

2 The scientification of climate politics

Monique Riphagen, Rinie van Est, Jeroen P. van der Sluijs, Arjan Wardekker

2.1 Introduction

The present chapter offers a historical perspective on the political discussion surrounding climate change. We describe the way in which the political debate has developed in the last 40 years, taking a closer look at the role of science within the political debate. How have politics dealt with scientific uncertainties and dissident voices? We also looked at the international context. Certainly from the late 1980s, the political discussion in the Netherlands was strongly focused on the international discussion. From the late 1980s onwards, there were ample consultations within a UN context about the establishment of an international agreement on global warming. This resulted in the UN Framework Convention on Climate Change (UNFCCC), signed in Rio de Janeiro in 1992. Another milestone in the history of the Kyoto protocol, signed in 1997, came about as a development of the first phase of this Climate Convention. The last climate summit, held in late 2009 in Copenhagen, where the second phase of the Convention was central, is still fresh in everyone's memory.

We will describe the political debate about climate change and the interaction between politics and science in the following five periods:

1. Political signalling of the greenhouse effect (1970s)
2. Climate change on the political agenda (1980s)
3. Domestic/international precautionary decision-making (1987–1994)
4. Implementation of Climate Convention, Kyoto phase (1995–2005)
5. Implementation of Climate Convention, Copenhagen phase (2006–present)

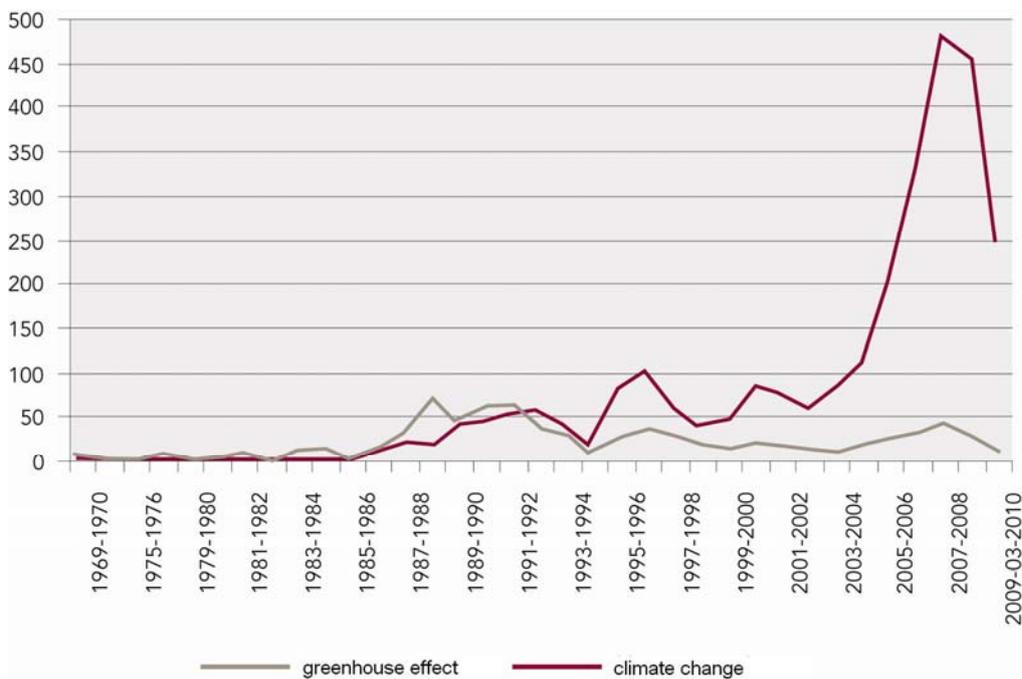
Methodology

For our analysis of the Dutch political climate debate from 1970 up to now, we studied the parliamentary debates and discussed parliamentary documents from this period. To that end, we used parliamentary records and documents from 1970 to 2010. This material can be found on the website www.statengeneraaldigitaal.nl (up to 1995) and in the Parlando system (from 1995). We searched for the terms 'broeikasteffect' (greenhouse effect) and 'klimaatverandering' (climate change). In the seventies and eighties the climate problem was identified mainly with the term greenhouse effect; starting in the nineties it gradually transitioned into the term 'climate change'. Figure 1 shows how many records, documents, interpellations and motions were brought to the fore in the specific parliamentary year using these search terms. The results of both terms cannot be added up because in some documents or debates both were used.

Given the large number of hits, not all references in Parlando were examined comprehensively. We made an estimate of the relevance of the debates and documents in relation to the debate about climate change, looking specifically at the degree to which the debates offer insight into various

political positions in the discussion, such as climate alarmism and scepticism. Debates about other topics in which climate change was a secondary discussion were not analysed. This applies chiefly to documents and records about the topic of energy transition. In the 1990-2010 period many reports, appendices and documents were published about the implementation and effectiveness of climate policies. These were analysed to the degree that they give input to the political debate.

Figure 2.1 Frequency of occurrence of the terms 'greenhouse effect' and 'climate change' in Dutch parliamentary documents, actions, interpellations and appendices.



2.2 Political signalling of the greenhouse effect (1970s)

'What is know about this greenhouse effect? Is it really so alarming? For a lay person it certainly sounds very alarming, but is this really the case? Do the experts agree on this?'

(Jaap Boersma, ARP (Anti-Revolutionary Party) parliamentarian (Handelingen TK 1969-1970))

Climate science emerged as a scientific discipline in the 1960s (Schneider 2009). In the early seventies the first scientific signals that something was going on with global warming reached the Dutch Parliament. In a parliamentary debate about the Air Pollution Act, SGP (Reformed Political Party) parliamentarian Van Rossum mentioned the link between carbon dioxide and water vapour, which are released when burning fossil fuels in the atmosphere. Van Rossum indicated having read that 'in the last century CO₂ levels have risen by more than 10%'. He asked himself whether this could lead to a certain greenhouse effect that can negatively influence the atmosphere as such. Parliamentarian Boersma from the ARP also contended in this debate that 'one ... could posit, slightly dramatising, that if we ... continued another 50 to 100 years, the globe could perhaps be one big greenhouse ...' (Handelingen TK 1969-1970, p. 3937). He was vocal about wanting to know present and future risks. The greenhouse effect had been signalled by the political arena, but was still too new and unknown a topic for further debate to be held. This changed in the 1980s.

2.3 Climate change in the political agenda (1980s)

'The expected increase of CO₂ levels in the atmosphere will lead in the coming century to radical and unavoidable environmental effects on a worldwide scale. Existing uncertainties make it impossible to indicate the exact nature and scope of these environmental effects at the moment.'

(Gezondheidsraad (1983, p. 159))

In the 1980s the greenhouse effect was put on the table on national and international political agendas, and was recognised as a problem. At an international level, the Organisation for Economic Cooperation and Development (OECD) created a work group to conduct further research into the CO₂ issue.

