reduction target for 2020.

The State contests in ground for cassation 4.1 the Court of Appeal's findings (in paras. 12 and 48) that in AR4 the IPCC concluded, following an analysis of the various reduction scenarios (in Box 13.7), that in order to reach this concentration level, the total greenhouse gas emissions in 2020 of Annex I countries, of which the Netherlands is one, must be 25-40% lower than 1990 levels. The Court of Appeal moreover, in para. 51 of its judgment, attributes too much significance to the COP decisions, according to ground for cassation 5.4 (paras. 1, 2 and 6).

4.123 In so far as currently relevant,[409] the State's complaints raise the following issues: (i) AR4 sub-report III also mentions a reduction target of 10% to 40% in 2020; (ii) the reduction target in Box 13.7 of 25%-40% in 2020 is only a proposal for the distribution of the reduction effort between Annex I countries and other countries; and (iii) the Court of Appeal attributes too much significance to the inclusion of the reduction target of 25%-40% in 2020 in AR4 sub-report III (see, with regard to all of the above, ground for cassation 4.1) and to the reference to it in the COP decisions (see ground for cassation 5.4).

4.124 **A target of 10%-40% or of 25%-40%?** As mentioned before (paragraphs 4.42-4.43), the report of Working Group III of AR4 mentions different reduction targets for Annex I countries. Chapter 13 contains Box 13.7 that mentions the reduction target of 25%-40% in 2020. The Technical Summary mentions a reduction target of 10% to 40% by 2020. The latter is also mentioned in the Executive Summary.[410]

4.125 This difference is easy to explain. The bandwidth of 25% to 40% in Box 13.7 involves

achieving a concentration level of up to approximately 450 ppm. The bandwidth of 10% to 40%, on the other hand, relates to a concentration level of 450 to 550 ppm. This is evident from the District Court's findings and the quotes from AR4 included therein, which the Court of Appeal took as its basis too.[411] Because the District Court and Court of Appeal started from the concentration level of 450 ppm associated with the 2ºC target, they understandably looked at the corresponding reduction targets of 25%-40% by 2020 according to AR4 and not at reduction targets that, according to AR4, belong to a higher concentration level.[412]

4.126 **A reasoned proposal**. The next item to be discussed concerns the nature of the reduction target for the Annex I countries included in Box 13.7. The State rightly points out that this is not about a conclusion substantiated by the natural sciences that this reduction target is necessary to achieve the 2ºC target, but about a proposal for a distribution of the global reduction efforts.[413]

4.127 This is inevitable. The natural sciences can make statements on issues such as global warming and its consequences. Starting from a 2ºC target, the natural sciences can make statements on the corresponding concentration level of greenhouse gases, about the remaining carbon budget, about the rate at which this budget is being exhausted and about whether the existing efforts of countries to reduce greenhouse gas emissions are sufficient for this purpose.

4.128 The international community is faced with the challenge of arriving at a division – in time and across the various countries – of the required global reduction efforts. The natural sciences do not offer an answer to this distribution issue. In a publication quoted approvingly by the State,[414] Dr L. Meyer, one of the editors of the report by Working Group III of AR4, wrote that '*the sciences are unable to indicate an unambiguous relationship between the required emission reductions of the industrialised countries as a group by 2020 and the reduction of global warming to 2ºC by the end of this century*'.[415]

4.129 However, the IPCC not only takes stock of scientific insights about climate change and its consequences, but also of scientific insights into the possible strategies for responding to this change. The IPCC Working Group III's report deals with the latter. With regard to the division of the global reduction efforts, those insight are not 'unambiguous' to the extent that they concern research with a 'normative' component. This means that the argument contained therein is why a certain distribution of the reduction efforts is 'fair' or 'equitable', in view of one or more specified basic principles. In this context, AR4 also refers to equity interpretations.[416] This refers to one of the principles underlying the UNFCCC (see section 4.6). For the record: it is not about legally binding judgments, although such judgments may be of significance for the fulfilment of the duty of care incumbent upon the State.

4.130 It is, of course, conceivable that such scientific insights could differ from one another, depending on the starting points chosen.[417] For instance, the State[418] refers to a 2014 publication[419] that concludes, on the basis of various studies, that the reduction target for 2020 for developed countries[420], depending on the division formula,[421] can vary in a range from 10% or more (based on cost-effectiveness)[422] to a maximum of 80% (based on equal cumulative per capita emissions).

4.131 Box 13.7 in AR4 should be understood against this background. Box 13.7 contains a summary of the scientific studies that were available at that time into: [423]

'the regional emission allocations or requirements on emission reductions and time of participation in the international climate change regime with the aim of being able to ensure different concentration or temperature stabilization targets (…). A large variety of system designs for allocating emission allowances/permits were analysed, including contraction and convergence, multistage, Triptych and intensity targets. The studies cover a broad spectrum of parameters and assumptions that influence these results, such as population, GDP development of individual countries or regions, global emission pathways that lead to climate stabilization (including

overshooting the desired concentration level), parameters for the thresholds for participation and ways to share emission allowances.'

4.132 This background is also mentioned in footnote a of Box 13.7, which was quoted by the District Court and the Court of Appeal.[424] Contrary to what the State argues in ground for cassation 4.1, the Court of Appeal has recognised that Box 13.7 is placed in Chapter 13 of the sub-report of AR4 drawn up by the IPCC Working Group III.[425] This does not, of course, prevent reference from being made to AR4 of the IPCC for short. For the sake of brevity, the District Court usually refers in its judgment to 'the IPCC' and 'the report' in which it quotes AR4 or parts thereof, but in its citation of the sources and in para. 2.16 it appears to recognise that AR4 consists of different parts. The same applies to the Court of Appeal, which started from these findings of the District Court.[426]

4.133 In view of the above, it can also be understood why the Court of Appeal refers to the 25%-40% reduction target for 2020 as the '*25%-40% standard*' and considers that the IPCC '*concludes*' that in order to reach the concentration level of 450 ppm emissions from Annex I countries (which includes the Netherlands) will have to 25% to 40% lower in 2020 than in 1990.[427] This may be called a 'standard',[428] because this target is based on a set of reasoned normative judgments about a division issue. This may be called a 'conclusion', because it is a summary of the currently available scientific research into the possible distribution of the reduction efforts. Therefore, it cannot be said that the Court of Appeal has failed to recognise the nature of the reduction target for the Annex I countries included in Box 13.7.

4.134 **The meaning of the target of 25%-40%**. Now that the origin of the reduction target in Box 13.7 has been discussed, it can be seen why the Court of Appeal has attributed significance to it. The main focus of this part of the State's grounds for cassation is on the question of whether the Court of Appeal has attributed *too* much significance to this target. Grounds for cassation 4.1 and 5.4 (paragraphs 1, 2 and 6) contain several complaints about this.

4.135 According to the State, not much significance can be attributed to the 25%-40% reduction target in Box 13.7.[429] In AR4, the 25%-40% reduction target for 2020 is only referred to in Box 13.7 in Chapter 13 of Working Group III's report. This text was accepted by Working Group III. The target is not reflected in other parts of AR4, such as the Summary for Policymakers of Working Group III's sub-report or in the IPCC's Synthesis Report, which have a heavier form of endorsement.[430] The aforementioned publication by Dr Meyer mentions that the figures in Box 13.7 were not considered sufficiently robust at the time to be included in the summary of the entire report, because they were based on only a small number of scenarios that had been published in the literature up to 2006. The COP decisions referring to this target date from before AR5. According to the State, these decisions are of a political-administrative nature and should only be seen as an appeal, in the context of the ongoing process of international negotiations, to show greater ambition. These have no independent significance in addition to binding commitments or agreements to which the negotiations have ultimately led, according to the State.

4.136 It should be noted that the State's policy coincides with the table in Box 13.7 in so far as it concerns (i) a concentration of greenhouse gases of approximately 450 ppm associated with the 2ºC target, (ii) the reduction target for the Annex I countries of 80%-95% by 2050 and (iii) derived from this, the Dutch reduction target of 49% by 2030.

4.137 In addition, the following should be borne in mind. The UNFCCC does not offer any cut-and-dried answers to the question regarding the division of the required global reduction efforts.[431] It does contain principles on this subject, but these require practical implementation and choices need to be made in this regard. The UNFCCC also contains mechanisms for the Contracting Parties to achieve certain binding or non-binding reduction targets.

In this context, the IPCC offers the States that are parties to the UNFCCC policy-relevant information based on scientific insights. The equity interpretations summarised in Box 13.7 contain

information in which the division issue is addressed. It is then up to the Contracting Parties whether or not to make use of the information provided.

It is therefore relevant to note that in virtually all COPs that took place after the publication of AR4 and prior to the publication of AR5[432] the parties to the UNFCCC (Bali 2007 and Warsaw 2013) or to the Kyoto Protocol (Cancun 2010, Durban 2011, Doha 2012) do indeed refer to the reduction target for Annex I countries referred to in Box 13.7. The reasoned proposal in AR4 for a 25%-40% reduction by 2020 by Annex I countries becomes more significance if it is repeatedly mentioned in COP decisions as a target to be pursued.[433]

Although these decisions are not legally binding, this does not mean that they can only be understood in the light of international climate negotiations, as the State argues. Significance can be attributed to these decisions in the specification of the State's duties of care.

4.138 In specifying the State's duty of care, the Court of Appeal attributed significance to the reduction target referred to in Box 13.7 of AR4. The Court of Appeal apparently opined that the significance of the 'one-off' reference to this reduction target in AR4 increased by the fact that it was referred to in many subsequent COPs. For the Court of Appeal, this confirmed that a 25%-40% reduction of emissions by 2020 is necessary. This is also in line with the need for a 30% reduction by 2020, which is mentioned in the EU documents referred to in section 4.28 above. The Court of Appeal recognised in para. 49, and did not consider it to be a contraindication, that this target from AR4 was no longer referred to after AR5.

4.139 The fact that the State sees things differently does not render the Court of Appeal's judgment incorrect or incomprehensible. The same applies to the fear expressed by the State that States will be reluctant to incorporate such appeals in COP decisions as the starting point for negotiations. For these reasons, the appeals on issues of fact in grounds for cassation 4.1 and 5.4 (paras. 1, 2 and 6) fail.

4.140 Earlier on in this opinion, we have already considered the question of why the Court of Appeal has specified the State's reduction target at 25% by 2020 and not any other percentage and/or year. We refer to section 4.78.

4.141 The preliminary conclusion is that the Court of Appeal was able to find that a reduction of 25%-40% by 2020 is necessary and in line with the State's duty of care. However, the State's other complaints against these findings have yet to be discussed. This includes the question of whether the reduction target from AR4 is outdated.

Is the 25%-40% reduction target by 2020 from AR4 outdated?

4.142 The significance of the 25%-40% reduction target from AR4 might have to be reconsidered if this target had been overtaken by later insights in AR5, the IPCC report from 2013-2014. This brings us to the discussion of the third of the five subthemes about the need for a reduction of at least 25% by 2020.

4.143 In para. 49, the Court of Appeal ruled, in short, that the 25%-40% reduction target from AR4 has not been overtaken by AR5:

'49. The State has argued that in AR5 multiple emission reduction pathways are presented with which this target may be reached. Based on this, the State is of the opinion that the district court was wrong to take a 25-40% reduction by 2020, as mentioned in AR4, as a starting point.

The Court does not endorse the position of the State in this. As has been stated above by the Court of Appeal (see para. 12), 87% of the scenarios presented in AR5 are based on the existence of negative emissions. What role in meeting Paris Agreement targets?'), entered into evidence by Urgenda as Exhibit 164, the following is noted about negative emissions: What role in meeting

Paris Agreement targets?'), entered into evidence by Urgenda as Exhibit 164, the following is noted about negative emissions:

'(…) *We conclude that these technologies [Court of Appeal: negative emission technologies, abbreviated as NET's] offer only limited realistic potential to remove carbon from the atmosphere and not at the scale envisaged in some climate scenarios (…)' (p. 1)' Figure 1 shows not only the dramatic reductions required, but also that there remains the challenge of reducing sources that are particularly difficult to avoid (these include air and marine transport, and continued emissions from agriculture). Many scenarios to achieve Paris Agreement targets have thus had to hypothesise that there will be future technologies which are capable of removing CO2 from the atmosphere*.' (p. 5)

'(…) *the inclusion of CDR [Court of Appeal: removal of CO2 from the atmosphere] in scenarios is merely a projection of what would happen if such technologies existed. It does not imply that such technologies would either be available, or would work at the levels assumed in the scenario calculations. As such, it is easy to misinterpret these scenarios as including some judgment on the likelihood of such technologies being available in the future.'* (p. 5)

The State has failed to contest this by not providing adequate substantiation. Therefore, the Court of Appeal assumes that the option to remove CO2 from the atmosphere with certain technologies in the future is highly uncertain and that the climate scenarios based on such technologies are not very realistic considering the current state of affairs. AR5 might thus have painted too rosy a picture, and it cannot be assumed outright that the 'multiple mitigation pathways' listed by the IPCC in AR5 (p. 20) can lead to the 2ºC target.

Furthermore, as asserted by Urgenda and not contested by the State by stating reasons, it is plausible that no reduction percentages as of 2020 were included in AR5, because in 2014 the focus of the IPCC was on targets for 2030. In this respect too, the report does not give cause to assume that the reduction scenario in AR4, which does not take account of negative emissions, is superseded and that today a reduction of less than 25-40% by 2020 would be sufficient to achieve the 2ºC target.' (…)'

4.144 The State has several complaints against this. Ground for cassation 4.6 contests that the Court of Appeal could dismiss the argument that, according to AR5, there are several emission reductions pathways along which the 2ºC target can be achieved. Another complaint is that AR4 is outdated because AR5 is based on more recent insights (ground for cassation 4.5) and, unlike AR4, does not mention any reduction percentages (ground for cassation 4.7). Ground for cassation 5.2 (paragraph 2) also relates the complaints of grounds for cassation 4.5-4.7 to para. 50. Moreover, according to the State, the Court of Appeal disregards the fact that the distinction between Annex I countries and other countries is outdated (grounds for cassation 4.2 and 5.4 (para. 2)).

4.145 The State's complaints thus raise the following issues: (i) are there multiple emission reduction pathways the State can follow according to AR5?; (ii) has the reduction target referred to in AR4 been overtaken by AR5?; and (iii) has this target been overtaken because the distinction between Annex I countries and other countries has become outdated?

4.146 **Several reduction pathways in AR5 (RCP 2.6)?** Because the reduction order imposed on the State is based on the need, as argued by the Court of Appeal on the basis of the facts, to reduce emissions by at least 25% by 2020, ground for cassation 4.6 in particular goes right to the heart of the matter. If, after all, according to AR5 there are still several reduction pathways towards the 2ºC target and these reduction pathways are feasible, then there may be a need to think differently about the need to achieve a certain reduction as early as 2020.

4.147 As stated, in AR5 the IPCC mentions a reduction pathway – the RCP 2.6 scenario – along which, at a concentration of 450 ppm, achieving the 2ºC target is 'likely' if certain reduction targets are achieved from 2050 onwards. These are emission reductions for 2050 of 41%-72% and for 2010 of 78%-118%, each compared to 2010 (see paras. 4.44-4.46 and Table 3.1 of the AR5 Synthesis Report (p. 83) included therein).

4.148 RCP 2.6 in turn is based on a large number of different scenarios. Negative emissions are used in 87% of those scenarios (overshoot scenarios). This presupposes the large-scale removal of greenhouse gases from the atmosphere. AR5 states the following on this:[434]

'Mitigation scenarios reaching about 450 ppm CO2eq in 2100 typically involve temporary overshoot of atmospheric concentrations, as do many scenarios reaching about 500 ppm to about 550 ppm CO2eq in 2100. Depending on the level of the overshoot, overshoot scenarios typically rely on the availability and widespread deployment of BECCS and afforestation in the second half of the century. The availability and scale of these and other Carbon Dioxide Removal (CDR) technologies and methods are uncertain and CDR technologies and methods are, to varying degrees, associated with challenges and risks (*high confidence*) (…). CDR is also prevalent in many scenarios without overshoot to compensate for residual emissions from sectors where mitigation is more expensive.'

4.149 The IPCC therefore warns for the risks associated with reduction pathways based on large-scale negative emissions,[435] but does not comment on their feasibility. The Court of Appeal therefore refers to a report by another organisation, the European Academies Science Advisory Council, which does address this issue and concludes, among other things, '*that these technologies offer only limited realistic potential to remove carbon from the atmosphere and not at the scale envisaged in some climate scenarios*' and that '*the inclusion of CDR […] in scenarios is merely a projection of what would happen if such technologies existed.*'

4.150 It is therefore not the case that the Court of Appeal 'sets aside [AR5] with a reliance on only one other report that does originate from the IPCC'.[436] The Court of Appeal bases its opinion on a report that, unlike AR5, deals with the feasibility of techniques to remove greenhouse gases from the atmosphere (CDR).

The fact that the capture and storage of greenhouse gases (CCS) is technically possible and its significance is expected to increase, as the State has argued, is not the point.[437] This is the large-scale application of CDR techniques needed for RCP 2.6. The Court of Appeal has considered this to be too uncertain, at least for the time being. The Court of Appeal ruled that, as things stand, scenarios based on those techniques have low viability.

The fact that 13% of the scenarios underlying RCP 2.6 are not based on negative emissions[438] did not have to deter the Court of Appeal from giving its opinion. The Court of Appeal acknowledges this fact, but clearly considers it of insufficient importance to arrive at a different opinion. This cannot be considered incomprehensible. Incidentally, it follows from the quote in section 4.148 that '*CDR is also prevalent in many scenarios without overshoot to compensate for residual emissions from sectors where mitigation is more expensive*.'

4.151 The State also mentions three points concerning the relationship between AR4 and AR5.

4.152 First of all, the State points out that all IPCC reports take into account many uncertainties.[439]

This does not detract from the Court of Appeal's opinion. After all, the Court of Appeal has recognised that the scenarios referred to in AR4 and AR5 work with all kinds of uncertainties. This is evident, for example, from paras. 12 and 50, in which the Court of Appeal addresses the uncertainties associated with the '450 scenario', i.e. the probability that the 2ºC target would be achieved if the concentration level were to be limited to 450 ppm.

4.153 Secondly, the State has doubts as to whether the difference in the emission pathways in AR4 and AR5 can be attributed solely to whether or not negative emissions are taken into account.[440]

However, the State does not put forward evidence said to demonstrate that the Court of Appeal wrongly designated the large-scale application of CDR techniques as characteristic of AR5 and thus as distinctive from AR4. Even if it is doubtful that negative emissions are not taken into account at

all in AR4 (as could be inferred from para. 12 of the Court of Appeal's judgment), there is no evidence that there is no difference between AR4 and AR5 in terms of the large-scale application of CDR techniques.[441] The State does not argue this in cassation either. The State does, however, indicate that one of the reasons why AR5 mentions certain other reduction percentages than AR4 is that in AR5 '*a large proportion of the new scenarios include Carbon Dioxide Removal (CDR) technologies*.'[442]

4.154 Thirdly, the State still presumes, in an alternative approach, that AR4 may be too pessimistic, if it must be assumed that negative emissions have not been taken into account in AR4.[443] This presumption is speculative, runs counter to the Court of Appeal's opinion and cannot otherwise be assessed in cassation as it concerns a factual position that has not been put forward in the proceedings.

4.155 The complaints of ground for cassation 4.6 thus fail.

4.156 **Has the reduction target referred to in AR4 been otherwise overtaken by AR5?** The State also argues that the 25%-40% reduction target for 2020 mentioned in AR4 has been overtaken by AR5 because AR5 is based on the most recent scientific insights at the time (see ground for cassation 4.5).

4.157 This ground for cassation does not hold water. The Court of Appeal has sufficiently addressed the State's arguments[444] in this ground for cassation.[445] After all, the facts already show that AR5 contains the latest insights into the extent, effects and causes of climate change and, put succinctly, expresses undiminished concerns about the situation.[446] In so far as AR5 paints a more favourable picture for achieving the 2ºC target, the point is made with regard to the overshoot scenarios that, according to the Court of Appeal, have low viability for the time being.[447] Moreover, the Court of Appeal considers it plausible that AR5 does not contain any reduction targets for 2020, because the focus was on targets for 2030.[448]

4.158 This latter finding of the Court of Appeal is also contested separately in ground for cassation 4.7. The State again invokes its argument that 25%-40% reduction by 2020 is not necessary as an intermediate step in order to achieve the 2ºC target, because there are multiple reduction pathways and relevant here are the targets for 2030 and 2050. But this argument was rejected by the Court of Appeal and the complaints against this judgment are unsuccessful (as was shown in the discussion of ground for cassation 4.6), so that ground for cassation 4.7 does not apply either.

4.159 **Is the distinction between Annex I countries and other countries outdated?** According to the State, the reduction target mentioned in AR4 is also outdated because the distinction between Annex I countries and other countries is outdated. The 25%-40% reduction target by 2020 from AR4 concerned the Annex I countries. The State argues that the distinction between Annex I countries and other countries is outdated or has faded. Put succinctly, this is because there are now more countries that account for a large proportion of greenhouse gas emissions (such as China, India, Brazil and Indonesia). Nowadays, all countries must assume their responsibility in order to achieve emission reductions. The distinction is therefore no longer reflected in the Paris Agreement and AR5. The State accuses the Court of Appeal of not having responded to this argument and to have wrongly based its judgment on this distinction (ground for cassation 4.2). Ground for cassation 5.4 (para. 2) adds that even COPs from after AR5 no longer refer to the reduction target of 25%-40% by 2020.

4.160 Although the distinction between Annex I countries and other countries still exists (section 4.21), at least in a formal sense, the State seems right, in and of itself, to argue that its importance has diminished. However, this fact as such does not alter the reasoning of the Court of Appeal. The reduction target for 2020 in Box 13.7 of AR4 starts from a certain division of the reduction efforts between the Annex I countries and the other countries. The State's argument is that more efforts can now be expected from certain other countries. However, this does not

necessarily mean that the Annex I countries would now be able to suffice with fewer reductions than those proposed in AR4.[449] For the latter, it would have to be established that, given the rate and scale of the global emission of greenhouse gas emissions, and the pace and scale of emission reductions by other countries, Annex I countries could now 'slow things down a notch', because a less ambitious reduction target would suffice for them. However, such facts have not been established by the Court of Appeal.

4.161 In this state of affairs, it is not necessary to address the complaint in ground for cassation 4.2 (bottom p. 17 of the initiating document) directed against the Court of Appeal's finding (in para. 15) that, according to the Paris Agreement, the distinction between Annex I countries and other countries will disappear in 2020. It should be noted that this is a finding that does not support the Court of Appeal's opinion on the emission reduction to be expected from the Netherlands in 2020, so that a complaint against it could under no circumstances lead to the setting aside of the Court of Appeal's judgment.

4.162 For the reasons given above,[450] the complaints of the State's grounds for cassation 4.2, 4.5, 4.6, 4.7 and 5.4(2) do not hold. That is why the complaint in ground for cassation 5.2 (para. 2) fails too. In conclusion, the Court of Appeal could find that this reduction target for 2020 is not outdated.

Acceleration of reductions after 2020; the 'desirability' of earlier reductions

4.163 As mentioned earlier, the reduction order imposed on the State is based on the factual need, as argued by the Court of Appeal, for an emission reduction of at least 25% by 2020. The Court of Appeal ruled that in the short term, until the end of 2020, more must be done to reduce greenhouse gas emissions. In connection with the State's 20% reduction target for 2020 set at EU level, the Court of Appeal speaks of a 'postponement' of reductions (paras. 47 and 52).

Should the need for an emission reduction of at least 25% by 2020 be thought of differently if this 'postponement' in 2020 were to be compensated by an adequate acceleration of the reduction efforts in the period thereafter?[451]This brings us to the discussion of the fourth of the five sub-themes about the need for a reduction of at least 25% by 2020.

4.164 This issue is addressed in grounds for cassation 5.5 (para. 6) and 6.3 (para. 2). Here, the State argues that in paras. 47 and 52 the Court of Appeal has not taken sufficient account of the acceleration of the reduction efforts after 2020. Due to the acceleration in the period after 2020, a smaller part of the carbon budget is used, which, at least in part, 'compensates' for the postponement and therefore greater consumption of the carbon budget in the period before 2020.

4.165 This argument focuses on the factual starting points on which the Court of Appeal based the reduction order. However, the consequences of the acceleration to which the State refers have not been established in fact in the proceedings.[452] It is evident that an acceleration of the reduction effort is included in the State's reduction targets for 2020 (20% at EU level) and 2030 (49%). However, it is not clear how much acceleration will take place in which year (assuming that the proposed policy will actually be implemented), what this will mean for total emissions in the period from 2020 to 2030, and how this relates to the situation in which emissions will already have been reduced by at least 25% in 2020.[453] In the absence of such data, there was also no factual basis for finding that, given the acceleration of reductions envisaged by the State, a 25% reduction in emissions by 2020 would actually not be necessary. Therefore, the complaints of grounds for cassation 5.5 (para. 6) and 6.3 (para. 2) do not apply.

4.166 We will discuss the other complaints of grounds for cassation 6, 6.1, 6.2 and 6.3 below. These complaints concern para. 47.

4.167 Ground for cassation 6 rightly takes as its premise that para. 47 is a link in the Court of

Appeal's line of reasoning. It follows from this that the alternative complaint at the end of ground for cassation 6, which is based on a different interpretation of the Court of Appeal's judgment, cannot succeed.

4.168 Contrary to what is stated in grounds for cassation 6.1 and 6.2, the Court of Appeal did not rule in para. 47 that a linear reduction effort that would lead to a reduction of 28% by 2020 is necessary.

In para. 47, the Court of Appeal simply held that an even distribution of the reduction efforts in the years 2050, 2030 and 2020 would result in a reduction of 28% in 2020. Its opinion is that at least 25% should be reduced. This assessment is based on several grounds and not only on the consideration of what a linear reduction pathway would mean for the reduction target in 2020. That is why we believe that grounds for cassation 6.1 and 6.2 are based on an incorrect interpretation of the Court of Appeal's judgment and should therefore fail.

4.169 The State also complains about the excerpt in para. 47 that it 'is desirable' to start the reduction efforts at as early a stage as possible in order to limit the total emission in the period from 2020 to 2030. Put succinctly, the State asserts that the assessment of the desirability depends not only on the 'climate-technocratic' perspective, but on other factors as well, and that it is up to the State to choose between a fully linear reduction pathway and a pathway that provides for an acceleration of the reductions at a later time (see grounds for cassation 6.1 and 6.3 (sections 1 and 3).[454]

4.170 Contrary to what the complaint seems to presume, the Court of Appeal did not mention in para. 47 the desirability of emission reductions in the context of balancing the interest of the climate against other types of interests. In para. 47, the Court of Appeal considered the desirability of early reductions at the rate at which the available carbon budget is currently being depleted. This concerns the rate of the reduction of greenhouse gas emissions in order to prevent dangerous climate change. As far as this rate is concerned, it has already been established that the Court of Appeal could reject the State's arguments that entailed that, according to AR5, there are multiple reduction pathways (section 4.146 *et seq*.) and that, in view of the State's intention to accelerate the reductions, a 25% reduction in emissions by 2020 would not be necessary anyway (section 4.163 *et seq*.). For these reasons, grounds for cassation 6.1 and 6.3 (sections 1 and 3) must be rejected.

As we wrote earlier, the State is not free, according to the Court of Appeal, to postpone a reduction of at least 25% by 2020 to a later date, because this does not sufficiently curb the risk of not achieving the '2ºC target' (section 3.24).

4.171 Grounds for cassation 5.5 (para. 6), 6, 6.1, 6.2 and 6.3 of the State do not hold.

The adjusment of the Dutch reduction target from 30% to 20%.

4.172 After concluding that a reduction of 25%-40% by 2020 is necessary, the Court of Appeal holds up a mirror to the State. In para. 52, the Court of Appeal argues that until 2011 the Netherlands assumed a reduction target of 30% in 2020. As evidenced by a 2009 letter from the Minister of VROM, the 25%-40% reduction was necessary 'to stay on a credible track to keep the 2ºC target within reach'. The Court of Appeal also argues that the EU considered a 30% reduction by 2020 to be necessary. No climatological substantiation has been provided for adjusting the Dutch reduction target and the State has not explained why a 20% reduction at EU level should now be considered credible.

The State complains about this in grounds for cassation 5.5 and 5.6. This brings us to the discussion of the last of the five subthemes about the need for a reduction of at least 25% by 2020.

4.173 The State does not dispute that Dutch policy until 2011 was aimed at a 30% reduction in

2020, nor that no climatological substantiation has been advanced for the downward adjustment of the reduction target to 20% in 2020 at EU level. That is why the Court of Appeal could, in addition,[455] attribute meaning to it. The State's objections in ground for cassation 5.5 (sections 1 through 5) do not alter this.

The State argues that the 'credibility' remark in the 2009 letter from the Minister of Housing, Spatial Planning and the Environment related to 'the total of emission reductions proposed by the developed countries so far' and that this remark was made in the context of the negotiation objective for the COP in Copenhagen. This argument does not alter the fact that the State's policy until 2011 was aimed at a 30% reduction by 2020.

The State further argues that it may change its mind. This in itself is not questioned by the Court of Appeal, but the Court of Appeal does note that the State does not substantiate the deviation from its previous policy with specific data on how it is securing the 2ºC target. The State's argument does not detract from the fact that no climatological substantiation was provided for its changed understanding of the reduction target for 2020. This is confirmed by the circumstances to which the State refers to explain why the policy changed, namely that it reacted to the financial crisis and availed itself of the discretion afforded to it at the time under the ETS system.[456]

4.174 In response to the Court's finding that the State has not explained why a 20% reduction at EU level should be considered credible[457] this time around, the State refers to its argument on appeal (see ground for cassation 5.6 (section 1).[458] The State argued on appeal that 'there is no absolute need for Annex I countries, including the Netherlands, to reduce emissions by 25%-40% in 2020 compared to 1990 to keep the 2ºC target within reach. It does require far-reaching emission reduction measures, but there are certainly opportunities for that.'[459] In this context, the State argued 'that there are multiple reduction pathways to ensure that global warming is limited to 2º Celsius or less'.[460]

These are statements about the feasibility of the 2ºC target that have been assessed and rejected by the Court of Appeal in para. 49. These statements therefore do not affect the aforementioned finding of the Court of Appeal in para. 52. The same applies to the State's argument that the commitments it has entered into are aimed at achieving the 2ºC target.

Contrary to what is stated in ground for cassation 5.6 (section 1), para. 52 cannot be said to be self-contradictory. The Court of Appeal is simply comparing the State's initial target with its current target (at EU level).

4.175 In ground for cassation 5.6 (sections 2 and 5), the State also complains that the finding that in 2009 the EU considered a 30% reduction by 2020 to be necessary. The Court of Appeal refers in this respect to para. 17 of its judgment, in which it held, amongst other things:

'When the ETS Directive was amended in 2009, the European Council communicated its objective of achieving '*an overall reduction of more than 20%, in particular in view of the European Council's objective of a 30% reduction* [Court: of EU emissions of greenhouse gases relative to 1990] *by 2020, which is considered scientifically necessary to avoid dangerous climate change* (…)'. This objective is detailed in the Directive, in which the reduction commitment of 30% by 2020 is linked to the condition – put briefly – that other countries join in.'

The Court of Appeal clearly refers here to the '*30% reduction* [...] *considered scientifically necessary*'. The State overlooks this where it complains that the Court of Appeal has allowed the European Council's efforts to take precedence over the ETS Directive itself and the conditionality of the EU's offer to reduce by 30%.[461] The Court of Appeal has not ruled that a conditional EU reduction target of 30% would mean that this percentage would also apply to the Netherlands individually. The complaint in ground for cassation 5.6 based on this assumption therefore does not hold.

4.176 For the reasons given, the complaints discussed in grounds for cassation 5.5 and 5.6 fail.[462]

4.177 So far, we have discussed the State's complaints, which we have thematically categorised

under the need for a reduction of least 25% in 2020. We will now discuss the complaints that we thematically categorise under the individual responsibility of the Netherlands. This theme can be broken down into the two sub-themes to be discussed below: (i) whether the reduction target of 25%-40% in 2020 from AR4 also applies to the Netherlands as an individual country; and (ii) the individual responsibility of the Netherlands for reducing Dutch emissions.

Does the reduction target from AR4 also apply to the Netherlands individually?

4.178 This is the first of the two sub-themes that deal with the individual responsibility of the Netherlands. They all concern one or more of the following findings of the Court of Appeal:

'60. The State has furthermore argued that the emission reduction percentage of 25-40% in 2020 is intended for the Annex I countries as a whole, and that this percentage can therefore not be taken as a premise for the emission reduction an individual Annex I country, such as the Netherlands, should achieve. The State has failed to provide substantiation for why a lower emission reduction percentage should apply to the Netherlands than to the Annex I countries as a whole. That is not obvious, considering a distribution in proportion to the per capita GDP, which has been taken as a premise in *inter alia* the EU's Effort Sharing Decision for distributing the EU emission reductions among the Member States. There is reason to believe that the Netherlands has one of the highest per capita GDPs of the Annex I countries and in any case is far above the average of those countries. That is also evident from Appendix II of the Effort Sharing Decision, in which the Netherlands is allocated a reduction percentage (16% relative to 2005) that is among the highest of the EU Member States. It is therefore reasonable to assume that what applies to the Annex I countries as a whole should at least also apply to the Netherlands.

61. The State has also asserted that Dutch greenhouse gas emissions, in absolute terms and compared with global emissions, are minimal, that the State cannot solve the problem on its own, that the worldwide community must cooperate, that the State cannot be deemed the party liable/causer ('primary offender') but as secondary injuring party ('secondary offender'), and this concerns complex decisions for which much depends on negotiations.

62. These arguments are not such that they warrant the absence of more ambitious, real actions. The Court, too, acknowledges that this is a global problem and that the State cannot solve this problem on its own. However, this does not release the State from its obligation to take measures in its territory, within its capabilities, which in concert with the efforts of other states provide protection from the hazards of dangerous climate change.

(…)

64. The State's defence of the lack of a causal link also fails. First of all, these proceedings concern a claim seeking an order and not a claim for damages, which means that causality plays only a limited role. Briefly summarised, the existence of a real risk of the danger for which measures have to be taken is sufficient to issue an order. It has been established that this is the case. Moreover, if the opinion of the State were to be followed, an effective legal remedy for a global problem as complex as this one would be lacking. After all, each state held accountable would then be able to argue that it does not have to take measures if other states do not do so either. That is a consequence that cannot be accepted, also because Urgenda does not have the option to summon all eligible states to appear in a Dutch court.

4.179 The complaints in grounds for cassation 7.1 through 7.5 are directed first and foremost against the findings cited above, in particular para. 60. In so far as currently relevant, ground for cassation 7.1[463] refers to the complaints in ground for cassation 4.3. These complaints concern the Court of Appeal's opinion that the reduction target of 25%-40% in AR4 for the Annex I countries as a group also applies to the Netherlands individually.

4.180 The Court of Appeal has recognised that the reduction target of 25%-40% by 2020 in AR4 is intended for Annex I countries as a group.[464] In so far as grounds for cassation 7.1 and 4.3(iii)

presume that the Court of Appeal has failed to recognise this, these grounds for cassation must fail.

The Court of Appeal subsequently explained why this target can also be applied to the Netherlands as an individual country.

4.181 The Court of Appeal found first of all that the State had failed to provide substantiation for why a lower emission reduction percentage should apply to the Netherlands than to the Annex I countries as a whole.

In so doing, the Court of Appeal did not disregard the rules on the division of the obligation to furnish facts and the burden of proof, contrary to what is argued in ground for cassation 7.2.[465] In the Court of Appeal's opinion, Urgenda has sufficiently substantiated with facts the necessity of the reduction target of 25%-40% in 2020. This target is intended for the Annex I countries, of which the Netherlands is one. The Court of Appeal may then require the State to provide a substantiated rebuttal showing why the Netherlands, as an Annex I country, should have a lower reduction target than the group of Annex I countries as a whole.

4.182 The Court of Appeal furthermore held that it is not obvious that a different reduction target should apply to the Netherlands when considering, put succinctly, the distribution of the reduction efforts in proportion to the gross domestic product (GDP) per capita.

The Court of Appeal hereby refers to a possible distribution formula for a 'fair' distribution of the reduction effort. Such distribution formulas involve legally non-binding statements about what a 'fair' distribution of the necessary reduction effort between the various countries would be (see section 4.129). Earlier on in this opinion, it was explained that the Court of Appeal may refer to such legally non-binding statements in connection with specifying the State's duty of care (see section 2.31). Contrary to the complaints in grounds for cassation 7.1 and 4.3 (end), 7.3 (section 2) and 7.4, this is not incorrect, inconsistent or otherwise incomprehensible.

The Court of Appeal recognised that the IPCC reports on the global situation and does not proffer opinions on individual countries, so that the complaints in grounds for cassation 7.1 and 4.3(i) and (ii) fail. The Court of Appeal also recognised that there are differences between the Annex I countries.[466] The Court of Appeal reasoned why the lower limit of the 25%-40% range of the reduction target for Annex I countries applies to the Netherlands. Therefore, the complaint in grounds for cassation 7.1 and 4.3(iv) *et seq*. where these differences are pointed out, fails.

This also shows that the Court of Appeal did not consider the 25%-40% reduction target to be a legal norm addressed to the Annex I countries as a group or to the Netherlands individually, as argued in ground for cassation 7.3 (section 1) (see in more detail section 4.93 *et seq.*).

4.183 The State argues against the reference to a distribution of the reduction effort in proportion to the gross domestic product (GDP) per capita that several distribution formulas are conceivable (ground for cassation 7.4).[467] That is true, but this fact does not affect the Court of Appeal's reasoning. After all, the Court of Appeal is concerned about whether there is reason to assume that the reduction target of at least 25% for the Annex I countries would not apply to the Netherlands. The Court of Appeal has not found such reasons.

4.184 In view of the foregoing, it cannot be said, contrary to what is asserted in ground for cassation 7.5, that the findings in para. 60 deny the State's discretion to agree with other countries on a distribution of the reduction efforts. The Court of Appeal only offers a factual opinion on the applicability to the Netherlands of the lower limit of the range of the reduction target of 25%-40% for Annex I countries.

4.185 Ground for cassation 7.4 (end) also contains a complaint against the finding in para. 26 that of the 33 countries with higher emissions than the Netherlands, only nine have higher emissions per capita. Indeed, the State has argued that, measured in terms of per capita emissions, the Netherlands occupies the 28th position in the global ranking. In doing so, the State based its

argument on data from the EDGAR database *'CO2 time series 1990-2014 per capita for world countries*'.[468]

This complaint fails. Contrary to what is stated in ground for cassation 7.4 (end), the Court of Appeal did not find, or not in a general sense, that the Netherlands ranks tenth in terms of per capita emissions. The Court of Appeal found that, of the group of countries that, in absolute terms, have higher emissions than the Netherlands, only nine have higher emissions per capita, and none of those nine is an EU Member State. This finding, and its comprehensibility, does not detract from the State's assertion that the Netherlands ranks 28th on the global ranking in terms of per capita emissions. After all, this assertion relates to the per capita emissions of all countries (regardless of their emissions in an absolute sense).[469] It should be noted that the State does not have any interest in this complaint being sustained, because the part of the facts challenged there does not support the Court of Appeal's contested ruling.

4.186 The complaints in grounds for cassation 4.3 and 7.1 through 7.5 directed against para. 60 do not hold.

Individual responsibility for Dutch emission reductions

4.187 This brings us to the second aspect of the individual responsibility of the Netherlands. That is the question of whether the Netherlands can be held individually responsible for its share in the global climate problem.