The White Paper on Coal and the greenhouse effect

In the Netherlands, the greenhouse effect got attention within the politically-loaded discussion about the Dutch energy supply which had started in the 1970s. This involved, among other things, the choice between the use of more coal and the deployment of nuclear energy. As a supporter of nuclear energy, the VVD (People's Party for Freedom and Democracy, a right-wing-liberal party) shed light on the severity of the greenhouse effect. In the discussion about the Note on Coal in 1980, the VVD opined that large-scale reintroduction of coal is not advisable unless there is more clarity about the scope of the carbon dioxide problem and the solutions to it. According to the party, coal should be at least as safe as nuclear energy. According to the PPR (Political Party of Radicals, a left-wing Christian and green party) too, CO₂ can become a harsh limiting condition when it comes to whether or not to use coal.

VVD minister Ginjaar of the Ministry of Public Health and Environmental Protection adopted this standpoint. He recognised that in addition to advice about the risks of nuclear energy there was also – in the context of the discussion about the White Paper on Coal – a political need for advice about the risks of coal use (Dinkelman 1995). For this reason, Ginjaar asked the National Health Council for advice on the carbon dioxide issue. The report of the Health Council was offered in 1983 to Pieter Winsemius (1982-1986), by then minister of the new VROM (Housing, Spatial Planning and the Environment) department. The main conclusion is the beginning quote of this section. There was a plea for more research and advice to the government (Dinkelman 1995). According to the report, halting or strongly reducing CO₂ emissions were the only preventive option. The international context of the problem was signalled. As a consequence, an interdepartmental workgroup was created that announced a tri-directional policy: 1. getting national and international awareness of the problem on the political agenda; 2. stimulating scientific research to reduce the uncertainties and determine whether measures are needed; 3. taking measures.

In the second half of the 1980s, political interest on the climate issue grew. In debates about estimates on air quality politicians referred regularly to the greenhouse effect or CO₂ problem. This was also on the map as a problem in policy terms. In the Indicative Environmental Multi-year Program (IMP) 1986-1990 the CO₂ problem was discussed for the first time as a separate topic. According to the IMP the causes were clear and lay in the use of fossil fuels by industrialised countries. Scientific advice and policy notes about taking measures, as well as the second advice from the Health Council in 1986, were more cautious. Taking measures was seen as politically and economically unattainable. Because of the major interests concerned with energy policy in each of the countries involved, a common prevention-oriented policy did not seem possible in the foreseeable future – to the degree that it could ever be possible (Indicatief Meerjarenprogramma Milieubeheer 1986-1990, 1985) (Notitie Klimaatverandering door CO₂ en andere sporengassen als methaan, 1985). Politicians took this advice. Even though the greenhouse effect was accepted by politicians as a serious environmental problem, Winsemius considered that the frameworks to give it policy-oriented attention were still lacking (Dinkelman 1995). His successor, VVD

minister Nijpels (1986-1989), also answered parliamentary interpellations by stating that there were no wide agreements or international policies yet to combat the CO₂ problem. Hence at this stage policy was geared mainly towards influencing the international political agenda.

2.4 Domestic/International political precautionary decision-making (1987–1994)

'During the 1988 climate conference in Toronto, several scientists proclaimed simultaneously that something was going on. They were more or less converted, stating: "Our insights have deepened, we just know". A climate convention was signed at the 1992 environmental summit in Rio de Janeiro. This agreement was a formality at that point; the Parliament did not realise what was actually in store – in hindsight, it was actually shameful'.

(Eimert van Middelkoop (Slob 2006))

In the 1987-1994 period global warming came to be high on the international political agenda. Political decision-making was taking place at a domestic and international level. This period starts with the groundbreaking environmental report *Our Common Future* in 1987 and closes with the materialisation of the Climate Convention and its ratification in 1994.

Brundtland report, Toronto and establishment of the IPCC

The 1987 report *Our Common Future* of the United Nations World Commission on Environment and Development (WCED), led by Gro Harlem Brundtland, gives a worldwide feeling of urgency for the tackling of environmental problems. In the Brundtland report a link was established for the first time between economic growth in the West, global environmental problems, and poverty and underdevelopment in the Third World. Environmental problems were explicitly seen as moral problems. The Brundtland report also meant a breakthrough for the concept of sustainable development, which is defined as a development that meets the needs of the present without compromising the ability of future generations to meet their own needs. In this context, the precautionary principle is pushed to the foreground. This entails that if there is a chance of irreversible damage, a lack of full scientific proof may not be used to postpone measures. In this way the Brundtland commission brought moral notions of international and intergenerational solidarity and of precautionary action into the global environmental debate and thus also the climate debate.

In 1987, during workshops at Villach and Bellagio, the international Advisory Group on Greenhouse Gases (AGGG) proposed a number of climate norms. The AGGG wanted an upper limit for a maximally allowed temperature rise speed of 0.1°C per decade, with a maximum of 1.0 or 2.0°C total temperature rise compared to pre-industrial levels (Rijsberman et al. 1990; Jäger 1990; see also Intermezzo 1). The AGGG submitted these climate norms as input for the *Toronto Conference on the Changing Atmosphere*, which took place in 1988 as a result of political lobbying of the Netherlands and other countries. This is the first time that the climate issue appeared on the political agenda of world leaders. The most important recommendation that the conference produced is that there must be a global climate agreement. Governments worldwide also needed to obtain more knowledge about the Earth's warming before signing a climate agreement. To this end, in 1989 the Intergovernmental Panel on Climate Change (IPCC) was founded. The IPCC itself does not do any research, but has the task of making an overview of the scientific knowledge regarding climate change, its socio-economic impact, and possible solution strategies. It also has to offer advice on elements of a possibly future climate agreement. The first IPCC report from 1990 indicated that it is likely that continued emissions of anthropogenic greenhouse gases would lead to global warming. This first IPCC report provided the scientific input for the climate agreement which was

open to be signed in 1992 at the world environmental summit in Rio de Janeiro (Chapter 3 discusses more in depth the emergence, role, and practices and procedures of the IPCC).

Concern for Tomorrow, NMP and Note on Climate Change

In the wake of the Brundtland report, the 1988 RIVM report *Concern for Tomorrow (Zorgen voor Morgen)* had a shock effect in the Netherlands – this first environmental investigation had a fairly alarming tone. Thanks to this scientific input, a National Environmental Policy Plan (NMP) was set up in 1989. In it, global warming is prominently named as a global environmental problem. Ambitious goals for CO₂ policy were formulated for the first time. In the short term, the government wanted to stabilise CO₂ emissions at 1989 levels (VROM 1989, p. 158). For 2010 it wanted to strongly reduce the atmospheric increase of CO₂ or even halt it. The goals may have been ambitious, but the policy certainly wasn't. The government wanted to achieve the mentioned goals through measures that are profitable from a cost-considerations perspective, thus opting for a 'no regrets' policy.

The idea behind 'no regrets' is that the uncertainties about the scope of the possible expected climate change are still so great that actually only those measures are justified which simultaneously help solve other problems whose severity is certain. Among the issues about which there was certainty at the time were the depletion of fossil fuels and the dependency on oil-producing countries for transportation fuel. Examples of no-regret climate measures are energy savings through improved efficiency, setting up agreements with businesses, and stimulating savings through subsidies. A measure such as CO₂ capture with underground storage does not fit in here: if it turned out later that the severity of the greenhouse effect was overestimated, high costs would have been incurred needlessly for this measure and people would have regretted the investment. An important reason to adopt a no-regrets policy is that, according to the NMP, more far-reaching measures are only useful at a global level. Hence the Netherlands pushed for an international climate convention in which agreements are made about reduction of greenhouse gasses, reforestation and an international climate fund. There was also a plea for more research. The NMP wanted a national research program of global air pollution and climate change (VROM 1989). Parliament extensively debated the NMP. Some parties called for a strong climate policy (Handelingen TK 1989-1990). This led to a sharpening of the goals in the NMP+ from 1990.

The scientific information from the first IPCC report had a direct influence on Dutch climate policies, which guided further elaboration of the goals of NMP+. In the White Paper on Climate Change (VROM 1991) a long-term climate goal was drawn up in which the precautionary principle was central. This presumes that possible severe consequences of climate change must be prevented, even if there is still a lot of uncertainty about the exact nature and scope of those consequences. A common argument is that if you wait until you know for sure, it will be too late to intervene. It is also frequently argued that early implementation of measures is in the end cheaper than taking measures at a later stage or even after the fact. Although there is increasing scientific knowledge about global warming, there are also many uncertainties, as the IPCC report describes. To rule out any risk, the emissions of greenhouse gasses must be brought down to pre-industrial levels, but because it is impossible to do so within 100 years without disrupting the economy, a certain risk is inevitable. Using scientific input and based on the precautionary principle, in this White Paper the government aimed at a stabilisation of atmospheric CO₂ levels before the end of the 21st century at a level far below a doubling of pre-industrial levels. This means accepting a maximal rise of average world temperatures of 2°C compared to pre-industrial temperatures. It follows that by 2010 global emission of greenhouse gasses would have to drop by 50% compared to 1990.

Climate debate in Parliament

With the increasing international attention for environmental problems and climate change, attention towards these problems also grew in the Dutch Parliament. In 1988 the RPF (Reformatory Political Federation) posed several critical questions about the pronouncement of Prof. Schuurmans, chair of the Royal Netherlands Academy of Arts and Sciences (KNAW) Climate Commission, Royal Netherlands

Meteorological Institute (KNMI) meteorologist and VROM (Housing, Spatial Planning and the Environment) adviser – that the described consequences of the greenhouse effect were ‘utter nonsense’. According to VVD (People's Party for Freedom and Democracy) Minister Ed Nijpels there really was no difference of opinion and Schuurmans wanted mainly to warn against information in the media that had insufficient scientific foundations. Nijpels pointed to major uncertainties in scientific knowledge that can go both ways: the consequences can be less severe or actually turn out to be worse. He also appealed to the precautionary principle. Precisely because of the scientific uncertainties we should start tackling the problem now already, he argued. If we wait for more scientific certainty, the possibility to confront the problem will decrease (Aanhangsel Handelingen TK 1988-1989, p. 321). This is a discussion that would be frequently repeated in future years.

During this phase, sceptic voices that doubted the existence of a climate problem also reached the political community. From various political sides there were doubts about the need for a far-reaching climate policy. Parliamentary Janmaat of the Centre Democrats (extreme right wing party) blamed the left of misusing the environment to burden citizens with fees and taxes in order to generate extra income. ‘We think that the environment is not in such bad shape. In the month of February we noticed no ‘environmental blanket’ covering our country. In this month the environmental minister certainly did not intensify his policy. We have seen nothing resembling a greenhouse effect. In short: we find that the minister does not have a realistic picture of things, to put it in friendly and diplomatic terms’ (Handelingen TK 1990-1991, pp. 55, 3194). Janmaat also criticised Dutch Labour Party (PvdA) environmental minister Alders: ‘Mr. Alders has already risked saying in Washington that within 100 years the temperature will rise by four degrees ... What a pity for this Foreign Minister that there is little evidence of the greenhouse effect in recent months. That isn’t an argument to defend Kok’s gasoline tax either’ (Handelingen TK 1990-1991, pp. 92, 5239).

Labour Party parliamentarian Zijlstra also questioned the greenhouse effect in the Upper House of Parliament, by pointing to scientific uncertainties. He did not believe that higher emissions of CO₂ would lead to global warming and rising sea levels (Handelingen EK 1992-1993, pp. 22, 857-858), and was actually afraid of a re-evaluation of nuclear energy. Environmental minister Hans Alders from the Labour Party pointed to the described uncertainties in the IPCC report and the notion of the precautionary principle in order to take measures despite scientific uncertainties. Because the measures that Alders proposed were also useful in the context of energy-saving policies, Zijlstra agreed.

In the debate about the White Paper on Climate Change, the VVD returned to this discussion. Given the field of tension between scientific uncertainties and the precautionary principle, the VVD pleaded for a realistic climate policy and for a goal that corresponded with the goal from the NMP, stabilisation in 2000 instead of 3-5% reduction in 2000, the goal of NMP+. The political debate was mainly about the planned climate summit in Rio de Janeiro and the carbon dioxide tax proposed by the cabinet (Handelingen TK OCV/UCV 39 1991-1992).

The Climate Convention

The *United Nations Conference on Environment and Development* took place in Rio de Janeiro in 1992. At this environmental conference the Climate Convention was opened up to be signed. This agreement (internationally known as UNFCCC Climate Convention) made a distinction between annex-I countries (mainly the industrialised world) and developing countries. Annex-I countries were expected to attain a substantial reduction in the emission of greenhouse gasses; developing countries must keep some space for an increase in their energy use and thus their emissions, but in the long term must also limit these emissions. The ultimate goal of this Convention is formulated in article 2:

‘The ultimate objective of this Convention and any related legal instruments that the Conference of the Parties may adopt is to achieve, in accordance with the relevant provisions of the Convention, stabilization of greenhouse gas concentrations in the atmosphere at a level that would prevent dangerous

anthropogenic interference with the climate system. Such a level should be achieved within a time frame sufficient to allow ecosystems to adapt naturally to climate change, to ensure that food production is not threatened and to enable economic development to proceed in a sustainable manner.'

The Convention was thus aimed at preventing a warming of the Earth that is considered dangerous, without damage to the economy. What a dangerous warming of the Earth entails is not indicated though. The Climate Convention has been ratified by 192 countries since 1992, including the Netherlands. Hence nearly every country in the world is part of this Convention that became effective in 1994, when the previous threshold of number of ratifying parties was attained. The United States has also ratified the Climate Convention.

The Convention only established a qualitative climate goal for the long term: stabilisation of the concentrations of greenhouse gasses in the atmosphere. Because we emit more CO₂ and other greenhouse gasses than nature can absorb, atmospheric concentrations increase yearly. In order to stabilise the concentrations, emissions must be pushed back very far. The Climate Convention stated that developing countries must get the space to grow in their energy use; this means that in the long term industrialised countries must reduce their yearly emissions of greenhouse gasses by about 80% compared to 1990. This is a very large step, all the more because the economy and the demand for energy do keep growing. To make this step politically more feasible it was decided to split the long way to the end goal of the convention into 'budget periods', where a larger step must be taken in each subsequent period to attain the ultimate goal.

Accordingly, further agreements were needed to reach this goal. Negotiations were continued in a series of meetings of the Conference of Parties (COP; see Table 2.1 for an overview of decisions). The task of the COP was to arrive at concrete agreements about the effort (emission reduction of greenhouse gasses) that each country must produce under the Climate Convention.

Table 2.1 Most important decisions during the negotiation rounds (COP) within the Climate Convention for the 1995–2005 period.