4.188 Para. 61 shows that the Court of Appeal recognises:

(i) that the State itself is not the cause of all Dutch greenhouse gas emissions (in the words of para. 61: not the 'primary offender');

(ii) that the Dutch emissions of greenhouse gases in absolute terms, compared to global emissions, are very low;

(iii) that the State cannot solve the emissions problem on its own, that this requires the cooperation of the global community, and that these are complex decisions in which a great deal depends on negotiations. [470]

4.189 However, the Court of Appeal has ruled that these circumstances do not justify the State postponing the adoption of more far-reaching measures, related to reduction. The State should, from its own territory, take measures to the best of its ability that, together with the efforts of other States, offer protection against the dangers of serious climate change (para. 62).

4.190 This assessment is a necessary step in the Court of Appeal's line of reasoning. This is because it explains why the limited partial responsibility of the Dutch State in relation to the global climate problem does not relieve the State of the duty of care it bears according to the Court of Appeal.

4.191 The finding evokes associations with the case law on the causal link.[471] However, it is important to bear in mind what exactly is at stake in this case.

4.192 First of all, this case is not about the actual scientific causal link between anthropogenic emissions of greenhouse gases, climate change and its consequences. In essence, there is no difference of opinion on this in this case.

4.193 Second, this case is not about a causal link according to the meaning usually attributed to it in claims for damages. A causal link refers then to the connection between the event on which one party's liability is based and certain loss items for which the other party is claiming damages.

A wealth of case law is available on complex causal relationships in damages cases. In cases where the total loss or harm is caused by the actions of several persons and where each action

caused part of the loss or harm, this can lead to partial liability, i.e. liability of a person for the part of the loss or harm which that person caused.[472]

Damages awarded in connection with climate change is an issue in respect of which the judiciary still has to find its way. if damages are claimed from a particular party because it contributes fractionally to climate change through its own emissions, complex causality issues arise, among other things.[473]

4.194 Third, this case between Urgenda and the State rather concerns questions related to causality than actual questions of causality. This case is about the State's duty of care to Dutch residents on the basis of Articles 2 and 8 ECHR and an order to be based thereon. Therefore, issues of causality play 'only a limited role', as the Court of Appeal formulates it (para. 64). In essence, the question is whether the State is required to take measures to avert a certain threat. To the extent that 'causal' elements play a role in this, this concerns in this case (a) the question of whether there can be a legal obligation to act (the 'causality of omission') and what this action must entail and (b) the question of whether there is cause for an order to act if the problem to be addressed is caused, even almost entirely, by others or external factors.

4.195 The Court of Appeal's finding in para. 62 ties in first of all with the fact that the State's positive obligations under Articles 2 and 8 ECHR may actually mean that the State must intervene in situations it has not created itself, but that have arisen as a result of, for example, natural phenomena or the conduct of others (see sections 2.38, 2.42 and 2.49).

In our opinion, the threat of dangerous climate change has been sufficiently identified by the Court of Appeal, but the Court of Appeal cannot be required to specify the risks caused by climate change for specific or specifically identifiable persons or groups of persons within the jurisdiction of the State (section 3.13). The order to reduce Dutch greenhouse gas emissions by more than the State intends to do by 2020 is consistent with the threat of dangerous climate change as established by the Court of Appeal.

4.196 The Court of Appeal's finding in para. 62 also ties in with the fact that harm to the living environment often occurs gradually, due to a variety of factors. As mentioned above, under Dutch law this can lead to a party that bears partial responsibility for this being obliged to contribute to damages for the loss or harm incurred or, as in this case, to the prevention of the infringement of certain interests (see sections 2.12-2.13).

4.197 The Court of Appeal also links the partial responsibility of the State to the principle of effective legal protection and the principle that standards must be maintained (see para. 64).[474]

The principle of effective legal protection refers in this context to the ability to actually enforce rights at law.[475] Acceptance of the State's defence would entail that the State could not be held responsible for its small share in global emissions. According to the Court of Appeal, there would then be no effective legal remedy against a global problem such as the one at hand.

The Court of Appeal points to the enforcement of standards with its finding that it would be unacceptable for a State to be able to evade its responsibility by arguing that it need not take measures as long as other States do not either.

4.198 In cassation, the State does not contest the aforementioned legal foundations of the Court of Appeal's finding that the State must, from its own territory, take measures to the best of its ability that, together with the efforts of by other States, offer protection against the dangers of serious climate change (para. 62). The State does argue, however, first of all, that the above-discussed complaints in ground for cassation 7 also apply to para. 62 (ground for cassation 7.7). These complaints have already been found to fail.

Second, the State incorporates the finding of its partial responsibility in its challenge of the need for a 25% emission reduction in 2020 in connection with the effects of extra Dutch emission reductions. This will be discussed below.

The effects of extra Dutch emission reductions.

4.199 The State's grounds for cassation call into question the need for an additional reduction of Dutch emissions in 2020, doing so on the following grounds. As said, this is not, in our opinion, about the need for an additional reduction of Dutch emissions as such, but rather about issues related to the individual responsibility of the Netherlands.

The State argues, first of all, that these additional reductions are not necessary because they have no relevant impact on the global climate (grounds for cassation 4.4 and 7.6). Second, the State argues that it is not necessary for the Netherlands to reduce emissions by at least 25% by 2020, because the EU as a whole will already be doing so (ground for cassation 5.6). Third, the question is whether the positive effect of the reduction order on Dutch emissions could be offset by opposite effects abroad (grounds for cassation 8.5.1 and 8.5.2).

4.200 **No measurable effect on global warming**. In cassation, at least for the sake of hypothesis, the following serves as the starting point.[476] The Netherlands accounts for a small share of global greenhouse gas emissions (0.35% in 2014). The addition reduction of Dutch emissions in 2020 would reduce average global warming by 0.000045°C by 2100. This is eliminated entirely in light of all the uncertainties associated with such a calculation and has no measurable impact on the danger of climate change.[477]

4.201 For this reason, it is incomprehensible, according to the State, that the Court of Appeal ruled (in para. 49) that an emission reduction of 25% by 2020 is 'necessary' (ground for cassation 4.4) and (in para. 60) that the reduction target of 25%-40% by 2020 for the Annex I countries as a group should also apply to the Netherlands (ground for cassation 7.6).

4.202 The Court of Appeal has ruled on the basis of findings of fact that more reductions are necessary, also by the Netherlands, and on the basis of findings of law that the State must accept its partial responsibility for this.

It emerges from the facts established that there is a climatological need for further reduction measures with a view to achieving the 2ºC target. This need applies to Dutch emissions as well. For this reason, the Court of Appeal ruled that the State must assume its share of the responsibility in so far as it concerns emissions from Dutch territory. The Court of Appeal acknowledges that the Netherlands cannot solve the global climate problem on its own (para. 62), but rejects that this would justify the Netherlands not taking the more far-reaching mitigation measures that are necessary (paras. 62 and 64).[478] In our opinion, the Court of Appeal has thus correctly ruled that the individual responsibility of the Netherlands means that the State may have a legal obligation to reduce Dutch emissions of greenhouse gases, even if those reductions alone cannot solve the global climate problem (see sections 4.187-1.197).

The complaints in grounds for cassation 4.4 and 7.6 therefore cannot be accepted, because they are based on an incorrect interpretation of the Court of Appeal's opinion. The Court of Appeal does not mean that a national reduction of 25% by 2020 is necessary in the sense that this is the only way to achieve the 2ºC target, nor that the chance of achieving the 2ºC target is substantially increased if the Netherlands reduces by 25% by 2020. The Court of Appeal means that, in order to prevent dangerous climate change, it is necessary for the State to make a requisite contribution to achieving the 2ºC target, more specifically by means of a national reduction of 25% by 2020. Contrary to what is stated in ground for cassation 4.4, para. 62 is not based on circular reasoning.

4.203 **EU will realise the reduction target of 25% by 2020.** The Court of Appeal has established that the EU as a whole is expected to realise an emission reduction of 26%-27% by 2020 compared to 1990.[479] The State concludes from this that it cannot be understood why an emission reduction of at least 25% by 2020 by the Netherlands as an individual country is necessary to achieve the 2ºC target and is consistent with the State's duty of care (see ground for cassation 5.6, section 5).

4.204 In our opinion, this complaint does not hold. The Court of Appeal has offered an opinion on the question of whether the Netherlands should reduce its greenhouse gas emissions by 25% by 2020. The Court of Appeal answered this question in the affirmative. The Court of Appeal ruled that the Netherlands as an individual country bears the responsibility to meet this reduction target. This finding cannot detract from the fact that the EU is expected to achieve this reduction target (but the State is not).[480]

4.205 The State also concludes from the expected EU reductions by 2020 that the Court of Appeal should have rejected Urgenda's claims,[481] because (i) the State thus complies with the legally binding reduction agreements and because (ii) it follows that the reduction order imposed on the State is not necessary from a climatological perspective to achieve the 2ºC target.[482] These arguments do not hold, for the aforementioned reasons. The Court of Appeal did not base the State's duty of care on the existence of a reduction agreement that is legally binding on the State. The Court of Appeal has ruled on the basis of findings of fact that more reductions are necessary, also by the Netherlands, and on the basis of findings of law that the State must accept its partial responsibility for this.

4.206 ' **'Carbon leakage' and 'waterbed effect'.** The effectiveness of the reduction order has also been questioned, because its positive effect on Dutch emissions could be negated by opposite effects abroad. For example, accelerated closure of the Dutch coal-fired power stations could lead to the import of electricity and thereby to increased greenhouse gas emissions abroad. The idea is that, on balance, a reduction order would not lead to any climate benefit, but would only relocate the emission of greenhouse gases from the Netherlands to other countries.

4.207 In this case, the point was raised in the context of the State's reliance on the 'carbon leakage' and 'waterbed effect' phenomena.

Carbon leakage refers to the risk that companies will relocate their production to other countries with less stringent obligations in place in order to reduce greenhouse gas emissions.

In these proceedings, 'the waterbed effect' specifically concerns the European system of emissions allowance trading based on the ETS Directive (see section 4.30). The waterbed effect refers to the risk that emissions allowances not used in the Netherlands will be used elsewhere in the EU.

4.208 The Court of Appeal considered the following on the waterbed effect and carbon leakage:

'55. According the State, a 'waterbed effect' will occur if the Netherlands takes a measure which reduces greenhouse gas emissions falling under the ETS system. The State argues that this will occur because the emissions cap established for the ETS sector applies to the EU as a whole. Lower emissions in the Netherlands thus creates room for greater emissions elsewhere in the EU. Therefore, national measures to reduce greenhouse gas emissions within the framework of the ETS are pointless, or so the State argues.

56. This argument falsely assumes that other EU Member States will make maximum use of the available emissions allocation under the ETS system. Like the Netherlands, the other EU Member States have an individual responsibility to limit CO2 emissions as far as possible. It cannot be assumed beforehand that other Member States will take less far-reaching measures than the Netherlands. On the contrary, compared to Member States such as Germany, the United Kingdom, Denmark, Sweden and France, Dutch reduction efforts are lagging far behind. Moreover, Urgenda has argued, supported by reasons and on submission of various reports, including a report of the Danish Council on Climate Change (Exhibit U131), that it is impossible for a waterbed effect to occur before 2050 owing to the surplus of ETS allowances and the dampening effect over time of the 'market stability reserve'. The State has failed to provide reasoning to contest these reports.

57. The State also pointed out the risk of 'carbon leakage', which the State understands to be the risk that companies will move their production to other countries with less stringent greenhouse

gas reduction obligations. The State has failed to substantiate that this risk will actually occur if the Netherlands were to increase its efforts to reduce greenhouse gas emissions before 2020. The same applies to the related assertion of the State that more ambitious emissions reductions will undermine the 'level playing field' for Dutch companies. The State should have provided substantiation for these assertions, especially considering that other EU Member States are pursuing a stricter climate policy (see legal ground 26). Moreover, in light of among other things Article 193 TFEU, it is difficult to envisage without further substantiation, which is lacking, that not maintaining a 'level playing field' for Dutch companies would constitute a violation of a particular legal rule.

58. In this context, it is worth noting that the State itself has committed to reduce emissions by 49% in 2030, in other words, by a higher percentage than the one to which the EU has committed, for which these arguments are apparently not decisive.

4.209 In cassation, the State lodges complaints against the rejection of its reliance on the waterbed effect. There are no specific complaints in cassation about the rejection of the State's reliance on the carbon leakage phenomenon. The latter issue therefore plays no role in the cassation proceedings before the Supreme Court.

4.210 The State contests the findings on the waterbed effect in grounds for cassation 8.5.1 and 8.5.2. Ground for cassation 8.5.1 fails, as it is based on an incorrect interpretation of the Court of Appeal's judgment. With its finding that 'other EU Member States will make maximum use of the available emissions allocation under the ETS system', the Court of Appeal refers to the possibility of EU Member States pursuing additional policies.[483] The Court of Appeal discusses this possibility in para. 54. Therefore, contrary to the assumption made in ground for cassation 8.5.1, the Court of Appeal did not consider that EU Member States may limit the number of ETS allowances granted to undertakings in their territory (which will only be possible once Directive 2018/410 has been transposed).

4.211 In ground for cassation 8.5.2, the State points it - correctly, in itself - that on appeal it explained that the waterbed effect has really emerged, referring to reports by the ECN, for example, the RIVM and the PBL, and to Directive 2018/410.[484] It should be borne in mind, however, that at the end of para. 56, the Court of Appeal renders an opinion on whether the waterbed effect will occur in the future.

In this context, Urgenda has argued (i) that the market stability reserve (MSR) will withdraw and reissue emission allowances within certain limits, (ii) that the period over which this will take place will depend on many uncertainties related to the rate at which the actual emissions will decrease, but (iii) that there can be no waterbed effect until at least 2050 due to the surplus of ETS allowances and the dampening effect over time of the MSR. To this end, Urgenda referred to a number of reports, one of which was mentioned by the Court of Appeal.[485]

The State has argued in this context that the MSR 'may be able to mitigate the waterbed effect in the future, but this will depend very much on the extent to which this MSR will be used and of any political decisions regarding the surplus in the EU ETS. In essence, however, the waterbed effect will not disappear'.[486] The Court of Appeal did not read this as a sufficiently substantiated rebuttal of Urgenda's argument. Such reading cannot be considered incomprehensible. The State's argument did not specifically address Urgenda's argument that there can be no waterbed effect until at least 2050. That is why ground for cassation 8.5.2 does not hold.

4.212 The conclusion is that the complaints in grounds for cassation 4.4, 5.6 (para. 5), 7.6, 8.5.1 and 8.5.2 are unsuccessful.

Complaints regarding application of the ECHR

4.213 We will now discuss the complaints in ground for cassation 8 about the Court of Appeal's application of the ECHR. These are based in part on grounds for cassation 1 and 2. Here, the State

argues first of all that the ECHR does not provide a basis for the reduction order because, supposedly, it would not be 'effective' (ground for cassation 8.2.1). Second, the Court of Appeal allegedly attributed too little significance to measures other than mitigation, such as adaptation measures (grounds for cassation 8.2.2-8.2.4). Furthermore, according to the State, the Court of Appeal took too little account of the margin of appreciation (ground for cassation 8.3) and failed to subject the reduction order to a fair balance review and a proportionality review (ground for cassation 8.4).

4.214 The complaints concern paras. 53-76. We would like to quote the following sections for the purpose of discussing these complaints:

'59. The State has also argued that adaptation and mitigation are complementary strategies to limit the risks of climate change and that Urgenda has failed to appreciate the adaptation measures that the State has taken or will take. This argument also fails. Although it is true that the consequences of climate change can be cushioned by adaptation, it has not been made clear or plausible that the potentially disastrous consequences of excessive global warming can be adequately prevented with adaptation. So while it is certainly logical for the State also to take adaptation measures, this does not diminish its obligation to reduce CO2 emissions quicker than it has planned.

(…)

63. The precautionary principle, a generally accepted principle in international law included in the United Nations Framework Convention on Climate Change and confirmed in the case law of the European Court of Human Rights (*Tătar/Romania*, ECtHR 27 January 2009, no. 67021/01 section 120), precludes the State from pleading that it has to take account of the uncertainties of climate change and other uncertainties (for instance in ground for appeal 8). Those uncertainties could after all imply that, due to the occurrence of a 'tipping point' for instance, the situation could become much worse than currently envisioned. The circumstance that full scientific certainty regarding the efficacy of the ordered reduction scenario is lacking therefore does not mean that the State is entitled to refrain from taking further measures. The high plausibility described above suffices.

(…)

66. In so far as the State wanted to assert that the remaining available time (until the end of 2020) is very short, this argument is rejected. Not only is the provisionally enforceable judgment over three years old, but the foregoing has shown that the State has known about the severity of the climate problem for a long time and, incidentally, that until 2011 the State had focused its policy on a reduction of 30%. In this respect, a fact meriting further attention is that the Netherlands, as a highly developed country, has profited from fossil fuels for a long time and still ranks among the countries with the highest per capita greenhouse gas emissions in the world. It is partly for this reason that the State should assume its responsibility, a sentiment that was also expressed in the United Nations Framework Convention on Climate Change and the Paris Agreement.

(…)

71. To summarise, the foregoing implies that up to now the State has done too little to prevent a dangerous climate change and is doing too little to catch up, or at least in the short term (up to the end of 2020). Targets for 2030 and beyond do not diminish the fact that a dangerous situation is imminent which requires intervention right now. In addition to the risks in that context, the social costs also come into play. The later reduction actions are taken, the sooner the available carbon budget will be depleted, which in turn would require considerably more ambitious measures to be taken at a later stage, as is acknowledged by the State (Statement of Appeal, para. 5.28), to eventually achieve the desired level of 95% reduction by 2050. In this context, the following excerpt from AR5 (cited in para. 2.19 of the judgment) is also worth noting: '[...] Delaying mitigation efforts beyond those in place today through 2030 is estimated to substantially increase the difficulty of transition to low-longer-term emissions levels and narrow the range of options

consistent with maintaining temperature change below 2ºC relative to pre-industrial levels.'

(…)

73. Based on this, the Court is of the opinion that the State is failing to fulfil its duty of care pursuant to Articles 2 and 8 ECHR by not wanting to reduce emissions by at least 25% by the end of 2020. A reduction of 25% should be considered a minimum, in connection with which recent insights about an even more ambitious reduction in connection with the 1.5° C target have not even been taken into consideration. In forming this opinion, the Court has taken into consideration that, based on the current proposed policy, the Netherlands will have reduced emissions by 23% by 2020. That is not much less than 25%, but a margin of uncertainty of 19%-27% applies. This margin of uncertainty means that there is real chance that the reduction will be substantially lower than 25%. Such a margin of uncertainty is unacceptable. Since moreover there are clear indications that the current measures will be insufficient to prevent a dangerous climate change, even leaving aside the question of whether the current policy will actually be implemented, measures have to be chosen, also based on the precautionary principle, that are safe, or at least as safe as possible. The very serious dangers, not contested by the State, associated with a temperature rise of 2° C or 1.5° C – l*et al*one higher – also preclude such a margin of uncertainty. Incidentally, the percentage of 23% has become more favourable because of the new calculation method of the 2015 NEV, which assumes higher greenhouse gas emissions in 1990 than those which the District Court has taken into consideration. This means that the theoretical reduction percentage can be achieved sooner, although in reality the situation is much more serious (see also para. 21 of this ruling).'

4.215 **The effectiveness of the order**. As stated before, the starting point in cassation is that the additional reduction in Dutch emissions in 2020 will result in a 0.000045 °C reduction in the average global warming until 2100. In our opinion, the State's complaint that this additional reduction is not 'necessary' for this reason does not hold (see sections 4.187-4.197 and 4.202).

The same discussion is addressed in ground for cassation 8, from the point of view that the measures to be taken under the ECHR must be 'effective'. Since the additional reduction in the Netherlands by 2020 is not 'effective', the ECHR does not offer any basis for the reduction order, according to ground for cassation 8.2.1 (sections 1 and 2), which is directed against, among other things, para. 59).

4.216 As we noted earlier, a violation of positive obligations often involves multiple causalities (section 2.38). In this respect, the positive obligations do not require an absolute guarantee against human rights violations. Positive obligations are intended to ensure that the government makes every effort to prevent human rights from being compromised by third parties or external factors (section 2.53). Article 2 ECHR primarily requires the Contracting States of the Treaty to provide for 'a legislative and administrative framework designed to provide effective deterrence against threats to the right to life'. When undertaking or authorising dangerous activities, the State in question must ensure that risks are limited to 'a reasonable minimum' (section 2.44). Article 8 ECHR requires that States take 'reasonable and appropriate measures' in environmental matters to protect individuals from serious harm to their environment (section 2.48). The measures to be taken must be appropriate for limiting the danger or the environmental harm in question, and therefore be timely and – at least potentially – effective (section 2.63). The measures to be taken must therefore *be able to* contribute to preventing the threat of human rights being compromised.[487] A guarantee that they will prevent such compromise is not required. By way of comparison, reference can be made to the *Kalender/Turkey* judgment, which concerned train passengers who had been hit by a cargo train at a train station. The ECtHR ruled that Article 2 ECHR had been violated because basic safety measures, such as a platform and adequate lighting, had not been provided. The ECtHR rejected the defence of the Turkish government that carelessness on the part of the victims was the main cause of the accident. The ECtHR considered in this context that Article 2 ECHR does not offer absolute protection to every person in every risky activity, and, more in particular, does not provide unlimited protection to careless victims. However, this did not exempt the government from its obligation to take at least the most basic safety measures *appropriate* for protecting the lives of the victims ('*les mesures de sécurité les plus*

élémentaires susceptibles de préserver la vie des proches des requérants').[488]

4.217 In light of the facts on climate change established by the Court of Appeal and the rate at which the remaining carbon budget is being depleted, more far-reaching measures to limit greenhouse gas emissions are clearly appropriate for combating dangerous climate change. In our opinion, the effectiveness of the reduction order in this sense does not preclude the need for further reductions in global emissions, including by other countries.

We believe that the State is imposing overly stringent requirements on the effectiveness of the measures to be taken pursuant to the ECHR by assuming that the additional mitigation measures to be taken by the Netherlands should already be able to prevent dangerous global warming.[489] Accepting the State's position would mean that the ECHR does not provide effective legal protection in the face of dangerous climate change. For the discussion on this, we refer to Chapter 2, in particular sections 2.82-2.84.

4.218 In view of the above, the complaints in ground for cassation 8.2.1 (sections 3 through 6) fail. The complaint directed against para. 63, as included in section 3 of this ground for cassation, imposes overly stringent requirements on the effectiveness of measures relating to the precautionary principle. The complaints against para. 63 in sections 4 through 6 of this ground for cassation revisit the already rejected assertion that the additional reduction ordered would not be effective in the sense of the ECtHR case law.

4.219 **Other measures**. According to ground for cassation 8.2.2, the Court of Appeal – without sufficient substantiation – ignored the State's reasoning[490] that, briefly put, adaptation measures are appropriate measures with which the State – whether or not in combination with the mitigation measures taken and proposed by the State – can comply with its positive obligations under Articles 2 and 8 ECHR.

4.220 This complaint fails. In para. 59, the Court of Appeal held that (i) it had not been proved or made plausible that the potentially disastrous consequences of excessive global warming could be adequately prevented through adaptation measures, so that (ii) although it would certainly be logical for the State *also* to take adaptation measures, that fact cannot diminish its obligation to reduce greenhouse gas emissions more quickly than it intends to do.

With that, the Court of Appeal responded sufficiently to the State's reasoning as referred to in ground for cassation 8.2.2. Indeed, this ruling builds upon the findings of the Court of Appeal on the necessity to reduce emissions more in the short term. The Court of Appeal concluded that the reduction target in 2020 may not fall below the lower limit of 25%.[491]

4.221 According to ground for cassation 8.2.3, the Court of Appeal – without sufficient substantiation – ignored the State's reasoning that it was contributing to limiting global greenhouse gas emissions by supplying knowledge and financial resources to developing countries, with which those countries could take mitigation and adaptation measures.

4.222 This complaint fails. It is, in itself, conceivable that State's support for mitigation measures taken outside of the Netherlands contributes to the reduction of global greenhouse gas emissions. However, the Court of Appeal did not need to address this separately, as the State's reasoning did include the sums of money that it has provided and the initiatives that received those sums of money,[492] but its argument did not include the 'reduction gains' actually achieved by its contributions. It has not been asserted that Dutch climate financing results in such a reduction in emissions outside of the Netherlands that a lower reduction in the Netherlands would suffice.

Also it should be noted that the State's reasoning is a reply to Urgenda's position that it also represented the interests of parties other than natural persons residing in the Netherlands, including future generations. The Court of Appeal limited its ruling to the current generations of Dutch residents (para. 37) and therefore did not need to respond separately to this argument by the State.

4.223 Contrary to what is assumed in ground for cassation 8.2.4, the Court of Appeal did not rule in para. 73 that adaptation measures, climate financing and supporting other countries could not be safe measures.

4.224 ***Margin of appreciation.*** As discussed in Chapter 2, the ECtHR in certain cases allows national authorities some discretion in determining the manner in which the State wishes to comply with its obligations under the ECHR. In its concluding para. 74, the Court of Appeal ruled that the State's reliance on its discretion does not apply to the question of whether Dutch emissions should be reduced by 25% by 2020. To that end, the Court of Appeal referred to the grounds for its decision given earlier in its judgment, which the Court of Appeal summarised in paras. 71 to 73. The State *does* have the discretion, according to the Court of Appeal, to determine which measures should be taken to achieve the reduction target in 2020.

4.225 The question of whether and to what extent the design of the State's reduction policy is at the State's discretion was already addressed in the discussion of grounds for cassation 1.2 and 1.3 in section 3.14 *et seq*. Ground for cassation 8.3 builds on that.

4.226 In the discussion of grounds for cassation 1.2 and 1.3, it was already explained that, according to the Court of Appeal, the State is not allowed any discretion below the limit of 25% reduction in 2020 regarding the reduction path, i.e. regarding the time when and rate at which mitigation measures are taken (section 3.24). [493] The Court of Appeal provided extensive substantiation for its opinion that Dutch emissions must be reduced by at least 25% by 2020 at the latest. The Court of Appeal was moreover able to attach significance to the reduction target for Annex I countries of 25%-40% in 2020 from AR4 and the Court of Appeal was able to rule that the State cannot be premised on the RCP 2.6 scenario from AR5. The complaints directed against this in grounds for cassation 4-7 do not hold.[494]

In view of this, the complaints of grounds for cassation 8.3.1, 8.3.2 and 8.3.3 fail. The same applies to ground for cassation 8.3.4, in which the conclusions drawn from scientific reports are used to argued that the State has discretion with regard to the reduction path. This argument also fails on the basis of the lower limit referred to by the Court of Appeal.

4.227 In para. 71, the Court of Appeal held that 'In addition to the risks [...] the social costs also come into play. The later actions are taken to reduce [...] which in turn would require taking considerably more ambitious measures at a later stage'. In ground for cassation 8.3.5, it is argued that the question of whether or not to take more expensive or more drastic measures falls within the scope of the State's discretion.

4.228 This complaint starts from the assumption that the Court of Appeal ruled that the risks are such that the State has the choice of having certain emission reductions take place sooner (cheaper and easier) or later (more expensive and more difficult). Such a choice could indeed raise the question of whether the Court of Appeal should leave the consideration of the costs and effort of certain reductions and their timing to the State or its political bodies.[495]

However, that is not the situation in this case. After all, the Court of Appeal set out why the State has no discretion regarding the reduction path while under the limit of 25% reduction in 2020. That opinion is based on the risk that postponement of further emissions reductions would mean that the 2ºC target can no longer be achieved. In that case, the State does not have the choice presumed in the complaint. The Court of Appeal's findings on the societal cost of a postponement of emissions reductions were clearly given superfluously.

Ground for cassation 8.3.5 therefore fails. Contrary to the complaint advanced at the end of this ground for cassation, para. 71 does not imply that there are multiple reduction paths – indeed, the Court of Appeal in para. 49 ruled on the feasibility of the 'range of options' referred to in the quote from AR5 in para. 71 – and this finding cannot be regarded as inherently self-contradictory.

4.229 Ground for cassation 8.3.6 tries to assert the complaints of grounds for cassation 8.3.3-8.3.5 against paras. 67-69 and fails because those grounds for cassation fail. Ground for cassation 8.3.7 concerns the word 'desirable' in para. 47 and fails for the reasons mentioned in section 4.166 *et seq*.[496] Ground for cassation 8.3.8 refers to ground for cassation 2 and fails for the reasons mentioned in section 3.2 *et seq*.

4.230 **Fair balance and proportionality**. As discussed in Chapter 2, the ECtHR reviews in the context of Article 8 ECHR whether the State's choice of measures within its 'margin of appreciation' struck a 'fair balance' between the individual and public interests involved. Furthermore, Articles 2 and 8 ECHR must be interpreted in a manner that does not impose an 'impossible or disproportionate burden' on the government.[497]

4.231 According to ground for cassation 8.4, the Court of Appeal failed to review this, or at least failed to do so in a discernible manner. The State put forward assertions on (i) the extremely limited effect of further Dutch emission reductions in 2020 and (ii) the extremely high costs (societal and otherwise) of the measures required for that purpose. According to the grounds for cassation, this shows that there is a disproportionate or unreasonable relationship between the reduction measures required of the State and their effect on individuals and society as a whole, or at least that the Court of Appeal's opinion in this respect was insufficiently substantiated.

4.232 These complaints do not hold. We refer to our remarks on the 'margin of appreciation' in section 2.68 *et seq.* Indeed, the Court of Appeal's opinion implies that a reduction of 25% in 2020 is the lower limit of what can be expected from the State with a view to the risk of dangerous climate change. Since there is no 'margin of appreciation' for the State below that limit, no separate 'fair balance' review was necessary.

The Court of Appeal also recognised that measures to reduce greenhouse gas emissions are far-reaching and require financial and other sacrifices (para. 67), and that the time remaining until the end of 2020 is brief (para. 66). The Court of Appeal did not establish that it is impossible to take measures to comply with the reduction order, nor did the State argue that that was its position.[498] The State mentioned a number of measures during these proceedings that it could consider in order to comply with the reduction order. The Court of Appeal's judgment implies that the Court of Appeal believes that those measures are not disproportionate. The Court of Appeal therefore ruled that there is no question of an 'impossible or disproportionate burden'. This finding required no further substantiation for the reasons set out below.

4.233 On appeal, the State contested that it is better from a cost-effectiveness point of view to take adequate action now rather than postponing measures (as the District Court held).[499] Moreover, the State, briefly put,[500] on the one hand, pointed to the Netherlands' small share in global emissions (0.35% in 2014) and the effect of additional Dutch emission reductions in 2020 (0.000045 °C less average global warming until 2100). On the other hand, the State pointed out that the effect of possible measures to comply with the reduction order on the global emission reduction is, ultimately, virtually nil due to the waterbed effect and possible carbon leakage.[501] In particular, the waterbed effect was primarily raised in relation to the early closure of coal-fired power stations, the measure which the State believed would have the greatest effect on the volume of national emissions[502] (but would also be costly).[503]

4.234 The Court of Appeal ruled on the risk of carbon leakage and the reliance on the waterbed effect in paras. 55-58. The complaints in cassation solely pertain to the opinion on the waterbed effect and we believe these complaints do not hold (see sections 4.210-4.211). This demolished an important pillar supporting the State's reasoning about the cost-efficiency of certain measures.

Consequently, it cannot be said that the State's assertions demonstrate that there is a disproportionate or unreasonable relationship between the reduction measures expected from the State and their effect on individuals and society as a whole. In so far as it is argued in ground for cassation 8.4 that the Court of Appeal failed to establish which specific risks specific groups of

persons will be exposed to, and within which specific time frame, we refer to the discussion of grounds for cassation 1.2 and 2 in section 3.2 *et seq*.

4.235 The complaints of grounds for cassation 8.2.1-8.2.4, 8.3 and 8.4 on the application of the ECHR fail.

The remaining complaints

4.236 The remaining complaints of grounds for cassation 4 through 8 are discussed below.

450 ppm scenario. Ground for cassation 5.2 (first section) contains a further complaint about the substantiation of the finding (in paras. 12 and 40 of the Court of Appeal's judgment) that the 450 ppm scenario – i.e. the situation in which the concentration of greenhouse gases in the atmosphere will eventually stabilise at around 450 ppm – still offers no more than a 50% probability ('more likely than not') of achieving the 2ºC target. According to the complaint, that finding is incomprehensible because that probability (the percentage) cannot be found in the AR4 report.

4.238 The 2ºC target was not contested on appeal, nor was the fact that the concentration of greenhouse gases in the atmosphere must stabilise at approximately 450 ppm to achieve that target.[504] The Court of Appeal based the probability that the 2ºC target will indeed be achieved in a 450 ppm scenario (paras. 12 and 50) on para. 4.20 of the District Court's judgment, which held that it is not in dispute between the parties that the 450 ppm scenario offers a 50% probability of achieving the 2ºC target.

On appeal, the State contested the finding that it was supposedly not in dispute between the parties that a 450 ppm scenario offers a 50% probability of achieving the 2ºC target, by which the State referred to AR5 which shows that this probability is supposedly 66-100%.[505] The Court of Appeal replied to this argument in paras. 12 and 49. The Court of Appeal acknowledged that AR5 works with a probability of 66%-100% (para. 12), but ruled that the State cannot assume this, because the probability of achieving the 2ºC target in AR5 depends too much on the possibility of removing greenhouse gases from the atmosphere using certain technologies in the future (para. 49).

The State did not specifically argue on appeal that the percentage of 50% cannot be found in the AR4 report. It is therefore not incomprehensible that the Court of Appeal premised paras. 12 and 50 on the District Court's finding on that probability.

4.239 Incidentally, one could ask the question of what the District Court's finding in para. 4.20 is based on exactly. In AR4, the IPCC uses the designation of 'more likely than not' for any probability greater than 50%.[506] However, the District Court's statements on AR4 in paras. 2.12-2.16[507] do not show that there is a 50% probability of achieving the 2ºC target if the concentration of greenhouse gases in the atmosphere stabilises at approximately 450 ppm. Incidentally, it does not seem necessary to doubt that this probability is indeed 50%, as this probability is stated in the statement of the European Commission of 10 January 2007[508] and in a report by the PBL and Ecofys.[509]

4.240 Incidentally, the point need not be discussed further, as the Court of Appeal found that if the concentration of greenhouse gases does not rise above 450 ppm in 2100, there is a 'reasonable chance' that the 2ºC target will be achieved (para. 3.5), which has not been contested in cassation. Even with a 'reasonable chance', the Court of Appeal could rule (in para. 50) that the 450 ppm scenario and the reduction of 25-40% in 2020 are 'not overly pessimistic starting points' in determining the State's duty of care. Ground for cassation 5.2 (first section) therefore cannot lead to cassation either.

4.241 **Precautionary principle**. Ground for cassation 8.6 concerns the reference to the

precautionary principle in paras. 63 and 73 of the Court of Appeal's judgment. The ground for cassation argues that the precautionary principle cannot form an independent basis for assuming positive obligations on the part of the State by virtue of Article 2 and/or Article 8 ECHR, or unlawful conduct, but can only play a role in substantively interpreting the State's positive obligations.

4.242 The ground for cassation fails because the Court of Appeal did not use the precautionary principle as an independent basis, but attributed meaning to it in substantively interpreting the State's positive obligations under Articles 2 and 8 ECHR. Ground for cassation 8.6 was explained by the State in conjunction with ground for cassation 2.5, which also fails (section 3.8 *et seq*.).

4.243 **Relativity**. The term relativity usually refers to one of the requirements for liability arising from unlawful conduct, in the sense that an unlawful act has been committed 'against another party' (Article 6:162 DCC). Unlawful acts are committed against another party if, briefly put, (i) a personal right of that other party is infringed (e.g. the other party's right of ownership), affecting that other party's interests protected by that subjective right; (ii) a statutory standard meant to protect the affected interests of the other party is violated; or (iii) an unwritten standard meant to protect the affected interest of the other party is violated (see the three categories of unlawful acts referred to in section 2.14). The liability arising from unlawful conduct can be further defined by means of the relativity requirement.[510]

In actions for damages, Article 6:163 DCC further elaborates on the relativity requirement by requiring that the violated standard 'serves to protect against the harm suffered by the injured party.' This elaboration of Article 6:163 DCC plays no role in actions for injunctions and court orders. In that case, it suffices that the defendant has a legal obligation towards the claimant (Article 3:296 DCC and, in the event of an unlawful act, Article 6:162 DCC) and that the claimant has a sufficient interest in preventing an impending violation of that obligation (Article 3:303 DCC). See section 2.8 *et seq.*[511]

4.244 With regard to the reliance on relativity within the meaning of Article 6:163 DCC, the Court of Appeal found that these proceedings concern an action for a court order and not an action for damages (para. 65). Consequently, the Court of Appeal rightly noted that the elaboration of the relativity requirement of Article 6:163 DCC plays no role in this case.[512] Contrary to what is presumed in ground for cassation 8.7.1, this cannot be interpreted as meaning that the Court of Appeal ruled that the relativity requirement need not be met as such. Ground for cassation 8.7.1 therefore does not hold.

4.245 The Court of Appeal further held that the violated standards (Articles 2 and 8 ECHR) serve to protect the interests of Urgenda's constituents. As discussed earlier, Urgenda may defend the interests, protected under Articles 2 and 8 ECHR, of Dutch residents pursuant to Article 3:305a DCC (see the discussion of ground for cassation 3 in section 3.29 *et seq*.). The Court of Appeal expressed this by referring to 'the interests of Urgenda('s constituents'). As addressed in the discussion of ground for cassation 2, we believe that the Court of Appeal cannot be required to specify which risks climate change causes for specific or practically identifiable persons or groups of persons located within the jurisdiction of the State (see the discussion of grounds for cassation 1.1 and 2 in section 3.2 *et seq.*). Therefore, the complaints of ground for cassation 8.7.2 fail.

4.246 **The time remaining**. Ground for cassation 8.8 targets para. 66, in which the Court of Appeal ruled that the State cannot use as a defence the circumstance that the remaining time until 2020 is very short to take the measures needed to achieve additional emissions reductions. The complaints of ground for cassation 8.8 apply this finding to, briefly put, the question of whether the State has complied with its obligations under Article 2 and/or Article 8 ECHR. However, the contested finding of the Court of Appeal does not relate to those aspects of the case, so that the complains fail.

1.5ºC target. Ground for cassation 8.10 contains a complaint in the event that the Court of Appeal

(in paras. 3.5, 44, 50 and 73) based the State's duty of care partly on the consequences of a global temperature increase of 1.5 °C (or more, but no more than 2 °C).

The ground for cassation fails because the Court of Appeal did not do so. As indicated by the State itself, the Court of Appeal based its finding on the consequences of dangerous climate change caused by a global temperature increase of 2 °C (or more) and not on the consequences of dangerous climate change caused by a global temperature increase of 1.5 °C (or more, but no more than 2 °C).

4.248 **Merely elaborative complaints**. For the remainder, grounds for cassation 5.1, 5.2, 5.3, 5.4, 5.6, 5.7, 6.4, 7.1, 8.1, 8.7.2, 8.8, 8.9 and 8.11 contain undiscussed complaints that merely elaborate on other complaints. These follow-up complaints no longer require separate discussion.

4.249 The conclusion is that the complaints of grounds for cassation 4 through 8 fail, or at least cannot lead to cassation.