Conference of Parties (COP)	Most important decisions, 1995–2005 period
COP 1 Berlin, 1995	<ul style="list-style-type: none"> • Industrialised countries must set up binding emission-reduction goals, developing countries not yet. • Procedural agreements.
COP 2 Geneva, 1996	<ul style="list-style-type: none"> • Guidelines for yearly national communications on greenhouse-gas emissions. • For industrialised countries, <i>quantified emissions limitation and reduction objectives</i> (QELRO's) are established.
COP 3 Kyoto, 1997	<ul style="list-style-type: none"> • Binding emission-reduction goals for industrialised countries until 2010. • Flexible mechanisms (Joint Implementation, Clean Development Mechanism and emissions trading). • Forest sinks may count under certain conditions.
COP 4 Buenos Aires, 1998	<ul style="list-style-type: none"> • Buenos Aires plan of action: strengthen financial mechanism of Kyoto. • Development and transfer of emission-reducing technologies.
COP 5 Bonn, 1999	<ul style="list-style-type: none"> • Adjusted guidelines for emission reporting. • Capacity-building, transfer of technology between countries.
COP 6 The Hague, 2000 & COP 6-bis	<ul style="list-style-type: none"> • Rules for the flexible mechanisms.

Bonn, 2001	<ul style="list-style-type: none"> Capacity-building in developing countries and countries with economies in transition (like the former Soviet Union).
COP 7 Marrakech, 2001	<ul style="list-style-type: none"> Rules for ensuring compliance. Sink-accounting methods within CDM. Marrakech Ministerial Declaration for Johannesburg Earth summit.
COP 8 New Delhi, 2002	<ul style="list-style-type: none"> Delhi Ministerial Declaration underlines importance of Johannesburg.
COP 9 Milan, 2003	<ul style="list-style-type: none"> Institutional strengthening and sharpening of procedures for Kyoto protocol and entire convention. Revised guideline for emission reporting. Establishment of Special Climate Change Fund and Least Developed Countries Fund (technology transfer and adaptation projects).
COP 10 Buenos Aires, 2004	<ul style="list-style-type: none"> Detailed resolutions about development and transfer of technologies, sinks, financial mechanisms, reporting obligations, capacity-building, adaptation, education, the needs of the least developed countries, and future policy strategies.
COP 11 Montreal, 2005	<ul style="list-style-type: none"> Strengthening the role of the Global Environment Facility (GEF) for the financial instruments of the Climate Convention. Procedural agreements for a protocol for the second budget period of the Climate convention, which starts after 2012.

2.5 Implementation of Climate Convention, Kyoto phase (1995–2005)

At an international level this period was about translating the Climate Convention into a protocol that could guarantee its practical execution. It involved, among other things, concrete carbon dioxide reduction goals per country. This resulted in the signing of the Kyoto protocol in 1997. To prepare for the climate conference in Kyoto, the Dutch Parliament organised a Temporary Commission for Climate Policy. In this period the Netherlands was quite immersed in the implementation of our national climate policies. This was a cumbersome task. Goals were not being attained (Van der Sluijs et al. 2001). CO₂ emissions in the Netherlands kept rising instead of dropping. The period concludes with the taking effect of the Kyoto protocol in 2005.

Temporary Commission for Climate Policy: focus on precaution

As international negotiations in preparation for Kyoto made progress, the Dutch Parliament started to feel increasingly uneasy. It actually agreed to the implementation of climate policies, whereas in fact little was known about this very complex problem (see statement of Eimert van Middelkoop at the beginning of the previous section). In 1995 the VVD asked for the opinion of environmental minister De Boer (1994–1998) about temperature increases due to increased solar activity and cooling of the Earth due to increased cloud formation. The minister answered that the second assessment report of the IPCC from 1995 described that the influence of man on global warming is greater than the influence of the sun. The influence of man on the climate is scientifically incontrovertible, according to the minister. The Dutch standpoints in the international negotiations, said the minister, were based on IPCC reports (Aanhangsel van de Handelingen TK 1994-1995). Because Parliament realised that it has little insight into the climate problem it was decided in 1995, in preparation for the Kyoto climate conference, to establish a Temporary Commission for Climate Policy, to be led by the GPV (Reformed Political League) parliamentarian Eimert van Middelkoop.

The goal of the parliamentary inquiry was to obtain more scientific information about certainties and uncertainties, causes and consequences of the climate problem, as well as to find out whether the IPCC reports, on which climate policy is actually based, provides a sufficient foundation to this end. The commission indicated wanting to give a value judgment about the scientific state of affairs and not wanting to be an executioner with respect to scientific truths and untruths. Although according to the commission a significant group of scientists raised questions about the analysis of the physical climate process and the used models, nearly all the experts pointed to uncertainties and gaps in the knowledge about the climate system. However, it is the task of politics to establish policy lines and make political choices on the basis of the best available information and without an absolute certainty (Tweede Kamer 1996). 'Otherwise', stated the commission, 'the leadership could have left the issue up to the experts for the sake of convenience' (Tweede Kamer 1996, p. 19). In the report of the Van Middelkoop commission the precautionary principle is central a starting point for policy.

The commission concluded unanimously that according to science the emission of large amounts of CO₂ lead to climate change with possibly sweeping and dangerous effects. Major global emission reductions were needed, especially in industrialised countries, to stabilise the level of greenhouse gasses. According to the commission it was therefore necessary to establish emission reduction goals, and the Netherlands should have a goal such that 'in international negotiations a maximal result is attained. The total emissions of our country are less than 1% of global emissions. A major emission lowering in the Netherlands must be accompanied by a comparable lowering, especially in the industrialised countries' (Tweede Kamer 1996, p. 2). The Netherlands wanted to keep pace at an international level. The commission stated that there is a large potential in the Netherlands for considerable emissions reduction. A reduction of 30 to 40% by 2020 compared to 1990 levels was possible, and could be realised through energy savings in businesses and households, application of solar and wind energy, and biomass with eventual CO₂ storage as interim solution. The commission made a plea for the Netherlands to follow a twofold policy by 1. promoting an emissions reduction by industrialised countries mainly of CO₂ in international climate negotiations; and 2. adopting a national reduction goal and setting up policies.

Difficult implementation of climate policy

The parliament took over the conclusions of the report, as a result of which the political discussion no longer was about whether there was a climate problem but about what we would do about it. A stronger climate policy was demanded. In the meantime, implementation of the already existing policies was not going very well. Instead of the planned CO₂ emission reduction of 3%, RIVM (National Institute for Public Health and the Environment) figures show that in 2000 there would be a rise of 6.8%. The cabinet set up a CO₂-reduction plan and put down extra money for new measures. In the political debate following the Second Note on Climate Policy there were various motions to determine climate policy after 2000. The Parliament also pleaded for an international goal of 2% CO₂ emission reductions per year after 2000 (what would come down to 33% in 2020), short-term measures to be able to arrive at the desired reduction of 3% in 2000, and international deployment of wind and solar energy. The need for stronger climate policy, at least based on the wish to stabilise CO₂ concentrations at acceptable levels, would ensure that policy measures went further than the no-regret measures from the 1980s – as stated by the second assessment report of the IPCC (1995) too. In addition, the international political community was about to sign the international agreement in Kyoto. Hard political choices had to be made.