5 The constitutional lawfulness of the order (ground for cassation 9)

Introduction

5.1 In the proceedings before the District Court, the State put forward two fundamental defences that are closely related. The first defence entailed that it is not for the courts to make the political considerations necessary for a decision on the reduction of greenhouse gas emissions. The State argued that 'politicians' have picked up on the importance of climate change and its consequences and are making certain choices to address it. According to the State, it is not appropriate in a democracy under the rule of law for the courts, further to a claim instituted by an interest group like Urgenda, which is apparently unhappy with the political choices made, to 'correct' the government and parliament and enforce reduction targets other than those chosen by the political bodies.[513] In this context, the State relied upon a decision of the Supreme Court dated 6 February 2004.[514]

5.2 The second defence entailed that the order sought by Urgenda is essentially an order to enact legislation, which cannot be allowed in any event.[515] In this context, the State also relied upon decisions of the Supreme Court.[516]

5.3 Both defences relate to the separation of three state powers, i.e. the legislature, public administration (the executive) and the judiciary.[517] Montesquieu considered the exercise of these state powers by separate bodies to be a form of protection for citizens against arbitrary decisions.[518] To this day, constitutional law is dominated by the view that no single body should ever hold all the power. The resulting separation of powers tends to be referred to as the *trias politica*. In the Constitution of the Netherlands, the legislative, executive and judicial powers are regulated by different chapters. However, this separation is not very strict in the Dutch system of government.[519] Many Dutch authors therefore prefer to talk about the 'balance' between the three state powers and about constitutional 'checks and balances'.[520] This does not change the fact that an important criticism of the District Court's judgment was that the court should have left the decision on the extent and pace of emissions reduction to the legislature and the executive.[521] This criticism also affects the decision on appeal.[522] This was one of the reasons why the State lodged an appeal in cassation.[523]

5.4 In this chapter, we first provide a brief summary of the District Court and Court of Appeal's assessments of these defences. We then discuss, in a comparative law context, the United States' political question doctrine and the way in which courts in the Netherlands handle disputes in which a political issue is submitted to the courts. This will be worked out for the relationship between the

courts and the legislature and for the relationship between the courts and the executive. We then address the lawfulness of a court order to enact legislation. Lastly, we discuss the complaints.

The District Court's opinion

5.5 The District Court assessed these defences in paras. 4.94-4.102 of its judgment. The District Court stated at the outset that the laws of the Netherlands do not provide for a complete separation of the three state powers; those laws do, however, provide that the balance between these powers must be safeguarded. According to the District Court, this balance is not jeopardised by the claim instituted by Urgenda: an essential feature of a state under the rule of law is that the actions of political bodies, even if democratically legitimised and checked independently, can be assessed by an independent judiciary. The judiciary does not enter the political domain with the associated considerations and choices. After all, the judiciary limits itself to its own domain, namely the application of the law, regardless of any political agenda. Depending on the nature of the issues and claims submitted to the court, it will assess the government action with more or less restraint. More restraint is required when it concerns a policy-related weighing of divergent interests which impact the structure or organisation of society. The court must always be aware that it is fulfilling its role in a dispute between the parties to the proceedings. The other two state powers do not limit themselves to the legal relationship between the parties in question, but make a general assessment in which they also take the interests of third parties into account (District Court's judgment, para. 4.95). An order to reduce greenhouse gas emissions as claimed in this case may have direct or indirect consequences for third parties. This view prompts the court to exercise restraint when assessing this claim (District Court's judgment, para. 4.96).

5.6 In light of these considerations, the District Court believed that Urgenda's claim did not exceed the defined domain of the judiciary. In this case, it is a question of providing legal protection and checking compliance with the rules of law. While granting the reduction order sought by Urgenda may have political consequences and, to that extent, it may interfere with political decision-making, that possibility is inherent in the role of the judiciary in cases involving a government body as a party to the proceedings (District Court's judgment, para. 4.98). According to the District Court, the State did not argue in these proceedings that it is *de jure* or *de facto* impossible to take reduction measures that go beyond those included in the existing climate policy of the Dutch government. Nor did the State rely upon Article 6:168(1) DCC, which in principle makes it possible for the court to reject a claim aimed at prohibiting an unlawful act on the grounds that this act must be tolerated on account of 'compelling social interests'. In fact, in the District Court's opinion, the opposite is true in this case: on the basis of the established facts, it is necessary for the State to take more far-reaching measures to be able to achieve the 2ºC target (District Court's judgment, para. 4.99).

5.7 The District Court rejected the State's argument that the government's climate policy is largely established in international consultation and that granting the order sought would harm the Netherlands' international negotiating position. If it is established at law that the State is obliged to Urgenda to achieve a certain reduction target, the Dutch government is not free to disregard this legal obligation. The same applies to the government's international negotiations. Again, however, the difficulty in foreseeing the consequences of judicial intervention makes it necessary for the court to exercise restraint (District Court's judgment, para. 4.100). In its judgment, the District Court expressed this restraint by limiting the court order to a reduction target of 25% in 2020, starting from the need for a 25%-40% reduction in 2020. In so far as Urgenda's relief sought exceeded that order, its claim failed in view of the discretionary power[524] to which the State is entitled with regard to the reduction policy to be pursued (District Court's judgment, para. 4.86).

5.8 According to the District Court, Urgenda's claim does not seek a court order to enact certain legislation or promulgate certain measures. If the order formulated by the District Court is granted, the State retains full freedom to determine the manner in which it complies with that order (District Court's judgment, para. 4.101). The District Court concluded that the State's defences regarding

the *trias politica* do not stand in the way of an order as given in the judgment (District Court's judgment, para. 4.102).

The Court of Appeal's opinion

5.9 On appeal, the State dedicated Chapter 15 of its Statement of Appeal to the system of separation of powers. Ground for appeal 28 entailed that the District Court (in paras. 4.94-4.102) wrongfully held that the system of separation of powers did not stand in the way of granting Urgenda's claim or parts thereof, in particular the order to reduce greenhouse gas emissions.[525]

5.10 The Court of Appeal rejected this ground for appeal in paras. 67-69. The Court of Appeal did not agree with the State's position that only the democratically legitimised political bodies have been appointed to take the related policy decisions. The Court of Appeal held that this case involves an impending violation of human rights, so that measures must be taken against it. Moreover, in the Court of Appeal's opinion, the order issued by the District Court leaves sufficient leeway for the State to decide for itself how to comply with that order (para. 67). This is followed by para. 68:

'In this context, the State also argues that limiting the cumulated volume of Dutch emissions, as ordered by the district court, can only be achieved by adopting legislation, by parliament or lower government bodies, that this means that from a substantive point of view the order constitutes an order to create legislation and that the court is not in the position to impose such an order on the State. However, the district court correctly considered that Urgenda's claim is not intended to create legislation, either by parliament or lower government bodies, and that the State retains complete freedom to determine how it will comply with the order. Even if it were correct to hold that compliance with the order can only be achieved through creating legislation by parliament or lower government bodies, the order in no way prescribes the content of such legislation. For this reason alone, the order is not an 'order to create legislation'. Moreover, the State has failed to substantiate, supported by reasons, why compliance with the order can only be achieved through creating legislation by parliament or lower government bodies. Urgenda has argued, by pointing out the Climate Agreement (to be established) that is to be established among other things, that there are many options to achieve the intended result under the order that do not require the creation of legislation by parliament or lower government bodies. The State has failed to refute this argument with sufficient substantiation.'

5.11 The Court of Appeal added to this:

'The State also relied on the *trias politica* and on the role of the courts in our constitution. The State believes that the role of the court stands in the way of imposing an order on the State, as was done by the district court. This defence does not hold water. The Court is obliged to apply provisions with direct effect of treaties to which the Netherlands is party, including Articles 2 and 8 ECHR. After all, such provisions form part of the Dutch jurisdiction and even take precedence over Dutch laws that deviate from them.' (para. 69).

5.12 In ground for cassation 9, the State directs complaints against these findings. Before we discuss these complaints, we would like to make some general remarks.

The political question doctrine in the United States

5.13 The State's first defence, referred to in section 5.1 above, is reminiscent of the 'political question' doctrine in the United States.[526] The U.S. Supreme Court's decision in *Marbury v. Madison* (1803) is usually designated as the starting point for this doctrine. The underlying dispute does not need to be discussed here.[527] The U.S. Supreme Court was faced with the question of whether the separation of the three state powers in the U.S. Constitution precluded the court's granting of a remedy. The following consideration is important to understand the notion of a 'political question':

'The province of the Court is solely to decide on the rights of individuals, not to inquire how the Executive or Executive officers perform duties in which they have a discretion. Questions, in their nature political or which are, by the Constitution and laws, submitted to the Executive, can never

be made in this court.'

5.14 It is not always clear when such discretionary powers are exercised. In later decisions, the political question doctrine was further fleshed out and downplayed to a certain extent. The literature often refers to the 1962 decision in *Baker v. Carr*.[528] In short, the dispute concerned a decision on the geographic layout of an electoral district, which decision would or would not be contrary to the principle of equality. The substantiation sets out a series of perspectives on the basis of which it is possible to establish whether a specific case pertains to a political question that is entirely outside the scope of judicial review:

A textually demonstrable constitutional commitment of the issue to a coordinate political department; or

a lack of judicially discoverable and manageable standards for resolving it; or

the impossibility of deciding without an initial policy determination of a kind clearly for nonjudicial discretion; or

the impossibility of a court's undertaking independent resolution without expressing lack of the respect due coordinate branches of government; or

an unusual need for unquestioning adherence to a political decision already made; or

the potentiality of embarrassment from multifarious pronouncements by various departments on one question.

5.15 In practice, these criteria are mainly used when a claim pertains to politically sensitive policy issues on foreign relations, defence, or maintenance of public order.[529] Other examples of political question defences that were allowed are scarce. Recently, the U.S. Supreme Court allowed a political question defence in a dispute on the geographic layout of an electoral district.[530]

5.16 The criteria of *Baker v. Carr* can also be identified in professional literature on US lawsuits in which the consequences of climate change were addressed.[531] One author asserts that international courts are less prepared than national courts to refrain from a substantive assessment of a dispute on the grounds that it concerns the exercise of a political power.[532] If that assertion is true, it could be explained by the circumstance that the political question doctrine relates to the *internal* relationships between the three state powers.[533]

5.17 The political question doctrine was considered in the Netherlands as well. Van der Hulle summarises the criteria from *Baker v. Carr* as follows: (i) the dispute concerns a subject that was assigned to one of the other two state powers by or by virtue of the U.S. Constitution; (ii) there are insufficient clear and objective criteria on the basis of which the dispute could be resolved; (iii) a substantive assessment could interfere with the functioning and previous political decisions of the other state powers.[534] A similar abridged description was used in a judgment rendered by the Preliminary Relief Judge of the District Court of Amsterdam on the Brexit problem:

'The first defence pertains to the political question doctrine and concerns the allocation of tasks between the judiciary and the executive and/or legislature. According to this doctrine, the key to answering the question of whether the judiciary is allowed to assess a dispute is whether it concerns a subject that constitutionally falls within the competence of another state power, or whether there are sufficient clear and objective criteria to be able to assess the dispute *de jure*, and/or whether a court judgment would interfere with the possibility of another competent state power to form a political opinion on the matter.'[535]

Boogaard defends a distinction between what he refers to as 'the classic U.S. political question doctrine' and a 'substantive approach to the *trias politica*'.[536] This brings us to the question of whether the laws of the Netherlands include an exception for political issues to the main rule that provides access to the courts.

The trias politica doctrine and the jurisdiction of the civil courts

5.18 The *jurisdiction* of the civil courts, under Dutch law, is independent from the question of whether

the claim raises a political issue. Since 1915, the rule in the Netherlands has been that the civil courts determine their jurisdiction on the basis of the law on which the claimant bases its claim[537] rather than on the nature of the dispute and whether it pertains to public or private law. If the claimant bases its claim on a violation or impending violation of a right to which it is entitled or on an unlawful act committed against it, the civil courts do, in principle, have jurisdiction to take cognisance of that claim and render a substantive opinion on it. This also applies when the claim is directed against the State.[538]

5.19 The fact that the court accepts jurisdiction to rule on a claim does not mean that the claim will always be granted. The case law of the civil courts on unlawful government acts has developed further since 1915. Provided that all the requirements of Article 6:162 DCC are met, the court may award damages at the expense of the government concerned. Pursuant to Article 3:296(1) DCC, the court may also order a person who is obliged to give, to do or not to do something as regards another, to comply with that obligation upon the demand of the person to whom the obligation is owed, save if otherwise follows from the law, the nature of the obligation or a juridical act. Ground for cassation 9, in essence, raises the question of whether one of these exceptions applies.[539]

Political questions and the relationship between judiciary and legislature

5.20 In the *trias politica* (the interrelationship between the three state powers), the judiciary has traditionally been the one to investigate the facts, apply the law to the facts and, if necessary, interpret the law. The basic assumption is therefore clear: the judiciary assesses whether the acts or omissions of the State and its bodies are lawful or unlawful. The efficiency of the State's actions and of its government policy can be assessed by parliament, if necessary after an investigation by, for example, the Netherlands Audit Office. The General Provisions on Kingdom Legislation Act (*Bulletin of Acts and Decrees* 1829, 28) considers the judiciary's obligation to follow the law to be of paramount importance: 'The courts must administer justice in accordance with the law; under no circumstances may they assess the inner value or fairness of the law.' (Article 11).[540]

5.21 On the other hand, it is clear that, when making laws, the government and parliament cannot anticipate every situation that could possibly occur in the future, while laws may remain in force for many decades. This may result, for example, in statutory provisions that are unclear or contradictory in practice, statutory provisions that are superseded by new technological or social developments, or problems brought before the courts which problems are not regulated by the law. Courts may never refuse to administer justice on the pretext that there is a lack, insufficiency or vagary of law (Article 13 of the General Provisions on Kingdom Legislation Act). In such cases, courts are forced to further develop and supplement the law. In performing their duties, courts are bound by the limits of the legal disputes in the cases submitted to them. Regardless of the matters put before them, courts may never act as legislators: 'Courts may never rule on matters subject to their decision by way of general decree, order or regulation' (Article 12 of the General Provisions on Kingdom Legislation Act).

5.22 In the 'classic' cases where courts develop the law, in which existing legislation provides insufficient answers or otherwise needs to be supplemented, Dutch courts tend to look for solutions that fit within the system of the law and that are consistent with cases that *are* regulated by the law.[541] This minimises the risk of collisions within the *trias politica*.[542] The legislature and the executive cannot change the judicial decision in the adjudged case, which has *res judicata* force only in respect of the parties to the proceedings. If the executive does not like the outcome due to it setting a possible precedent, the legislature may reformulate the relevant statutory provisions or choose to adopt an entirely new statutory provision on the subject for other, future cases.

5.23 When the judiciary independently fills a gap in legislation to arrive at a final judgment, the chance of friction within the *trias politica* increases. Courts are cautious in doing so. However, Articles 93 and 94 of the Constitution – discussed in sections 2.27 and 2.28 above – provide that a court may

be forced to apply a 'binding' treaty provision directly. If a court finds that a Dutch statutory provision is incompatible with an applicable 'binding' treaty provision, it will exclude the application of that provision to that extent.[543] In some cases, excluding the application of the national statutory provision is sufficient to obtain effective legal protection. If the applicable 'binding' treaty provision only allows one outcome, the court may apply that treaty provision instead of the national provision. But there are also cases where the mere exclusion of the application of the national statutory provision is insufficient and there are multiple conceivable options to fill the resulting gap. In such cases, the court must decide whether it will fill that legal gap itself by choosing from those options and formulating of its own volition the legal rule by which the case in question can be adjudged. The alternative is that the court leaves it to the legislature to bring the national legislation in line with the applicable treaty provisions.[544] This problem was the subject of much debate in the Netherlands in the 1980s.[545]

5.24 This debate was conducted on the basis of arguments of both a practical and a principled nature.[546] The practical arguments included the argument that the legislature, which is open to any interested party, is better placed to understand the consequences of the choice for a certain rule of law than the court, which is informed only of the wishes and interests of the relevant parties to the proceedings. This argument is also given by Scheltema, who discusses three practical advantages of legislation by the legislature over the formulation of rules of law by the judiciary:

- Court rulings are tailored to individual cases. It is therefore not easy to derive general rules from case law. Court-made law is generally less accessible than systematised rules drawn up by the legislature.

- Moreover, the judiciary has fewer instruments than the legislature when it comes to formulating a new rule or changing an existing rule. A court cannot organise a general public debate on the pros and cons of a particular solution. It cannot have experts perform a study into that solution, nor seek advice on the best design of a particular rule. In short, the judiciary has fewer opportunities to foresee the consequences of the proposed rule than the legislature.

- The judiciary cannot properly regulate transition problems. After all, the basic principle is that the judiciary interprets existing law.[547]

5.25 A good reason for the courts to exercise restraint when formulating a new rule could be that the violated treaty provision requires not just the replacement of one statutory provision but the conception and implementation of an entirely new system. Only the legislature can do that.[548] A recent example can be found in a Supreme Court decision on the tax on imputed return on investment in the Dutch Income Tax Act.[549] The Supreme Court found:

'If the tax burden in box 3 for the year 2013 or the year 2014 is higher than the average return that could be achieved without too much risk, taxpayers are faced at a system level with an excessively heavy burden in box 3 for that year that is incompatible with the right to undisturbed enjoyment of property protected by Article 1 FP. [...] Such a violation at system level creates a legal gap that cannot be provided for without making choices at a system level. These choices are not sufficiently clear from the system of the law (*cf.* Supreme Court 8 June 2018, ECLI:NL:HR:2018:846, para. 2.5.1). In that case, the judiciary will exercise restraint towards the legislature in providing for such a legal gap at system level. In principle, there is no place for judicial intervention unless an individual taxpayer is faced with an individual and excessive burden in violation of Article 1 FP [...].'

5.26 The argument that a court has no democratic legitimacy, or at least less than the legislature, to create new rules is an argument based in principle. Sometimes there is a fear that the judiciary will go its own way: judicial activism versus judicial restraint. In French, this fear is expressed in the phrase '*gouvernement des juges*'.[550] In the Netherlands, judges are appointed rather than elected by the people. A central theme in this debate is the 'principle of democracy': the decision on whether to create legislation and on the substance of a law to be enacted is reserved for parliament. The principle of democracy leads to a restrained attitude on the part of the judiciary towards the actions of the other two state powers. In previous disputes on the possibility of judicial review, the Supreme Court referred to 'the position of the judiciary in our constitution, as

also expressed in Article 11 of the General Provisions on Kingdom Legislation Act'.[551]

5.27 It may be unsatisfactory for effective legal protection when courts are forced to limit their judgment to the finding that a national statutory provision is incompatible with a treaty provision. This issue is also known in other countries. For example, the English courts may, under Article 4 of the Human Rights Act, issue a declaration of incompatibility which addresses the incompatibility of an existing statutory rule with a provision of the ECHR.[552] In the Netherlands, the courts may, under Article 94 of the Constitution, exclude the application of a statutory provision in so far as it is in conflict with a treaty provision that is 'binding on all persons'. Sometimes a court has the option of setting a period within which the legislature can create a new law that is compatible with the treaty.[553] In 1999, the Supreme Court adopted a moderate form of 'giving notice of default' to the legislature when a tax rule proved to be in conflict with the principle of equality:

'3.18. It follows from the above that this is not a situation in which it is clear how the court should fill the legal gap caused by the discriminatory regulation, but different solutions are conceivable in order to eliminate the discrimination and the choice from these solutions also depends on general considerations of government policy. This means that the court should not immediately fill in the legal gap itself, but should leave this to the legislature for the time being. The ground for cassation is therefore well-founded. It should be noted, however, that as stated in 3.15 the assessment may be different in the future. The Supreme Court assumes that the government will, with the necessary urgency, submit a bill that does justice to the treaty obligations of the State of the Netherlands in this respect.' [554]

5.28 If the legislature is already in the process of creating a regulation and the subject permits some delay, courts will almost always wait for the legislature.[555] In the event of an impending violation of the fundamental rights of individuals, courts are sooner forced to provide effective legal protection. As the risk of a violation of fundamental rights increases and the consequences of the feared violation become more serious, the expectations of judicial intervention also increase. On the other hand, there is a risk that the judiciary will lose authority and public trust if it goes too far in an area that the constitution reserves for the legislature.[556]

Political questions and the relationship between judiciary and executive

5.29 The *trias politica* doctrine does not mean that the judiciary may never 'assume the role of the executive' in proceedings where the government is a party. In fact, Dutch administrative procedural law offers this possibility. When the administrative court declares an appeal to be well-founded and sets aside the contested decision of an administrative body, it can among other things stipulate:

- that the legal consequences of the decision (or part thereof) that was set aside are fully or partially affirmed;

- that its decision replaces the decision (or part thereof) that was set aside (see Article 8:72(3) General Administrative Law Act).

If this third paragraph cannot be applied, the administrative court may order the administrative body to take a new decision or to perform another action with due observance of the court's instructions (see Article 8:72(4) General Administrative Law Act).

5.30 In these proceedings, the State relied upon Supreme Court 6 February 2004, ECLI:NL:HR:2004:AN8071, *NJ* 2004/329. That case concerned objections by the *Vereniging van Juristen voor de Vrede* (Association of Lawyers for Peace, VJV) and other interest groups against the Dutch government's intention to cooperate in proposed military actions of the government of the United States at the time. They claimed an injunction prohibiting such cooperation and an order against the State. The Preliminary Relief Court and Court of Appeal both rejected the claims. The Supreme Court upheld that decision. The Supreme Court's principal ground reads as follows:

'Article 90 of the Constitution, on which VJV *et al.* also based their claims, does not lead to a different opinion. While that Article contains an instruction to the government to promote the

international rule of law, neither it nor any other articles stipulate how the government should carry out that instruction. In that context, the Supreme Court notes that the relevant claims of VJV *et al.* pertain to questions concerning the policy of the State in the areas of foreign policy and defence, which policy strongly depends on political considerations in connection with the circumstances of the case. Even in the case of a ban on violence, it is not up to the civil court to make these political considerations and to prohibit the State (government) from taking certain actions to implement its political decisions in the areas of foreign policy or defence, or order the State to follow a certain course of action in those areas, all on the demand of a citizen.' (para. 3.4).

5.31 The judgment of 6 February 2004 regarded the question of whether Article 90 of the Constitution limits the government's discretion. Article 90 of the Constitution plays no role in the dispute between Urgenda and the State, nor does any national defence interest. The policy regarding the foreign relations of the Netherlands is not at stake either in this case. In so far as the State envisions that the climate policy is determined to an important extent in multilateral and bilateral international consultation, it should be noted that Urgenda's claim is not so much aimed at forcing the Netherlands to adopt a particular position in international negotiations. The relief sought and reduction order given are limited to the Netherlands' greenhouse gas emissions and are substantively restricted to establishing a lower limit for the reduction of those emissions in 2020.

5.32 In any case, the ground cited from the Supreme Court's judgment of 6 February 2004 can to a certain extent[557] be regarded as a Dutch counterpart to the U.S. political question doctrine. The Supreme Court stressed the need for political deliberation.[558] The Supreme Court used a similar argument in its case law on the lawfulness of a court order to enact legislation. This case law is discussed below.

The lawfulness of an order to enact legislation

5.33 The States General represent the entire Dutch people (Article 50 of the Constitution). In the Netherlands, Acts of Parliament are enacted (in the formal sense of the word) jointly by the government and the States General (Article 81 of the Constitution). A bill becomes law once it has been passed by the States General and ratified by the King (Article 87 of the Constitution). According to the State, a court order for the State to create legislation or amend or repeal an existing Act of Parliament would not be in keeping with this system.

5.34 In a state under the rule of law, the government is also bound by the applicable law. There is no question of immunity under civil law on the part of the State of the Netherlands in proceedings before the Dutch courts. It is therefore, in principle, possible for the civil courts to order the State to, for example, pay damages. The jurisdiction of the Dutch administrative court regarding decisions of administrative bodies was already discussed in section 5.29, above. Decisions entailing the adoption, entry into effect or repeal of a generally binding regulation cannot be appealed before the administrative court (Article 8:3(1)(a) Dutch General Administrative Law Act).[559]

5.35 The civil court may issue an injunction or an order under the terms of Article 3:296(1) DCC, save if it otherwise follows from the law, the nature of the obligation or a juridical act. Such an order may also be issued to the State as a legal entity, save if it otherwise follows from the law or the nature of the obligation. The question of whether the separation of powers doctrine (the *trias politica*) prevents the court from issuing an order to the State to create legislation or amend or repeal an existing Act of Parliament has already been answered by the Supreme Court.

5.36 In 1999, the Supreme Court heard a dispute between a municipality and a province. The municipality accused the province of acting in breach of the law by not holding the prescribed consultations with that municipality while preparing a municipal redivision in that province. The Supreme Court established that the civil court was competent to rule on the alleged unlawful act. Substantively, however, the municipality's claim was unsuccessful. The Supreme Court held, in so

far as relevant here:

'3.4 [...] As mentioned above, the municipal layout is changed by law. Once such a law has been enacted, the court is not free to rule that the violation of the relevant procedural rules during the preparation and discussion of that law constitutes an unlawful act. The judiciary must honour the opinion of the formal legislature – the Government and the States General – on the question of whether those rules were observed.

It would be inconsistent with this system if the judiciary, in the course of the process that results in a formal Act of Parliament, could rule that the rules of procedure were not observed and could intervene in the legislative process on that basis, which would mean that the questions of whether the rules of procedure were violated and, if so, which consequences that violation should carry are effectively withdrawn from assessment by the formal legislature, which is exclusively authorised to assess such matters.'

The Supreme Court did not indicate whether this would be different when it comes to the preparation and discussion of a bill in respect of which it is argued that one or more provisions are non-binding pursuant to Article 94 of the Constitution because they are in conflict with provisions of treaties or decisions of international institutions that are 'binding on all persons'.[560]

5.37 This was followed in 2003 by the *Waterpakt* judgment, which the State has relied upon in these proceedings. At the request of Stichting Waterpakt *et al.*, the State was ordered by the District Court, briefly put, to take such measures as to ensure that the standard for the use of animal manure (210 kg of nitrogen per agricultural or livestock farm per hectare) would be met in the year 2002. This standard was derived from a Directive of the European Union (the Nitrate Directive), which had not been implemented in time in Dutch legislation. The Court of Appeal set aside this judgment on appeal and denied the order sought, holding that 'by virtue of its constitutional position, the court is not free to intervene in the primary legislative process in the manner purported by this claim. This purport also precludes the ordering of substantive legislation because it is closely interwoven with primary legislation'.

5.38 In cassation, Stichting Waterpakt *et al.* asked the Supreme Court whether Dutch law prevents the court from ordering the State to create legislation to put a stop to an unlawful situation. The Supreme Court held:

'Pursuant to Article 81 of the Constitution, Acts of Parliament are enacted by the government and the States General and the question of whether, when and how an Act is drafted must be answered on the basis of political decision-making and consideration of the interests involved. The distribution of powers between the various state bodies, which is also based on the Constitution, means that the courts cannot intervene in that political decision-making process. This is no different if the result to be achieved with this legislation and the deadline for achieving the result have been set by a European Directive. Even if the legislature neglected to enact legislation to achieve the required result within the implementation period of a Directive and it must be assumed that the State is thereby acting unlawfully, the courts cannot issue an order to enact such legislation within a period of time determined by the courts. Even then, the question of whether legislation should be enacted and, if so, what its substance should be still requires a political assessment and the weighing of many interests, including the interests of parties not involved in proceedings such as these, in which the courts cannot intervene. Equally a matter of political assessment is the question of whether, when primary legislation has not been enacted to implement a Directive, or at least has not been enacted in good time or in the correct manner, the State is willing to let the matter progress to the stage of infringement proceedings.

The above does not change the fact that the person who is obliged to put an end to an unlawful situation may be ordered to do so by the court pursuant to Article 3:296 DCC, and that this provision also covers this case if it is assumed that the State is obliged to put an end to the unlawful situation created due to its failure to implement the Nitrates Directive. After all, this Article also provides that the law and the nature of the obligation may dictate otherwise. It must be assumed in view of the above that this exception applies.

That, pursuant to Article 94 of the Constitution, the court must exclude the application of primary legislation, once enacted, if it is in conflict with any binding provisions of treaties and decisions of international institutions is also irrelevant to the assessment of the question referred to in 3.4 above. The exclusion of the application of primary legislation on that ground is of a different nature than an order to enact legislation: indeed, the exclusion of application applies only in respect of the claimant in the proceedings and does not mean that the rule in question is changed or repealed, while an order for primary legislation is intended to create a general regulation that also applies to parties other than those involved in the proceedings.' (para. 3.5).[561]

5.39 Shortly thereafter, a dispute arose between a foundation, Stichting de Faunabescherming, and the Province of Friesland. The foundation brought a claim for the repeal of a provincial ordinance. Briefly put, this ordinance allowed an exception to a general ban under the Flora and Fauna Act on the capture and killing of certain animal species. The foundation argued that this exception conflicted with two EU Directives. The Supreme Court repeated its findings from the *Waterpakt* judgment and added the following:

'There is no reason to rule differently with regard to a provincial ordinance enacted by the Provincial Council, even if it is contrary to a European Directive. If the court were to issue an order for the Provincial Council to enact a provincial ordinance, it would constitute an unauthorised intervention in the political decision-making process and consideration of interests that is reserved to the elected representatives of the Provincial Council. This also applies if the court were to order the repeal of a provincial ordinance that is contrary to a European Directive. Furthermore, such an order would result in a general regulation that also applies to parties other than those involved in the proceedings.'[562]

5.40 A dispute between a foundation, Proefprocessenfonds Clara Wichmann (a women's rights organisation), and the State concerned the question of whether a political party represented in parliament (the SGP) was allowed to exclude women from the nomination of candidates. The claim was for the court to order the State to take measures against such exclusion.[563] The Supreme Court held, among other things, that the Court of Appeal rightly concluded that the State is obliged to take measures that actually result in the SGP granting women the right to stand as candidates in elections and that in doing so the State must use measures that are effective but still keep infringement on the fundamental rights of the SGP and its members to a minimum. The Supreme Court continued:

'4.6.2 However, this is not to say that the court is authorised or able to order the State to take specific measures to put an end to the SGP's discrimination with regard to its female members' right to stand as candidates in elections.

As decided in Supreme Court 21 March 2003 [...] (*Waterpakt/State*), the court lacks the jurisdiction to order the State to enact primary legislation. This was unsuccessfully contested in Clara Wichmann *et al*.'s Grounds for Cross-Appeal in Cassation in both cases. Aside from the fact that Clara Wichmann *et al*. have not indicated which other specific measures the State could take, aside from the subsidy ban to be discussed below, there is no room in this case concerning the relationship between the State and a political party for a court order to take specific measures in order to comply with Article 7 of the Convention on the Elimination of All Forms of Discrimination against Women, because the choice of such measures to be taken by the State requires a consideration of interests that coincides to such a degree with considerations of a political nature that it cannot be demanded from the court. (…)'

5.41 To conclude this series of decisions, we refer to a dispute on the determination of objects subject to the private copying levy.[564] This determination is made by order in council on the basis of the Copyright Act. Orders in council are a form of substantive law (see Article 89(1) of the Constitution) but are not primary legislation within the meaning of Article 81 of the Constitution (*cf*. section 5.33 above). The claimants (Norma *et al.*) argued that the State's choice not to designate certain audio and video equipment as taxable was in conflict with a Directive of the European Union. On that basis, the court on appeal found the lack of a designation to be unlawful, in the form of a judicial declaration as referred to in Article 3:302 DCC. The Supreme Court held, among other things:

'Contrary to what is argued in the grounds for cassation, the Court of Appeal did not fail to recognise that the court cannot intervene in the political decision-making process and consideration of interests underlying orders in council, including the decision-making process and consideration of interests of parties other than those involved in the proceedings, and that this would be no different if the result to be achieved with those orders in council were set on the basis of a European Directive (*cf.* Supreme Court 1 October 2004, [...] (*Faunabescherming/Friesland*)). The judicial declaration that the issue of orders in council against Norma *et al.* is unlawful because it contravenes the Copyright Act and Neighbouring Rights Act, which must both be interpreted in accordance with the Copyright Directive, lacks the character of an order to enact legislation. After all, the judicial declaration applies only to Norma *et al.* and does not mean that the orders in council must be amended or repealed. The judicial declaration furthermore leaves the State plenty of room to provide for legislation that is in accordance with the aforementioned Directive and statutory provisions, so that it does not affect the State's discretionary power.' [565]

Considerations further to this case law

5.42 It is undisputed in these proceedings that both Article 2 and Article 8 ECHR are among the treaty provisions which, according to their substance, are binding on all persons.[566] The Court of Appeal applied these treaty provisions directly to determine the State's obligations or to interpret the concept of 'unlawful' in Article 6:162(2) DCC.

5.43 At this point, it can be said that established Supreme Court case law precludes the court from ordering the State to enact or repeal legislation. If the court order issued against the State in this case at the request of Urgenda is regarded as an order to enact legislation, or is considered equivalent to such an order, the contested judgment of the Court of Appeal cannot be upheld. However, the case law referred to above does seem to leave room for a judicial declaration,[567] which Urgenda also claimed.[568] Urgenda's position is that a judicial declaration in this case offers insufficient legal protection: given the extremely important interests at stake, Urgenda believes that there are no acceptable alternatives to a reduction order set at a specific minimum percentage.[569]

5.44 The Supreme Court did not base its decisions that a court order to enact legislation is prohibited on the practical argument that enforcement issues are to be expected if the State – contrary to what it is accustomed to do – does not comply with the order and the claimant wishes to enforce it. The State as a legal entity cannot force a member of the States General to vote for or against a particular bill, even if it is to ensure compliance with a court order to enact legislation.[570] The same applies with regard to the voting rights of Provincial Council members or municipal council members concerning the enactment, amendment or repeal of a provincial or municipal ordinance. Consequently, an order to enact legislation can never be enforced. The most conceivable option would be an indirect form of enforcement by imposing a penalty on the State (as a legal entity), but this too would meet with objections.[571]However, it should be noted in this context that an ECHR signatory's failure to comply with an order issued against it by the national court in itself constitutes a violation of Article 6(1) ECHR.[572]

5.45 In the case law cited above, the unlawfulness of a court order to enact legislation is reasoned in a more principle manner:

a. The intended objective of an order to enact legislation is to have a generally applicable law enacted that will also apply to parties other than the litigants.

b. The question of whether legislation should be enacted and, if so, what its substance should be requires a weighing of many interests, including those of parties not involved in the proceedings. This requires a political assessment in which the court cannot intervene.

c. Equally a matter of political assessment is the question of whether, when primary legislation has not been enacted to implement a European Directive, or at least has not been enacted in good

time or in the correct manner, the State is willing to let the matter progress to the stage of infringement proceedings.

With the latter, we would note that if this pertains to conflict with a treaty provision, the sentence at c) could be read to mean: '[...] whether, when primary legislation has not been enacted to implement a treaty provision, or at least has not been enacted in good time or in the correct manner, the State is willing to let the matter progress to the stage of the enforcement procedure provided for in the treaty involved'.[573]

5.46 The argument referred to in the previous section at a) aligns with the aforementioned 'democratic principle'.[574] The State's position that in a democratic state under the rule of law, the judiciary cannot be allowed to 'steer' the executive and the representatives of the people based on a claim from an interest group that is apparently disappointed with the political choices that have been made, is in line with this. In itself the argument hits the mark: in a democratic state under the rule of law, the majority decides in a vote by the representatives of the people on a legislative proposal. It is then unacceptable for a disappointed minority to be able to force the matter to its satisfaction by means of a court order to enact other legislation. However, this argument by the State must be put into the proper perspective: a claim seeking protection of *human rights* is more than merely a claim for the satisfaction of one's own political choices. In a state under rule of law, the fundamental rights of all must be respected, even when taking a decision by majority: *fundamental* rights cannot be 'outvoted'.

5.47 The argument at b) pertains to the question of whether or not a weighing of interests is required that 'coincides to such a degree with considerations of a political nature that it cannot be demanded from the court'. If every social issue regarding which a political body could take a decision is already considered to be a matter requiring 'deliberations of a political nature', that standard would have little, if any, distinguishing effect. The standard is not whether a court decision has major political consequences.[575] The circumstance that the required performance will involve public costs, therefore making those funds unavailable for other purposes, also has little, if any, distinguishing effect: in that event, the majority of the court cases in which the State or some other executive body is a party to the proceedings would have to be designated as a 'political question'.[576]

5.48 It is no coincidence that examples of cases in which 'considerations of a political nature' are deemed necessary are usually found in the area of politically 'sensitive' subjects regarding which social or moral views are strongly divided, or that relate to defence, national security services, or government policy in respect of foreign relations. What these areas of attention have in common is that the executive and other political bodies involved need to be very cautious – diplomatic – in their approach and will need to engage in political negotiations in search of support for the intended solution. Sometimes, a political 'price' will have to be paid. Conducting negotiations with 'tied hands' is notoriously difficult. This makes it understandable that in such cases, governments and other political bodies feel a need for more room to manoeuvre than normal: as the State has put it in these proceedings, a 'wide margin of appreciation'.

5.49 The State's defence pertains not only to the substance of the law, but also to the manner in which legislation is enacted. In principle, everyone in the Netherlands is allowed a say in the preparatory phase[577] and to voice their opinions in the social debate on specific legislative proposals. In the end, the parliament votes on legislative proposals. If one or more members of the House of Representatives of the States General believe that the government has been negligent in failing to submit a legislative proposal, the members can submit a legislative proposal on their own initiative.[578] If, however, the judiciary were to order the State to enact legislation with a certain substance, no one other than the parties to the proceedings will have had an opportunity to provide input. This in part explains the *Waterpakt* case law. This argument carries less weight in a case like the present, in which the court merely determines the very minimum that any legislation enacted must satisfy – in connection with the State's positive obligations ensuing

from Articles 2 and 8 ECHR – and otherwise leaves the decision as to whether legislation is enacted and, if so, its substance entirely to the competent political bodies.

5.50 If the Dutch judiciary were to mirror the criteria from *Baker v. Carr*, an investigation would also be required to determine whether issuing a court order for another state power in the *trias politica* impedes the possibility of forming an opinion on the matter. At first glance, this would appear not to be the case: a reduction obligation of 25% for the year 2020 – a short-term obligation – in itself does not obstruct the reduction targets for the year 2030 or for the year 2050 – the long term – that is the State's premise. Nor does the ordered reduction target of 25% in 2020 obstruct the target for 2020 agreed within the EU context. Moreover, this concerns *minimum* reduction targets that do not prevent the State from reducing the emission of greenhouse gases in the Netherlands further and/or at an earlier point in time.[579] However, the reduction order issued does make it necessary to hasten the reduction efforts that the State intended to spread out over the period until 2030 (and until 2050, respectively). To that extent, the order issued does impact the freedom of action of the political bodies. The Court of Appeal acknowledged this aspect (see paras. 47 and 66-74).

The complaints in ground for cassation 9 (9.1-9.3; unlawful order to enact legislation?)

5.51 Ground for cassation 9 distinguishes between three arguments in para. 68, to wit:

that Urgenda's claim is not intended to create legislation, either primary or substantive, so that the State retains complete freedom to determine how it will comply with the order;

that if it must be assumed that compliance with the District Court's order is only possible by enacting legislation, the order does not in any way prescribe the substance of that legislation;

that the State has not substantiated why the order can only be complied with by enacting legislation, and that the State has insufficiently refuted Urgenda's assertions.

5.52 Ground for cassation 9.1 – regarding the first argument – entails that the Court of Appeal has failed to appreciate that even if Urgenda's claim does not entail enactment of legislation by the State, a reduction order as sought by Urgenda cannot be granted if the State cannot comply with the order *de facto* without enacting legislation.

5.53 Ground for cassation 9.2 – regarding the second argument – entails that the Court of Appeal failed to appreciate that granting an order to enact legislation - or, respectively, granting an order that can only be complied with *de facto* by enacting legislation - is also inadmissible if the order does not prescribe the *substance* of the legislation to be enacted.