Parliament asks for more scientific certainty

Although Parliament had done research shortly before this into the scientific uncertainties within the climate debate, it remained critical. Anticipating Kyoto, it longed for more scientific certainty about the role of man in global warming. Given the scientific uncertainties, a motion of the Socialist Party (SP) was accepted in order to have the KNAW do research into the effects of the human contribution to CO₂ in the atmosphere. At the same time, confidence in the established scientific institutes dropped. The VVD expressed criticism with respect to the role of the IPCC. The party posed interpellations in parliament

about the theory that the sun exerts the greatest influence on the greenhouse effect as alternative to the theory of anthropogenic climate change brought forward by the IPCC reports. It also asked about a possible politicisation of the IPCC. The minister answered (just like his response to the questions of the RPF in 1988) that the sun influences climate but that this is not an alternative explanation for the enhanced greenhouse effect. The minister indicated that the IPCC works independently and that scientific uncertainties exist, but that the cabinet bases itself on the precautionary principle (Aanhangsel van de Handelingen TK 1996-1997).

Kyoto protocol

In 1997 the Kyoto protocol was established during COP 3. Binding agreements were made about emissions reduction for 37 industrialised countries and the entire European Union. Together they were to lead to a reduction of yearly global emissions of greenhouse gases by 5.2% in 2010 compared to 1990. It was established that 2010 would not be measured as target year – instead, the average yearly emissions in the 2008-2012 period would be measured. This would average accidental fluctuations in the economy from year to year. Economic crises lead to lower emissions even without measures anyway, but because of their generally temporary character this does not contribute to the long-term goal of the agreement. Reduction goals varied: Canada and Japan would reduce 6%, the US 7%, the European Union and most central and eastern European countries 8%. Australia and Iceland, by contrast, were allowed to grow by 8% and 10% respectively. This differentiation does justice to the fact that circumstances and reduction possibilities vary from country to country. Within the EU, the EU portion is further differentiated. Three 'flexible mechanisms' were determined in Kyoto which allowed countries to realise their emission reductions partially abroad when it is cheaper to do so. Cooperation with another industrialised country, especially in eastern Europe, is known as Joint Implementation. Cooperation with a developing country falls under the Clean Development Mechanism. And then there is emissions trading: countries that reduce their emissions of greenhouse gases further than the Kyoto obligations impose on them may sell this margin to countries that have trouble reaching their goal.

The Kyoto reduction goals for the Netherlands amounted to 6%. That goal could be attained with reduction of six different greenhouse gases: carbon dioxide (CO₂), methane (CH₄), nitrous oxide (N₂O), perfluorocarbons (PFC's), hydrofluorocarbons (HFC's) and sulphur hexafluoride (SF₆). Sequestration of CO₂ due to changed land use and forestry also counts under strict conditions. In the Netherlands, minister Jan Pronk (1998-2002) got out the Climate Policy Implementation Plan, in which he substantiated how the Netherlands could achieve the 6% CO₂ reduction of the Kyoto protocol (Tweede Kamer 1999). The cabinet wanted to attain half of the CO₂ reduction abroad by means of the Clean Development Mechanism and Joint Implementation. This means that fewer measures were needed in the Netherlands itself, thus averting social resistance to unpopular measures.

The Kyoto protocol was ratified by 184 of the 196 countries and became effective in 2005 with Russia's ratification. The United States is one of the 12 countries that never signed the Kyoto protocol (but did sign the Climate Convention).

2.6 Implementation of Climate Convention: Post-Kyoto phase (2006–present)

'The misuse that is made [in politics] of science distorts, politicises and perverts that same science, and now we not only must indignantly cry when science falters, we also must search our consciences.'

(Diederik Samsom, Labour Party parliamentarian (Handelingen TK 2010, p. 4542))

In 2004 national and international preparations started for the follow-up to the Kyoto protocol. This protocol applied only to the first budget period, which goes until 2012. In 2005 procedural agreements were made in Montreal (COP 11) for the creation of a protocol for the second budget period. According to plans, that new protocol had to be established in 2009, be ratified by 2012 and then be implemented. To prepare for a post-Kyoto agreement, European environmental ministers chose a maximal temperature rise of 2°C as starting point for the policies to be followed (Tweede Kamer 2004-2005a). In this section we offer a picture of the political debate on the follow-up to the Kyoto protocol.

Parliament starts investigation into climate change

Because the Dutch Parliament wanted to enter into the discussion with the cabinet regarding the Kyoto follow-up well prepared, in 2004 another investigation was launched into climate change as a follow-up to the Van Middelkoop commission. The goal of the investigation was to bring up to date Parliament's knowledge about climate science and international climate policy, given that the state of affairs in both terrains changes quickly. Parliament also wanted to map out policy options for the future, as well as the instrumentarium to be deployed and the corresponding costs and profits (Tweede Kamer 2003-2004). The climate investigation was conducted by the research agency CE, the KNMI (Royal Netherlands Meteorological Institute) and Wageningen University & Research Centre (WUR).

Table 2.2. Most important decisions during the negotiation rounds (COP) within the Climate Convention in the 2006-2009 period.

Conference of Parties (COP)	Most important decisions
COP 12 Nairobi, 2006	Determining the financial mechanisms. (Special Climate Change Fund and Global Environment Facility)
COP 13 Bali, 2007	Timeline established for negotiations about a protocol for the 2nd budget period (after 2012). Establishment of ad-hoc workgroup 'Long-term Cooperative Action under the Convention' (AWG-LCA).
COP 14 Poznan, 2008	Fund to help the least developed countries cope with the effects of climate change. Determining REDD mechanism (Reducing Emissions from Deforestation and Degradation).
COP 15 Copenhagen, 2009	Determine 2-degree goal as long-term goal of Climate Convention. Developing countries will also be reporting their emissions. 30 billion dollars will become available in the coming three years and 100 billion per year starting in 2020.

Climate research

In 1994 climate science was not yet able to establish an explicit and quantitative link between human activity and the observed temperature rise. The effects of climate change had not been observed yet either (Tweede Kamer 2003-2004). The findings of the investigations ordered by the parliament pointed out that by 2004 climate science had more insight into factors that influence the climate. According to the report, the largest portion of the warming since 1950 is probably caused by man. At this point, the expected temperature rise was estimated at 1.4 to 5.8°C. The effects of climate change, not all of which necessarily have to be negative anyway, could be observed on a large scale, according to the researchers (Tweede Kamer 2003-2004). At the same time it was recognised that there are still many uncertainties and that some scientific conclusions are being doubted. The criticism of climate sceptics on the established science (see Chapter 3) was discussed in the report, but was not shared by the researchers. According to the report, climate policy was not having the desired effect so far: there was no structural reduction yet of the use of fossil fuels – on the contrary: domestic CO₂ emissions had increased by 8%. The Netherlands had probably met the Kyoto goals (6% emission reduction) through a

reduction of other greenhouse gasses and reduction of CO₂ abroad via Joint Implementation and the Clean Development Mechanism. From the round-table talks organised by Parliament it appears that the conclusions from the research report were widely shared by climate experts, social organisations and representatives from the business community.