5.54 Ground for cassation 9.3 entails that the conclusion drawn by the Court of Appeal – the third argument – is incomprehensible in light of the State's arguments presented on appeal. On appeal, the State explained, with reasons, the measures, additional or otherwise, that are imaginably required in order to comply with the District Court's reduction order.[580] The State also pointed out that for at least many of these measures, existing legislation and regulations need to be amended. Furthermore, still according to the State, these measures require a political weighing of various interests, also in view of the costs involved with these measures and the cost-effectiveness of the various possible measures.[581] In view of these positions taken on appeal, according to this complaint it is impossible to understand the basis for the opinion that compliance with the reduction order can be achieved *without* enacting legislation. The basis for the Court of Appeal's opinion that the State has insufficiently refuted Urgenda's arguments on this point is also impossible to understand. If the Court of Appeal assumed that the State argued that compliance with the reduction order is *exclusively* possible by enacting legislation, then, according to this part of the ground for cassation, this interpretation of the defence conducted is incomprehensible in view of the arguments put forward by the State on appeal.

5.55 These complaints can be discussed jointly. In view of the operative part and the findings of the

District Court's and the Court of Appeal's judgments, in the proceedings for cassation it may be assumed as point of departure that the order issued does not entail an order to enact primary or substantive legislation.[582] This was not the purport of the claim, either. Urgenda was seeking an order for the State to ensure that before the end of the year 2020, the State will have achieved a reduction of the emission of greenhouse gases in the Netherlands of at least 25%. *How* the State complies with that order - with or without legislation - is of no concern to Urgenda, as long as the emissions reduction as ordered is realised.

5.56 According to the District Court in para. 4.101, the State retains the full freedom to determine how to comply with the order concerned. The State could take measures to reduce the emission of greenhouse gases within the national government and other authorities.[583] The manner in which the District Court described its order allows the state to urge or oblige others, as well, to realise a reduction; the operative part says: 'to limit [...] emissions [...] or have them limited'. In para. 68, the Court of Appeal emphasised that the State retains the complete freedom to determine the manner in which it complies with the order, and furthermore made it clear that the order issued by the District Court does *not* entail an order to enact legislation.

5.57 In ground for cassation 9.1, the State has repeated its position that *de facto,* the State cannot comply with the order issued by District Court without enacting legislation. According to ground for cassation 9.2, this order should therefore be equated with an unlawful order to enact legislation.

5.58 Unlike in the cases assessed in the *Waterpakt* case law, in these proceedings it has not been established that the State cannot comply with the order other than by enacting legislation. Assuming, with the State, that its own contribution to the emission of greenhouse gases is only a relatively small part of the total emission of greenhouse gases in the Netherlands, the State will have to take measures, in addition to those within its own organisation, to limit other emissions by residents of the Netherlands and companies operating in the Netherlands. The national authority has various options for influencing people's and companies' behaviour. Legislation is only one of those options. Other examples include: providing information, influencing opinions and awareness,[584] stimulating sustainable products, working methods and ways of life and projects to promote the same, if necessary at the expense of financial or other State support for activities that generate significant greenhouse gas emissions; defining conditions directed at sustainability in tendering procedures or the grant of permits; spatial planning; physical infrastructure measures; pursuing sustainability policies in the areas of nature, agriculture and fishing; etc. Obviously, this list is not exhaustive.

5.59 Because of the court order, the State no longer has complete discretion in its weighing of interests, including those of the parties not involved in these proceedings. This is because the court has determined the minimum level, on the basis of the State's positive obligations pursuant to Articles 2 and 8 ECHR, that must be achieved in 2020 *collectively by means of all of the measures.* In itself, this gave no cause not to apply the *Waterpakt* case law: the *Waterpakt* case also concerned a minimum level – 210 kg nitrogen – albeit that this minimum level was not derived from the ECHR by the court itself, but had been laid down in an EU Directive.

The order issued by the District Court and upheld by the Court of Appeal gives the State complete discretionary freedom in respect of the following:

(i) the reduction efforts to be contributed by the government itself;

(ii) the distribution of these efforts among the authorities involved;

(iii) the efforts to be contributed by parties other than the government and the authorities involved, i.e. residents and companies;

(iv) the division of these efforts among the residents and companies involved and their funding;

(v) whether the State utilises legislation or other instruments 'to limit [...] emissions [...] or have them limited'

(vi) the division of the efforts over the time left for the State in the period until the end of 2020.

5.60 Assuming that legislation is not necessary for performing *all* of the measures in compliance with the order, but at most a part of those measures[585] and assuming that the competent political bodies have complete freedom to determine the measures for which legislation will be enacted and in respect of the substance of such legislation, the Court of Appeal was entitled to arrive at its opinion that there is insufficient cause to equate the District Court's order with an unlawful order to enact legislation. The Court of Appeal left the political deliberations on whether legislation will be enacted where they belong: with the legislature and the executive.

5.61 In terms of human rights, according to the Court of Appeal, the State does not have the room to opt for a lower reduction target (based on the weighing of interests of a political nature made by political bodies) that is required in the least - according to objective standards - to manage the risk described by the Court of Appeal of failing to realise the 2ºC target. The complaints on issues of law in grounds for cassation 9.1 and 9.2 fail for this reason.

5.62 The complaints on issues of fact in ground for cassation 9.3 are directed at the last part of para. 68. Its text (‘Moreover, ...' etc.) indicates that the consideration is superfluous. If grounds for cassation 9.1 and 9.2 fail, the State lacks an interest in the complaints in ground for cassation 9.3, as an opinion given superfluously does not support the decision. We would also note the following in respect of these complaints.

5.63 The Court of Appeal did not interpret the State’s arguments to mean that it can *only* comply with the reduction order by means of enacting legislation. In that regard, the assumption at the end of this part of the grounds for cassation lacks any basis in fact. In so far as the State argued on appeal that legislation is – also – needed to comply with the reduction order issued, the contested opinion is not incomprehensible. As explained, the Court of Appeal left the weighing of interests necessary in respect of the question of whether certain formal or substantive legislation will be enacted, and the substance of any such legislation, to the competent political bodies. This is why the Court of Appeal was not required to discuss the State’s individual policy measures merely mentioned as possibilities by the State in its Statement of Appeal. The State's argument that the time it has left until the end of 2020 to realise the emissions reduction ordered by the District Court is very short was considered by the Court of Appeal and rejected in para. 66. That opinion is not incomprehensible, also in light of the District Court's ruling in para. 4.99 that the State did not assert either factual or legal arguments in the first instance indicating the impossibility of its taking more far-reaching measures, while the District Court also pointed out the EU's conditional offer to realise a 30% reduction by the end of 2020.

5.64 To the extent that the State intended to argue with this complaint that enacting legislation is unavoidable *as part of any imaginable package of measures* in order to comply with the court order, we would note the following. If that position were to be accepted, then the Court of Appeal would have had to make a distinction between the measures requiring legislation – to be equated with an unlawful order to enact legislation – and the measures for which legislation is not required, which cannot be equated with an unlawful order to enact legislation. It is precisely because the State furnished insufficient facts on this point, in the opinion of the Court of Appeal, that the Court of Appeal was unable to make this distinction. If the order to be issued were to be equated with an unlawful order to enact legislation within the meaning of the *Waterpakt* case law on the basis of the bare assertion that enacting legislation is unavoidable *de facto* as part of a package of measures, then the national court would also be unable to provide effective protection of rights in respect of measures that do not require legislation to be enacted, as well. In that event, only the possibility of a complaint with the ECtHR in Strasbourg would remain for individual applicants who are of the opinion that the State is not complying with its positive obligations under Article 2 and/or Article 8 ECHR. Extrapolating the *Waterpakt* case law to that extent as advocated by the State is unacceptable for that reason.

The complaints in ground for cassation 9 (9.4-9.6; otherwise in respect of the order)

5.65 Ground for cassation 9.4 complains that in para. 68, the Court of Appeal failed to appreciate that the court cannot issue an order to the State – at least: not an order that prescribes such a specific outcome like an order to realise a reduction in emissions of at least 25% by the end of the year 2020 – if compliance with that order requires a weighing of interests that coincides to such a degree with considerations of a political nature that it cannot be demanded from the court.[586] In the alternative, the State complains in this ground for cassation of insufficient reasoning for this opinion.

5.66 Ground for cassation 9.5 continues along the same line. The State has argued that the Court of Appeal's rulings in the preceding and subsequent paras. 67 and 69, respectively, do not detract from the complaint regarding para. 68. In para. 67, the Court of Appeal held (i) that the State's arguments about the division of powers fail, as this concerns a violation of human rights, thus necessitating measures, and (ii) that the order issued offers the State sufficient leeway to determine how it will comply with that order. Para. 69 was already cited in section 5.11, above. In its explanation of this ground for cassation, the State repeated that even with a claim based on the existing or threatened violation of the State's positive obligations from of Article 2 or Article 8 ECHR, the State is entitled to a wide margin of appreciation. The explanation culminates in the position that the Court of Appeal insufficiently took that margin into consideration.

5.67 Both of these complaints were put forward in the alternative, in the event that the order is *not* equated by the Supreme Court with an unlawful order to enact legislation. The State's need for a wide margin of discretion or appreciation – a wide margin of appreciation, as the State terms it – is important for the reasons that were already discussed in section 5.48. This does not mean that the Court of Appeal was required to accommodate the State's need more than it has.

5.68 According to the submitters of the legislative proposal for the Climate Act, the reduction target included in Article 2(1) of 95% for 2050 is an *obligation to perform*, albeit non-enforceable. They consider the reduction target for 2030 of 49% for 2030 to be a best-efforts obligation for the Ministers involved:

'The targets in the proposal are policy objectives for the government that are to be realised with the climate policy as laid down in the climate plan. The targets are used by the parliament to assess the government's plans. The targets are not intended to be enforced by the courts. The legislative proposal departs from political control of the progress of the climate policy. The parliament may redirect the government by means of the customary instruments if necessary. (…)

The effect of the distinction between a performance obligation for 2050 and a best efforts obligation for 2030 carries over into the relationship between the parliament and the government. Due to the uncertainties in the short term, the legislative proposal provides for a wider discretion for the government to deviate from the target realisation in 2030 under certain circumstances. This may be the case if the target proves infeasible despite realistic efforts. (…)

The term 'hard standard' should be understood in the context of the wording of the target in 2050 and the intended target in 2030. The initiators wanted to leave a bit more room for deviating from the target in the short term than in the long term.' [587]

5.69 There is no difference of opinion between the parties as to the long-term targets for 2030 and 2050. Urgenda's position, explained again during the oral arguments in the proceedings for cassation, boils down to the argument that for Dutch residents, the risk is too great to wait until the year 2030, or the year 2050, for the test of whether the State has realised these targets. The reasons why the order granted does not result in a reduction obligation lower than at least 25% (as compared to the emissions in 1990) have already been discussed in Chapter 4 of this opinion.

5.70 The Court of Appeal has weighed: the State's reliance on the wide margin of appreciation against the determination that the reduction targets for 2030 and thereafter cannot alleviate the fact that the State's refusal to achieve a reduction of at least 25% as at the end of 2020 results in a dangerous situation that necessitates intervention at this time (paras. 71-74). The Court of Appeal

has therefore rejected the State's reliance on its discretionary power and margin of appreciation in respect of the speed of the reduction (in 2020) (see section 3.24, above).

5.71 Lastly, the climate policy to be pursued, with or without a reduction order from the court, is expected to lead to major changes in society. This pertains, for example, to the transition from an economy – in the Netherlands – based on consumption patterns and in particular the use of fossil fuels to an economy based on sustainability. The District Court's judgment in 2015 served as a 'wake-up call' in various respects, at least in the Netherlands. When the Court of Appeal rendered its judgment on appeal in October 2018, the Court of Appeal repeated the weighing of interests referred to in the previous section.

5.72 It will be clear that the State was summoned as a legal entity, but this does not change the fact that a large part of the actual burden of the implementation of the proposed reduction measures will be borne by Dutch society. During the oral arguments in the proceedings for cassation, the State pointed out a possible detrimental effect of the order:

'As a result of the order imposed to reduce emissions in the Netherlands by a few percentage points more than will be achieved with the existing policy, the State is being forced to take measures in the short term at much higher costs than would be the case if these measures were gradually taken over the time to 2030. The government's political and financial effectiveness in respect of measures after 2020 is reduced as a result, along with society's willingness to accept an ambitious climate policy.'[588]

5.73 This position taken by the State cannot be refuted by merely arguing that the State simply should have started an ambitious climate policy earlier. The question is whether the State needs a wider margin of appreciation now. Should the Court of Appeal have left the decision regarding the speed of reduction and the reduction of emissions in the Netherlands to the political bodies instead of upholding the District Court's order?

5.74 The Court of Appeal pointed out in para. 71 that the State's objectives for 2030 and thereafter cannot change the fact that a dangerous situation threatens to emerge, requiring intervention now (meaning on 9 October 2018). To that extent, the Court of Appeal endorsed Urgenda's position. The Court of Appeal held: 'The later actions are taken to reduce [...] the more ambitious the measures must be at that later stage, as acknowledged by the State [...]'. Put differently: the longer the State waits with reducing emissions, ultimately leading – according to both parties – to the targets for 2030 and 2050, the more drastic the measures that the State must take must be (and we add: which will then have to be borne by Dutch society). This reasoning was necessarily abstractly formulated by the Court of Appeal,[589] and is otherwise not incomprehensible, also in light of the characteristics of climate change described above. The weighing of interests by the Court of Appeal referred to in section 5.70 cannot be assessed in proceedings for cassation, as it is too intricately entwined with the assessment of the facts. It is not incomprehensible.

5.75 The conclusion is that the complaints in grounds for cassation 9.4 and 9.5 fail.

5.76 Ground for cassation 9.6 is directed against para. 70 and against the Court of Appeal's ultimate decision: the operative part. The complaint entails that if one or more of the previous complaints in ground for cassation 9 succeeds, para. 70 and the operative part cannot be upheld. This complaint lacks independent meaning alongside the previous complaints and need not be discussed. The complaint in the last sentence of this ground for cassation has not been fleshed out and, in light of the foregoing, fails as well.

6 Closing considerations

6.1 In the foregoing, we have discussed the State's complaints against the Court of Appeal's

judgment. Our conclusion is that these complaints cannot hold. We will therefore conclude that the State's appeal for cassation must be denied. If the Supreme Court were to also rule that the appeal for cassation must be denied, the Court of Appeal's judgment is upheld, and therefore the order for the State to limit the annual emissions of greenhouse gases in the Netherlands to such an extent that this volume is reduced by the end of the year 2020 by at least 25% as compared to the emissions level in the year 1990.

6.2 In this closing chapter, we will summarise the foregoing, paying special attention to the most difficult points to be decided. We will then briefly indicate how the Supremeoge Hoge Court might conclude the appeal for cassation in this case, if its opinion differs from ours.

Summary

6.3 First and foremost, the State and Urgenda do not hold differing opinions regarding the key facts in this case. The emission of greenhouse gases by mankind since the middle of the nineteenth century is causing global warming. Since the beginning of the industrial revolution, our planet's temperature has increased by some 1.1ºC, 0.7ºC of which can be attributed to the past forty years. Climate scientists and the international community agree that the planet's temperature may not increase by more than 2ºC as compared to the pre-industrial era: the 2ºC target. A larger increase in temperature brings a variety of dangers for mankind and its environment, such as floods caused by the increase in sea level and excessive rains on the one hand, with droughts and heat stress as a result of more intensive and longer heat waves, disruption of the supply of food and drinking water, as well as an increase in certain diseases on the other. Inadequate climate policy may cause victims.

If there is to be a reasonable chance of realising the 2ºC target, the concentration of greenhouse gases in the atmosphere must be stabilised at about 450 ppm in the year 2100. The 2015 Paris Agreement applies a more stringent target – limiting the increase in temperature to 1.5ºC, with stabilisation at about 430 ppm – but that limit is not the topic of these proceedings, which began earlier, in 2013.

Because the concentration of greenhouse gases in the atmosphere must ultimately be stabilised at about 450 ppm, the volume of greenhouse gases that the world may emit is limited. This is known as the carbon budget. This is why greenhouse gas emissions must be restricted. The longer it takes to realise the necessary reduction in emissions, the larger the total volume of greenhouse gas emissions, and the earlier the carbon budget will be depleted.

Although many countries, certainly including the EU and the Netherlands, are taking various measures to combat the emission of greenhouse gases (mitigation) or to adapt to the consequences of climate change (adaptation), emissions are still too high with a view to the 2ºC target. Scientific reports show that the reductions achieved and pledged by the 'rich' countries – being the countries listed in Annex I to the UN Climate Convention of 1992 – or by all of the countries that are a party to the 2015 Paris Agreement are insufficient to keep sight of realisation of the 2ºC target. The IPCC expects that absent reduction measures, Earth's temperature will have increased by 3.7 to 4.8ºC in 2100 and the level of 450 ppm will have been exceeded in 2030. The UNEP also expects that if the emissions gap is not bridged by 2030, achieving the 2°C target will be extremely unlikely.

6.4 In light of these facts, the Court of Appeal of The Hague concluded (i) that there is a real threat of a dangerous climate change, and (ii) that this causes a serious risk that the current generation of residents of the Netherlands will be facing loss of life within the meaning of Article 2 ECHR or disruption of family life within the meaning of Article 8 ECHR. The Court of Appeal also concluded (iii) that Dutch emissions must be reduced by 25%-40% in 2020 if the 2ºC target is to be realised, and (iv) that a reduction obligation of at least 25% by the end of 2020 is in line with the State's duty of care. According to the Court of Appeal, the corresponding reduction order is (v) not 'an order to enact legislation'.

6.5 The State's and Urgenda's opinions regarding the targets for 2100, 2050 and 2030 do not differ. In the year 2100, global greenhouse gas emission must be stabilized; in 2050 emissions in the Netherlands must be 80%-95% lower than in 1990, and a reduction objective of 49% as compared to 1990 applies for 2030. The issue in this case is the target for 2020. For 2020, the State is applying a reduction target of 20% within the EU context as compared to 1990. Urgenda is seeking a Dutch reduction of at least 25% in 2020. This case exclusively concerns the question of whether Dutch emissions must be reduced by at least 25% in 2020.

6.6 The Court of Appeal of The Hague embedded the State's duty of care in Articles 2 and 8 ECHR. These provisions have direct effect within the meaning of Articles 93 and 94 of the Constitution, and may therefore be applied by the Dutch courts. Article 2 ECHR protects the right to life, and also entails a positive obligation for the State to take measures to protect the right to life, including in respect of activities that are dangerous to the environment or otherwise, as well as natural and environmental disasters. Article 2 ECHR does not offer an absolute guarantee against every conceivable danger, and does not impose an impossible or disproportionate burden on the national authorities. Article 8 ECHR protects the right to respect for private and family life, and applies in situations including those in which the quality of life is affected but which are not life threatening. With regard to environmental issues, Article 8 ECHR requires states to take reasonable and appropriate measures to protect individuals from serious environmental harm. The states have a margin of appreciation in that regard.

6.7 Some legal authors have argued that Articles 2 and 8 ECHR are not suitable for application to the danger of climate change. In their opinion, particularly problematic is the fact that climate change does not threaten a specific, identifiable group of potential victims; it potentially threatens the world's entire population. However, in the international climate debate, increasing emphasis is being placed on the role which human rights play in protecting the climate. In our opinion, the case law of the European Court of Human Rights (ECtHR) offers sufficient points of reference for the State's duty of care as assumed by the Court of Appeal in this case. The substantiation of the reduction order in terms of human rights is in line with the analysis used by the ECtHR to assess against Articles 2 and 8 ECHR. However, this case is unique, and the issue of the threat to the human rights of the residents of a state that is party to the ECHR as a result of climate change has never been discussed in the case law of the ECtHR. This is why the Court of Appeal of The Hague was forced in this case to extend the existing lines of the ECtHR's case law – as explained in Chapter 2 – and apply it to a new situation. In our opinion, the Court of Appeal was entitled to do so (see Chapter 3), and its opinion is supported by the facts and the existing case law (see Chapter 4 on grounds for cassation 8.2-8.4), but obviously the manner in which the ECtHR itself would rule in a case like the present is uncertain. We will be returning to this in section 6.15.

6.8 In this case, the court was not requested to assess what the Netherlands' reduction objectives should be *in abstracto*. The case concerns the question of whether Urgenda's claim could be granted, and therefore the question of whether the emission of greenhouse gases in 2020 must be at least 25% lower than in 1990. The technical climatological substantiation of the reduction order was the central topic of Chapter 4. The scientific reports entered into evidence in these proceedings unmistakeably demonstrate the necessity of reducing global emissions of greenhouse gases more than is currently the case, given the 2ºC target. This also applies to reductions by the Netherlands in the short term (2020), according to the Court of Appeal.

The division of the reduction efforts needed worldwide cannot be defined in terms of physics, but it can be reasoned using broad, common normative premises that are embedded in the UNFCCC, for example. Scientists specialised in the field made proposals to that end, which were translated in the IPCC's Fourth Assessment Report (AR4) into a reduction objective of 25%-40% in 2020 for the Annex I countries as a group, of which the Netherlands is a part. This target acquired support from later decisions adopted by the Conference of the Parties: the supreme body of the UNFCCC (known as 'COP decisions'). Until 2011, the premise for the Netherlands was a reduction target of 30% in 2020, but this was abandoned for the benefit of an objective of 20% agreed within the EU

context, while the new objective was not evidently based on climatological insights. In our opinion, this gave the Court of Appeal sufficient points of reference for its opinion that the reduction by the Netherlands in 2020 must be at least 25%.

In addition, in our opinion the Court of Appeal sufficiently reasoned its opinion that the State cannot place faith in the reduction scenarios described in the IPCC's Fifth Assessment Report (AR5), which depart from greenhouse gas reductions that will take place later. This is because those scenarios assume that in the future, sufficient greenhouse gases will be captured from the atmosphere. However, the technologies that are needed for these 'negative emissions' have not yet been developed to such a degree that one can now already trust that sufficient greenhouse gases will, in fact, be captured in the future.

The argument that the Netherlands will be reducing greenhouse gas emissions so rapidly after 2020 that it renders a larger reduction than planned by the State for 2020 unnecessary has not been sufficiently factually substantiated. The same applies to the fear that the effects of additional Dutch reduction efforts will 'leak' to other countries. This therefore did not impede the Court of Appeal's opinion.

6.9 The opinions of the Court of Appeal described in section 6.8 are intricately intertwined with the facts. The Court of Appeal's opinion regarding the need for additional Dutch emission reductions also has a typically juridical component in terms of the Netherlands' individual responsibility. In view of the size of Dutch emissions, in itself an additional restriction of greenhouse gas emissions in the Netherlands will not be enough to prevent global warming. In our opinion, this does not impede the reduction order. If it did, then in principle every party called to account for certain emissions could suffice by referring to the emissions of others. In that event, no one could be called to account for their partial responsibility for this global problem. In our opinion, the question of whether the reduction order is 'effective' must also be assessed in that light. The order is 'effective' because every reduction of emissions is suitable for contributing to the reduction of global warming.

Another typically juridical issue is whether the reduction order implicitly entails an opinion on the validity of the EU measures that are based on a reduction objective of 20% in 2020. It is our opinion that this is not the case. There is also no reasonable doubt about this in our opinion. We also identified no other issues of European Union law that could require the Supreme Court to consider asking the Court of Justice of the European Union for preliminary rulings.

6.10 In principle, the State has a margin of appreciation when it comes to setting out the reduction pathway for the emission of greenhouse gases or determining the mix of mitigation and other measures, such as adaptation measures. The political and democratically legitimized choices of the legislature and the executive in this regard are to be respected by the judiciary. However, in a state under the rule of law, the judiciary must also offer protection when fundamental rights are threatened. The Court of Appeal considers a reduction of greenhouse gas emissions in the Netherlands by at least 25% in 2020 as the minimum needed with a view to the threat that a dangerous climate change will pose to residents of the Netherlands. This is why the State has no margin of appreciation below that minimum. The State does have that margin of appreciation in terms of the manner of compliance with the reduction order, and the speed of the reduction and all measures after 2020, as these are not the subject of these proceedings. In our opinion, the Court of Appeal was entitled to reach that conclusion.

6.11 Lastly, with the constitutional substantiation of the order, we discussed the issue of an 'order to enact legislation' in Chapter 5. It ensues from the established case law of the Supreme Court that the court may not impose an order on the State to enact or repeal legislation. It is our conclusion that the Court of Appeal was entitled to rule that the reduction order issued to the State in this case is not an 'order to enact legislation'. Assuming that legislation is not necessary for performing *all* of the measures in compliance with the order, but at most a part of those measures, and assuming that the competent political bodies have complete freedom to determine the measures for which legislation will be enacted and in respect of the substance of such legislation, the Court

of Appeal was entitled to arrive at its opinion that there is insufficient cause to equate the District Court's order with an unlawful order to enact legislation. The Court of Appeal left the political deliberations on whether legislation will be enacted where they belong: with the legislature and the executive.

Alternatives

6.12 In the foregoing, we briefly explained the reasons for our conclusion that the appeal in cassation must be rejected. We are aware of the fact that absent any precedent, opinions regarding this unique case may vary. Should the Supreme Court arrive at an opinion that differs from any aspect of ours, this could have varying consequences for the outcome of these proceedings. Below we will point out a few areas of attention in that event.

6.13 Should the Supreme Court rule that all or part of the appeal in cassation is successful, obviously the Supreme Court will quash the judgment of the Court of Appeal. Quashing the Court of Appeal's judgment may have varying consequences depending on the substance of the judgment to be rendered by the Supreme Court. First, this could lead to the case being concluded with the proceedings for cassation by the Supreme Court by means of a complete denial of the claim. However, quashing the judgment of the Court of Appeal could also lead to the Supreme Court referring the case to a different court of appeal to adjudicate again on appeal.

6.14 We would point out the following possibilities.

6.15 As we explained in section 6.7, how the ECtHR would rule in a case like the present case is uncertain. On 1 June 2019, the Dutch judiciary acquired the option of requesting the ECtHR to provide an advisory opinion on questions of principle regarding the interpretation or application of the rights and freedoms described in the convention and the accompanying protocols. The court is not obliged to do so.[590] In itself, this case is suitable for requesting the ECtHR for an advisory opinion,[591] but practical considerations argue against doing so.

In her letter of 8 January 2019, attorney Teuben requested on behalf of the State that the case be handled with the utmost expedience ‘so that the appeal for cassation is decided by no later than at the end of 2019, to the extent possible'. Urgenda had no objections in this regard. The reduction order concerns measures to be taken by the State with regard to the emissions in 2020. Even if the proceedings with the ECtHR and the continuation of these proceedings for cassation by the Supreme Court thereafter are concluded as expediently as possible, this will involve quite some time, in any event at least most of the year 2020. Requesting an advisory opinion from the ECtHR would entail that the reduction order must be complied with, without the Supreme Court having given an opinion on the State’s complaints directed against it in seeking cassation. This is because the order has been declared provisionally enforceable.

6.16 In addition to the foregoing, it must be remembered that the District Court, unlike the Court of Appeal, based the order on a duty of care derived from the open standard of Article 6:162 DCC in respect of unlawful acts. On appeal, the State directed a number of grounds for appeal against this.[592] The Court of Appeal based the order on a duty of care that is derived from Articles 2 and 8 ECHR. If the ground for the State’s duty of care is not found in the ECHR, the question arises of whether it can be found in the open standard of Article 6:162 DCC. The Court of Appeal did not render an opinion about this.[593]This alternative approach would no longer focus on application of the ECHR.

This alternative approach would require the Supreme Court to investigate whether the Supreme Court itself can rule on these grounds for appeal presented by the State, rather than possibly referring the case to another court of appeal. If the Supreme Court were to rule that the reduction order can be based on the open standard of Article 6:162 DCC, the State’s complaints directed against application of the ECHR could be left moot. Incidentally, the question of whether the reduction order may be based on the open standard of Article 6:162 DCC could also be addressed

if the Supreme Court were to rule that the State's positive obligations by virtue of Articles 2 and 8 ECHR do not extend as far as ruled by the Court of Appeal.[594]

6.17 In addition to the reduction order, Urgenda is seeking various judicial declarations (see para. 3.1 of the District Court's judgment). The District Court did not address these claims due to a lack of interest, as the District Court already granted the reduction order.[595] In its judgment's operative part at 5.5, the District Court denied all other or further claims. The Court of Appeal held that Urgenda's other claims were no longer at issue on appeal (para. 3.9). We are assuming that this latter opinion does not concern the judicial declarations sought, but exclusively relates to the other claims that the District Court had denied, at least in part on substantive grounds (to the extent relevant here: a 40% reduction order and an order to provide information).[596]

If the Supreme Court were to rule that ground for cassation 9 is successful and the reduction order cannot be upheld because it is or can be equated with an unlawful order to enact legislation, but otherwise rule that the State's complaints cannot hold, the Supreme Court could consider whether the Supreme Court itself could conclude the matter by still issuing a judicial declaration as sought by Urgenda or a different judicial declaration of a less far-reaching purport that is inherent in the requested declaration. Eligible in that regard are in particular the judicial declarations referred to by the District Court in para. 3.1 at 6, principally, in its judgment.[597] adjusted to the scope of the dispute on appeal - and therefore exclusively regarding the question of whether the reduction must be at least 25% in 2020 - and, perhaps, also adjusted to the legal ground of Articles 2 and 8 ECHR applied by the Court of Appeal.

7 Conclusion

The opinion is that the appeal seeking cassation must be rejected.

The Procurator General of the
Supreme Court of the Netherlands

Deputy Procurator General

Advocate General

List of abbreviations used

AA Ars Aequi

AB Administratiefrechtelijke Beslissingen [Administrative Jurisdiction Division Decisions]

ABRvS Afdeling Bestuursrechtspraak Raad van State [Administrative Jurisdiction Division of the Council of State]

AG Advocate General

AR4 Fourth Assessment Report of the IPCC (2007)

AR5 Fifth Assessment Report of the IPCC (2013-2014)

AV&S Aansprakelijkheid, Verzekering en Schade [Liability, Insurance and Damage]

(BE)CCS (bio-energy) carbon capture and storage

C Celsius
CDR carbon dioxide removal
Cf. Compare
COP Conference of the Parties (to the UNFCCC)
CO2 Carbon dioxide
CO2-eq Carbon dioxide equivalent
DCC Dutch Civil Code
DCCP Dutch Code of Civil Procedure
DJOA Dutch Judiciary Organisation Act
ECLI European Case Law Identifier
ECN Energy Research Centre of the Netherlands
ECHR European Convention for the Protection of Human Rights and Fundamental Freedoms (European Convention on Human Rights)
ECtHR European Court of Human Rights
ed./eds. editor/editors
EESC European Economic and Social Committee
EHRC European Human Rights Cases
EPA United States Environmental Protection Agency
et al. and others
et seq. and following
ETS Emissions Trading System
EU European Union
GHG greenhouse gases
GWP global warming potential
ECJ European Court of Justice
IPCC Intergovernmental Panel on Climate Change
JB Jurisprudentie Bestuursrecht [Administrative Law Jurisprudence]
MBB Maandblad Belasting Beschouwingen [Tax Issues Monthly]
MSR market stability reserve
MvV Maandblad voor Vermogensrecht [Property Law Monthly]
NDC nationally determined contribution
NET negative emission technologies
NEV Nationale Energie Verkenning [National Energy Outlook]
NJ Nederlandse Jurisprudentie [Dutch Jurisprudence]
NJB Nederlands Juristenblad [Netherlands Law Journal]
NJV Nederlandse Juristen-Vereniging [Dutch Lawyers' Association]
NTB Nederlands Tijdschrift voor Bestuursrecht [Dutch Administrative Law Journal]
NTBR Nederlands Tijdschrift voor Burgerlijk Recht [Dutch Civil Law Journal]
NJCM Nederlands Juristen Comité voor de Mensenrechten [Dutch Lawyers' Committee on Human Rights]
NTM Nederlands Tijdschrift voor Mensenrechten [Dutch Human Rights Journal]
O&A Overheid en Aansprakelijkheid [Government and Liability]
OJ Official Journal of the European Union

Para./paras. Paragraph/paragraphs

PBL Planbureau voor de Leefomgeving [Environmental Data Compendium]

ppm parts per million

Exhibit S Exhibit entered into evidence by the State (with number)

Exhibit U Exhibit entered into evidence by Urgenda (with number)

QELRC quantified emission limitation or reduction commitment

RCP representative concentration pathway

RIVM Rijksinstituut voor Volksgezondheid en Milieu [National Institute for Public Health and the Environment]

RMTh Rechtsgeleerd Magazijn Themis [Dutch Journal of Legal Academia]

TFEU Treaty on the Functioning of the European Union

TGMA Tijdschrift voor Gezondheidsschade, Milieuschade en aansprakelijkheidsrecht [Journal on Health and Environmental Hazards and Liability Law]

UNEP United Nations Environment Program

UNFCCC United Nations Framework Convention on Climate Change

VJV Vereniging van Juristen voor de Vrede [Association of Lawyers for Peace]

Vol. Volume

UN United Nations

VROM Volkshuisvesting, Ruimtelijke Ordening en Milieubeheer [Ministry of Housing, Spatial Planning and the Environment

WMO World Meteorological Organization

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[1] ECLI:NL:RBDHA:2015:7145 and ECLI:NL:GHDHA:2018:2591 (*translation*s: ECLI:NL:RBDHA:2015:7196 and ECLI:NL:GHDHA:2018:2610).

[2] The second part of the State's ground for cassation also includes complaints about para. 44. Those complaints do not regard the findings of fact as such, but rather pertain to the conclusions drawn by the Court of Appeal based on them.

[3] The Court of Appeal applies the year 1850 as the beginning of the industrial revolution, see para. 44; and para. 2.12 of the District Court's judgment.

[4] For the facts in paragraphs (i)-(iii), see paras. 3.2-3.4 of the Court of Appeal's judgment. One annotation casts doubt on the fact established in para. 3.3 that the warming effect of methane is less than that of CO2 (see W.T. Douma, *JM* 2018/128; *cf*. footnote 21 of the Defence in Cassation), but this is irrelevant to the assessment of the complaints in cassation. Also see our remark in section 4.54(i).

[5] *Cf*. para. 3.6 of the Court of Appeal's judgment and paras. 2.12 and 2.18 of the District Court's judgment.

[6] For the facts at (iv)-(vi), see paras. 3.5, 3.6 and 44 of the Court of Appeal's judgment.

[7] The term 'carbon budget' has assumed key significance in the global discussion on climate change. To prevent possible misunderstandings, we note here that this budget is not one that is renewed each year. The carbon budget encompasses the total worldwide emissions of greenhouse gases over the years to come. The longer it takes to achieve the emissions reduction that is deemed necessary, the sooner the carbon budget will be exhausted. The carbon budget will be discussed in more detail in section 4.56 *et seq.*

[8] The Court of Appeal was unable to take the IPCC interim report entitled *'Global warming of 1.5°C'* (see www.ipcc.ch and *Parliamentary Papers II* 2018/19, 32 813, no. 222) into consideration in its analysis.

That report *was* cited during the debate in cassation.

[9] For the facts referred to at vii. and viii. see para. 3.5 and para. 44, third bullet point, as well as para. 4.16 of the District Court's judgment. The State's ground for cassation 2 includes a complaint that when the Court of Appeal discussed the aforementioned risks, it failed to focus sufficiently on the risks *in the Netherlands*.

[10] See para. 44, fourth bullet point, citing p. 72 of the AR5 report.

[11] See para. 4 of the Court of Appeal's judgment and paras. 2.8-2.11 of the District Court's judgment. The reports of the IPCC always contain thematic reports by the three Working Groups of experts, followed by a Synthesis Report. More information is available on these organisations' websites at: www.unenvironment.org; www.ipcc.ch; public.wmo.int. See also para. 4.35 *et seq.* below.

[12] Preparations are currently being made for a sixth IPCC report; see: www.ipcc.ch.

[13] See para. 12 of the Court of Appeal's judgment and para. 2.12 of the District Court's judgment, the latter of which contains a quote from the AR4 Synthesis Report that was entered into evidence as Exhibit U9.

[14] See para. 12 of the Court of Appeal's judgment and paras. 2.15-2.16 of the District Court's judgment, which contain quotes from Chapter 13 ('Policies, Instruments and Co-operative Arrangements') of the aforementioned working group report. The table cited ('Box 13.7 The range of the difference between emissions in 1990 and emission allowances in 2020/2050 for various GHG concentration levels for Annex I and non-Annex I countries as a group') will be presented in section 4.42 below and discussed in section 4.126 *et seq.*

[15] See also paras. 2.18-2.21 of the District Court's judgment, which contain quotes from AR5.

[16] UNFCCC, New York, 9 May 1992, *Bulletin of Treaties* 1992/189, entered into force in the Netherlands on 21 March 1994 (*Bulletin of Treaties* 1994/63).

[17] See para. 2.38 of the District Court's judgment and para. 2.72 *et seq.* below.

[18] See paras. 8 and 9 of the disputed judgment of the Court of Appeal and paras. 2.39-2.40 of the District Court's judgment.

[19] See para. 10 of the Court of Appeal's judgment under dispute.

[20] Kyoto Protocol to the UNFCCC, Kyoto, 11 December 1997, *Bulletin of Treaties* 1998/170 (corrections in *Bulletin of Treaties* 2005/1 and *Bulletin of Treaties* 2014/212). For the Netherlands, the Protocol entered into force on 16 February 2005. See para. 11 of the Court of Appeal's judgment and paras. 2.42-2.44 of the District Court's judgment. See also section 4.12 below.

[21] See para. 11 of the Court of Appeal's judgment. Also see para. 2.48 of the District Court's judgment, which quotes the preamble to the Bali Action Plan 2007 (Decision 1/CP.13, Exhibit U 23) including a footnote that refers to the page in the AR4 containing the referenced table (the aforementioned 'Box 13.7' from AR4).

[22] By way of supplementing the Court of Appeal's findings: this resulted in leaving it to the parties to determine, either individually or as a group, which reduction efforts they wished to pledge to undertake in the period after 2012 (specifically in the period 2013-2020). Paragraph 4 of Decision 2/CP.15 (entered into evidence in draft form as Exhibit U 28) states: 'Annex I Parties commit to implement individually or jointly the quantified economywide emissions targets for 2020, to be submitted in the format given in Appendix I by Annex I Parties to the secretariat by 31 January 2010 for compilation in an INF document. Annex I Parties that are Party to the Kyoto Protocol will thereby further strengthen the emissions reductions initiated by the Kyoto Protocol.'

[23] See para. 2.49 of the District Court's judgment.

[24] See para. 11 of the Court of Appeal's judgment and para. 2.12 of the District Court's judgment, with quotes from Decision 1/CMP.6 (entitled: '*The Cancun Agreements*: *Outcome of the work of the Ad Hoc Working Group on Further Commitments for Annex I Parties under the Kyoto Protocol at its fifteenth session*' (Exhibit U 31).

[25] See para. 11 of the Court of Appeal's judgment and para. 2.45 of the District Court's judgment. See also section 4.16.

[26] Paris Agreement, 12 December 2015, *Bulletin of Treaties* 2016/94 (rectification in *Bulletin of Treaties* 2016/127), entered into force in the Netherlands on 27 August 2017 (*Bulletin of Treaties* 2017/141). See: M.M.T.A. Brus, *Het klimaatakkoord van Parijs: bouwen aan wereldrecht of bewijs van falende internationale samenwerking?* [The Paris Agreement: Building on world rights or evidence of failing international cooperation?], *AA* 2016, p. 615 *et seq*.

[27] See para. 15 of the Court of Appeal's judgment (the Paris Agreement was concluded after the District Court rendered its judgment). The Court of Appeal also explained the substance of the accompanying COP decision (1/CP.21). The Paris Agreement will be discussed in more detail in section 4.19 *et seq.* below.

[28] See also paras. 2.8 and 2.29-2.33 of the District Court's judgment.

[29] See para. 13 of the Court of Appeal's judgment and paras. 2.29-2.31 of the District Court's judgment, which cite from the report.

[30] See para. 14 of the Court of Appeal's judgment. After the judgment, the Emissions Gap Report 2018 was published, as was UNEP's Global Environment Outlook 6, Cambridge University Press 2019 (both of which are available via www.unep.org). See also: Wetenschappelijke Raad voor het Regeringsbeleid [Dutch Scientific Council for Government Policy], *Klimaatbeleid voor de lange termijn: van vrijblijvend naar verankerd* [Climate Policy for the long term: from non-binding idea to enshrined principle], policy letter of October 2016 (wrr.nl), para. 2.1.

[31] Directive 2003/87/EC of the European Parliament and of the Council of 13 October 2003 establishing a scheme for greenhouse gas emissions allowance trading within the Community, *OJ* L 275/32 (later amended). For more on European climate policy and regulations, see sections 4.23-4.31 below.

[32] Decision No 406/2009/EC of the European Parliament and of the Council of 23 April 2009 on the effort of Member States to reduce their greenhouse gas emissions to meet the Community's greenhouse gas emission reduction commitments up to 2020, *OJ* L 140/136.

[33] See paras. 16-18 of the Court of Appeal's judgment and paras. 2.53-2.68 of the District Court's judgment.

[34] Letter of the Minister of VROM dated 12 October 2009, *Parliamentary Papers II* 2009/10, 31 793 (International climate agreements), no. 17, p. 2. According to the letter from the Ministers of VROM and Development Cooperation of 29 April 2008, *Parliamentary Papers II* 2007/08, 30 495 (Future international climate policy), no. 4, p. 2, the Netherlands had the same negotiations objective at the climate conference in Bali in 2007 (COP-13).

[35] *Cf*. *'Klimaatagenda: weerbaar, welvarend en groen*.' [The climate agenda: resilient, prosperous and green], Ministry of Infrastructure and the Environment, October 2013, Appendix to *Parliamentary Papers II* 2013/14, 32 813, no. 70 (Exhibit S 2). See also para. 2.74 of the District Court's judgment.

[36] See para. 26 of the Court of Appeal's judgment.

[37] See paras. 21 and 24 of the disputed Court of Appeal's judgment, citing the National Energy Outlook ('NEV') 2017. The Court of Appeal could not take into account either '*Greenhouse Gas Emissions 1990-2017'*, which was published by the RIVM in 2019, or the National Inventory Report 2019 (see www.rivm.nl, referred to in the letter of 4 July 2019 from the Minister of Economic Affairs and Climate Policy, *Parliamentary Papers II* 2018/19, 32 813, no. 371).

[38] See paras. 21 and 73 of the challenged judgment.

[39] *Cf*. para. 24 of the Court of Appeal's judgment in dispute. See also: www.emissieregistratie.nl.

[40] See para. 3.1 of the Court of Appeal's judgment and paras. 2.1 and 2.2 of the District Court's judgment. See also: www.urgenda.nl.

[41] Official publications on national climate policy can be reviewed at www.overheid.nl (see, in particular, the documents sent to the parliament under Parliamentary Papers number 32 813). In the Netherlands, the Netherlands Environmental Assessment Agency (*Planbureau voor de Leefomgeving - PBL*; www.pbl.nl) is charged with collecting and announcing the results of scientific research, including with regard to the greenhouse effect and climate change. The procedural documents submitted include the PBL memorandum *'Verkenning van klimaatdoelen: Van lange termijn beelden naar korte termijn actie'* [Exploring climate targets: from long-term visions to short-term action], sent to the Dutch House of

Representatives on 9 October 2017 (*Parliamentary Papers II* 2017/18, 32 813, no. 155; Exhibit S 77). The Court of Appeal was unable to take the PBL report sent to the Dutch House of Representatives on 25 January 2019 (*'Korte termijnraming voor emissies en energie in 2020'* [Short-term estimates for emissions and energy in 2020]; *Parliamentary Papers II* 2018/19, 32 813 no. 267) into account in its judgment of 9 October 2018.

[42] See paras. 2.6-2.7 of the District Court's judgment and Exhibits U 2 and U 3.

[43] The positions of Urgenda and the State are summarised in paras. 28-30 of the Court of Appeal's judgment and in paras. 3.2 and 3.3 of the District Court's judgment.

[44] *Parliamentary Papers II* 2015/16, 34 534 no 2.

[45] *Proceedings II* 2018/19, 39-25-3; *Proceedings I* 2018/19, EK 32-8-3.

[46] Act of 2 July 2019, *Bulletin of Acts and Decrees* 253; for the entry into force, see the decree of 2 July 2019, *Bulletin of Acts and Decrees* 254.

[47] Also see: N.J. Schrijver, *'De Klimaatwet in mondiaal en Europees perspectief'* [The Climate Act from a global and European perspective], *NJB* 2019/1661.

[48] Letter from the Minister of Economic Affairs and Climate Policy of 23 February 2018, *Parliamentary Papers II* 2017/18, 32 813, no. 163.

[49] Letter from the Minister of Economic Affairs and Climate Policy of 10 July 2018, *Parliamentary Papers II* 2017/18, 32 813, no. 193.

[50] *Parliamentary Papers II* 2018/19, 32 813, no. 263.

[51] *Parliamentary Papers I* 2018/19, 32 819, H, with annex. See also: www.klimaatakkoord.nl (in Dutch only).

[52] The complete claim is included in para. 3.1 of the District Court's judgment. The judicial declarations awarded in the first instance are not discussed in this opinion, except in section 6.17. The same goes for the *alternative* request for an order to achieve an emissions reduction of at least 40% *by the end of 2030* and for the additional claims for publication orders.

[53] Urgenda's position is summarised in para. 3.2 of the District Court's judgment.

[54] The State's position is summarised in para. 3.3 of the District Court's judgment.

[55] The District Court's judgment was annotated by C.W. Backes in *AB*2015/336 and by T.G. Oztürk and G.A. van der Veen in *O&A* 2015/58. Sources and other scientific commentary will be referenced during the discussion of the individual grounds for cassation.

[56] Supreme Court 5 November 1965, ECLI:NL:HR:1965:AB7079, *NJ* 1966/136.

[57] See also para. 5.4 *et seq.* below.

[58] See paras. 30 and 31 of the disputed judgment of the Court of Appeal.

[59] Urgenda instituted a separate appeal in its capacity as the representative *ad litem* of the 886 individual claimants whose claims had been rejected by the District Court for a lack of interest. The relevant appeal proceedings were removed from the register. On this topic, see the State's Defence on Appeal in the cross-appeal, para.1.3.

[60] See the Defence on Appeal, also the Statement of Appeal in the cross-appeal, para. 9.20, where Urgenda explained that it concurs with the minimum approach taken by the District Court in light of the State's discretionary power.

[61] The Court of Appeal did not address the State's grounds pertaining to the District Court's opinion on the doctrine of hazardous negligence.

[62] The judgment was annotated by: C.W. Backes and G.A. van der Veen in *AB* 2018/417, by T.G. Oztürk and G.A. van der Veen in *O&A* 2018/51 and by D.G.J. Sanderink in *JB* 2019/10. Sources and other scientific commentary will be referenced during the discussion of the individual grounds for cassation.

[63] The Court of Appeal's references to the COPs will be discussed in more detail in Chapter 4; see *inter alia* para. 4.10 *et seq.*

[64] The initiating document in cassation was published in *Parliamentary Papers II* 2018/19, 32 813, no.

268.

[65] On 4 July 2019, the Supreme Court rejected the State's motion to exclude Urgenda's 137-page rejoinder from the Supreme Court's deliberations due to an alleged violation of due process.

[66] See Article 19 of the Dutch Code of Civil Procedure (DCCP) and Article 79 of the Dutch Judiciary Organisation Act (DJOA).

[67] In a similar sense, see e.g. L.F.M. Besselink, *'De constitutioneel meer legitieme manier van toetsing.* Urgenda *voor het Hof Den Haag'*, [The constitutionally more legitimate assessment method. Urgenda before the Court of Appeal of The Hague], *NJB* 2018/2154 (issue 41), p. 3081; 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 *naar* Urgenda?' [Duty of care according to the Supreme Court and the European Court of Human Rights: from *Lindenbaum/Cohen* via *Kelderluik* and *Öneryildiz* to *Urgenda*?], *RMTh* 2019 (issue 1), pp. 53-54; J.W.A. Fleuren, 'Urgenda *en niet(?)-rechtstreeks werkend internationaal (klimaat)recht'* [*Urgenda* and non(?) directly binding international climate and other law], *NJB* 2019/475 (issue 9), p. 604. *Cf.* also Urgenda's Defence in the proceedings for cassation, para. 17, *et seq.*

[68] This last restriction will be repealed when the Dutch Act on Collective Damages in Class Actions [*Wet afwikkeling massaschade in collectieve actie*] enters into force (*Bulletin of Acts and Decrees* 2019/130; *Parliamentary Papers I and II* 34 608).

[69] See e.g. Supreme Court 22 May 2015, ECLI:NL:HR:2015:1296, *NJ* 2016/262, annotated by H.J. Snijders, para. 3.3.5; A.W. Jongbloed, *Groene Serie Vermogensrecht* [Green Series on Property Law], Article 3:305a DCC (2018), note 8.

[70] See Explanatory Memorandum, *Parliamentary Papers II* 1991/92, 22 486, no. 3, p. 22. The question of standing in relation to a class action is not part of the substantive assessment of the case, incidentally. *Cf.* R. Schutgens, *'*Urgenda *en de trias. Enkele staatsrechtelijke kanttekeningen bij het geruchtmakende klimaatvonnis van de Haagse rechter',* [*Urgenda* and the trias: a few constitutional notes on the high-profile climate judgment by The Hague court] *NJB* 2015/1675 (issue 33), p. 2273 *et seq.*, which advocates restraint when applying unwritten law in general interest suits.

[71] See the Defence on Appeal, *Parliamentary Papers II* 1992/93, 22 486, no. 5, pp. 8-9.

[72] See Supreme Court 26 February 2010, ECLI:NL:HR:2010:BK5756, *NJ* 2011/473, annotated by H.J. Snijders, para. 4.2. *Cf.* Supreme Court 9 April 2010, ECLI:NL:HR:2010:BK4549, *NJ* 2010/388 annotated by E.A. Alkema, regarding the situation being discussed at that time, in which a specific group of stakeholders opposed class actions.

[73] See Supreme Court 27 June 1986, ECLI:NL:HR:1986:AD3741, *NJ* 1987/743, annotated by W.H. Heemskerk, para. 3.2; Supreme Court 18 December 1992, ECLI:NL:HR:1992:ZC0808, *NJ* 1994/139 annotated by C.J.H. Brunner and M. Scheltema, para. 4.1.2; Explanatory Memorandum, *Parliamentary Papers II* 1991/92, 22 486, no. 3, p. 22; E. Bauw, *Groene Serie Onrechtmatige daad* [Green Series on Tort Law] (2018), note VIII.6.6.

[74] See para. 4.109 of the District Court's judgment and para. 1.13, above.

[75] See para. 4.4 *et seq.* of the District Court's judgment.

[76] See para. 37 *et seq.* of the disputed Court of Appeal's judgment.

[77] Ground for cassation 3 is directed in part at para. 38, but it is phrased to the tune of Article 3:305a DCC.

[78] See in particular ground for cassation 8.2.1.

[79] See Supreme Court 21 December 2001, ECLI:NL:HR:2001:ZC3693, *NJ* 2002/217 annotated by by T. Koopmans, para. 3.3(D). See also C.J.J.C. van Nispen, *Het rechterlijk verbod en bevel* [The judicial order and injunction] (doctoral thesis Leiden), Deventer: Kluwer 1978, no. 81 *et seq.*; *Asser/Hartkamp & Sieburgh 6-IV* 2015/153; C.J.J.C. van Nispen, *Sancties in het vermogensrecht* [Sanctions in Dutch Property Law] (Monographs on the DCC, no. A11), Deventer: Kluwer 2018; J.J. van der Helm, *Het rechterlijk bevel en verbod* [The Judicial Order and Injunction], Deventer: Wolters Kluwer 2019, no. 15 *et seq.* and no. 22 *et seq.*; T.E. Deurvorst, *Groene Serie Onrechtmatige daad II.2* [Green Series on Tort Law II.2] (2018), note II.2.1.2 (with additional citations).

[80] In a similar sense, see para. 64 of the disputed Court of Appeal's judgment (to which ground for cassation 8.2.1 relates).

[81] See C.J.J.C. van Nispen, *Het rechterlijk verbod en bevel* [The Judicial Order and Injunction] (doctoral thesis Leiden), Deventer: Kluwer 1978, no. 87; K.J.O. Jansen, *Groene Serie Onrechtmatige daad* [Green Series on Tort Law], Article 6:162 DCC (2018), note 3.4. With regard to causality problems from an ECHR perspective, also see paras. 2.38 and 2.57 below.

[82] *Cf*. T.R. Bleeker, *'Nederlands klimaatbeleid in strijd met het EVRM'* [Dutch climate policy in conflict with the ECHR], *NTBR* 2018/39 (issue 9/10), p. 293, who contends that the *Kelderluik* factors in the doctrine of hazardous negligence encompass a 'causal mechanism' (causality determines which hazards will or will not be taken into consideration by the court), and that the government's positive obligations pursuant to Articles 2 and 8 ECHR also encompass causal elements.

[83] See T.R. Bleeker, '*De knellende criteria van het rechterlijk bevel en verbod*' [The constrictive criteria of the judicial order and injunction] in: F. van de Pol *et al*. (eds.), *Vijftig weeffouten in het BW* [Fifty flaws in the Dutch Civil Code], Nijmegen: Ars Aequi Libri 2017, pp. 187-197; T.R. Bleeker, *'Aansprakelijkheid voor klimaatschade: een driekoppige draak'* [Liability for climate-related harm: a three-headed dragon], *NTBR* 2018/2 (issue 1), pp. 4-11; T.R. Bleeker, *'Voldoende belang in collectieve acties: drie maal artikel 3:303 BW*' [Sufficient interest in class actions: Article 3:303 Dutch Civil Code times three], *NTBR* 2018/20 (issue 5), pp. 139-151; W.T. Nuninga, '*Recht, plicht, bevel, verbod*' [Right, obligation, order, injunction], NTBR 2018/21 (issue 5), pp. 152-162; C.W. Backes and G.A. van der Veen, *AB* 2018/417, under 4; J.J. van der Helm, *Het rechterlijk bevel en verbod* [The Judicial Order and Injunction], Deventer: Kluwer, 2019, no. 28; P. Gillaerts and W.T. Nuninga, '*Privaatrecht en preventie*: Urgenda *in hoger beroep*' [Private Law and Prevention: *Urgenda* on Appeal], *AV&S* 2019/9 (issue 2), p. 46 *et seq*.; L. Bergkamp, '*Het Haagse klimaatvonnis*. *Rechterlijke onbevoegdheid en de negatie van het causaliteitsvereiste*', [The climate judgment from The Hague. A court's lack of jurisdiction and the negation of the causality requirement], *NJB*2015/1676 (issue 33), p. 2283 *et seq.*

[84] One of the causality problems to be distinguished is the special position of the State as supervisory authority on third-party emissions (see para. 2.21 below).

[85] See e.g. E. Bauw, *Groene Serie Onrechtmatige daad VIII.6* [Green Series on Tort Law VIII.6], (2018), notes VIII.6.2.2 and VIII.6.5.

[86] See Supreme Court 23 September 1988, ECLI:NL:HR:1988:AD5713, *NJ* 1989/473, annotated by J.H. Nieuwenhuis and J.C. Schultsz, para. 3.5.1. *Cf*. N.F. Kreeftmeijer, *'Proportionele aansprakelijkheid voor klimaatschade, een te kleine bijdrage?'* [Proportional liability for harm to the environment, too small a price?], *AV&S* 2019/12 (para. 2), pp. 65-68.

[87] See P.A. Nollkaemper, *'Internationale aansprakelijkheid voor klimaatverandering'* [International liability for climate change], *NJB* 2007/2335 (issue 45/46), p. 2878; C.A. Okkerse, *'Volkenrechtelijke aansprakelijkheid voor schadelijke effecten van zeespiegelstijging als gevolg van klimaatverandering*' [International law liability for the harmful effects of rises in seal levels due to climate change], in: E.H.P. Brans *et al.*, *Naar aansprakelijkheid voor (de gevolgen van) klimaatverandering* [Towards liability for climate change and its consequences] (Preadviezen Vereniging voor Milieurecht [Preliminary advice of the Dutch Environmental Law Association]), The Hague: BJU 2012, p. 42 *et seq*.; Expert Group on Global Climate Obligations, *Oslo Principles on Global Climate Obligations*, The Hague: Eleven 2015, p. 42; J. Spier, '*Private law as a crowbar for coming to grips with climate change?*', in: E. Hey and others, *Climate Change: Options and Duties under International Law* (Announcements of the Royal Netherlands Association of International Law, no. 145), The Hague: Asser Press 2018, p. 37; and M. Wewerinke-Singh, *State Responsibility, Climate Change and Human Rights under International Law*, Oxford University Press: Hart 2019, pp. 95-96 and 110.

[88] *Draft Articles on Responsibility of States for Internationally Wrongful Acts*, Yearbook of the International Law Commission, 2001 vol. II, part II. The State has also emphasised that these provisions only regard states' liability to one another.

[89] *Cf*. from an ECHR perspective: point 11 of D.G.J. Sanderink's note under the disputed judgment in *JB* 2019/10.

[90] See e.g. para. 394 of the initiating summons and Exhibit U 49; Urgenda's Defence on Appeal, para. 8.134 *et seq*.

[91] *Massachusetts v. Environmental Protection Agency*, 549 U.S. 497 (2007), entered into evidence as Exhibit U 49, (pp. 22-23).

[92] *Cf*. *Asser/Hartkamp & Sieburgh 6-IV* 2015/71; K.J.O. Jansen, *Groene Serie Onrechtmatige daad* [Green Series on Tort Law], Article 6:162 BW (2018), notes 4.2.3, 5.2.3 and 6.1.13 (with additional citations).

[93] See para 4.46 *et seq*. of the District Court's judgment.

[94] The ground for cassation contains no complaints that focus on this.

[95] See also: E. Bauw, *Groene Serie Onrechtmatige daad VIII.6* [Green Series on Tort Law VIII.6] (2018), note VIII.6.3.3.1.

[96] See paras. 2.69, 4.36, 4.52, 4.55, 4.66 and 4.74 of the District Court's judgment. The Court of Appeal does not cite Article 21 of the Constitution.

[97] Supreme Court 31 January 1919, ECLI:NL:HR:1919:AG1776, *NJ* 1919/161.

[98] *Cf*. *Asser/Hartkamp & Sieburgh 6-IV* 2015/56 and 75; K.J.O. Jansen, *Groene Serie Onrechtmatige daad* [Green Series on Tort Law], Article 6:162 BW (2018), note (with additional citations).

[99] Supreme Court 23 September 1988, ECLI:NL:HR:1988:AD5713, *NJ* 1989/473 annotated by J.H. Nieuwenhuis and J.C. Schultsz, para. 3.3.2.

[100] See *Asser/Hartkamp & Sieburgh 6-IV* 2015/76, *et seq.*; K.J.O. Jansen, *Groene Serie Onrechtmatige daad* [Green Series on Tort Law], Article 6:162 BW (2018), note 6.1.9, *et seq.* (with additional citations).

[101] See, e.g. Supreme Court 11 December 1987, ECLI:NL:HR:1987:AC2266, *NJ* 1988/393 annotated by W.C.L. van der Grinten.

[102] See K.J.O. Jansen, *Groene Serie Onrechtmatige daad* [Green Series on Tort Law], Article 6:162 BW (2018), notes 6.5-6.6 (with additional citations).

[103] See Supreme Court 9 July 2010, ECLI:NL:HR:2010:BL3262, *NJ* 2015/343 annotated by T. Hartlief (on the fireworks disaster in Enschede), para. 4.11, in which the Supreme Court rejected the complaints based on the doctrine of hazardous negligence without expressing an opinion on the applicable standard (para. 4.10). See also C.H. van Dijk, '*Opwarming van de Aarde en de Kelderluikcriteria*' [Global Warming and the Kelderluik Criteria], *Milieu en Recht* [Environment and Law], 016/43 (issue 4), p. 281; M.W. Scheltema, *Groene Serie Onrechtmatige daad V.1* [Green Series on Tort Law V.1] (2018), note V.1.13.5; E. Bauw, *Groene Serie Onrechtmatige daad VIII.6* [Green Series on Tort Law VIII.6] (2018), note VIII.6.3.6.

[104] See Supreme Court 5 November 1965, ECLI:NL:HR:1965:AB7079, *NJ* 1966/136 annotated by G.J. Scholten.

[105] See Supreme Court 14 July 2017, ECLI:NL:HR:2017:1345, *NJ* 2017/467 annotated by J. Spier, para. 3.3.2.

[106] See J.L. Smeehuijzen, '*Hoe oordeelt de feitenrechter over strijd met de maatschappelijke betamelijkheid in de zin van art. 6:162 lid 2 BW?*' [Howe does the court in the fact-finding instance analyse a conflict with generally-accepted standards within the meaning of Article 6:152(2) DCC?], *VR* 2017 (issue 10), p. 351.

[107] See *Asser/Hartkamp & Sieburgh 6-IV* 2015/75; K.J.O. Jansen, *Groene Serie Onrechtmatige daad* [Green Series on Tort Law], Article 6:162 BW (2018), notes 6.3.9.4 and 6.3.9.7 (with additional citations).

[108] See *United States v. Carroll Towing Co.* 159 F.2d 169 (2d Cir. 1947), p. 173, in which the following was held in a case involving an accident in port: 'Since there are occasions when every vessel will break from her moorings, and since, if she does, she becomes a menace to those about her, the owner's duty, as in other similar situations, to provide against resulting injuries is a function of three variables: (1) The probability that she will break away; (2) the gravity of the resulting injury, if she does; (3) the burden of adequate precautions. Possibly it serves to bring this notion into relief to state it in algebraic terms: if the probability be called P; the injury, L; and the burden, B; liability depends upon whether B is less than L multiplied by P; i. e., whether B < PL.'

[109] See G.E. van Maanen, '*De Nederlandse kelderluikarresten. Al meer dan honderd jaar – rechtseconomisch! – op de goede weg in Europa!*' [For more than 100 years – from a legal economic perspective! – on the right track in Europe], *NTBR* 2008/5, pp. 42-49; J. Spier, 'Private law as a crowbar for coming to grips with climate change?', in: E. Hey and others, *Climate Change: Options and Duties under International Law* (Announcements of the Royal Netherlands Association of International Law, no. 145), The Hague: Asser Press 2018, p. 38.

[110] See European Group on Tort Law, *Principles of European Tort Law. Text and Commentary*, Vienna: Springer 2005, Article 4:102 (also available via: <www.egtl.org>); Expert Group on Global Climate Obligations, *Oslo Principles on Global Climate Obligations*, The Hague: Eleven 2015, p. 38 *et seq*.

[111] See in this regard: E.H.P. Brans en K. Winterink, '*Onzekerheid en aansprakelijkheid voor schade door klimaatverandering. Welke rol speelt het voorzorgsbeginsel*?' [Uncertainty and liability for damage caused by climate change. What role does the precautionary principle play?], in: E.H.P. Brans *et al.*, *Naar aansprakelijkheid voor (de gevolgen van) klimaatverandering* [Towards liability for climate change and its consequences] (Preadviezen Vereniging voor Milieurecht [Preliminary advice of the Dutch Environmental Law Association]), The Hague: BJU 2012, p. 130; E.C. Gijselaar, '*Positieve verplichtingen om feitelijke maatregelen te nemen: voldoet het Nederlandse aansprakelijkheidsrecht*?' [Positive obligations to take actual measures: does Dutch liability law measure up?], *NTM/NJCM-Bulletin* 2016 (issue 2), p. 185; 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 naar Urgenda*?' [Duties of care according to the Supreme Court and the European Court of Human Rights: from Lindenbaum/Cohen via Kelderluik and Öneryildiz to Urgenda?], *RMTh* 2019 (issue 1), p. 53.

[112] For example, see E.R. de Jong, '*Urgenda: rechterlijke risicoregulering als alternatief voor risicoregulering door de overheid?*' [Urgenda: judicial risk regulation as alternative to risk regulation by the government?], *NTBR* 2015/46 (no. 10), under 3.2; T.G. Oztürk and G.A. van der Veen, *O&A* 2015/58, under 6-7; L. Bergkamp, '*Onrechtmatige gevaarzetting 4.0: rechterlijke revolutie met een nieuwe theorie van de onrechtmatige daad?*' [Hazardous negligence 4.0: judicial revolution with a new theory of tort law?], *TGMA* 2016 (no. 1), pp. 19-38; W. Hengeveld, '*Van Coca Cola tot CO2'* [From Coca Cola to CO2], in: M. Faure and T. Hartlief, *De Spier-bundel. De agenda van het aansprakelijkheidsrecht* [Liability Law's agenda] Deventer: Kluwer 2016, pp. 245-259.

[113] See for example Chr.H. van Dijk, '*Opwarming van de Aarde en de Kelderluikcriteria*' [Global Warming and the Kelderluik Criteria], *Milieu en Recht* [Environment and Law] 2016/43 (no. 4), pp. 279-286; A.G. Castermans, '*Het klimaatgevaar en het gouden kelderluik*' [Environmental danger and the golden cellar hatch] *AA* 2016 (no. 1), pp. 34-40. *Cf*. earlier: W.Th. Braams, A.B. van Rijn and M.W. Scheltema, '*Het recht van het klimaat*' [The law of the climate] in: *Klimaat en recht. Is het recht klaar voor klimaatverandering?* [Climate and law. Is the law ready for climate change?], Deventer: Kluwer 2010, p. 5 *et seq*.

[114] See L.F.M. Besselink, '*De constitutioneel meer legitieme manier van toetsing*. *Urgenda voor het Hof Den Haag'* [The more constitutionally legitimate manner of review. Urgenda before The Hague Court of Appeal], *NJB* 2018/2154 (no. 41), p. 3079; T.R. Bleeker, '*Nederlands klimaatbeleid in strijd met het EVRM*' [Dutch climate policy contrary to the ECHR], *NTBR* 2018/39 (no. 9/10), p. 292; D.G.J. Sanderink, *JB* 2019/10, at 3 and 12; P. Gillaerts and W.T. Nuninga, '*Privaatrecht en preventie*: *Urgenda* in hoger beroep' [Private Law and Prevention: Urgenda on Appeal], *AV&S* 2019/9 (no. 2), pp. 44 and 46. *Cf*. endorsing the ECHR perspective J.M. Emaus, '*Subsidiariteit, preventie en voorzorg. Een verklaring van het arrest in de Klimaatzaak aan de hand van drie fundamentele beginselen in het recht onder het EVRM*' [Subsidiarity, prevention and precaution. An explanation of the judgment in the Climate Case based on three fundamental principles of law under the ECHR], *AV&S* 2019/11 (no. 2), pp. 56-64; 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 naar Urgenda?*' [Duties of care according to the Supreme Court and the European Court of Human Rights: from Lindenbaum/Cohen via Kelderluik and Öneryildiz to Urgenda?], *RMTh* 2019 (no. 1), p. 54; L. Burgers and T. Staal, 'Climate action as positive human rights obligation: The appeals judgment in Urgenda v The Netherlands', in: R.A. Wessel, W. Werner and B. Boutin (eds.), *Netherlands Yearbook of International Law 2018*, The Hague: Asser Press 2019 (available at <www.researchgate.net>); E.R. de Jong, '*Urgenda en de beoordeling van macro-*

argumenten' [*Urgenda* and the assessment of macro arguments], *MvV* 2019 (issue. 4), pp. 133-141; D.G.J. Sanderink, '*Positieve verplichtingen als redders van het klimaat*' [Positive obligations will save the planet], *Tijdschrift voor Constitutioneel Recht* 2019 (issue 1), pp. 64-69; J. Spier, 'There is no future without addressing climate change', *Journal of Energy & Natural Resources Law* 2019 (vol. 37, no. 2), pp. 181-204 (in particular p. 198). Also *cf*. W.A. Fleuren, '*Urgenda en niet(?)-rechtstreeks werkend internationaal (klimaat)recht*' [Urgenda and non(?) directly binding international climate and other law], *NJB* 2019/475 (issue 9), pp. 604-605, where the reasoning of both the District Court and the Court of Appeal is found to be convincing.

[115] See in this context, among other things: Explanatory Memorandum I, Parliamentary Papers I 2017/18, 34 517, B, p. 8; C.A.J.M. Kortmann, *Constitutioneel recht* [Constitutional law], edited by P.P.T. Bovend'Eert, J.L.W. Broeksteeg, C.N.J. Kortmann and B.P. Vermeulen, Deventer: Wolters Kluwer, 2016, Part II, para. 3.3 (see also para. 3.4.9 on the State's positive obligations pursuant to treaty provisions); A.W. Heringa, J. van der Velde, L.F.M. Verhey and W. van der Woude, *Staatsrecht* [Constitutional state law], Deventer: Wolters Kluwer, 2018, para. 128 and 130; A.W. Heringa, *Europees Nederlands staatsrecht* [European Dutch constitutional law] The Hague: Boom Juridisch 2019, paras. 8.1 and 8.3; M.C. Burkens, H.R.B.M. Kummeling, B.P. Vermeulen and R.J.G.M. Widdershoven, *Beginselen van de democratische rechtsstaat* [Principles of democracy under the rule of law], Deventer: Wolters Kluwer, 2017, para. 14.2.3.

[116] Supreme Court 10 October 2014, ECLI:NL:HR:2014:2928, *NJ* 2015/12 annotated by E.A. Alkema (paras. 3.5.1-3.5.3). The decision has been repeated in Supreme Court 19 July 2019, ECLI:NL:HR:2019:1223, para. 3.7.2.

[117] Opinion AG Vlas, ECLI:NL:PHR:2019:522, para. 2.7 (footnotes omitted in this quote). See also: J.W.A. Fleuren, '*Recent Developments Regarding the Direct and Indirect Application of Treaties by Dutch Courts: Fresh Approaches to Self-Executing, Non-Self-Executing and Non-Binding International Law*', in: M. Kuijer and W. Werner (eds.), *Netherlands Yearbook of International Law 2016*, The Hague/Berlin: Asser/Springer 2017, pp. 386-388. See for the earlier doctrine: J.W.A . Fleuren, *Een ieder verbindende bepalingen van verdragen* [Provisions of treaties that are binding on all persons] (doctoral thesis Nijmegen), The Hague: Boom Juridische Uitgevers 2004.

[118] J.W.A . Fleuren, *Een ieder verbindende bepalingen van verdragen* [Provisions of treaties that are binding on all persons] (doctoral thesis Nijmegen), The Hague: Boom Juridische Uitgevers 2004, p. 372 *et seq*.

[119] See, for instance, Pierre-Marie Dupuy, '*Soft Law and the International Law of the Environment*', *Michigan Journal of International Law* 1990 (Vol. 12, no. 2), pp. 434-435; A. Nollkaemper, *Kern van het internationaal publiekrecht* [Essence of public international law], The Hague: BJU 2019, no. 196; A. Boyle, '*Soft law in international law-making*', in: M.D. Evans, *International law*, Oxford University Press 2018, pp. 119-137.

[120] See, for instance, J.W.A. Fleuren, 'Recent Developments Regarding the Direct and Indirect Application of Treaties by Dutch Courts: *Fresh Approaches to Self-Executing, Non-Self-Executing and Non-Binding International Law*', in: M. Kuijer and W. Werner (eds.), *Netherlands Yearbook of International Law 2016*, The Hague/Berlin: Asser/Springer 2017, pp. 388-390.

[121] See, for example, J.H. Gerards, *EVRM – Algemene leerstukken* [ECHR – General doctrines], The Hague: Sdu 2011, p. 81 *et seq*.; A. Nußberger, '*Hard Law or Soft Law – Does it matter?:* Distinction Between Different Sources of International Law in the Jurisprudence of the ECtHR', in: A. van Aaken and I. Motoc (eds.), *The European Convention on Human Rights and General International Law*, Oxford University Press 2018, pp. 41-58.

[122] See Pierre-Marie Dupuy, '*Soft Law and the International Law of the Environment*', *Michigan Journal of International Law* 1990 (Vol. 12, no. 2), p. 430 *et seq*.

[123] See, for example, P. Sands and J. Peel, *Principles of International Environmental Law*, Cambridge University Press 2012, p. 95; A. Boyle, '*Soft law in international law-making*', in: M.D. Evans, *International law*, Oxford University Press 2018, p. 119.

[124] See N.J. Schrijver, '*De reflexwerking van het internationale recht in de klimaatzaak van Urgenda*' [The reflex effect of international law in Urgenda's climate case], *Milieu en Recht* [Environment and Law]

2016/41, p. 270.

125 See A. Boyle, '*Soft law in international law-making*', in: M.D. Evans, *International law*, Oxford University Press 2018, p. 126; C. Redgwell, '*International environmental law*', in: M.D. Evans, *International law*, Oxford University Press 2018, p. 686.

126 Expert Group on Global Climate Obligations, *Oslo Principles on Global Climate Obligations*, The Hague: Eleven 2015, p. 38.

127 See J.W.A. Fleuren, '*Recent Developments Regarding the Direct and Indirect Application of Treaties by Dutch Courts*: *Fresh Approaches to Self-Executing, Non-Self-Executing and Non-Binding International Law*', in: M. Kuijer and W. Werner (eds.), *Netherlands Yearbook of International Law 2016*, The Hague/Berlin: Asser/Springer 2017, p. 378 *et seq*.; J.W.A. Fleuren, 'Urgenda *en niet(?)-rechtstreeks werkend internationaal (klimaat)recht*' [*Urgenda* and non(?) directly binding international climate and other law], *NJB* 2019/475 (issue 9), pp. 604-605. This refers to the introduction of of a contextual standard for 'direct effect', the rise of 'soft law' in international law and the increased importance of reflex effect in national law.

128 See R.A.J. van Gestel en M.A. Loth, '*Urgenda: roekeloze rechtspraak of rechtsvinding 3.0*?' [Urgenda: reckless dispensation of justice or finding of law 3.0?], *NJB* 2015/1849 (issue 37), pp. 2599-2600 and 2604; N.J. Schrijver, '*De reflexwerking van het internationale recht in de klimaatzaak van Urgenda*' [The reflex effect of international law in the Urgenda climate case], *Milieu en Recht* 2016/41, pp. 270-272; M.A. Loth, '*Climate Change Liability After All: A Dutch Landmark Case*', *Tilburg Law Review* 2016, p. 25 *et seq.*; M.A. Loth, '*Eenheid in gelaagdheid. Over formele en materiële rechtseenheid in een meergelaagde rechtsorde*' [Uniformity in layers. On procedural and substantive legal uniformity in a multi-layer legal system], *AA* 2018 (vol. 4), pp. 335-342.

129 See, for instance, R. Schutgens, *'Urgenda en de trias. Enkele staatsrechtelijke kanttekeningen bij het geruchtmakende klimaatvonnis van de Haagse rechter' Urgenda* and the trias: a few constitutional notes on the high-profile climate judgment by The Hague court], *NJB* 2015/1675 (issue 33), p. 2272; L. Bergkamp, '*Rechtsvinding in de moderne rechtsstaat'* [Finding of law in the modern democracy under the rule of law], *NJB* 2016/140 (issue 3), pp. 193-194; *NJB* 2015/1675; L. Bergkamp, *Onrechtmatige gevaarzetting 4.0: rechterlijke revolutie met een nieuwe theorie van onrechtmatige daad*? [Unlawful hazardous negligence 4.0: judicial revolution with a new theory of unlawful act?], *TGMA* 2016 (issue 1), p. 29 *et seq*.; L.F.M. Besselink, '*De constitutioneel meer legitieme manier van toetsing. Urgenda voor het Hof Den Haag'* [The constitutionally more legitimate method of review. *Urgenda* before the The Hague Court of Appeal], *NJB* 2018/2154 (issue 41), p. 3081; L.F.M. Besselink, '*Naschrift*' [Postscript], *NJB* 2019/476 (issue 9), p. 606; E.G.A. van der Werf, '*De zaak Urgenda op weg naar de Hoge Raad.* Geruchtmakende klimaatzaak allesbehalve een gelopen race' [The Urgenda case on its way to the Supreme Court. Outcome notorious climate case far from certain], *Tijdschrift voor Constitutioneel Recht* [Journal of Constitutional Law] 2019 (issue 1), p. 73.

130 See, for instance, *Asser/Hartkamp 3-I* 2018/220 *et seq*.

131 According to ECtHR, 7 July 1989, no. 14038/88 (*Soering/United Kingdom*), at 89.

132 On the relationship between Articles 1 and 34 ECHR, see, for instance, R. van de Westelaken, *SDU Commentaar EVRM* [SDU Commentary ECHR], Article 1 (2018), annotation C.2.

133 See, for instance, H. De Vylder and Y. Haeck, *SDU Commentaar EVRM* [SDU Commentary ECHR], Article 34 (2015), annotation C.2.1.6 *et seq.*; D.J. Harris, M. O'Boyle, E.P. Bates and C.M. Buckley, *Law of the European Convention on Human Rights*, Oxford University Press 2018, p. 87 *et seq*. See also para. 35 of the contested judgment.

134 See, for instance, R. van de Westelaken, *SDU Commentaar EVRM* [SDU Commentary ECHR], Article 1 (2018), annotation C.3 and; D.J. Harris, M. O'Boyle, E.P. Bates and C.M. Buckley, *Law of the European Convention on Human Rights*, Oxford University Press 2018, p. 102 *et seq*.; ECHR, *Guide on Article 1 of the European Convention on Human Rights* (version dated 30 April 2019, available at <www.echr.coe.int.>), nos. 11 *et seq*. and 27 *et seq*.

135 See in this sense the 2012 '*Manual on Human Rights and the Environment*', drawn up by the Council of Europe and available at <www.echr.coe.int>, on p. 111 *et seq*. (in particular p. 114).

[136] See the Advisory Opinion of 15 November 2017 by the Inter-American Court of Human Rights on 'Environment and Human Rights', a summary of which is available at <www.corteidh.or.cr/docs/opiniones/ resumen_seriea_23_eng.pdf> (on pp. 3-4 of that summary).

[137] According to ECtHR, 7 July 1989, no. 14038/88 (*Soering/United Kingdom*), at 87.

[138] Vienna Convention on the Law of Treaties, Vienna, 23 May 1969, *Bulletin of Treaties* 1972/51 (rectification in *Bulletin of Treaties* 2018/219). Article 31(1) provides: '*A treaty shall be interpreted in good faith in accordance with the ordinary meaning to be given to the terms of the treaty in their context and in the light of its object and purpose.'*

[139] On the principle of effective interpretation, see: J.H. Gerards, *EVRM – Algemene leerstukken* [ECHR – General doctrines], The Hague: Sdu 2011, p. 30 *et seq*.; D.J. Harris, M. O'Boyle, E.P. Bates and C.M. Buckley, *Law of the European Convention on Human Rights*, Oxford University Press 2018, p. 18 *et seq*.

[140] See J.H. Gerards, *EVRM – Algemene leerstukken* [ECHR – General doctrines], The Hague: Sdu 2011, p. 229 *et seq*.

[141] See D.G.J. Sanderink, *Het EVRM en het materiële omgevingsrecht* [The ECHR and substantive environmental law] (doctoral thesis Nijmegen), Deventer: Kluwer 2015, pp. 26-28; D.G.J. Sanderink, *JB* 2019/10, at 11.

[142] See, for instance, ECtHR 19 February 2009, no. 3455/05, *EHRC* 2009/50 annotated by J.P. Loof (*A and others/United Kingdom*), para. 174; J.H. Gerards, 'Oordelen over grondrechtenzaken. Rechtsvinding door de drie hoogste rechters in Nederland' [Opinions on constitutional matters. Findings of law by the three highest courts in the Netherlands], in: L.E. de Groot-van Leeuwen and J.D.A. den Tonkelaar (eds.), *Rechtsvinding op veertien terreinen* [Finding of law in fourteen disciplines], Deventer: Kluwer 2012, pp. 25-26.