Parliamentary debate

Although the severity of the climate problem was clear, Parliament expressed that there is still much scientific uncertainty. VVD Parliamentarian De Krom said that '... the complexity of the climate system excludes indisputable evidence; there is no clear cause-effect link. Making predictions is speculative, also because if the Earth's system is very out of balance, processes can take place that are not known yet' (Tweede Kamer 2004-2005b, p. 3 & Tweede Kamer 2004-2005c, p. 3). A related issue was whether the consequences of climate change are more severe than the consequences of an intensive climate policy. Environmental minister Van Geel (2002-2007) appealed, just like his predecessors, to the precautionary principle: 'If there are scientific uncertainties about the degree of risks of climate change, one should act aiming to prevent severe or irreversible damage' (Tweede Kamer 2004-2005b). Economic motives also play an important role in the cabinet's policy. Some parliamentarians were locking horns with D66 (Democrats 66) Economic Affairs minister Laurens Jan Brinkhorst (2003-2006) about annual energy savings that go further than the accorded 1.0%. The minister did not want to go over 1.3%, he considered more than that too expensive. In the end a motion was made to increase the goal for energy savings to 1.5%. International political considerations play a role in parliamentary debates too. Parliament wanted to know what the Netherlands and the European Union must do if other major originators of emissions, like the US and China, did not cooperate with a new climate agreement. This was a major dilemma, because only a globally ambitious climate policy can produce enough of an effect. At the same time, a level playing field was desirable from an economic perspective.

Dutch climate policy from an international perspective

In preparation for the post-Kyoto protocol, the Dutch cabinet conducted additional interdepartmental policy research (IBO) in 2006 on future international climate policy. The policies focused on reducing greenhouse gasses (mitigation) as well as on adjusting to climate change (adaptation). That same year, environmental minister Jacqueline Cramer (2007-2010) presented her policy agenda 'Clean and Efficient', which formulated ambitious new policy goals. An example that fits the adaptation line is the establishment of the second Delta Commission – the first Delta Commission was established after the disastrous inundations of 1953.

Future International Climate Policy

The IBO workgroup 'Future International Climate Policy' was made up of representatives of different ministries, the Netherlands Environmental Assessment Agency (MNP), the Netherlands Bureau for Economic Policy Analysis (CPB), and two members with solid knowledge of climate problems. According to the IBO workgroup, only an internationally coordinated approach offered a good chance to limit Earth warming. The European Union had to take the lead here and pull along major emission producers like the US, Japan, Russia and emerging economies (IBO, 2006).

The cabinet endorsed the advice of the IBO workgroup. Values and starting points like stewardship, international solidarity, enlightened self-interest and 'the polluter pays' formed the connecting thread in the cabinet's reaction. The cabinet listed several building stones for an international climate policy: 1. Temperatures may rise no more than two degrees; 2. Annex-1 countries, including the US, must take the lead, but an expansion to emerging economies is necessary; 3. A global emissions market must be set up; 4. The transfer from technology to developing countries and the adaptation in developing countries must be supported by the rich countries; 5. Further deforestation should be prevented and emissions from aviation and maritime transportation must be tackled. The Netherlands will become involved in this process in an international context (Tweede Kamer 2007-2008a).

Clean and Efficient

Dutch climate policy was following the stipulations of the Kyoto protocol and the ensuing agreements in the European Union. In the work program 'Clean and Efficient: New energy for the climate' of September 2007 the cabinet described the ambitions of the Netherlands (Ministerie VROM et al. 2007):

- Reducing emissions of greenhouse gasses by 30% in 2020 compared to 1990.
- Doubling the tempo of energy savings from 1% to 2% per year.
- Increasing the share of sustainable energy in 2020 from 2% to 20% of the total energy use.

There was input to counteract climate change through a real change in production and consumption. To that end, agreements and conventions were made with various sectors, provinces and municipalities. The second pillar was international climate diplomacy, given that the Netherlands itself only emits 0.5% of the total amount of CO₂. The third pillar was the simulation of innovation in order to attain as many results as soon as possible – for example, innovation in the fields of water management and energy. In terms of energy, the government aimed for a transition to sustainable energy management in order to further limit CO₂ emissions. The transition policy was included in the fourth National Environmental Plan and was shaped in the Energy Transition program. Water management policy aimed at strengthening the 'weak links' in the coast and at having extra space for rivers to catch high flow volumes. This further reduced the risks for the Netherlands. In the long term, more innovative situations would be needed.

Delta Commission

In September 2007 the second Delta Commission was established, to be led by Cees Veerman. This commission was asked to develop a long-term vision of the way in which the Netherlands could stay safe from high waters until the end of the 21st century despite the expected climate change (Deltacommissie 2008). Another goal of the Delta Commission was to convey a sense of urgency. The naming of the second Delta Commission, which refers to the inundation disaster from 1953, already appeals to this. In 2008 the Delta Commission published the report *Working together with water*. The commission stated that future water management policies will have to deal with uncertainties and called for early anticipation of higher water levels and investing in order to be ahead of the uncertainties, while preserving the necessary flexibility. In its advice the commission took extreme scenarios into account: a rise of sea levels of 0.65 to 1.30 meters towards the year 2100, and 2 to 4 meters by 2200. The cabinet adopted the most important conclusions and considered policies. The Delta Commission had to process a great deal of criticism from the media. Critics reproached the Commission of exaggerated climate alarmism. The reality value of this sort of future projections was put into doubt, and there was fear that acting upon them would cost society too much money.

Difficult implementation of Kyoto

Implementation of the Dutch climate policy as established in *Clean and Efficient* was difficult. The Kyoto protocol demanded that the Netherlands reduce its greenhouse-gas emissions by 6% by 2012 compared to 1990. As mentioned previously, the Netherlands was realising about half of its Kyoto goals abroad. At home, the Netherlands did not want to emit more than 220 Mton greenhouse gasses per year in the 2008-2012 period. For this 'domestic task', target values were set for CO₂ savings in the construction, agriculture, traffic and transportation, and industry and energy sectors, and for the other greenhouse gasses. In early 2008 an urgent debate took place after minister Cramer let Parliament know that CO₂ emissions in the Netherlands would increase by 3% during the cabinet period. This would be compensated by the purchase of CO₂ abroad, but conflicted with the ideas behind *Clean and Efficient*. Social and environmental organisations were demanding climate legislation, but the minister remained loyal to her policy. The recession seems to be helping the Netherlands somewhat. According to *Milieubalans 2009* the Netherlands will very probably meet its Kyoto obligations. Partly due to the recession the average yearly emissions in the 2008-2012 period will lie at about 2% to 11% under the levels of the baseline year 1990 of the Kyoto protocol. Because of this, the government will need about half of the foreign-purchased emission rights to meet the Kyoto obligations.