[143] See, for example, J.H. Gerards and J.W.A. Fleuren (eds.), *Implementation of the European Convention on Human Rights and of the judgments of the ECtHR in national case-law*, Cambridge etc.: Intersentia 2014, p. 17 *et seq*.; D.J. Harris, M. O'Boyle, E.P. Bates and C.M. Buckley, *Law of the European Convention on Human Rights*, Oxford University Press 2018, p. 17 *et seq*.

[144] See, for instance, J.M. Emaus, 'Subsidiariteit, preventie en voorzorg*.* Een verklaring van het arrest in de Klimaatzaak aan de hand van drie fundamentele beginselen in het recht onder het EVRM' [Subsidiarity, prevention and precaution. An explanation of the Climate Case judgment based on three fundamental legal principles under the ECHR], *AV&S* 2019/11 (issue 2), p. 57 *et seq*.

[145] According to, for instance, ECtHR (Grand Chamber) 7 February 2013, no. 16574/08, *EHRC* 2013/210 annotated by J.H. Gerards (*Fabris/ France*), at 72.

[146] See J.H. Gerards and J.W.A. Fleuren (ed.), *Implementation of the European Convention on Human Rights and of the judgments of the ECtHR in national case-law*, Cambridge and others: Intersentia 2014, pp. 245-246 and 360. See Supreme Court 19 July 2019, ECLI:NL:HR:2019:1278, para. 2.7.8.

[147] That is to say: Acts enacted jointly by the Government and the States General, as referred to in Article 81 of the Dutch Constitution.

[148] Supreme Court 16 December 2016, ECLI:NL:HR:2016:2888, NJ 2017/132 annotated by E.A. Alkema (para. 3.3.3), referring to, among others, Supreme Court 10 August 2001, ECLI:NL:HR:2001:ZC3598, *NJ* 2002/278 annotated by J. de Boer.

[149] These Guides can be consulted at <www.echr.coe.int>. See also: S. Mirgaux, *SDU Commentaar EVRM* [SDU Commentary ECHR], Article 2 (2017), annotation C.1 *et seq*.; D.J. Harris, M. O'Boyle, E.P. Bates and C.M. Buckley, *Law of the European Convention on Human Rights*, Oxford University Press 2018, p. 205 *et seq*. (with regard to Article 2 ECHR) and p. 501 *et seq*. (with regard to Article 8 ECHR); C. Forder and others, *SDU Commentaar EVRM* [SDU Commentary ECHR], Article 8 (2019), annotation C.5. Also see Supreme Court 19 July 2019, ECLI:NL:HR:2019:1278, paras. 2.7.9-2.7.10 and the accompanying opinion of Advocate General P.J. Wattel, at 4.3.12 *et seq*.

[150] See ECtHR 30 November 2004, no. 48939/99, *NJ* 2005/210 annotated by E.A. Alkema (*Öneryildiz/Turkey*), para. 71: '(…) the Court reiterates that Article 2 (…) in the first sentence of its first paragraph lays down a positive obligation on States to take appropriate steps to safeguard the lives of those within their jurisdiction'.

[151] ECHR, *Guide on Article 2 of the European Convention on Human Rights* (version dated 31 August 2019), in particular at 7 and 8 *et seq*.

[152] Based on ECtHR (Grand Chamber) 28 October 1998, no. 23452/94, *NJ* 2000/134 annotated by E.A. Alkema (*Osman/Turkey*), in which this obligation was first accepted in general terms.

[153] ECHR, *Guide on Article 2 of the European Convention on Human Rights*, paras. 14 *et seq*., 17 *et seq*., 20.

[154] According to, for instance, ECtHR (Grand Chamber) 30 November 2004, no. 48939/99, *NJ* 2005/210 annotated by E.A. Alkema (*Öneryildiz/Turkey*), para. 89.

[155] ECHR, *Guide on Article 2 of the European Convention on Human Rights*, paras. 31 and 33-35. For a more extensive discussion, see the 2012 *Manual on Human Rights and the Environment* prepared by the Council of Europe on p. 34 *et seq*. For a brief overview, see the June 2019 *Factsheet – Environment and the European Convention on Human Rights*, drawn up by the press department of the ECtHR, on p. 1 *et seq*. Both document are available at <www.echr.coe.int>. For the purposes of comparison, reference can be made to 'General Comment (no. 36, 2018) on article 6 of the International Covenant on Civil and Political Rights, on the right to life' (CCPR/C/GC/36), paras. 26 and 62.

[156] ECtHR (Grand Chamber) 30 November 2004, no. 48939/99, *NJ* 2005/210 annotated by E.A. Alkema (*Öneryildiz/Turkey*).

[157] ECtHR 20 March 2008, nos. 15339/02 and others, *EHRC* 2008/73 annotated by H.L. Janssen; *NJ* 2009/229 annotated by E.A. Alkema (*Budayeva and others/Russia*).

[158] ECtHR 28 February 2012, no. 17423/05, *EHRC* 2012/105 annotated by Sanderink (*Kolyadenko/Russia*).

[159] ECtHR 24 July 2014, nos. 60908/11 and others, *EHRC* 2014/240 annotated by Emaus; *AB* 2015/37 annotated by Barkhuysen en Van Emmerik (*Brincat and others/Malta*).

[160] ECHR, *Guide on Article 8 of the European Convention on Human Rights* (version 30 April 2019), paras. 26 *et seq*. See also D.J. Harris, M. O'Boyle, E.P. Bates and C.M. Buckley, *Law of the European Convention on Human Rights*, Oxford University Press 2018, p. 563.

[161] *Guide on Article 8*, paras. 111 *et seq*. and 407-410. For a more extensive discussion, see the 2012 *Manual on Human Rights and the Environment* prepared by the Council of Europe on p. 43 *et seq*. For a brief overview, see the June 2019 *Factsheet – Environment and the European Convention on Human Rights*, drawn up by the press department of the ECtHR, on p. 8 *et seq*. Both document are available at <www.echr.coe.int>.

[162] *Guide on Article 8*, paras. 416-418.

[163] ECtHR 9 December 1994, no. 16798/90, *NJ* 1996/506 annotated by. E.J. Dommering (*López Ostra/Spain*); ECtHR 2 November 2006, no. 59909/00, *EHRC* 2007/7 annotated by M. Peeters (*Giacomelli/Italy*).

[164] ECtHR 10 November 2004, no. 46117/99 (*Taşkin and others/Turkey*); ECtHR 27 January 2009, no. 67021/01, *EHRC* 2009/40 annotated by M. Peeters; *AB* 2009/285 annotated by T. Barkhuysen & M.L. van Emmerik (*Tătar/Romania*).

[165] ECtHR 16 November 2004, no. 4143/02, *NJ* 2005/344 annotated by E.J. Dommering (*Moreno Gómez/Spain*).

[166] ECtHR 9 June 2005, no. 55723/00, *EHRC* 2005/80 annotated by H.L. Janssen (*Fadeyeva/Russia*); ECtHR 24 January 2019, nos. 54414/13 and 54264/15, *EHRC* 2019/107 annotated by S.T. Ramnewash-Oemrawsingh (*Cordella and others/Italy*).

[167] ECtHR 9 November 2010, no. 2345/06, *EHRC* 2011/10 annotated by R. van de Westelaken (*Deés/Hungary*); ECtHR 21 June 2011, no. 38182/03, *EHRC* 2011/138 (*Grimkovskaya/Ukraine*).

[168] ECtHR 10 February 2011, no. 30499/03 (*Dubetska and others/Ukraine*).

[169] ECtHR 26 July 2011, no. 9718/03, *EHRC* 2011/147 annotated by R. van de Westelaken (*Stoicescu/Romania*).

[170] ECtHR 10 January 2012, no. 30765/08, *EHRC* 2012/79 (*Di Sarno and others/Italy*).

171 ECtHR 4 September 2014, no. 42488/02, *EHRC* 2014/242 (*Dzemyuk/Ukraine*).

172 ECtHR 13 July 2017, no. 38342/05, *EHRC* 2017/190 (*Jugheli and others/Georgia*).

173 See, for instance, F.M. Fleurke and A. de Vries-Stotijn, 'Urgenda: convergentie tussen klimaat en mensenrechten?' [*Urgenda*: convergence between climate and human rights?], *Milieu en Recht* 2016/42 (issue 4), pp. 273-278; Ch.W. Backes and G.A. van der Veen, *AB* 2018/417, para. 2; A.E.M. Leijten, '*De* Urgenda-*zaak als mensenrechtelijke proeftuin?*' [The *Urgenda* case as human rights testing ground?], *AV&S* 2019/10 (vol. 2), pp. 50-55 (in particular p. 53); O. Spijkers, 'Urgenda *tegen de Staat der Nederlanden: aan wiens kant staat de Nederlandse burger eigenlijk?*' [*Urgenda v. the State of the Netherlands*: on which side do the Dutch really stand?], *AA* 2019 (vol. 3), pp. 191-198 (in particular p. 196).

174 See the sources mentioned in section 2.25.

175 ECtHR, 9 June 1998, no. 23413/94 (*L.C.B./United Kingdom*), para. 36.

176 See, for instance, D.G.J. Sanderink, *Het EVRM en het materiële omgevingsrecht* [The ECHR and substantive environmental law] (doctoral thesis Nijmegen), Deventer: Kluwer 2015, pp. 69 *et seq.* and 134 *et seq.*

177 See S. Mirgaux, *SDU Commentaar EVRM* [SDU Commentary ECHR], Article. 2 (2017), annotation C.2. See also, with a focus on this case, D.G.J. Sanderink, *JB* 2019/10, para. 10.

178 See J.H. Gerards, *EVRM – Algemene leerstukken* [ECHR – General doctrines], The Hague: Sdu 2011, p. 241.

179 See ECtHR (Grand Chamber) 30 November 2004, no. 48939/99, *NJ* 2005/210 annotated by E.A. Alkema (*Öneryildiz/Turkey*), para. 101. See also D.J. Harris, M. O'Boyle, E.P. Bates and C.M. Buckley, *Law of the European Convention on Human Rights*, Oxford University Press 2018, pp. 210-211.

180 See D.G.J. Sanderink, *Het EVRM en het materiële omgevingsrecht* [The ECHR and substantive environmental law] (doctoral thesis Nijmegen), Deventer: Kluwer 2015, p. 141 *et seq*. (in particular pp. 147-148).

181 See E.C. Gijselaar and E.R. de Jong, '*Overheidsfalen en het EVRM bij ernstige bedreigingen voor de fysieke veiligheid*' [Government failures and the ECHR for serious threats to physical safety], *NTBR* 2016/6 (vol. 2), p. 41; E.R. de Jong, '*Rechterlijke risicoregulering en het EVRM: over drempels om de civiele rechter als risicoreguleerder te laten optreden*' [Judicial risk regulation and the ECHR: on thresholds for civil courts to act as risk regulator], *NTM/NJCM-Bulletin* 2018 (vol. 2), p. 217.

182 See J.M. Emaus, '*Subsidiariteit, preventie en voorzorg. Een verklaring van het arrest in de Klimaatzaak aan de hand van drie fundamentele beginselen in het recht onder het EVRM*' [Subsidiarity, prevention and precaution. An explanation of the Climate Case judgment based on three fundamental legal principles under the ECHR], AV&S 2019/11 (vol. 2), p. 60 *et seq*.

183 ECtHR 10 November 2004, no. 46117/99 (*Taşkin and others/Turkey*), para. 113 (see also. para. 107 for the Turkish government's defence.

184 In this sense, see also Administrative Jurisdiction Division of the Dutch Council of State 18 November 2015, ECLI:NL:RVS:2015:3578, *JB* 2015/218 annotated by R.J.N. Schlössels and D.G.J. Sanderink, paras. 39.3 and 40.3. See also the corresponding *JB* annotation in paras. 7-8.

185 ECtHR 27 January 2009, no. 67021/01, *EHRC* 2009/40 annotated by M. Peeters; *AB* 2009/285 annotated by T. Barkhuysen & M.L. van Emmerik (*Tătar/Romania*), para. 120.

186 See, for instance, D.G.J. Sanderink, *Het EVRM en het materiële omgevingsrecht* [The ECHR and substantive environmental law] (doctoral thesis Nijmegen), Deventer: Kluwer 2015, pp. 31-32; T.R. Bleeker, '*Nederlands klimaatbeleid in strijd met het EVRM*' [Dutch climate policy in violation of the ECHR], *NTBR* 2018/39 (vol. 9/10), p. 294.

187 See, for instance, ECtHR, 29 April 2008, no. 13378/05 (*Burden and Burden/United Kingdom*), para. 35. With regard to the case law discussed here, see also, for instance, S. Mirgaux, *SDU Commentaar EVRM* [SDU Commentary ECHR], Article 34 (2015), annotation C.2.1.8; D.J. Harris, M. O'Boyle, E.P. Bates and C.M. Buckley, *Law of the European Convention on Human Rights*, Oxford University Press 2018, p. 88 *et seq*. (with further references).

[188] See ECtHR 24 October 2002, no. 37703/97, *EHRC* 2002/107 annotated by G. de Jonge (*Mastromatteo/Italy*), para. 69; ECtHR 15 December 2009, no. 28634/06 (*Maiorano and others/Italy*), para. 107; EHRM 12 January 2012, no. 36146/05 and 42418/05 (*Gorovenky and Bugara/Ukraine*), para. 32. See also D.J. Harris, M. O'Boyle, E.P. Bates and C.M. Buckley, *Law of the European Convention on Human Rights*, Oxford University Press 2018, p. 213.

[189] See ECtHR 10 January 2012, no. 30765/08, *EHRC* 2012/79 (*Di Sarno and others/Italy*), para. 81; ECtHR 24 January 2019, nos. 54414/13 and 54264/15, *EHRC* 2019/107 annotated by S.T. Ramnewash-Oemrawsingh (*Cordella and others/Italy*), para. 172.

[190] See EHRM 26 July 2011, no. 9718/03, *EHRC* 2011/147 annotated by Van de Westelaken (*Stoicescu/Romania*), para. 54 *et seq*., and the corresponding EHRC annotation, para. 7 *et seq*. It should be noted that the ECtHR does refer to the identifiability requirement in para. 51.

[191] See, for example, ECtHR 6 September 1978, 5029/71 (*Klass and others/Germany*), para. 41. See also the opinion for Supreme Court 7 September 2018 ECLI:NL:HR:2018:1434, *NJ* 2018/384, para. 2.27 (with further references).

[192] Guaranteed effectiveness is not required (see section 2.53 above).

[193] See, for example, ECHR, *Guide on Article 2 of the European Convention on Human Rights*, at 31 and 35; ECHR, *Guide on Article 8 of the European Convention on Human Rights* (version dated 30 April 2019), at 407 and 416.

[194] ECtHR (Grand Chamber) 30 November 2004, no. 48939/99, *NJ* 2005/210 annotated by E.A. Alkema (*Öneryildiz/Turkey*), paras. 107 and 128.

[195] ECtHR 20 March 2008, nos. 15339/02 and others, *EHRC* 2008/73 annotated by H.L. Janssen; *NJ* 2009/229 annotated by E.A. Alkema (*Budayeva and others/Russia*), para. 157.

[196] See J.H. Gerards, *EVRM – Algemene leerstukken* [ECHR – General doctrines], The Hague; SDU 2011, pp. 236 and 255

[197] ECtHR 9 June 2005, no. 55723/00, *EHRC* 2005/80 annotated by H.L. Janssen (*Fadeyeva/Russia*), paras. 126-128, 129 *et seq*. and 131.

[198] ECtHR 13 July 2017, no. 38342/05, *EHRC* 2017/ 190(*Jugheli and others/Georgia*), para. 76 ECtHR 24 January 2019, nos. 54414/13 and 54264/15, *EHRC* 2019/107 annotated by S.T. Ramnewash-Oemrawsingh (*Cordella and others/Italy*), para. 161. For another in-depth assessment, which at the time led to the ruling that Article 8 ECHR had not been violated, see: ECtHR (Grand Chamber) 8 July 2003, no. 36022/97, *NJ* 2004/207 annotated by E.J. Dommering (*Hatton and others/United Kingdom*), *EHRC* 2003/71 annotated by H.L. Janssen, concerning noise pollution from an airport.

[199] See O.W. Pedersen, 'The Ties that Bind: The Environment, the European Convention on Human Rights and the Rule of Law', *European Public Law* 2010 (vol. 16, no. 4), pp. 571-595 (in particular p. 578); J.M. Emaus, '*Subsidiariteit, preventie en voorzorg. Een verklaring van het arrest in de Klimaatzaak aan de hand van drie fundamentele beginselen in het recht onder het EVRM'* [Subsidiarity, prevention and precaution. An explanation of the Climate Case judgment based on three fundamental legal principles under the ECHR], *AV&S* 2019/11 (vol. 2), pp. 59-60.

[200] ECtHR 10 February 2011, no. 30499/03 (*Dubetska and others/Ukraine*), paras. 141 and 154.

[201] According to the 15th Protocol to the ECHR (*Bulletin of Treaties* 2013/130), which has not yet entered into force, the following text will be included in the preamble to the ECHR: *'Affirming that the High Contracting Parties, in accordance with the principle of subsidiarity, have the primary responsibility to secure the rights and freedoms defined in this Convention and the Protocols thereto, and that in doing so they enjoy a margin of appreciation, subject to the supervisory jurisdiction of the European Court of Human Rights established by this Convention.'*

[202] ECtHR 19 February 2009, no. 3455/05, *EHRC* 2009/50 annotated by J.P. Loof (*A and others/United Kingdom*), para. 184 (see Urgenda's Statement of Defence in Cassation, para. 500).

[203] Also according to the opinion by AG Vlas for Supreme Court 9 September 2016, ECLI:NL:HR:2016:2888, *NJ* 2017/132, annotated by E.A. Alkema (*NFE and others/State*), para. 2.6.

[204] See, for instance, N. Jak and J. Vermont '*De Nederlandse rechter en de* margin of appreciation' [The

Dutch courts and the margin of appreciation], *NTM-NJCM-bull* 2007 (issue 2), pp. 125-140; J.H. Gerards, 'Oordelen over grondrechtenzaken. *Rechtsvinding door de drie hoogste rechters in Nederland*' [Opinions on constitutional matters. Findings of law by the three highest courts in the Netherlands], in: L.E. de Groot-van Leeuwen and J.D.A. den Tonkelaar (eds.), *Rechtsvinding op veertien terreinen* [Finding of law in fourteen disciplines], Deventer: Kluwer 2012, p. 27; J.H. Gerards and J.W.A. Fleuren (eds.), *Implementation of the European Convention on Human Rights and of the judgments of the ECtHR in national case-law*, Cambridge etc.: Intersentia 2014, pp. 31-32 and 249-250. L. Lavrysen, Chapter 4, System of restrictions, in: P. van Dijk and others (eds.), *Theory and Practice of the European Convention on Human Rights*, Cambridge/Antwerp/Portland: On pp. 328-329, Intersentia 2018 discusses the criteria used by the ECtHR for determining the margin of appreciation. Referring to Gerards, he mentions as a third criterion: 'the importance of the affected right'.

[205] ECtHR (Grand Chamber) 7 February 2013, no. 16574/08, *EHRC* 2013/210 annotated by J.H. Gerards (*Fabris/ France*), para. 72.

[206] See N. Jak and J. Vermont, '*De Nederlandse rechter en de* margin of appreciation' [Dutch courts and the margin of appreciation], *NTM-NJCM-bulletin* 2007 (vol. 2), pp. 139-140, who consider it conceivable that the national court, on the basis of grounds substantively similar to those of the ECtHR, will have to leave a margin of appreciation to the legislator or to the executive and must therefore perform a marginal review. They continue: 'However, the margin that the national court grants to the legislator or executive here arises not from the margin of appreciation that the Court [meaning: the ECtHR] affords to the States, but from the national separation of powers between the judiciary, the legislative and the executive.' See also J.H. Gerards, '*Oordelen over grondrechtenzaken. Rechtsvinding door de drie hoogste rechters in Nederland*' [Opinions on constitutional matters. Findings of law by the three highest courts in the Netherlands], in: L.E. de Groot-van Leeuwen and J.D.A. den Tonkelaar (eds.), *Rechtsvinding op veertien terreinen* [Finding of law in fourteen disciplines], Deventer: Kluwer 2012, p. 27 (footnote 85). She believes that Dutch courts are relying on the margin of appreciation doctrine due to the lack of clear assessment criteria in national law.

[207] According to, for instance, ECtHR, 7 July 1989, no. 14038/88 (*Soering/United Kingdom*), para. 102.

[208] See, for example, J.H. Gerards, *EVRM – Algemene leerstukken* [ECHR – General doctrines], The Hague: Sdu 2011, p. 74 *et seq*.; D.J. Harris, M. O'Boyle, E.P. Bates and C.M. Buckley, *Law of the European Convention on Human Rights*, Oxford University Press 2018, p. 9 *et seq*. See also (focusing on 'soft law') A. Nußberger, 'Hard Law or Soft Law – Does it matter?: Distinction Between Different Sources of International Law in the Jurisprudence of the ECtHR', in: A. van Aaken and I. Motoc (eds.), *The European Convention on Human Rights and General International Law*, Oxford University Press 2018, pp. 41-58.

[209] ECtHR (Grand Chamber) 12 November 2008, no. 34503/97, *EHRC* 2009/4 annotated by F. Dorssemont and J.H. Gerards (*Demir and Baykara/Turkey*), paras. 85-86 (see also paras. 65 *et seq*.).

[210] J.H. Gerards, *EVRM – Algemene leerstukken* [ECHR – General doctrines], The Hague: SDU 2011, p. 77.

[211] ECtHR (Grand Chamber) 11 July 2002, no. 28957/95, *EHRC* 2002/74 annotated by J. van der Velde (*Goodwin/U.K.*), para. 85.

[212] See L.F.M. Besselink, '*De constitutioneel meer legitieme manier van toetsing.* Urgenda *voor het Hof Den Haag*' [The constitutionally more legitimate method of review. *Urgenda* before the The Hague Court of Appeal], *NJB* 2018/2154 (vol. 41), p. 3081.

[213] The Supreme Court could request the ECtHR to provide an advisory opinion on this matter. This possibility will be discussed in more detail in Chapter 6.

[214] See, for instance, C. Redgwell, 'International environmental law', in: M.D. Evans, *International law*, Oxford University Press 2018, p. 675 *et seq*.

[215] See, for instance, P. Sands and J. Peel, *Principles of International Environmental Law*, Cambridge University Press 2012, p. 187 *et seq.*; C.A. Okkerse, '*Volkenrechtelijke aansprakelijkheid voor schadelijke effecten van zeespiegelstijging als gevolg van klimaatverandering*' [Liability under international law for the harmful effects of sea level rise caused by climate change], in: E.H.P. Brans *et al.*, *Naar aansprakelijkheid voor (de gevolgen van) klimaatverandering* [Towards liability for climate change and its consequences]

(Preadviezen Vereniging voor Milieurecht [Preliminary advice of the Dutch Environmental Law Association]), The Hague: BJU 2012, p. 21 *et seq.* and 26 et *seq*.; E.H.P. Brans and K. Winterink, '*Onzekerheid en aansprakelijkheid voor schade door klimaatverandering. Welke rol speelt het voorzorgsbeginsel*?' [Uncertainty and liability for damage caused by climate change. What role does the precautionary principle play?], in: E.H.P. Brans *et al.*, *Naar aansprakelijkheid voor (de gevolgen van) klimaatverandering* [Towards liability for climate change and its consequences] (Preadviezen Vereniging voor Milieurecht [Preliminary advice of the Dutch Environmental Law Association]), The Hague: BJU 2012, pp. 111-144; J. Hänni, *Menschenrechtsverletzungen infolge Klimawandels, Europaische Grundrechte Zeitschrift, Vol. 46, Heft 1-6,* 2019, pp. 1-20, in particular at 3.b; E. Bauw, *Groene Serie Onrechtmatige daad VIII.6* (2018) [Green Series Unlawful Act VIII.6 (2018)], annotation VII.6.3.10 (with further references).

216 *Cf.* paras. 4.42 and 4.56 *et seq*. of the District Court's judgment, as well as paras. 5 *et seq*. and 63 of the contested judgment.

217 On international climate change law, see, for instance, P. Sands and J. Peel, *Principles of International Environmental Law*, Cambridge University Press 2012, p. 274 *et seq*.; M. Wewerinke-Singh, *State Responsibility, Climate Change and Human Rights under International Law*, Oxford etc.: Hart 2019, p. 41 *et seq*.

218 See M. Wewerinke-Singh, *State Responsibility, Climate Change and Human Rights under International Law*, Oxford etc.: Hart 2019, p. 110.

219 See, for instance, the statement by Kiribati (a low-lying archipelago which science says will disappear below sea level as a result of climate change), evident from Bulletin of Treaties 2005/1.

220 According to, for example, P.A. Nollkaemper, 'Internationale aansprakelijkheid voor klimaatverandering' [International liability for climate change], *NJB* 2007/2335 (vol. 45/46), p. 2877; C.A. Okkerse, 'Volkenrechtelijke aansprakelijkheid voor schadelijke effecten van zeespiegelstijging als gevolg van klimaatverandering' [Liability under international law for the harmful effects of sea level rise caused by climate change], in: E.H.P. Brans *et al.*, *Naar aansprakelijkheid voor (de gevolgen van) klimaatverandering* [Towards liability for climate change and its consequences] (Preadviezen Vereniging voor Milieurecht [Preliminary advice of the Dutch Environmental Law Association]), The Hague: *BJU* 2012, p. 34.

221 Paris Agreement, Paris, 12 December 2015, *Bulletin of Treaties* 2016/94 (rectified in *Bulletin of Treaties* 2016/127), recital 4, Article 2(1) and Article 4(1).

222 See, for example, E. Hey and F. Violy, 'The Hard Work of Regime Interaction: Climate Change and Human Rights', in: E. Hey and others, *Climate Change: Options and Duties under International Law* (Announcements of the Royal Netherlands Association of International Law, no. 145), The Hague: Asser Press 2018, pp. 1-24 (in particular p. 18); B. Lewis, *Environmental Human Rights and Climate Change*, Singapore: Springer 2018; M. Wewerinke Singh, *State Responsibility, Climate Change and Human Rights under International Law*, Oxford etc.: Hart 2019, p. 97 *et seq*.

223 UN Human Rights Office, *Understanding Human Rights and Climate Change. Submission of the Office of the High Commissioner for Human Rights to the 21st Conference of the Parties to the United Nations Framework Convention on Climate Change*, 26 November 2015 (available at <www.ohchr.org/Documents/Issues/ClimateChange/COP21.pdf>).

224 See M. Burger and J. Wentz (eds.), *Climate Change and Human Rights*, UNEP: December 2015 (available at <wedocs.unep.org/handle/20.500.11822/9934>), p.11 *et seq*. (in particular p. 19).

225 J.H. Knox, *Report of the Special Rapporteur on the issue of human rights obligations relating to the enjoyment of a safe, clean, healthy and sustainable environment*, Human Rights Council, A/HRC/37/59 of 24 January 2018 (available at <undocs.org/A/HRC/37/59>).

226 D.R. Boyd, *Statement on the human rights obligations related to climate change, with a particular focus on the right to life*, 25 October 2018 (available at <www.ohchr.org>), p. 2 *et seq*. (in particular p. 8).

227 Expert Group on Global Climate Obligations, *Oslo Principles on Global Climate Obligations*, The Hague: Eleven 2015, pp. 6 and 22 *et seq*.

228 An overview of climate cases conducted around the world is available at

<www.climatecasechart.com>. See also: J. Setzer and R. Byrnes, *Global trends in climate change litigation: 2019 snapshot*. London: Grantham Research Institute on Climate Change and the Environment and Centre for Climate Change Economics and Policy, London School of Economics and Political Science, 2019. See for a discussion from a human rights perspective: K. Arts and M.W. Scheltema, '*Territorialiteit te boven – Klimaatverandering en mensenrechten*' [Overcoming territoriality - Climate change and human rights], in: *De grenzen voorbij. De actualiteit van territorialiteit en jurisdictie* [Beyond borders. The topicality of territoriality and jurisdiction] (preliminary advice NJV), Deventer: Kluwer 2019, p. 74 *et seq*.

229 *Asghar Leghari v. Federation of Pakistan*, Lahore High Court, WP no. 25501/2015, 4 September 2015 (available at <https://elaw.org/PK_AshgarLeghari_v_Pakistan_2015>).

230 M. Wewerinke-Singh, *State Responsibility, Climate Change and Human Rights under International Law*, Oxford etc.: Hart 2019, pp. 108-109 and 130.

231 See K. Arts and M.W. Scheltema, '*Territorialiteit te boven – Klimaatverandering en mensenrechten*' [Overcoming territoriality - Climate change and human rights], in: *De grenzen voorbij*. *De actualiteit van territorialiteit en jurisdictie* [Beyond borders. The topicality of territoriality and jurisdiction] (preliminary advice NJV), Deventer: Kluwer 2019, pp. 87-88 and 125. See in a similar sense para. 9.2.4 of the State's Written Explanation.

232 What does appear to be correct is the finding (on p. 87 of the preliminary advice) that the duty of care the Court of Appeal has derived from Articles 2 and 8 ECHR has no precedents in global climate case law.

233 See E. Hey and F. Violy, 'The Hard Work of Regime Interaction: Climate Change and Human Rights', in: E. Hey and others, *Climate Change: Options and Duties under International Law* (Announcements of the Royal Netherlands Association of International Law, no. 145), The Hague: Asser Press 2018, p. 20.

234 J. Spier, 'Het preadvies van K. Arts & M. Scheltema' [The preliminary advice of K. Arts & M. Scheltema], *NJB* 2019/1265 (vol. 22), pp. 1607-1608.

235 See J. Spier, 'There is no future without addressing climate change', *Journal of Energy & Natural Resources Law* 2019 (vol. 37, no. 2), p. 200.

236 ECtHR 28 February 2012, no. 17423/05 and others, *EHRC* 2012/105 annotated by D.G.J Sanderink (*Kolyadenko/Russia*), para. 180.

237 See ECtHR 17 November 2015, no. 14350/05 etc., *EHRC* 2016/33 (*Özel, et al./Turkey*), para. 173.

238 See in a similar sense J. Spier, '*Het preadvies van K. Arts & M. Scheltema*' [The preliminary advice of K. Arts & M. Scheltema], *NJB* 2019/1265 (issue 22), p. 1609; J. Spier, 'There is no future without addressing climate change', *Journal of Energy & Natural Resources Law* 2019 (vol. 37, no. 2), p. 198.

239 *Cf*. paras. 9.1.3 and 9.3.1 of the State's Written Explanation.

240 *Cf*. the territoriality principle discussed in section 2.36 above.

241 For the conditional complaints put forward in the alternative, which are based on differing interpretations of the opinions involved, see the document initiating the proceedings for cassation, pp. 5-6.

242 *Cf*. section 2.47 *et seq*. above.

243 Nor did the Court of Appeal assume that this was what the State's grounds for cassation meant. *Cf*. the Court of Appeal's presentation - undisputed in cassation - of the State's defence in para. 30.

244 The reference mentioned in footnote 2 of the ground for cassation - specifically para. 3.8 of the State's Defence in the cross-appeal - exclusively concerned the State's reliance on Article 34 ECHR. The Court of Appeal rejected that defence in para. 35 on grounds that have not been disputed in cassation.

245 During the debate in these cassation proceedings, Urgenda discussed these complaints only in the alternative; see its written arguments, paras. 12-13.

246 According to para. 1.5 of the State's written arguments in the proceedings for cassation, for example.

[247] See paras. 2.51 and 2.82 above.

[248] According to E.R. de Jong, 'Urgenda *en de beoordeling van macro-argumenten*' [*Urgenda* and the assessment of macro-arguments], *MvV* 2019 (no. 4), p. 138.

[249] See paras. 37 and 45 of the contested judgment.

[250] See the State's Written Explanation at 111 and the letter from the Minister of Economic Affairs and Climate Policy of 16 November 2018, Parliamentary Papers II 2018/19, 32 813, F.

[251] Also see section 4.225 below.

[252] *Cf*. para. 12.1.8 of the State's Written Explanation.

[253] *Cf*. from a national perspective under administrative law: ABRvS 3 July 2019, ECLI:NL:RVS:2019:2217, regarding the reduction and speed of that reduction of gas extraction in Groningen in the prevention of earthquakes.

[254] *Cf*. para. 10.3 *et seq*., and para. 10.11 in particular, of the State's Written Explanation.

[255] See para. 3.1 *et seq*. of the State's Defence in the cross-appeal.

[256] See in similar sense: E.R. de Jong, '*Rechterlijke risicoregulering en het EVRM: over drempels om de civiele rechter als risicoreguleerder te laten optreden*' [Judicial risk regulation and the ECHR: on thresholds for civil courts to act as risk regulator], *NTM/NJCM-Bulletin* 2018 (no. 2), p. 214; J.W.A. Fleuren, 'Urgenda *en niet(?)-rechtstreeks werkend internationaal (klimaat)recht*' [*Urgenda* and non(?) directly binding international climate law and other law], *NJB* 2019/475 (no. 9), p. 604.

[257] See e.g. *Asser Procesrecht/Bakels, Hammerstein & Wesseling-van Gent 4* 2018/180.

[258] See e.g. ground for cassation 2.6 (the interests of Dutch residents are 'not congruent', because 'a measure that protects one resident may have a harmful impact on another resident') and ground for cassation 3.4 (dangerous effects of an increase in sea level and the like will 'not occur to a similar extent or have a similar impact on the rights protected by Article 2 and/or Article 8 ECHR').

[259] See para.10.4 of the State's Written Explanation.

[260] *Cf*. section 2.60 above.

[261] Regarding Article 34 ECHR, the term 'victim' and the possibilities of representation in proceedings with the ECHR: ECtHR 17 July 2014 (no. 47848/08, *Campeanu/Romania*), EHRC 2014/212 annotated by H. de Vylder.

[262] In this regard see J.H. Gerards, *EVRM – Algemene leerstukken* [ECHR – General doctrines], The Hague: Sdu 2011, p. 70 *et seq*.

[263] *Cf*. e.g. Supreme Court 9 April 2010, ECLI:NL:HR:2010:BK4549, *NJ* 2010/388 annotated by E.A. Alkema (*State and SGP/Clara Wichmann et al.*, in connection with Article 14 ECHR); Supreme Court 19 July 2019, ECLI:NL:HR:2019:1223 (*State/Mothers of Srebrenica,* in connection with Articles 2 and 3 ECHR).

[264] See e.g. Supreme Court 19 July 2019, ECLI:NL:HR:2019:1278, para. 2.7.8 *et seq*.

[265] See e.g. ABRvS 18 November 2015, ECLI:NL:RVS:2015:3578, *JB* 2015/218 annotated by R.J.N. Schlössels and D.G.J. Sanderink; ABRvS 15 November 2017, ECLI:NL:RVS:2017:3156.

[266] ABRvS 3 July 2019, ECLI:NL:RVS:2019:2217.

[267] See paras. 48-76 of the Court of Appeal's judgment; in particular paras. 49, 53, 73 and 76).

[268] We will limit ourselves to the regulations, arrangements and information regarding reduction targets for 2020 that are relevant in these proceedings for cassation. Also see paras. 2.24-2.78 of the District Court's judgment and paras. 4-11 and 15-26 of the Court of Appeal's judgment.

[269] The Court of Appeal wrongly stated in para. 9 that the developing countries are mentioned in Annex II. The State rightly pointed this out in its Written Explanation at 4.1.19.

[270] However, the parties (countries) must subsequently ratify these via their internal procedures.

[271] Also see para. 4.38 of the District Court's judgment: 'Almost all COP decisions are not legally binding'; para. 10 of the Court of Appeal's judgment: 'COP decisions are not always legally binding'; and the State's Written Explanation at 3.3. Also see J. Brunnée, 'COPing with Consent: Law-Making

Under Multilateral Environmental Agreements', Leiden Journal for International Law (2002), 1, 32; M. Goote and E. Hey, *Internationaal milieurecht* [International environmental law], Chapter 19 in *Handboek Internationaal recht* [Handbook of International Law], The Hague: T.M.C. Asser Instituut 2007, p. 693; D. Bodanksy, Legally Binding versus Non-Legally Binding Instruments, in: Scott Barrett, Carlo Carraro and Jaime de Melo, eds., Towards a Workable and Effective Climate Regime, 2015, p. 157.

272 N.J. Schrijver, *'De reflexwerking van het internationale recht in de klimaatzaak van Urgenda'* [The reflex effect of international law in Urgenda's climate case], *M en R* 2016/41, no. 5; P.M. Dupuy en J.E. Vinuales*, International Environmental Law*, Cambridge University Press 2015, p. 36; D. Bodanksy *et al*, *International Climate Change Law*, Oxford University Press 2017, *pp.* 90, 91.

273 State's Written Explanation at 3.3.2; Urgenda's Defence in the proceedings for cassation at 200 and Urgenda's Rejoinder in the proceedings for cassation at 88. Also see paras. 2.22-2.44 of the District Court's judgment.

274 There are also CMA decisions: decisions made by parties to the UN Climate Convention that are also parties to the Paris Agreement: 'Decisions adopted by the Conference of the Parties serving as the meeting of the Parties to the Paris Agreement'.

275 Decision 1/CP.3. The protocol was created on 11 December 1997, Bulletin of Treaties 1998, 170, and took effect in the Netherlands on 16 February 2005.

276 See paras. 2.42-2.44 of the District Court's judgment.

277 For the EU, this 'quantified emission limitation or reduction commitment' (QELRC) as compared to 1990 was 92 according to Annex B to the Kyoto Protocol, meaning a reduction of 8% as compared to 1990. Also see para. 2.43 of the District Court's judgment.

278 Also see T.J. Thurlings, *Gevolgen van het Doha-amendement op het Kyotoprotocol voor het EU-ETS en de Effort sharing agreement* [Consequences of the Doha Amendment on the Kyoto Protocol for the EU-ETS and the Effort sharing agreement], *M en R* 2015/147, p. 756; E. Haites, 'Bubbling' and the Kyoto mechanisms', *Climate Policy* 1 (2001) 109–116.

279 Decision 1/CP.13.

280 Decision 1/ CP.13, p. 3.

281 Decision 1/CP.16 (The Cancun Agreements: Outcome of the work of the Ad Hoc Working Group on Long-term Cooperative Action under the Convention).

282 See Decision 1/CP.16 at 36; Decision 1/CMP.6 at 3; Compilation of economy-wide emission reduction targets to be implemented by Parties included in Annex I to the Convention, FCCC/SB/2011/INF.1/Rev.1 at 9.

283 Para. 2.50 of the District Court's judgment wrongly states that this decision was adopted by the 'Annex I Countries'.

284 Decision 1/CMP.6 (The Cancun Agreements: Outcome of the work of the Ad Hoc Working Group on Further Commitments for Annex I Parties under the Kyoto Protocol at its fifteenth session.

285 Decision 1/CMP.7 (Outcome of the work of the Ad Hoc Working Group on Further Commitments for Annex I Parties under the Kyoto Protocol at its sixteenth session).

286 Decision 1/CMP.8.

287 Para. 11 of the Court of Appeal's judgment. For the current status, see: < https://treaties.un.org/> (at '*Depository*', '*Status of Treaties*', '*Chapter XXVII Environment*', '*7.c. Doha Amendment to the Kyoto Protocol*').

288 For the obligations per country, also see the Official Journal of the EU of 4 August 2015, L 207/6 *et seq*. For the Netherlands, this concerns a reduction in greenhouse gas emissions in the second commitment period of 919,963,374 tons CO2eq.

289 Decision 1/ CMP.8, at 7.

290 1/CP.18, para.18 ('Reiterates its resolve as set out in decision 1/CP.19, paragraphs 3 and 4, to accelerate the full implementation of the decisions constituting the agreed outcome pursuant to decision 1/CP.13 and enhance ambition in the pre-2020 period in order to ensure the highest possible

mitigation efforts under the Convention by all Parties').

[291] 1/CP.21 para.105(c) ('Reiterating its resolve, as set out in decision 1/CP.19, paragraphs 3 and 4, to accelerate the full implementation of the decisions constituting the agreed outcome pursuant to decision 1/CP.13 and enhance ambition in the pre-2020 period in order to ensure the highest possible mitigation efforts under the Convention by all Parties;').

[292] Defence on appeal at 6.18; Urgenda's Defence at 218-219; Urgenda's Rejoinder at 97.

[293] Urgenda's Defence, note 99.

[294] State's Written explanation at 5.2.9 and 5.2.12.

[295] Para. 51 of the Court of Appeal's judgment.

[296] Regarding the question of the extent to which this agreement is binding, see D. Bodanksy, The Legal Character of the Paris Agreement, *Review of European, Comparative, and International Environmental Law*, 2016, *pp.* 142-150.

[297] Paris Agreement, 12 December 2015, Bulletin of Treaties 2016, 94 (agreement was signed on 22 April 2016). Effective date 4 November 2016, and for the Netherlands effective as of 27 August 2017, Bulletin of Treaties 2017, 141. For an overview of all of the parties, see: https://verdragenbank.overheid.nl/nl/Verdrag/Details/013136.

[298] Also see L. Meyer, 'Urgenda-*vonnis ontbeert goede wetenschappelijke onderbouwing*' [*Urgenda* judgment lacks proper scientific basis], *M en R* 2016/36, under 3; I. Ari & R. Sari, Differentiation of developed and developing countries for the Paris Agreement, *Energy Strategy Reviews* 18:175-182, 2017; A. Dietzel, The Paris Agreement – Protecting the Human Right to Health?, *Global Policy* 8:3, 2017, *pp.* 318-319. Also see the State's Written Explanation at 4.1.20-4.1.21; Urgenda's Defence in the proceedings for cassation at 166.

[299] The Court of Appeal's opinion (para. 15) that the distinction between Annex I countries and other countries will disappear after 2020 is challenged by the State's ground for cassation 4.2.

[300] Decision 1/CP.21 (Adoption of the Paris Agreement).

[301] For the objective for 2030 *et seq*., see the documents cited in paras. 2.63 through 2.68 of the District Court's judgment. The State (Written Explanation at 3.2.18) reported that under the Paris Agreement, the EU and its Member States determined an NDC for 2030 of at least 40% as compared to 1990.

[302] See the Presidency Conclusions of the Brussels European Council (8/9 March 2007), 7224/1/07 REV 1, at 30-32.

[303] The commission staff working document accompanying the EC's announcements refers to the Exeter Conference on Avoiding Dangerous Climate Change of March 2005 for the most recent scientific insights. See *Commission Staff Working Document, Accompanying document to the Communication from the Commission to the Council, the European Parliament, the European Economic and Social Committee and the Committee of the Regions Limiting Global Climate Change to 2 degrees Celsius The way ahead for 2020 and beyond Impact Assessment* ({COM(2007) 2 final} {SEC(2007) 7} /* SEC/2007/0008 final, at 3 Recent Scientific Findings on Climate Change. The report of the Exeter conference is included in: Hans Joachim Schnellhuber *et al*., *Avoiding Dangerous Climate Change*, Cambridge/New York: CUP 2006.

[304] Directive 2003/87/EC of the European Parliament and of the Council of 13 October 2003 establishing a scheme for greenhouse gas emission allowance trading within the Community and amending Council Directive 96/61/EC, OJ L 275 of 25 October 2003.

[305] Directive 2009/29/EC of the European Parliament and of the Council of 23 April 2009 amending Directive 2003/87/EC so as to improve and extend the greenhouse gas emission allowance trading scheme of the Community, OJ L 140 of 5 June 2009.

[306] Directive (EU) 2018/410 of the European Parliament and of the Council of 14 March 2018 amending Directive 2003/87/EC to enhance cost-effective emission reductions and low-carbon investments, and Decision (EU) 2015/1814, OJ L 76 of 19 March 2018.

[307] See para. 2.57 of the District Court's judgment in conjunction with para. 2 of the Court of Appeal's judgment. The State already noted in its oral arguments on appeal: '3.8 The EU ETS covers the energy

and energy-intensive industries sectors, and recently the aviation sector with regard to flights between the countries participating in the EU ETS, which include Iceland and Norway. Some 45% of the total greenhouse gas emissions in the EU are generated by companies that are subject to the EU ETS. For the Netherlands, this concerns about 4500 companies.' Also see Urgenda's Statement of Appeal, para. 555.

[308] See para. 17 of the Court of Appeal's judgment.

[309] See, for example, recitals 21, 23 and 24 and Article 10bis and 10quater of Directive 2009/29/EC.

[310] See Article 1 of Decision (EU) 2015/1814 of the European Parliament and of the Council of 6 October 2015 concerning the establishment and operation of a market stability reserve for the EU greenhouse gas emission trading scheme and amending Directive 2003/87/EC, OJ L264 of 9 October 2015.

[311] See the preamble, at 13 and 14.

[312] See Article 1(20) and the recitals at 9. Also see the State's written arguments on appeal at 2.26 and 3.10.

[313] Decision No 406/2009/EC of the European Parliament and of the Council of 23 April 2009 on the effort of Member States to reduce their greenhouse gas emissions to meet the Community's greenhouse gas emission reduction commitments up to 2020, Pb EU L 140/136 of 5 June 2009.

[314] Preamble to Decision 406/2009/EC at 2 and 4.

[315] Decision 406/2009/EC, Annex II.

[316] Article 21 of the Constitution of the Netherlands.

[317] See para. 19 of the Court of Appeal's judgment.

[318] We have limited ourselves to the figures that are the most relevant in cassation. Also see para. 2.57 of the District Court's judgment and para. 12 of the Court of Appeal's judgment.

[319] The two documents can be viewed at https://www.ipcc.ch/documentation/procedures/.

[320] See the 'Guidance Notes for Lead Authors of the IPCC Fourth Assessment Report on Addressing Uncertainties' and the 'Guidance Note for Lead Authors of the IPCC Fifth Assessment Report on Consistent Treatment of Uncertainties'.

[321] Also see the State's Written Explanation at 3.4.21.

[322] Procedures for the preparation, review, acceptance, adoption, approval and publication of IPCC Reports, p. 3. Also see the State's Written Explanation at 3.4.15.

[323] See the definitions on p. 2 at 2 of the Procedures for the preparation, review, acceptance, adoption, approval and publication of IPCC Reports.

[324] Procedures for the preparation, review, acceptance, adoption, approval and publication of IPCC Reports, p. 3. Also see the State's Written Explanation at 3.4.19.

[325] See paras. 2.12-2.17 of the District Court's judgment.

[326] 2007 Synthesis Report, *pp.* 64/65.

[327] Climate Change 2007: Mitigation of Climate Change, Chapter 3: Issues related to mitigation in the long-term context, p. 229.

[328] Climate Change 2007: Mitigation of Climate Change, Chapter 3: Issues related to mitigation in the long-term context, p. 229.

[329] Climate Change 2007: Mitigation of Climate Change, Chapter 13: Policies, instruments and co-operative arrangements, p. 776.

[330] See paras. 2.18-2.21 of the District Court's judgment.

[331] Climate Change 2014: Mitigation of Climate Change. Summary for Policymakers, pp. 10-13, cited in part in para. 2.19 of the District Court's judgment (p. 10-11 states: 'Scenarios reaching these concentrations by 2100 are characterized by lower global GHG emissions in 2050 than in 2010, 40 % to 70 % lower globally, and emissions levels near zero GtCO2eq or below in 2100'). See para. 12 of the Court of Appeal's judgment and the quote in para. 2.19 of the District Court's judgment.

[332] Climate Change 2014: Mitigation of Climate Change. Summary for Policymakers, p. 9. See para. 2.21

of the District Court's judgment.

333 See the second sentence of Article 149 of the Dutch Code of Civil Procedure ('Facts or rights that have been asserted by one party and that are not disputed or only insufficiently disputed must be deemed by the court as established, with the exception of its authority to require proof if and when accepting the assertions would lead to a legal consequence that is not at the parties' discretion'). The exception of issues that impact public policy is not relevant in this case.

334 See para. 4.3 of the District Court's judgment.

335 See L. Bergkamp, 'Het Haagse klimaatvonnis. Rechterlijke onbevoegdheid en negatie van het causaliteitsvereiste', *NJB* 2015/1676, at 2b. Also see L. Bergkamp, *'Onrechtmatige gevaarzetting 4.0: rechterlijke revolutie met een nieuwe theorie van onrechtmatige daad*?' [Hazardous negligence 4.0: judicial revolution with a new theory of tort?], *Tijdschrift voor Gezondheidsschade, Milieuschade en Aansprakelijkheidsrecht* 2016/1, at 4.C; L. Bergkamp & J.C. Hanekamp, 'Climate Change Litigation against States: The Perils of Court-made Climate Policies', *European Energy and Environmental Law Review* 2015, pp. 103-110.

336 See para. 2 of the Court of Appeal's judgment. In civil proceedings in the Netherlands, in principle the appeals court assesses the case exclusively based on the complaints - 'grounds for appeal'- submitted by the parties to the Court of Appeal for assessment. For example, see Supreme Court 30 March 2012, ECLI:NL:HR:2012:BU8514, *NJ* 2012/583 annotated by H.B. Krans, para. 3.3.2; *Asser Procesrecht/Bakels, Hammerstein & Wesseling-van Gent* 4 2018/81.

337 However, the comprehensibility of the establishment of the facts by the Court of Appeal may be challenged in cassation. The grounds for cassation include complaints against at least parts of the facts as established in paras. 12, 15 and 26.

338 For example, see the State's Statement of Defence at 5.2; the State's Notice and Grounds of Appeal at 12.41 (ground of appeal 8).

339 See paras. 12 and 63 of the Court of Appeal's judgment. The State's grounds for cassation directs a number of complaints against this; for example: ground 4.6(ii) - uncertainty; ground 5.2 - chances; grounds 8.2.1 and 8.6 - precautionary principle.

340 See paras. 3.1-3.7 of the Court of Appeal's judgment. Part two of the ground for cassation also directs complaints at para. 44. Those complaints do not concern the established facts as such, but relate to the consequences attached to them by the Court of Appeal.

341 The State's ground for cassation 2 complains that when the Court of Appeal discussed the aforementioned risks, it insufficiently focused on the risks *in the Netherlands*.

342 The Court of Appeal refers in para. 44 to the Synthesis Report from AR5, p. 72.

343 See the UNEP Emissions Gap Report 2014, Glossary: 'Carbon dioxide emissions budget: For a given temperature rise limit, for example a 1.5 or 2°C long-term limit, the corresponding carbon budget reflects the total amount of carbon emissions that can be emitted to stay within that limit. Stated differently, a carbon budget is the area under a greenhouse gas emissions trajectory that satisfies assumptions about limits on cumulative emissions estimated to avoid a certain level of global mean surface temperature rise.'

344 The UNEP Emissions Gap Report 2014 explains the figure presented below in para. 4.59 as follows: 'Here global carbon neutrality means that annual anthropogenic carbon dioxide emissions are net zero on the global scale (Figure ES.1). Net zero implies that some remaining carbon dioxide emissions could be compensated by the same amount of carbon dioxide uptake (negative emissions) so long as the net input of carbon dioxide to the atmosphere due to human activities is zero.'

345 See para. 12 of the Court of Appeal's judgment.

346 See para. 49 of the Court of Appeal's judgment.

347 See the UNEP Emissions Gap Report 2014, Glossary: 'Biomass plus carbon capture and storage (BioCCS or BECCS): Use of energy produced from biomass where the combustion gases are then captured and stored underground or used, for example, in industrial processes. It excludes gases generated through, for example, a fermentation process (as opposed to combustion).'

[348] See the quote from AR5 in para. 2.19 of the District Court's judgment, also included below in section 4.149.

[349] The Court of Appeal points this out in paras. 47 and 71 of its judgment. Within this context, Urgenda refers to 'the social inertia of the climate problem' (Defence at 63).

[350] The Court of Appeal discusses the expected availability of these technologies in para. 49 of its judgment.

[351] Terms also applied by the Court of Appeal in para. 52 of its judgment.

[352] Para. 44 of the Court of Appeal's judgment.

[353] AR5: Climate Change 2014: Mitigation of Climate Change. Summary for Policymakers, p. 9.

[354] Para. 2 of the Court of Appeal's judgment in conjunction with para. 2.22 of the District Court's judgment.

[355] AR5: Climate Change 2014: Mitigation of Climate Change. Summary for Policymakers, p. 12.

[356] Paras. 2 and 71 of the Court of Appeal's judgment in conjunction with para. 2.19 of the District Court's judgment.

[357] UNEP Emission *Gap Report* 2014, executive summary, under 6.

[358] Para. 2 of the Court of Appeal's judgment in conjunction with para. 2.22 of the District Court's judgment.

[359] Para. 14 of the Court of Appeal's judgment.

[360] UNEP Emission *Gap Report* 2013, executive summary, under 6.

[361] UNEP *Emissions Gap Report* 2013, Glossary: '**Later-action scenarios** Climate change mitigation scenarios in which emission levels in the near term, typically up to 2020 or 2030, are higher than those in the corresponding least-cost scenarios.'

[362] Para. 2 of the Court of Appeal's judgment in conjunction with para. 2.30 of the District Court's judgment.

[363] The Netherlands Environmental Assessment Agency (PBL) is an independent agency that conducts investigations in the area of the environment, nature and space, and was part of the Ministry of Infrastructure and the Environment. See para. 2.22 of the District Court's judgment.

[364] Para. 22 of the Court of Appeal's judgment. See the report '*Wat betekent het Parijsakkoord voor het Nederlandse langetermijn-klimaatbeleid?'* [What is the significance of the Paris Agreement for the Dutch long-term climate policy?], 18 November 2016, p. 5 (entered into evidence by Urgenda as Exhibit 126; see its Defence on Appeal at 3.84).

[365] The figure was presented with the oral arguments before the Court of Appeal. It is also included in Christiana Figueres *et al*. 'Three years to safeguard our climate', *Nature* vol. 546, 2017, 593-595 (entered into evidence by Urgenda as Exhibit 150). Urgenda also referred to it at no. 79 of its Defence in Cassation.

[366] See paras. 12 and 49 of the Court of Appeal's judgment. The State's ground for cassation 4.6 complains about this in particular.

[367] Para. 21 states that the District Court's judgment was based on the assumption that the Netherlands would achieve a total greenhouse gas reduction of 14%-17% by 2020 compared to 1990 (starting from existing and proposed policy), but that this is currently 23% (19%-27%, accounting for a margin of uncertainty). The difference can largely be explained by the fact that the emissions in the base year of 1990 were retrospectively adjusted (raised). The Court of Appeal referred to a press release issued by ECN on 18 October 2016, in which the following was noted: '(…) *At first glance, the adjustment seems like good news, but for the climate the current scenario of a 23% reduction is actually worse than the scenario of 17% from the 2014 NEV*.' See also para. 73.

[368] See Articles 23 through 26 of the Dutch Code of Civil Procedure.

[369] See in general Asser-Vranken, *Algemeen deel* [General section], Zwolle: W.E.J. Tjeenk Willink, 1995/9 *et seq*. On the relationship between the availability of scientific information and the possibility for courts to derive a standard from this that sets a limit to the government's discretion, see also L.

Enneking & E. de Jong, ‘Regulering van onzekere risico’s via public interest litigation?’ [Regulation of uncertain risks via public interest litigation?], *NJB* 2014/1136, para. 4.1; E.R. de Jong, 'Rechterlijke risicoregulering en het EVRM: over drempels om de civiele rechter als risicoreguleerder te laten optreden’ [Judicial risk regulation and the ECHR: on thresholds for civil courts to act as risk regulator], *NTM-NJCM-Bulletin* 2018/16, paras. 7.1-7.4; E.R. de Jong, Urgenda: rechterlijke risicoregulering als alternatief voor risicoregulering door de overheid? [Urgenda: judicial risk regulation as alternative to risk regulation by the government], *NTBR* 2015/46, pp. 321-322; E.R. de Jong, *Voorzorgverplichtingen. Over aansprakelijkheidsrechtelijke normstelling voor onzekere risico's* [On liability law standards for uncertain risks] (doctoral thesis Utrecht), The Hague: Boom Juridisch 2016, p. 86. See also the previously mentioned criticism expressed by L. Bergkamp in *NJB* 2015/1676, para. 2b and *Tijdschrift voor Gezondheidsschade, Milieuschade en Aansprakelijkheidsrecht* [Journal for Health Damage, Environmental Damage and Liability Law] 2016/1, para. 4.C.

370 See the criticism by Ch.W, Backes, *AB* 2015/336 para. 3, with reference to the District Court’s judgment.

371 See sections. 1.20 and 1.24.

372 See paras. 3.5 and 50 of the Court of Appeal’s judgment. The Court of Appeal does not take the probability of more than 66% mentioned in AR5 as its basis, because 87% of the scenarios included in this estimate involve assumptions about negative emissions (paras. 12 and 49).

373 Para. 63 of the Court of Appeal’s judgment.

374 Para. 73 of the Court of Appeal’s judgment. The Court of Appeal started from the expectation that the Netherlands would achieve a reduction of 23% by 2020 (with a margin of uncertainty of 19%-27%. In para. 1.5 of its Reply in Cassation, the State provided more recent data showing that the expected reduction will be 21% (with a margin of uncertainty of 17%-24%).

375 Para. 62 of the Court of Appeal’s judgment.

376 See, for example, the State's Written Explanation, paras. 1.10, 3.1.9, 3.1.10 and 3.5.1-3.5.3

377 Because the State’s grounds for cassation are structured in less of a thematic fashion and is more in line with the order of the various legal findings of the Court of Appeal, the same complaints essentially appear in different grounds for cassation.

378 Certain grounds for cassation are referred to more often if they contain complaints about several themes.

379 See the State's Written Explanation, paras. 5.33 and 5.3.2.

380 Compare the State’s Written Explanation, paras. 1.10, 3.1.9, 4.3.3 through 4.3.5.

381 See the State’s Written Explanation, para. 4.3.2.

382 The provisions of paras. 4.94-4.101 and 4.133 also apply in so far as the State argues that the IPCC does not establish non-binding standards either.

383 See paras. 2.8 and 2.9 of the District Court’s judgment, which the Court of Appeal also started from, as evident from its para. 2.

384 Para. 2.12 of the District Court’s judgment.

385 Para. 2.14 of the District Court’s judgment.

386 Para. 3.5 of the Court of Appeal’s judgment.

387 Para. 2.15 of the District Court’s judgment.

388 Para. 10 of the Court of Appeal’s judgment.

389 See the Written Explanation by the State, at 5.2.10.

390 Para. 51 of the Court of Appeal’s judgment.

391 In para. 4.11 of the Reply in Cassation, the State answers the following to the question of whether the positive obligations under Article 2 and/or Article 8 ECHR can extend beyond the written reduction obligations: 'The answer to that question is that in general terms this is not ruled out, in theory, but that the State’s positive obligations in the present case must primarily be 'given substance' by means of the specific climate treaties and European regulations in force.'

[392] *Cf* . T.J. Thurlings, *AV&S* 2014/19, vol. 5/6, at 3 ('A reconsideration of whether the individual Member States, including the Netherlands, can be expected to make an effort in addition to the effort agreed at EY level can take place only if it can be argued that the EU is making too little effort to mitigate greenhouse gas emissions with its 20% target.').

[393] Preamble, 11: '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.'

[394] See Daniel Bodansky, 'Introduction: Climate Change and Human Rights: Unpacking the Issues', 38(3) Georgia Journal of International and Comparative Law, 2010, pp. 515-516; Benoit Mayer, Human Rights in the Paris Agreement, *Climate Law* 6, 2016, pp. 113-114; Sumudu Atapattu, Climate Change, Human Rights, and COP 21, Georgetown Journal Of International Affairs 2016, p. 49; E. Hey & F. Violi, The Hard Work of Regime Interaction: Climate Change and Human Rights, in: *Climate Change: Options and Duties under International Law* (Announcements of the Royal Netherlands Association of International Law 145), T.M.C. Asser Press, 2018, pp. 9, 17; Annalisa Savaresi, The Paris Agreement: A New Beginning?, 34 NO. 1 *Journal of Energy & Natural Resources Law* 16, under 25.

[395] Statement of Appeal, 14.152. See, for example, L. Squintani and others, 'Regulating greenhouse gas emissions from EU ETS installations: what room is left for the member states?', in: M. Peeters and others (eds.), *Climate Law in EU Member States. Towards National Legislation for Climate Protection*, Cheltenham: Edward Elgar 2012, pp. 67-88; T. Thurlings, 'The Dutch Climate case, a critical analysis', column of 1 July 2015 on the website of the Dutch Environmental Law Association; T.J. Thurlings-Rassa, 'De CO2-taks en het ETS: een verkenning van mogelijke effecten' [The CO2 tax and the ETS: an exploration of possible effects], *M en R* 2019/50, p. 310.

[396] Although ground for cassation 8 is directed against paras. 53-70, it does not formulate a complaint against para. 54.

[397] See the Written Explanation by the State, at 5.3.20.

[398] A. de Vries-Stotijn & J. Somsen, 'De Urgenda-uitspraak: geen schending van EU-recht' [The Urgenda judgment: no violation of EU law], *AV&S* 2016/29.

[399] See T.J. Thurlings, 'Aansprakelijkheid & Klimaatverandering: de Nederlandse Staat handelt niet onrechtmatig' [Liability & Climate Change: the Dutch State is not acting unlawfully], *AV&S* 2014/19, vol. 5/6, pp. 126-130; T. Thurlings, 'The Dutch Climate Case - Some Legal Considerations' 28 November 2015, https://ssrn.com/abstract=2696343; K.J. de Graaf and J. Jans, 'The Urgenda Decision: Netherlands Liable for Role in Causing Dangerous Global Climate Change', *Journal of Environmental Law* 2015/27 (p. 517-527) 518; Ch.W. Backes, AB 2015/336 under 3; L. Bergkamp, 'Het Haagse klimaatvonnis. Rechterlijke onbevoegdheid en negatie van het causaliteitsvereiste' [The Hague climate judgment. Lack of jurisdiction and negation of the causality requirement], *NJB* 2015/1676, at 2a; M. Peeters, 'Europees klimaatrecht en nationale beleidsruimte' [European climate law and national discretions], *NJB* 2014/2109 at 4; M. Eliantonio, 'The Urgenda case in the EU multi-level governance system', *M en R* 2016/35, par. 2.1; M. Peeters, 'Case Note - *Urgenda Foundation and 886 Individuals vs The State of The Netherlands*: The Dilemma of More Ambitious Greenhouse Gas Reduction Action by EU Member States', *Review of European, Comparative and International Environmental Law* 2016/25, p. 125; L. Bergkamp & J.C. Hanekamp, 'Climate Change Litigation against States: The Perils of Court-made Climate Policies', *European Energy and Environmental Law Review* 2015, p. 112; Ch.W. Backes & G.A. van der Veen, *AB* 2018/417 at 3.

[400] M. Peeters, 'Case Note - Urgenda Foundation and 886 Individuals vs The State of The Netherlands: The Dilemma of More Ambitious Greenhouse Gas Reduction Action by EU Member States', *Review of European, Comparative and International Environmental Law* 2016/25, pp. 125-127; M. Eliantonio, 'The Urgenda case in the EU multi-level governance system', *M en R* 2016/35, at 3.

[401] L. Bergkamp & J.C. Hanekamp, 'Climate Change Litigation against States: The Perils of Court-made Climate Policies', *European Energy and Environmental Law Review* 2015, p. 112. This argument seems to ignore the fact that Francovich liability allows for a stricter assessment of the liability. See ECJ 5 March

1996, C-46/93 and C-48/93, ECLI:EU:C:1996:79, Brasserie du Pêcheur, *Jur*. 1996, pp. I-1029, *NJ* 1997/145, para. 66. The same applies to Directive 2004/35/EC, as set out in Article 16 thereof (if this matter were to fall within the scope of that Directive).

402 See, among other things, ECJ (Grand Chamber) 6 December 2005, Gaston Schul, C-461/03, ECLI:EU:C:2005:742, paras. 22-24. See also ECJ 22 October 1987, Foto-Frost, C-314/85, ECLI:EU:C:1987:452; ECJ 21 February 1991, Zuckerfabrik Süderdithmarschen, C-143/88 and C-92/98, ECLI:EU:C:1991:65; ECJ 3 July 2019, C-644/17, ECLI:EU:C:2019:555, Eurobolt, para. 28. For more cases, see the opinions under 6.10 and 6.11.1 for Supreme Court 21 December 2018, ECLI:NL:HR:2018:2396, *NJ* 2019/156 annotated by L.A.D. Keus.

403 The legality of a number of EU measures is being discussed by the ECJ in Carvalho and others v European Parliament and Council of the European Union. This case involves a request to nullify certain measures in full or in part on the basis of Article 263 TFEU and a request to award damages on the basis of Article 340 TFEU, put succinctly because the EU targets for 2020 (20% reduction) and for 2030 (40% reduction) are supposedly unlawful and a reduction target of 50-60% should apply for 2030. The General Court declared the action inadmissible in its decision of 8 May 2019, T-330/18, ECLI:EU:T:2019:324. An appeal against this decision has been brought with the Court of Justice (Case C-565/19P).

404 This possible interpretation of the District Court judgment is pointed out by M. Eliantonio, *M en R* 2016/35, at 2.1.

405 See also A. de Vries-Stotijn & J. Somsen, 'De Urgenda-uitspraak: geen schending van EU-recht' [The Urgenda decision: no violation of EU law], *AV&S* 2016/29, p. 150.

406 See paras. 3.7, 17 and 18 of the Court of Appeal's judgment.

407 Therefore, a similar hypothetical assessment of whether the EU should take more far-reaching measures would, at most, mean that by 2020 the EU would have to set a more far-reaching reduction target on the basis of a duty of care than the one to which the EU has – validly – committed itself.

408 The State has also pointed out that countries such as Germany, Belgium and Austria are expected not to meet the 2020 target for the non-ETS sector on the basis of the Effort Sharing Decision (para. 2.51 of the Written Arguments in Cassation; para. 4.24 of the Reply).

409 See the State's Written Explanation, paras. 4.1.1 *et seq*. The State argues in the explanation to this ground for cassation that the distinction between Annex I countries and other countries is outdated and that it concerned Annex I countries as a group. These points have also been raised in other grounds for cassation brought by the State and will be discussed elsewhere in this opinion. See sections 4.159 and 4.178.

410 See p. 748 of the Working Group III report: 'Goals determine the extent of participation, the stringency of the measures and the timing of the actions. For example, to limit the temperature increase to 2°C above pre-industrial levels, developed countries would need to reduce emissions in 2020 by 10–40% below 1990 levels and in 2050 by approximately 40–95%.'

411 See paras. 2.14 and 2.15 of the District Court's judgment and para. 2 of the Court of Appeal's judgment. This is also evident from Box 13.7 from AR4 quoted in these findings.

412 As a result, a sufficient response was provided to what the State argued about this on appeal. Ground for cassation 4.1 refers to para. 12.31 of the Statement of Appeal and para. 437 of the Written Arguments on Appeal.

413 See the State's Written Explanation, paras. 4.1.17-4.1.18.

414 See the State's Written Explanation, para. 4.2.5.

415 L. Meyer, 'Urgenda-*vonnis ontbeert goede wetenschappelijke onderbouwing'* [*Urgenda* judgment lacks sound scientific basis'], *M en R* 2016/36.

416 See the technical summary of the contribution of Working Group III to AR4 on p. 90, quoted in para. 2.16 of the District Court's judgment.

417 See the Written Explanation by the State, at 4.1.17. See also, for example, Private Law as a Crowbar for Coming to Grips with Climate Change?, in: *Climate Change: Options and Duties under*

International Law (Announcements of the Royal Netherlands Association of International Law 145), T.M.C. Asser Press, 2018, p. 35 *et seq*.

[418] See para. 4.2.5 of the State's Written Explanation and para. 4.37 of its Written Arguments on Appeal.

[419] See Niklas Höhne, Michel den Elzen & Donovan Escalante (2014) Regional GHG reduction targets based on effort sharing: a comparison of studies, *Climate Policy*, 14:1, 122-147 (https://doi.org/10.1080/14693062.2014.849452).

[420] Conceived as 'OECD90' and 'EIT', so US, Canada, Western and Easter European countries, Russia, Japan, Australia and New Zealand.

[421] The publication distinguishes division formulas (1-4) or combinations thereof (5-7): 1. *responsibility*, 2. *capability*, 3. *equality*, 4. *cost-effectiveness*, 5. *equal cumulative per capita emissions*, 6. *responsibility, capability and need* and 7. *staged approaches*.

[422] It should be noted that the publication discussed does not consider cost-effectiveness to be based on 'explicitly equity principles'.

[423] Working Group III IPCC AR 4, p. 775.

[424] Footnote a reads: 'The aggregate range is based on multiple approaches to apportion emissions between regions (contraction and convergence, multistage, Triptych and intensity targets, among others). Each approach makes different assumptions about the pathway, specific national efforts and other variables. Additional extreme cases – in which Annex I undertakes all reductions, or non-Annex I undertakes all reductions – are not included. The ranges presented here do not imply political feasibility, nor do the results reflect cost variances.' See para. 2.15 of the District Court's judgment and para. 2 of the Court of Appeal's judgment.

[425] This already follows from the reference in para. 2.15 of the District Court's judgment to the source of Box 13.7 in AR4. The report 'Climate Change 2007: Mitigation of Climate Change' has been prepared by Working Group III.

[426] See paras. 2.14, 2.13, 2.14, 2.15 and 2.17 of the District Court's judgment and para. 2 of the Court of Appeal's judgment. Para. 2.16 refers to the Technical Summary of Working Group III's contribution.

[427] Para. 51 and paras. 12 and 48 of the Court of Appeal's judgment, respectively.

[428] This distinguishes it from a legal standard that is binding on the person(s) to whom it is addressed.

[429] See also the State's s Written Explanation, paras. 3.4.11-3.4.23, 4.1.3-4.1.18 and 5.2.11.

[430] See sections 4.34-4.35 on these forms of endorsement.

[431] See also para. 4.9 of the State's Reply in Cassation.

[432] According to the Court of Appeal in para. 51, which apparently (see para. 49) concerns this period (2007-2013).

[433] Repetition plays an important role in the development of soft law and its possible embedding in hard law, as discussed in section 2.31 *et seq*. (See, for instance, Pierre-Marie Dupuy, 'Soft Law and the International Law of the Environment', *Michigan Journal of International Law* 1990 (Vol. 12, no. 2), p. 432 (*'the cumulative enunciation of the same guideline by numerous nonbinding texts help to express the opinio juris of the world community'*). See also, with focus on the COP decisions, Expert Group on Global Climate Obligations, *Oslo Principles on Global Climate Obligations*, The Hague: Eleven 2015, p. 38, cited above in section 2.32.

[434] Working Group III contribution to AR5, *Climate Change 2014: Mitigation of Climate Change, Summary for Policymakers*, p. 12. See para. 2.19 of the District Court's judgment and para. 2 of the Court of Appeal's judgment.

[435] In para. 192 of its Statement of Defence, Urgenda also refers to the *IPCC Special Report on the impacts of global warming of 1.5°C above pre-industrial levels and related global greenhouse gas emission pathways, in the context of strengthening the global response to the threat of climate change, sustainable development, and efforts to eradicate poverty*, of October 2018 (see the *Summary for Policymakers* on p. 18: 'Avoiding overshoot and reliance on future large-scale deployment of carbon dioxide removal (CDR) can only be achieved if global CO2 emissions start to decline well before 2030 (*high confidence*).') and

the UNEP *Emission Report* 2018, p. 18 (quoted in the Statement of Defence).

436 See (iv) of ground for cassation 4.6, para. 2.42 of the State's Written Arguments in Cassation and para. 4.2.8 of the State's Written Explanation. In this respect, Urgenda had already referred in paras. 2.28 and 2.31, footnotes 13 and 15, of its Defence on Appeal to, among other things, the PBL report 'Implications of long-term scenarios for medium-term targets (2050)', November 2015 and the PBL report 'Differences between Carbon Budget Estimates Unravelled', February 2016.

437 See (iii) of ground for cassation 4.6. The Court of Appeal was therefore able to rule in ground 49 that the State did not advance a sufficiently substantiated objection to the report by the European Academies Science Advisory Council.

438 As noted by the State in para. 4.2.8 of its Written Explanation.

439 See (ii) of ground for cassation 4.6 and the State's Written Explanation at 4.2.9.

440 See (i) of ground for cassation 4.6.

441 See also the State's Statement of Defence in Cassation at 186. *Cf.* the reference to overshoot in footnote b of Box 13.7 presented in section 4.42: 'Only the studies aiming at stabilization at 450 ppm CO2-eq assume a (temporary) overshoot of about 50 ppm.'

442 AR5 Climate Change 2014 Synthesis Report, p. 20, footnote 16. See the State's Written Explanation, para. 4.2.5 on p. 33.

443 See (v) of ground for cassation 4.6.

444 The State points out that, compared to AR4, Ar5 is based on more recent and current scientific insights, improved climate models, and further developed emission reduction scenarios. AR5 also lacks a table similar to Box 13.7. In addition, AR5 focuses, or focuses more, on the measures after 2020. See also paras. 4.2.1 *et seq*. of the State's Written Explanation.

445 This also shows that the final complaint in ground or cassation 4.2 is based on an incorrect interpretation of the Court of Appeal's judgment.

446 See paras. 2.18 through 2.21 of the District Court's judgment and para. 2 of the Court of Appeal's judgment.

447 See paras. 2 and 49 of the Court of Appeal's judgment.

448 Ground for cassation 4.5, as explained, also mentions: - the argument that an update of AR4 in the publication by Höhne *et al*. refers to a reduction target of 10%-80% and the argument that science cannot establish an unambiguous relationship between the required emission reduction of industrialised countries as a group in 2020 and the achievement of the 2ºC target (see sections 4.126 *et seq*.); and - the argument that there are now non-Annex 1 countries that account for a large proportion of the emissions (see paras. 4.159 *et seq*. below).

449 The State does seem to have assumed such in its Written Explanation, paras. 4.1.19-4.1.21.

450 For these reasons, we consider the criticism expressed in Ch.W. Backes & G.A. van der Veen, *AB* 2018/417, para. 4, that the Court of Appeal has attributed significance to the IPCC AR4 report from 2007, but ignores the IPCC report AR5 from 2013/2014, to be unjustified.

451 This question has also been raised in the literature, see E.G.A. van der erf, 'De zaak *Urgenda* op weg naar de Hoge Raad' [The *Urgenda* case on its way to the Supreme Court], *TvCR* 2019, p. 72.

452 Only the phenomenon of the carbon budget has been mentioned. The State refers in this context to its response to question 9, which the Court of Appeal had put to the parties prior to the oral arguments: "Question 9. Climate models The question has been put to Urgenda. Where necessary, the State does note that the calculation of carbon budgets has taken into account, and does take into account, the absorption of greenhouse gases in the oceans and terrestrial ecosystems. Specifically, this is factored into the global carbon models. On the basis of analyses with those models, it has also been established that the moment of emission of greenhouse gases does not make much difference to the contribution to total warming; hence the possibility of a budget-based approach.'

453 See the State's Written Explanation at 5.3.18 and 6.8. The State acknowledges that any postponement of a reduction measure will lead to additional greenhouse gas emissions compared to the situation where the reduction measure is not postponed. The State challenges the sample

calculations of Urgenda, but has not offered any calculations of its own to counter them. The reliance on leakage effects has been rejected by the Court of Appeal and the complaints against it fail (see section 4.209 *et seq.* of this opinion).

454 The State refers to its position on appeal that the linear emission target for 2030 is ultimately a political choice and that Urgenda cannot expect the State to make the same political choice for 2020. See para. 2.15 of the Written Arguments on Appeal, p. 14 of the court record of the oral arguments on appeal, and paras. 6.6-6.7 of the State's Written Explanation.

455 The Court of Appeal's finding that the State is in breach of its duty of care is not based solely on para. 52. See, however, para. 5.3.12 of the State's Written Explanation.

456 The Court of Appeal's response to these circumstances lies in its finding that the State offered no climatological substantiation for the new reduction target.

457 The use of the term 'credible' refers to the 2009 letter from the Minister of VROM and refers to the climatological substantiation of the 20% reduction target for 2020. See State's Written Explanation, para. 5.3.12.

458 See the State's Written Explanation, paras. 5.3.14-5.3.19.

459 See para. 5.28 of the Statement of Appeal, which is the conclusion of the arguments in paras. 5.22-5.28 of the Statement of Appeal.

460 See para. 4.59 of the Written Arguments on Appeal. The State's response to the Court of Appeal's third written question has the same purport.

461 See the Written Explanation by the State, at 5.3.19.

462 The complaint in ground for cassation 5.6 referring to the expectation that the EU as a whole will achieve the 26%-27% reduction in 2020 is discussed in section 4.203. The complaints in this ground for cassation that the Court of Appeal attributed insufficient significance to the EU measures in substantively interpreting the State's obligations under the ECHR and that the Court of Appeal should have sought a preliminary ruling from the ECJ have already been discussed in sections 4.103 *et seq.* and 4.109 *et seq.*

463 Grounds for cassation 4.2 and 4.4, to which reference is also made, do not concern the question of whether the target for the Annex I countries as a group also applies to the Netherlands individually.

464 See, for example, para. 48 of the Court of Appeal's judgment.

465 In general, tasks are divided as follows in civil court proceedings. The claimant bears the obligation to furnish the facts necessary to grant his claim. If the claimant has furnished sufficient facts for this, it is up to the defendant to sufficiently rebut such facts. If the defendant has sufficiently rebutted the claims of the claimant, then pursuant to Article 150 DCCP the claimant bears the burden of proving the facts that have been furnished and sufficiently rebutted.

466 See the Written Explanation by the State, at 4.1.24.

467 See the State's Written Explanation at 7.4-7.7.

468 Statement of Appeal, at 14.88. In note 114 in para. 277 of its Statement of Defence in Cassation, Urgenda refers to a different approach that supposedly implies that the Netherlands occupies the tenth position. However, Urgenda does not indicate that it had already relied on this approach in the proceedings before the District Court or the Court of Appeal, even though such a fact cannot be asserted for the first time in cassation.

469 See para. 277 of Urgenda's Statement of Defence in Cassation.

470 It therefore cannot be said that the Court of Appeal fails to recognise that making and complying with agreements at global and European level is the best and most effective way of providing actual protection against the dangers of serious climate change. See State's Written Explanation, para. 7.8.

471 See also section 2.10 *et seq*. and the references to literature mentioned there.

472 It should be noted that there are different sets of facts here, which are subject to their own rules. In some cases, joint and several liability of each party responsible for the total loss or harm is also conceivable. For example, see AG Hartkamp's opinion for Supreme Court 9 October 1992,

ECLI:NL:HR:1992:ZC0706, *NJ* 1994/535 (*DES daughters*), at 20; *Asser/Sieburgh 6-II* 2017/95-96; E. Bauw, *Groene Serie Onrechtmatige daad*VIII.6.5.2 [Green Series on Tort Law VIII 6.5.2]; R.J.B. Boonekamp, *Groene Serie Schadevergoeding* [Green Series on Damages], Article 6:98 DCC, anotation 2.10.2; T.F.E. Tjong Tjin Tai, '*Meervoudige causaliteit*' [Multiple causality], *WPNR* (2018) 7186, pp. 237-245.

473 See, for example, M.A. Robesin, 'Who done it? Multicausaliteit en klimaatschade' [Who done it? Multicausality and climate damage] , in: E.H.P. Brans and others, *Naar aansprakelijkheid voor (de gevolgen van) klimaatverandering* [Towards liability for climate change and its consequences], The Hague: *BJu* 2011, pp. 199-201; I. Giesen, '*Proportionaliteit in de klimaatdiscussie*' [Proportionality in the climate discussions], *NTBR* 2012/51; Ottavio Quirico, 'Climate Change and State Responsibility for Human Rights Violations: Causation and Imputation', *Netherlands International Law Review* (2018) 65:185–215, p. 200; J. Spier, 'Private Law as a Crowbar for Coming to Grips with Climate Change?', in: *Climate Change: Options and Duties under International Law* (Announcements of the Royal Netherlands Association of International Law 145), T.M.C. Asser Press, 2018, pp. 52-68, in particular pp. 56-57.