Political reactions to the fourth IPCC rapport

In November 2007 a new IPCC report appeared, assessment report AR4. According to this document, scientific certainty about anthropogenic influence on the climate is increasing. Global warming also seems to be happening at a faster pace than previously thought. This scientific message was introduced directly into the political debate. GroenLinks (GreenLeft) called upon the ministers of Housing, Spatial Planning and the Environment and of Development Assistance to make more radical choices in the execution of climate policy and strengthen their international plea for a UN adaptation fund for developing countries. On the eve of the 2007 climate conference in Bali, GroenLinks called upon Minister Cramer to make out a case internationally for solid agreements. GroenLinks wanted a CO₂ emissions reduction from rich countries of 25-40% by 2020, which scientists claimed is necessary to prevent temperatures from rising by more than two degrees. Extensive new research was showing that climate change can become manifest in more extreme ways than mentioned in AR4. At the request of GroenLinks, PvdA minister Jacqueline Cramer allowed research to be conducted into such extreme scenarios. The PVV, by contrast, asked the environmental minister to postpone drastic climate policies until there was more certainty about any climate changes (Aanhangsel van de Handelingen TK 2007-2008). Quoting science, minister Cramer answered that according to AR4 the scientific evidence for climate change has become stronger again. The PVV made a motion requesting the cabinet not to become more involved than other major world players, given that global climate policy only benefits from a joint approach and the Netherlands doesn't have to take the lead within the EU (Tweede Kamer 2007-2008b).

Political climate debate preceding the Copenhagen climate summit

Before the Copenhagen climate summit was held in December 2009 (COP 15), politicians as well as scientists made themselves heard. Shortly before the summit, Climategate caused quite a commotion; this was followed by a parliamentary debate about the role and legitimacy of the IPCC and the fourth assessment report.

Alarming and sceptic voices from the scientific community

Shortly before the climate summit, in November 2009, the investigation about extreme scenarios ordered by the minister in 2007 came out. The PBL (Netherlands Environmental Assessment Agency), KNMI and WUR analysed the scientific literature about climate change from 2006 up to 2009. The 2007 AR4 of the IPCC presented an assessment up to 2006, thus the latest scientific insights were not processed into that document. The report of, among others, the PBL, concluded that AR4 presented the scientific insights properly and still forms a solid basis for decision-making. There were however indications that climate change is going faster than indicated by the IPCC and could also have more serious consequences (PBL, KNMI, WUR 2009). That conclusion had been drawn earlier that year. In March 2009 a scientific congress took place of more than 2000 climate scientists and economists, who got the message out that worldwide emissions appeared to be worse than the scenarios in AR4 showed. Scientists foresaw a temperature rise of more than two degrees. These two degrees could cause large-scale disruptions even during this century, therefore doing nothing was not a realistic option: measures must be taken at a global level, for the short and the long term. Scientists presented their conclusions to the Danish prime minister Rasmussen, host of the climate summit in December 2009 (NRC Handelsblad 2009). In this way, scientists exerted moral pressure on politicians to enter into a Copenhagen Accord. At the same time, climate sceptics were holding a congress in New York: 800 scientists and other actors met to discuss whether there is a climate problem at all.

Polarisation in the political climate debate

There was polarisation in the Dutch political debate. In the parliamentary debate shortly before Copenhagen (Tweede Kamer 2009-2010a; Tweede Kamer 2009-2010b) the progressive parties, partly based on recent scientific information, made alarming pronouncements and pleaded for a strong Dutch input in climate negotiations. They called upon the moral principle of intra- and intergenerational justice. Samsom of the PvdA stated: 'This [signing of the climate convention] is about much more than just the

environment. It is about the question of whether we are willing to share our future chances honestly with each other, about whether everyone counts, regardless of where on the planet you were born' (Tweede Kamer 2009-2010b p. 3296). Vendrik of GroenLinks stated: 'The climate debate is too often reduced to a technocratic swamp, in which things seem to turn exclusively around complicated reduction percentages, goals and charts, while it should be about people. Climate change is par excellence a social issue: how do we distribute the environmental space on Earth fairly over the generations and among the people here and in developing countries?' (Tweede Kamer 2009-2010b, p. 3303). GroenLinks pleaded for an intensification of Dutch climate policy up to 40% CO₂ emission reduction in 2020, but found no supporting minority for this. For the first time in the 40-year parliamentary history the climate-sceptic side was brought forward solidly and consistently by the PVV. The PVV denies the existence of a climate problem, and is against signing climate conventions and implementing climate policy at the expense of taxpayers. The party posed various interpellations about the need for a climate convention (Aanhangsel van de Handelingen TK 2009-2010a; Aanhangsel van de Handelingen TK 2009-2010b). A motion of the party not to spill tax money on the climate problem was not supported by the other parties. Environmental minister Cramer indicated explicitly that the cabinet bases itself on the information coming from the IPCC and not on what it considers a small minority of scientists who disagree with the IPCC.

Parliamentary debate about Climategate before Copenhagen

Climategate caused intense commotion on the eve on Copenhagen. E-mail correspondence of climate scientists of the Climate Research Unit of the University of East Anglia in Great Britain were hacked and made available on a website accessible to the public. That correspondence showed, according to the sceptics, that scientific data supporting global warming was dealt with selectively and that certain studies that relativise the climate problem were deliberately left out of the IPCC report (see Chapter 3). Climate science was heavily criticised in Parliament.

The Verdonk Group (Proud Netherlands) posed written questions about Climategate and asked about the likelihood of a temperature drop in the last ten years and the possible policy implications if that turned out to be true (Aanhangsel van de Handelingen 2009-2010). The VVD asked the minister to conduct an investigation into Climategate (Aanhangsel van de Handelingen 2009-2010c). Samsom of the PvdA reacted furiously on the doubts to the integrity of climate science, so close before Copenhagen: 'Sure, while dozens of satellites and thousands of weather stations record the temperature on Earth and the data is placed on websites accessible to everyone, *Proud Netherlands* (a small right-wing party) suspects a conspiracy of a small group of scientists to keep this data a secret' (Tweede Kamer 2009-2010b). According to PvdA minister Cramer there is no reason whatsoever to doubt the reliability of current climate science and the IPCC. Before launching an investigation, when addressing her climate research group she wanted to wait for the inquiry that the University of East Anglia itself was going to conduct into the public accusations in relation to Climategate (Tweede Kamer 2009-2010). The IPCC also launched its own investigation into the content of the hacked emails.

Box 2.1. Official preparation for COP 15

How did the Dutch input for the climate negotiations in Copenhagen come about?

The Dutch starting point for the negotiations in Copenhagen is the previously mentioned two-degree goal, which has been central to the climate policies of the European Union since 1996 already and was ratified in 2005 by the heads of government (Van Vuuren et al., 2006). This goal can be traced back to the scientific discussion in the 1990s about the growing climate-related risks of a rising average world temperature (see Chapter 3).

Within the Netherlands the national position to be taken transpires mainly through the interdepartmental Kyoto Protocol Task Group, where representatives of ministries and the

negotiators have a seat. The Netherlands Environmental Assessment Agency (PBL) also participates. Within the negotiations in the context of the Climate Convention, Europe has assumed a joint standpoint, hence member states have to first get to agree on the issues. Right before Copenhagen various formal and informal international ministerial consultation rounds took place, in and outside an EU context. In October 2009 the European Environmental Council decided about the input for COP 15 in Copenhagen. Just like the Netherlands, the EU aimed for a goal of 80% fewer CO₂ emissions by 2050. For 2020 the target goals were 20% fewer emissions and 30% if other countries participated too.

This is slightly less ambitious than the Dutch reduction goals of 30%. The EU also wanted aviation to produce 10% fewer emissions by 2020 than in 2005. For maritime transportation a 20% reduction was settled on. The EU also established rules to safeguard that land use and forestry contribute on a permanent basis to emission reductions. In the week before Copenhagen last-minute round-table talks took place of the permanent environmental Parliamentary Commission with scientists, sceptics, representatives of social organisations and the business community, in order to bring their latest insight and message to COP 15.

Difficult climate summit in Copenhagen

Things were extremely difficult at the COP 15 in Copenhagen. There is a final text, but it is not endorsed by all the participating countries and it is not legally binding either. The idea was to make agreements about the degree of CO₂ emissions reductions by each of the 196 participating countries during the second budget period of the Climate Convention (2012-2020). That was not possible. Not even a worldwide ambition level was agreed upon for 2020. In the end, nothing concrete was accorded about deforestation either. Copenhagen shifted all these point to COP 16, which will be held in Mexico later this year. Still, a few important items were settled in Copenhagen. The goal of keeping global warming within two degrees was accepted. China and India also allowed their efforts to reduce greenhouse gasses to be measured in a controllable manner. Finally, financial pledges were made to support climate policy in development countries (20 billion dollars in 2010-2012), and the Kyoto protocol remains effective.

Climate science further under political fire

When a series of (alleged) errors in AR4 came to light in January 2010, the Dutch debate about the integrity of the IPCC continued after the failure of COP 15. The report states that the Himalayan glaciers will have melted by 2035. It should have read 2350. The mistaken year seems to come from a report of the World Wide Fund for Nature and cannot be traced back to a scientific publication. More errors were discovered in parts of the report that use non-peer-reviewed literature (see Chapter 3). Because domestic and international climate policies are based on the scientific input of the IPCC, in late January the parliamentary debate on this issue was not only about the IPCC, but also climate policies came under fire and doubts about the legitimacy of such policies were raised.

The VVD wanted to temporarily suspend decision-making about new climate policy until further investigation took place into the IPCC. This also applied to water management as proposed in the context of the report of the Delta Commission. The PVV was heavily opposed, claiming that the IPCC is made up of fraudulent and manipulative scoundrels, crooks and profiteers that are tearing at taxpayers' money, and should be eliminated.

D66 (Democrats 66) and the ChristenUnie (Christian Union) appealed to the need for the no-regrets climate policy to point to future problems with security of energy if oil supplies become depleted and security of supply because of our dependence on oil-producing countries. The ChristenUnie pointed out that the legitimacy of climate policy should not only be based on science, but that the additional discussions 'also rest on principles of stewardship, justice and fair sharing' (Handelingen TK 2009-2010c,

p. 4544). Samsom of the PvdA acknowledged blame (see quote at the beginning of this section), stating that 'politics has ran away with science'. Because politics has 'drawn scientists into allied and opposing camps', we 'ourselves have undermined the neutrality of that science we are now so loudly criticising' (Handelingen TK 2009-2010c, p. 4541). According to Samsom, this politicisation of science leads to sceptical parties being excluded from climate science. He made a widely supported motion to have the PBL conduct research into the faults in the IPCC report and IPCC procedures.

Environmental minister Cramer was quite outraged about the faults in the IPCC report and stated that one should be able to count blindly on science and that not another single fault should be accepted. She did nuance her position in the daily NRC Handelsblad after many scientists were all over her in public discussions in the media, given that science consists of trial and error and faults are part of the scientific process (Cramer 2010).

2.7 Conclusion

In this chapter we asked ourselves how political parties in Parliament dealt with the scientific uncertainties surrounding climate change in the last 40 years. We especially looked at which interaction takes place between science and politics, which substantiation grounds are presented in the debate in order to take policy measures even in a context of uncertainty about the severity and scope of a problem, on which political considerations climate policy is based, and to what degree alarming and sceptical voices get a place in the parliamentary debate.

In the first phase (1970s) the climate problem was signalled by several parliamentarians. Based on various alarming voices from the science field, during this period a number of interpellations were posed about the greenhouse effect. Only in phase 2 (1980s) did the greenhouse effect get a place on the policy agenda. In the political debate the CO₂ problem was recognised and played a political role in the energy discussion and the choice between coal-fired power plants and nuclear plants. At the same time, it was said that scientific substantiation of this phenomenon was still too weak. There was also consensus about the starting point at which such an international problem should also be tackled at an international level. Without an international agreement there would only be support for no-regret measures, such as energy savings, which do not affect the international competitive position of the Netherlands.

In the third phase (1987-1994) this context changed dramatically. With the foundation of the IPCC climate science was ascribed a political role. This gave climate science a uniform voice towards national and international policymakers. The conclusion of the first IPCC report from 1990, that continued emissions of anthropogenic greenhouse gases would lead to global warming, created a new political context. In 1992 this report formed the scientific basis for setting up a Climate Convention and also created national and international political support for it. Based on the precautionary principle, the first IPCC report, in combination with the international approach, offered sufficient foundations to formulate and implement climate policy, for Dutch politics too. Because of the scientific uncertainties policies had aimed so far at measures that were needed anyhow for other policy goals, like energy certainty. From the perspective of the precautionary principle, the IPCC report offered a sufficient basis for climate policy that goes further than no-regret measures.

In phase 4 and partially in phase 5, the combination of the precautionary principle and IPCC reports caused interpellations about scientific knowledge and uncertainties related to the climate problem in the political debate to be sidetracked. In other words, the IPCC reports are deployed to depoliticise the political debate. Questions were repeatedly asked in Parliament about scientific information and scientific uncertainties in relation to the climate problem. Such questions come from the entire political spectrum. In phase 4 (1995-2005) Parliament organised the Temporary Commission for Climate Policy, which investigated existing scientific knowledge. This does not take away from the fact that in the ensuing

parliamentary debate the notion of scientific uncertainty plays a central role again. The minister answered that scientific uncertainties surely exist, but that policies are based on the reports of the IPCC and the precautionary principle. These dynamics repeated themselves nearly identically to the parliamentary climate investigation in 2004.

Phase 5 (2006–present) shows a re-politicisation of the political climate debate. This is firstly because climate adaptation has gotten a more solid place in the political discussion, and is illustrated most strongly by the discussion surrounding the report of the second Delta Commission. This is not about CO₂ reduction from an international perspective, but about dike enforcement from the standpoint of national safety. It is thus about the question of what climate change means for the way in which the Netherlands defends its coast. We also saw the political debate becoming polarised in the course of the Copenhagen climate summit. A dynamic just like that of phase 4 seems to be developing. On the one hand, GroenLinks bases itself on recent alarming choices and even extreme scenarios, and pleads for higher CO₂ reduction goals. The PVV, by contrast, denies the existence of a climate problem. With Climategate looming, the environmental minister stated that the cabinet bases itself on information that comes from the IPCC. Once again, the discussion about new scientific knowledge and climate-sceptic voices was written off via the IPCC channel. The UN Climate summit in Copenhagen failed, and after the summit Climategate only escalated. This flared up the discussion about scientific uncertainties surrounding climate change, especially the role of the IPCC. For the first time in the 40-year debate about the climate problem an explicit debate took place in the Dutch Parliament about the political role of climate science and the importance of sceptic scientific voices. The politicisation of climate science and the scientification of politics – in which politics hides behind the reports of the IPCC – has itself become a subject of political debate.