474 Para. 64 is referred to in the State's grounds for cassation 2.1 and 2.2 (see section 3.2 *et seq*. above) and its ground for cassation 8.2.1 (see para. 4.215 below).

475 Supreme Court 27 November 2009, ECLI:NL:HR:2009:BH2162, NJ 2014/201 annotated by C.E. du Perron (World Online), para. 4.8.2 (in connection with the precedent effect of court decisions) and para. 4.11.2 (in connection with the causal link). Also see *Asser Procesrecht/Giessen* 1 2015/92-96, which refers to the background of this in the ECHR and EU law, and for Dutch law to the principle of access to the court. See also section 2.37 in relation to the ECHR.

476 In cassation, these assertions by the State must be assumed to be correct, at least for the sake of hypothesis, because the Court of Appeal has not rejected these assertions.

477 See paras. 4.1.28 and 11.2.1 of the State's Written Explanation and paras. 9.25 and 14.74 of the Statement of Appeal. Reference is made there to the Memo of the Ministry of Infrastructure and the Environment, *'Klimaateffecten van het vonnis van de Rechtbank Den Haag'* [Climate effects of the The Hague District Court's judgment], 18 March 2016, p. 3 (Exhibit S. 69).

478 The arguments referred to by the Court of Appeal in para. 64 hold true in this context as well. See paras. 4.1.28-4.1.29 and 7.3 of the State's Written Explanation, in which it is argued that the reliance on the minor Dutch share in global emissions did not so much concern the causal link as the State's duty of care.

479 Para. 18 of the Court of Appeal's judgment.

480 See para. 73 of the Court of Appeal's judgment.

481 See at 3.1.10 of the State's Written Explanation; sections 2.53-2.54 of the State's Written Arguments in Cassation.

482 See State's Written Explanation at 5.3.3 and 5.3.6.

483 See the State's Statement of Appeal at 6.33-6.38. In sections 7.60-7.70 of the Defence on Appeal, Urgenda argued that, as a result of this additional policy, there is now a surplus of emissions allowances, so that the waterbed effect does not occur in practice. See also paras. 556 *et seq.* of Urgenda's Statement of Defence in Cassation.

484 See Statement of Appeal, paras. 6.33-6.38. In some of the commentaries on the judgment, it was presumed that the waterbed effect can or will occur. See M. Peeters, *'Europees klimaatbeleid en nationale beleidsruimte' NJB* 2014/2109, para. 4; C.W. Backes, *AB* 2015/336 para. 4. Also regarding the waterbed effect in light of EU climate measures, see M.G.W.M. Peeters, '*Regulering van kolencentrales: ruimte voor aansprakelijkheid?*' [Supervision of coal-fuelled plants: room for liability?], in E.H.P. Brans *et al*., *Naar aansprakelijkheid voor (de gevolgen van) klimaatverandering?* [Towards liability for climate change and its consequences?] (VMR), 2012, pp. 97-99; M.G.W.M. Peeters, 'Instrument mix or instrument mess? The administrative complexity of the EU legislative package for climate change', in Peeters & Uylenburg (Eds.), *EU environmental legislation. Legal perspectives on regulatory strategies*, 2014, pp. 173-192, para. 3.2.

485 See Statement of Appeal, paras. 7.79-7.86.

[486] See Statement of Appeal, para. 6.40. In this sense, see also para. 13.27 of the Statement of Appeal and paras. 2.6, 3.9 and 3.30 of the Written Arguments on Appeal.

[487] As also assumed by the State in para. 11.1.5 of its Written Explanation.

[488] ECtHR 15 December 2009, 4314/02, *EHRC* 2010/16 (*Kalender/Turkey*), para. 49.

[489] See State's Written Explanation, paras. 11.2.2-11.2.5.

[490] See also Statement of Appeal, 13.39-13.40.

[491] Therefore, as believed to be the case by the State (Written Explanation, 11.3.10), it is indeed a question of which measures the State may reasonably be expected to take.

[492] See the Rejoinder, 6.32, Statement of Appeal, 8.1, and the Written Explanation, 11.4.3.

[493] Contrary to what the State supposes (State's Written Explanation, 12.2.7 and 12.2.11), the Court of Appeal did not start from the assumption that, according to ECtHR case law, the margin of appreciation could only pertain to the choice of means to comply with the reduction order.

[494] In so far as these have not yet been discussed, we refer to section 4.236 *et seq*.

[495] *Cf*. State's Written Explanation, 12.2.16.

[496] Ground for cassation 8.3.7 aims to refer to grounds for cassation 6.1-6.1 and not to grounds for cassation 5.1-5.6. See State's Written Explanation, 13.2.

[497] See also para. 42 of the Court of Appeal's judgment.

[498] It should be noted that the State asserts in the Reply in Cassation (in para. 2.4) that it is presently impossible to tell whether an emissions reduction of at least 25% can be achieved by the end of 2020, because this depends on factors such as economic development and whether the winter is cold or mild.

[499] See, in particular, Statement of Appeal, 9.4-9.29, 13.7-13.10, 14.136-14.139, 14.166 and 15.15.

[500] See also the quotes from the Statement of Appeal in the Written Explanation, 12.2.17. The State also pointed to the possibility of a lock-in effect (Statement of Appeal, 1.7 and 9.28; Written Arguments in Cassation, 5.8). This refers to the effect whereby investments to achieve short-term emission reductions result in longer retention to high-emission technologies rather than investments in technologies that are not yet available but are expected to produce less significant emissions.

[501] Statement of Appeal, 9.11.

[502] Statement of Appeal, 9.14, 9.18 *et seq.* 14.139 and 15.15.

[503] The Statement of Appeal, 9.23, mentions claims for damages 'allegedly exceeding EUR 6 billion'.

[504] See paras. 3.5 and 44 of the Court of Appeal's judgment.

[505] Statement of Appeal, 12.21-12.24 and 5.17-5.20.

[506] See AR4 Synthesis Report, p. 27. Urgenda (Summons, 115) referred to the report by Work Group I for AR4 in this context.

[507] Urgenda (Defence in Cassation, 216) believes that this could be implicit in the designation 'best estimate' in para. 2.14 of the District Court's judgment.

[508] Quoted in para. 2.60 of the District Court's judgment. This fact is mentioned in the accompanying Commission Staff Working Document to this statement ({COM(2007) 2 final} {SEC(2007) 7} /* SEC/2007/0008 final) at 6 International strategies to reach credible emission reductions by 2050.

[509] '*Evaluation of the Copenhagen Accord: Chances and risks for the 2°C climate goal*', PBL and Ecofys, 2010, p. 10 ("According to the Intergovernmental panel on Climate Change (IPCC) Fourth Assessment report (AR4), Annex 1 emissions reduction targets of 25 to 40% below 1990 levels in 2020 would be consistent with stabilising long-term levels of greenhouse gas concentration levels at 450 ppm CO2 equivalent. This concentration level has a reasonable chance (50%) of avoiding an increase in global average temperature of more than 2°C.'). Urgenda referred to this in the Summons, para. 367.

[510] Compare, in the law of England & Wales, the question of whether there is a duty of care towards another party, and in the law of Germany the question of whether there is a '*Schutznorm*'. See C.C. van Dam, *Aansprakelijkheidsrecht* [Liability Law], The Hague: Boom Juridische uitgevers, 2000/705 and

830.

[511] See also, for example, *Asser/Sieburgh 6-IV* 2015/129, 132 and 135-136.

[512] This was also the conclusion drawn by P. Gillaerts & W.Th. Nuninga, '*Privaatrecht en preventie:* Urgenda *in hoger beroep'*[Private law and prevention: *Urgenda* on appeal], *AV&S* 2019/9 at 3.3.4.

[513] Rejoinder in the first instance, para. 11, in particular para. 11.6. See also the Statement of Defence in the first instance, paras. 1.2, 2.19 and 12; Written Arguments on behalf of the State in the first instance, paras. 7.1-7.5.

[514] Supreme Court 6 February 2004, ECLI:NL:HR:2004:AN8071, *NJ* 2004/329, discussed below.

[515] See the Statement of Defence in the first instance, 12.4 *et seq*.; Written Arguments on behalf of the State in the first instance, 1.9.

[516] Specifically: Supreme Court 21 March 2003, ECLI:NL:HR:2003:AE8462, NJ 2003/691 annotated by T. Koopmans ('*Waterpakt*'), AB 2004/39 annotated by C. Backes, and the case law elaborating upon it, discussed below.

[517] A separation between these three state powers was advocated by Charles Louis de Secondat, Baron de La Brède et de Montesquieu, in *De l' esprit des lois* (1748; book XI, Chapter 6).

[518] See: Montesquieu, *Over de geest van de wetten* [The spirit of laws] (Dutch translation and afterword: J. Holierhoek), Amsterdam: Boom 2006, pp. 219-220.

[519] *Cf*. M.T. Oosterhagen, *Machtenscheiding. Een onderzoek naar de rol van machtenscheidingstheorieën in oudere Nederlandse constituties (1798 – 1848)* [Separation of powers. A study into the role of power separation theories in older Dutch constitutions (1798-1848)], doctoral thesis Rotterdam 2000, Deventer: Gouda Quint 2000, pp. 359-360.

[520] See also: M.C. Burkens, H.R.B.M. Kummeling, B.P. Vermeulen and R.J.G.M. Widdershoven, *Beginselen van de democratische rechtsstaat* [Principles of democracy under the rule of law], Deventer: Wolters Kluwer 2017, sections 2.3.2 and 5.4; Wetenschappelijke Raad voor het Regeringsbeleid [Dutch Scientific Council for Government Policy], *De toekomst van de nationale rechtsstaat* [The future of the national consitutional state], The Hague: SDU 2002, section 7.1. Somewhat differently: P.P.T. Bovend'Eert, *'Het rechtsbeginsel van de machtenscheiding'* [The legal principle of the separation of powers] in: R.J.N. Schlössels *et al*. (eds.), *In beginsel. Over aard, inhoud en samenhang van rechtsbeginselen in het bestuursrecht* [In principle. On the nature, substance and coherence of legal principles in administrative law], Deventer: Kluwer 2004, p. 243 *et seq*. in particular pp. 252-253. On the courts and the *trias politica*, see in detail: P.M. van den Eijnden, *Onafhankelijkheid van de rechter in constitutioneel perspectief* [Independence of the courts from a constitutional perspective], doctoral thesis Nijmegen, Deventer: Kluwer 2011, Chapter 7.

[521] In a critical sense: C.W. Backes, annotation to the judgment in *AB* 2015/336; R. Schutgens, Urgenda en de trias. *Enkele staatsrechtelijke kanttekeningen bij het geruchtmakende klimaatvonnis van de Haagse rechter* [*Urgenda* and the trias: a few constitutional notes on the high-profile climate judgment by The Hague court], *NJB* 2015/1675; L. Bergkamp, *Onrechtmatige gevaarzetting 4.0: rechterlijke revolutie met een nieuwe theorie van onrechtmatige daad*? [Unlawful hazardous negligence 4.0: judicial revolution with a new theory of tort law?], *TGMA* 2016, pp. 19-38. In response to this criticism: R.A.J. van Gestel and M.A. Loth, *Urgenda: roekeloze rechtspraak of rechtsvinding 3.0?* [*Urgenda*: reckless court decision or finding of law 3.0?], *NJB* 2015/1849. See also: R.A.J. van Gestel, *Urgenda: een typisch gevalletje rechter, wetgever of politiek?* [*Urgenda*; a typical case of judiciary, legislature or politics?], *RegelMaat* 2015, pp. 384-396; M.A. Loth and A.W. Heringa, *'Rechter en politiek: verzaakt de politiek/wetgever of dient de rechter juist het belang van de wetgever?'* [Courts and politics: are politicians/the legislature failing or do the courts serve the interests of the legislature?], *Milieu en Recht* 2016/34; G. Boogaard, '*Urgenda en de rol van de rechter. Over de ondraaglijke leegheid van de trias politica'* [*Urgenda* and the role of the courts. On the unbearable emptiness of the *trias politica*], *Ars Aequi* 2016/0026; E.R. de Jong, *'Urgenda: rechterlijke risicoregulering als alternatief voor risicoregulering door de overheid?'* [*Urgenda*: judicial risk regulation as alternative to risk regulation by the government?], *NTBR* 2015/46. See also the overview of literature in the State's Written Explanation in cassation (pp. 158-163) and, in response, Urgenda's Rejoinder, 252.

[522] The contested Court of Appeal judgment was discussed in *inter alia*: L. Besselink, *'De constitutioneel meer legitieme manier van toetsing'* [The constitutionally more legitimate method of review], *NJB* 2018/2154; O. Spijkers, *'Urgenda tegen de Staat der Nederlanden: aan wiens kant staat de Nederlandse burger eigenlijk?'* [Urgenda v. the State of the Netherlands: whose side is the Dutch citizen actually on?], *Ars Aequi* 2019/0191; P. Lefranc, *'Het Urgenda-vonnis/arrest is (g)een politieke uitspraak (bis)'* [The *Urgenda* judgment is (not) a political decision (*bis*)], *NJB* 2019/474; D.G.H. Sanderink, annotation to the contested Court of Appeal judgment in *JB* 2019/10; R. Hulst, annotation in *TGMA* 2018/4.

[523] *Cf.* the letter from the Minister of Economic Affairs and Climate Policy dated 16 November 2018, *Parliamentary Papers I* 2018/19, 32 813, F.

[524] As an aside: the District Court could not yet have been familiar with the objections expressed by the Council of State in its annual report for 2017 (p. 61) against the expression of 'policy-making freedom' or 'freedom to assess' by administrative bodies. No use of powers under public law is completely free: use of such powers is subject to the rules of law. The Administrative Jurisdiction Division of the Council of State therefore uses the words 'policy discretion' and 'assessment discretion'. The umbrella term used is 'decision-making discretion'. For more on this, see: P.J. Huisman and N. Jak, *'Beslissingsruimte: handvatten voor de rechterlijke toetsingsintensiteit'* [Decision discretion: guidelines for degree of judicial scrutiny], *NTB* 2019/20.

[525] See also the State's Written Arguments on appeal, 1.16-1.18.

[526] The Court of Appeal only uses the term 'political question' in the representation of the State's defence (see para. 30). In Chapter 9 of the Initiating Summons (see also the Reply in the first instance, Chapter 12), Urgenda made a distinction between a 'political case' (= a case with political consequences) and a case involving a 'political question'.

[527] U.S. Supreme Court in *Marbury v. Madison*, 5 U.S. 137 (1803). The case has been described by R.D. Rotunda, 'The political question doctrine in the United States', in: P.P.T. Bovend'Eert, P.M. van den Eijnden and C.A.J.M. Kortmann (ed.), *Grenzen aan de rechtspraak? Political question, acte de gouvernement en rechterlijk interventionisme* [Limits to the jurisdiction? Political question, *acte de gouvernement* and court interventionism], Deventer: Kluwer 2004, pp. 1-38. See also: G. Boogaard, *Het wetgevingsbevel. Over constitutionele verhoudingen en manieren om een wetgever tot regelgeving aan te zetten* [The order to enact legislation. On constitutional relationships and ways to encourage the legislature to legislate], doctoral thesis Amsterdam, Oisterwijk: Wolf Legal Publishers 2013, pp. 233-234.

[528] U.S. Supreme Court in *Baker v. Carr*, 369 U.S. 186 (1962).

[529] See also: R.E. Barkow, 'More Supreme than Court? The Fall of the Political Question Doctrine and the Rise of Judicial Supremacy', *Columbia Law Review*, vol. 102 (2002) no. 2, pp. 237-336; J. Harrisson, 'The Political Question Doctrines', *American University Law Review* vol. 67 no. 2 (2018), pp. 457-528. The political question doctrine apparently does not stand in the way of a judicial review of policy rules of agencies: see J.C.A. de Poorter and F. Capkurt, *'Rechterlijke toetsing van algemeen verbindende voorschriften'* [Judicial review of generally binding regulations], *NTB* 207/10, section 3.2.

[530] U.S. Supreme Court in *Rucho v. Common Cause*, no. 18-422, 588 U.S. (2019).

[531] Jill Jaffe, 'The Political Question Doctrine: An Update in Response to Climate Change Case Law', 38 *Ecology Law Quarterly* 1033 (2011). See also: L. Bergkamp, 'Het Haagse klimaatvonnis' [The Hague climate judgment], *NJB* 2015/1676; R. van der Hulle, 'Klimaatverandering en de verhouding tussen rechter en wetgever: een vergelijking met de Verenigde Staten' [Climate change and the relationship between judiciary and legislature: a comparison with the United States], *Milieu en Recht* 2018/34; A. Soete en H. Schoukens, 'Klimaatverandering in de rechtbank' [Climate change in court], *Nieuw Juridisch Weekblad* 2016/338.

[532] G. Butler, 'In Search of the Political Question Doctrine in EU Law', *Legal Issues of Economic Integration* 45, no. 4 (2018), pp. 329-354; see in particular p. 333, with reference to *Legality of the Use by a State of Nuclear Weapons in Armed Conflict*, *Advisory Opinion*, I.C.J. Reports 1996, p. 66, icj-cij.org). In para. 17, the Court of Justice held as follows: "*The Court also finds that the political nature of the motives which may be said to have inspired the request and the political implications that the opinion given might have are of no relevance in the establishment of its jurisdiction to give such an opinion.*'

[533] On the situation in which treaty law or the law of interstate cooperation also apply in addition to national law, see: M. Loth, 'Too big to trial? Lessons from the *Urgenda* case', *Uniform Law Review*, Vol. 23 (2018), pp. 348-349; R.A.J. van Gestel and M.A. Loth, 'Voorbij de trias politica. Over de constitutionele betekenis van 'public interest litigation' [Beyond the *trias politica*. On the constitutional meaning of 'public interest litigation'], *AA* 2019 pp. 647-655.

[534] See R. van der Hulle, '*Het vonnis van de Haagse Rechtbank over het Oekraïne-referendum. In het licht van de Amerikaanse* political question-doctrine' [The judgment of the District Court of The Hague on the Ukraine referendum. In the light of the U.S. political question doctrine], *NJB* 2017/1755 (in particular p. 2316). See also: State's Written Explanation in cassation, p. 151; R. van der Hulle, *'Klimaatverandering en de verhouding tussen rechter en wetgever: een vergelijking met de Verenigde Staten*' [Climate change and the relationship between judiciary and legislature: a comparison with the United States], *Milieu en Recht* 2018/34; R. van der Hulle, '*De rol van de rechter bij vraagstukken van buitenlands beleid en defensie: over* Crown acts of state, political questions *en rechterlijk abstineren'* [The role of the judiciary in matters of foreign policy and defence: on Crown acts of state, political questions and judicial abstinence], *RMTh* 2018/2, pp. 58 *et seq.*; the contributions of M.F.J.M. de Werd, *'De constitutionele taak van de rechter'* [The constitutional duty of the judiciary], and J.W.A. Fleuren, '*De maximis non curat praetor*? *Over de plaats van de Nederlandse rechter in de nationale en de internationale rechtsorde'* [De *maximis non curat praetor*? On the place of the Dutch courts in the national and international rule of law], in: P.P.T. Bovend'Eert *et al*., *Grenzen aan de rechtspraak? Political question, acte de gouvernement en rechterlijk interventionisme* [Limits to the jurisdiction? Political question, *acte de gouvernement* and court interventionism], Deventer: Kluwer 2004, pp. 69 *et seq.* and 127 *et seq.*

[535] District Court of Amsterdam 7 February 2018, ECLI:NL:RBAMS:2018:605, para. 5.3 (Brexit), *JB* 2018/45 annotated by R. van der Hulle. The judgment was set aside on appeal for a different reason in Court of Appeal of Amsterdam 19 June 2018, ECLI:NL:GHAMS:2018:2009.

[536] G. Boogaard, 'Urgenda en de rol van de rechter. Over de ondraaglijke leegheid van de trias politica' [Urgenda and the role of the courts. On the unbearable emptiness of the *trias politica*], *AA* 2016, p. 28, with reference to R.J.B. Schutgens, *Onrechtmatige wetgeving* [Unlawful legislation] (doctoral thesis, Nijmegen), Deventer: Kluwer 2009, p. 254.

[537] Supreme Court 31 December 1915, *NJ* 1916, p. 407. See also: P.P.T. Bovend'Eert, 'De (enige?) uitzondering op Noordwijkerhout/Guldemond. Hoe gaat de burgerlijke rechter om met geschillen in de politieke sfeer?' [The (only?) exception to Noorwijkerhout/Guldemond. How does the civil court handle political disputes?], in: R.J.N. Schlössels *et al*. (eds.), *De burgerlijke rechter in het publiekrecht* [Civil courts in public law], Deventer: Wolters Kluwer 2015, pp. 131-146.

[538] A claim before the Dutch civil courts cannot be brought against a separate body of the State (with a few exceptions that are irrelevant in this case), only against the State as a legal entity.

[539] The options of Article 6:168 DCC were briefly discussed in section 5.6 above.

[540] The year 1829 and old-fashioned spelling [in the original Dutch] do not change the fact that the philosophy behind this rule is still valid today. The courts must also comply with the law.

[541] This formulation was used in Supreme Court 30 January 1959, ECLI:NL:HR:1959:AI1600, *NJ* 1959/548. See most recently: Supreme Court 28 June 2019, ECLI:NL:HR:2019:1046 (para. 3.6.8). Wiarda distinguishes three methods: from heteronomous finding of law, where the court merely applies the law as '*bouche de la loi*', through an intermediate form where the court also considers the system of the law and the underlying motives of the legislature, to an autonomous finding of law by the court itself (see G.J. Wiarda, *Drie typen van rechtsvinding* [Three types of findings of law], Zwolle: Tjeenk Willink, 1972).

[542] You could say that the judiciary cleans up the legislature's leftovers in these cases. Consider, for example, a case in which the legislature forgot to periodically adjust the limit of liability in Article 8:983(1) DCC to inflation. The damages awarded in that case exceeded the old statutory limit: Supreme Court 18 May 2018, ECLI:NL:HR:2018:729, *NJ* 2018/376 annotated by K.F. Haak.

[543] Not just the civil court in case of claims against the State, but any court – including the criminal court, administrative court, tax court or civil court in private matters.

[544] Professional literature on development of the law by the courts is abundant. Here, we suffice with a

reference to the overview contained in Van der Pot, *Handboek van het Nederlandse staatsrecht* [Handbook of Dutch Constitutional Law], edited by D.J. Elzinga, R. de Lange and H.G. Hoogers, Deventer: Kluwer 2014, pp. 841-853.

545 This debate arose partly as a result of developments in the law of persons and family law. The Dutch courts were forced to take ever more far-reaching decisions in order to interpret national provisions of family law in line with Article 8 ECHR. This development culminated in the Supreme Court's 'Spring decisions' (Supreme Court 21 March 1986, *NJ* 1986/585-588). See also: G. Boogaard, *Het wetgevingsbevel. Over constitutionele verhoudingen en manieren om een wetgever tot regelgeving aan te zetten* [The order to enact legislation. On constitutional relationships and ways to encourage the legislature to legislate], doctoral thesis Amsterdam, Oisterwijk: Wolf Legal Publishers 2013, pp. 112-114.

546 See, for example, S.K. Martens, '*De grenzen van de rechtsvormende taak van de rechter'* [The limits of the judiciary's duty to develop the law], *NJB* 2000, pp. 747 *et seq.*; P.P.T. Bovend'Eert, '*Wetgever, rechter en rechtsvorming.* 'Partners in the business of law?' [Legislature, judiciary and the development of the law. Partners in the business of law?]. in: P.P.T. Bovend'Eert *et al.* (eds.), *De staat van wetgeving. Opstellen aangeboden aan prof.mr. C.A.J.M. Kortmann* [The state of legislation. Contributions for *prof. mr.* C.A.J.M. Kortmann], Deventer: Wolters Kluwer 2009, pp. 27-45; J.W.A. Fleuren and J.J.J. Sillen, '*Toetsings- en uitspraakbevoegdheden bij de actie wegens onrechtmatige wetgeving in formele zin*' [Assessment and judgment powers in actions involving unlawful primary legislation], in: R.J.N. Schlössels *et al*. (eds.), *De burgerlijke rechter in het publiekrecht* [Civil courts in public law], Deventer: Wolters Kluwer, 2015, pp. 147 *et seq.*; L.A.D. Keus, *'De relatie tussen burgerlijke rechter en wetgever'* [The relationship between civil courts and the legislature], *RegelMaat* 2018 (33) pp. 255-273.

547 M. Scheltema, 'Wie stelt de wet: de wetgever of de rechter*?'* [Who makes the law: the legislature or the judiciary?], in: : P. van Dijk (ed.), *De relatie tussen wetgever en rechter in een tijd van rechterlijk activisme* [The relationship between legislature and judiciary in a time of judicial activism], Amsterdam: *Koninklijke Nederlandse Akademie van Wetenschappen*, 1989, p. 16. See also, partly further to Urgenda's claim: J.W. Heringa, *Rechter en politiek: verzaakt de politiek/wetgever of dient de rechter juist het belang van de wetgever?* [Courts and politics: are politicians/the legislature failing or do the courts serve the interests of the legislature?], *Milieu en Recht* 2016/34; E. Bauw, *Politieke processen. Over de rol van de rechter in de democratische rechtsstaat* [Political processes. On the role of the judiciary in democracy under the rule of law], The Hague: Boom Juridisch 2017.

548 The Supreme Court usually expresses this dilemma in the consideration of whether or not the issue 'exceeds the judiciary's duty to develop the law': see, for example, Supreme Court 24 February 1995, ECLI:NL:HR:1995:ZC1642, *NJ* 1995/468 annotated by J. de Boer, para. 3.4 (determination of paternity); Supreme Court 9 October 2009, ECLI:NL:HR:2009:BI8583, *NJ* 2010/387 annotated by J.B.M. Vranken, para. 3.4 (nervous shock injury); Supreme Court 1 April 2014, ECLI:NL:HR:2014:770, *NJ* 2014/268 annotated by T.M. Schalken, paras. 2.5.3-2.5.4 (legal assistance during questioning).

549 Supreme Court 14 June 2019, ECLI:NL:HR:2019:816, paras. 2.10.2 and 2.10.3. The abbreviation 'FP' stands for the First Protocol to the ECHR.

550 For an introduction: A.J. Nieuwenhuis, J.H. Reestman and C. Zoethout (eds.), *Rechterlijk activisme*. *Opstellen aangeboden aan prof. Mr. J.A. Peters* [Judicial activism. Essays offered to Professor J.A. Peters], Nijmegen: Ars Aequi 2011. Also see: T. Koopmans, *Courts and Political Institutions, a Comparative View*, Cambridge University Press 2003, in particular Chapter 5 ('The limits of judicial review').

551 See Supreme Court 16 May 1986, *NJ* 1987/251 annotated by M. Scheltema ('*Landbouwvliegers*'; para. 6.1); *cf*. Supreme Court 14 April 1989, *NJ* 1989/469 annotated by M. Scheltema ('*Harmonisatiewet*'; para. 3.5).

552 See, extensively and with much comparative material: J. Uzman, *Constitutionele remedies bij schending van grondrechten. Over effectieve rechtsbescherming, rechterlijk abstineren en de dialoog tussen rechter en wetgever* [Constitutional remedies in the event of the violation of fundamental rights. On effective legal protection, judicial abstinence and the dialogue between judiciary and legislature], doctoral thesis Leiden, Deventer: Kluwer 2013 (in particular pp. 511 *et seq*.); see also ECHR 23 November 2010 (*Greens et al. v. the United Kingdom*, no. 60041/08), *EHRC* 2011/20 annotated by R. de

Lange, *AB* 2011/123 annotated by J. Uzman.

553 A method of decision-making reminiscent of the 'administrative loop' in administrative procedural law, in which the court gives the administrative body concerned the opportunity to remedy a defect in the contested decision; see Articles 8:51a *et seq*. of the General Administrative Law Act.

554 Supreme Court 12 May 1999, ECLI:NL:HR:1999:AA2756, *NJ* 2000/170 annotated by A.R. Bloembergen. See afterwards: Supreme Court 8 December 2017, ECLI:NL:HR:2017:3081 (para. 2.3.8); A.W. Heringa, J. van der Velde, L.F.M. Verhey and W. van der Woude, *Staatsrecht* [Constitutional Law], Deventer: Wolters Kluwer 2018/128.

555 This tends to be expressed in Dutch professional literature using the adage 'a broody hen should not be disturbed'. See, for example, J. de Boer, *'De broedende kip in EVRM-zaken'* [The broody hen in ECHR cases], *NJB* 1993, pp. 1027-1034.

556 A.W. Heringa, '*Rechter en politiek: verzaakt de politiek/wetgever of dient de rechter juist het belang van de wetgever?'* [Courts and politics: are politicians/the legislature failing or do the courts serve the interests of the legislature?], *Milieu en Recht* 2016/34, provides an overview of arguments for and against and, in view of those arguments, concurs with the District Court's judgment in the *Urgenda* case.

557 Namely: not in connection with the court's authority to give a substantive opinion regarding the claim, but in connection with the restraint to be exercised by the court in doing so. *Cf*. R. van der Hulle, 'De rol van de rechter bij vraagstukken van buitenlands beleid en defensie*: over* Crown acts of state, political questions en rechterlijk abstineren' [The role of the judiciary in matters of foreign policy and defence: on Crown acts of state, political questions and judicial abstinence], RMTh 2018/2, p. 64.

558 The Supreme Court has ruled in this sense before: see para. 3.3.C in Supreme Court 21 December 2001, ECLI:NL:HR:2001:ZC3693, *NJ* 2002/217 annotated by T. Koopmans (objections to the placement of cruise missiles on Dutch territory). About these decisions, see: P.P.T. Bovend'Eert, 'Het rechtsbeginsel van de machtenscheiding. Ontwikkelingen rond een taai constitutioneel beginsel' [The legal principle of the separation of powers. Developments of a tough constitutional principle], in: R.J.N. Schlössels *et al*. (eds.), *In beginsel. Over aard, inhoud en samenhang van rechtsbeginselen in het bestuursrecht* [In principle. On the nature, substance and coherence of legal principles in administrative law], Deventer: Kluwer 2004, par. 5.

559 See J.C.A. de Poorter and F. Capkurt, 'Rechterlijke toetsing van algemeen verbindende voorschriften. Over de indringendheid van de rechterlijke toetsing in een toekomstig direct beroep tegen algemeen verbindende voorschriften' [Judicial review of generally binding regulations. On the intrusiveness of judicial review in a future direct appeal against generally binding regulations], *NTB* 2017/10, pp. 84-95.

560 Supreme Court 19 November 1999, ECLI:NL:HR:1999:AA1056, *NJ* 2000/160 annotated by T. Koopmans.

561 Supreme Court 21 March 2003, ECLI:NL:HR:2003:AE8462, *NJ* 2003/691 annotated by T. Koopmans, *AB* 2004/39 annotated by C. Backes. See also: R.A.J. van Gestel and M.S. Groenhuijsen, '*Geen rechterlijk bevel tot wetgeven, of toch …?*' [Not a court order to enact legislation, or is it ...?], *NJB* 2006/1573, p. 2050; J.E.M. Polak, *Zit er nog muziek in verbods- en gebodsacties ter zake van wetgeving*? [Do actions for orders or injunctions regarding legislation still have anything to offer?], *O&A* 2004/90; R.J.B. Schutgens, *Onrechtmatige wetgeving* [Unlawful legislation], doctoral thesis Nijmegen, Deventer: Kluwer 2009, Chapter 15; G. Boogaard, *Het wetgevingsbevel. Over constitutionele verhoudingen en manieren om een wetgever tot regelgeving aan te zetten* [The order to enact legislation. On constitutional relationships and ways to encourage the legislature to legislate], doctoral thesis Amsterdam, Oisterwijk: Wolf Legal Publishers 2013.

562 Supreme Court 1 October 2004, ECLI:NL:HR:2004:AO8913, *NJ* 2004/679 annotated by T. Koopmans, para. 3.3.5.

563 Supreme Court 9 April 2010, ECLI:NL:HR:2010:BK4549, *NJ* 2010/388 annotated by E.A. Alkema.

564 A certain fixed amount is levied on the sale of audio and video equipment or audio and video carriers. The proceeds of this levy are used to compensate copyright owners for the reproduction of

copyright-protected work using such equipment or carriers.

565 Supreme Court 7 March 2014, ECLI:NL:HR:2014:523, *NJ* 2016/184 annotated by P.B. Hugenholtz at 186 (para. 4.6.2).

566 In cassation, the State merely disputed that Urgenda could rely on Articles 2 and 8 ECHR in this case through Article 3:305a DCC; see section 3.29 *et seq.* above.

567 *Cf.* Supreme Court 7 March 2014, discussed in para. 5.41 above.

568 In para. 4.105 of its judgment, the District Court held that since the reduction order was granted in the manner determined by the District Court, Urgenda had insufficient interest in the declaratory decisions it sought. Urgenda lodged a cross-appeal. In light of the grounds for appeal and cross-appeal, the Court of Appeal re-examined the dispute in its entirety, on the understanding that the highest possible reduction that could be granted was a reduction of at least 25% in 2020 (para. 33).

569 Defence in Cassation, p. 213, at 578.

570 *Cf.* the State's Reply in Cassation, p. 3: 'Naturally, the reduction order cannot force Parliament to agree with the bills proposed by the government.'

571 *Cf.* Urgenda's Rejoinder in Cassation at 271. See also: G. Boogaard and R.J.B. Schutgens, 'Na ons de zondvloed? Over de Urgenda-zaak en het beginsel van constitutionele hoffelijkheid bij de oplegging van dwangsommen aan de Staat' [After us, the deluge? On the *Urgenda* case and the principle of constitutional courtesy in the imposition of penalties on the State], *O&A* 2019/21, pp. 52-61; I. Giesen, 'Na Urgenda: een huiselijk gesprek over de overheid in het strafbankje' [After *Urgenda*: a chat about the government in the dock], *NTBR* 2019/19, pp. 119-121.

572 *Cf.* ECtHR 14 March 2019, 43422/07, *EHRC* 2019/124 annotated by M.K.G. Tjepkema.

573 In the event of conflict with the ECHR, that procedure would be: subsequent proceedings with the ECtHR and a possible decision from the Committee of Ministers as laid down in Article 46 ECHR.

574 T. Koopmans, *Courts and Political Institutions, a Comparative View*, Cambridge University Press 2003, par. 5.2, describes in this regard what is known as the '*counter-majoritarian difficulty'*: the question of the extent to which the consequences of a court decision may deviate from what a clear majority of the people consider to be right.

575 See the distinction made by Urgenda between a 'political issue' and a 'political question' (footnote 13, above). An example of a political issue is the U.S. Supreme Court's judgment in: *Bush v. Gore*, 531 U.S. 98 (2000).

576 A recent example is the discussion about the consequences of the decisions rendered by the Administrative Jurisdiction Division of the Council of State regarding the nitrogen action programme (ABRvS 29 May 2019, ECLI:NL:2019:1603). *Cf.*. R.H. Happé, 'Honderd jaar rechtspraak van de Belastingkamer van de Hoge Raad in het licht van de trias politica' [A century of case law by the Tax Division of the Supreme Court in view of the *trias politica*], *MBB* 2015/5-6.

577 Public Internet consultation, for example, which precedes the submission of many legislative proposals.

578 See Article 82 of the Constitution. This also occurred after the District Court's judgment in respect of a proposal for a Climate Act; see para. 1.6 above.

579 See para. 4.105, above.

580 Footnote 78 of the document initiating proceedings for cassation refers to the Statement of Appeal (pp. 70-75) at 9.4-9.18. In 2015, shortly after the judgment at first instance, at the State's request the Netherlands Environmental Assessment Agency conducted a Quick Scan of the possible supplementary measures with a view to emission reduction 2020 (State's Exhibit 46, also available at pbl.nl). It includes a summary of emissions reduction measures that could possibly be taken in the period until the end of 2020. The State referred to it in its Statement of Appeal. These include the following measures: implementation of a toll per kilometre; reduction of the maximum speed on motorways; incentivising zero emission vehicles; energy performance requirement on the homes managed by housing corporations; measures limiting emissions from coal plants (including CCS); more stringent agreements on the energy efficiency of non-ETS industries; the realisation of additional sustainable

energy (solar and wind).

581 See footnotes 79 and 80 of the document initiating the proceedings for cassation for the sources in the procedural documents on appeal.

582 *Cf*. Urgenda's Defence in the proceedings for cassation at 589. See also: T.G. Oztürk and G.A. van der Veen, annotation in *O&A* 2018/51 at 14; R. van der Hulle and L. van Heijningen, 'Het wetgevingsbevel vanuit Unierechtelijk perspectief: het debat heropend' [Order to enact legislation viewed from the perspective of EU law: reopening the debate], *SEW* 2016/1 pp. 17-18.

583 Meaning: the emission of greenhouse gases from State property, by State companies and/or by the State's own personnel or personnel engaged by it.

584 These instruments are explicitly mentioned in Article 6 of the UNFCCC.

585 The State did not argue that the obligation ensuing from Articles 2 and 8 ECHR can *only* be achieved by enacting legislation.

586 In explanation of this ground for cassation, the State refers to para. 4.6.2 of Supreme Court 9 April 2010, ECLI:NL:HR:2010:BK4549, *NJ* 2010/388 annotated by E.A. Alkema, discussed above in section 5.40.

587 See Memorandum of Reply I (dated 12 March 2019, and therefore after the contested judgment), *Parliamentary Papers I* 2018/19, 34 534, C, p. 3.

588 The State's Written Arguments at 1.3.

589 On appeal, the State emphasised its reduction targets for 2030 and 2050, but did not provide the Court of Appeal with a specific reduction plan explaining the steps of the measures to be taken and their financing. The comment made during the oral arguments on behalf of the State is also merely generally worded.

590 Protocol no. 16 to the ECHR, Strasbourg 2 October 2013, Bulletin of Treaties 2013/241 and Bulletin of Treaties 2014/74. The protocol entered into force on 1 August 2018 (see e.g.< https://www.coe.int/en/web/human-rights-rule-of-law/-/entry-into-force-of-the-protocol-no-16-to-the-european-convention-of-human-rights>). For the entry into force in the Netherlands, see the letter from the Minister of Justice and Security of 14 May 2019, *Parliamentary Papers II* 34 235 (R2053) no. 12.

591 Also see Urgenda's Written Arguments in the proceedings for cassation at 87; T.G. Oztürk and G.A. van der Veen, O&A 2018/51 at 10.

592 In particular, see the State's Notice and Grounds of Appeal at 14.1 *et seq.* and grounds of appeal 21 through 27 therein.

593 As follows from para. 76 of the Court of Appeal's judgment.

594 Urgenda is of the opinion that the outcome arrived at by the Court of Appeal is equally supported by the approach based on Article 6:162 DCC (Defence in the proceedings for cassation at 459 *et seq.* and Rejoinder in cassation at 254). The State is of the opinion that the Court of Appeal should not have granted the order on that basis, either (Written Explanation, para. 15.1 *et seq*.).

595 See paras. 4.104-4.105 of the District Court's judgment. The claims of the individual claimants no longer played a part on appeal (see section 1.24).

596 See para. 3.1 at 7 in the alternative, 8 and 9, 4.86 and 4.107 of the District Court's judgment.

597 According to the judgment, this declaration entails that: 'the State acts unlawfully if it fails to reduce or have reduced the annual greenhouse gas emissions in the Netherlands by 40%, in any case at least 25%, compared to 1990, by the end of 2020'.