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Dutch climate policy

Main thrust, background and basic choices

Discussion paper for workshop

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Preface

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Contents

1 Introduction

In 1994, the Dutch government signed bilateral Sustainable Development Agreements (SDA) with the governments of Bhutan, Benin and Costa Rica. These agreements, based on reciprocity, equality and participation, have been designed with the aim of developing new forms of North-South co-operation.

One of the projects being implemented under the terms of the agreements is a workshop on Dutch climate policy, to be organised by the four SDA partners. The aim of the workshop is to transfer Dutch policy background and at the same time spur critical debate.

The present document is to serve as the basic discussion paper at the workshop. Although the Dutch government has issued a number of documents setting out the terms of the Netherlands' climate policy – the Netherlands Climate Policy Implementation Plan (1999) and the Second Netherlands' National Communication on Climate Change Policies (Update 1998), for example – a new paper has been written for the workshop. The aim of this paper is to describe the main thrust and background of Dutch climate policy and its implicit basic choices. It is these choices that ultimately determine the terms of such a policy and provide the most relevant starting point for a critical dialogue. Needless to say, the information in this paper is based on the aforementioned government documents and the sources on which these are based.

The central focus of this paper is climate policy *in the Netherlands.* Two remarks are in order here. First, it is obviously not Dutch society as a whole that is participating in international discussions or putting policy into place, but the Dutch government, as its representative. It may well be the case that adequate public support exists for reducing the risks of climate change, but that such support is lacking when it comes to the concrete policy measures deemed necessary by the government. Furthermore, Dutch citizens may engage in a variety of activities which are of influence on greenhouse gas emissions - buying certain consumer products, for example - but which are difficult for the government to control, because of international trade agreements, for example. For the purposes of the workshop, though, we take it that the Dutch government, as the elected representative of the Dutch populace and discussion partner of the SDA countries, can also be addressed when it comes to public support and activities of the populace on which the government can exert little or no influence.
Second, opinions within Dutch society regarding appropriate climate policy are not homogeneous but diverse. There is wide range of opinions and interests - economic and ecological, among others - impacting in the public arena, and Dutch government policy is consequently the outcome of the balance existing at a particular moment in time. Alongside the perspective embodied in official Dutch policy and reviewed in this paper, then, there also exist other visions on climate policy and climate change in the Netherlands.

2 Dutch climate policy

2.1 Introduction

In Article 2 of the 1992 Framework Convention on Climate Change the ultimate objective is formulated as follows:

"...to achieve stabilization of greenhouse gas concentrations in the atmosphere at a level that would prevent dangerous anthropogenic interference with the climate system within a time-frame sufficient to allow ecosystems to adapt naturally to ensure that food production is not threatened and to enable economic development to proceed in a sustainable manner."

In ratifying the Convention in 1994, the Netherlands has endorsed this objective. With respect to how this objective is to be achieved, the Convention distinguishes between the efforts required on the part of Annex I countries and non-Annex I countries. Although in the Dutch perspective on climate policy it is most definitely the former group of nations that must make the greatest contribution, in this paper we shall first consider Dutch policy vis-a-vis non-Annex I nations (Sections 2.2 to 2.4). This is because the Dutch position on appropriate efforts by Annex I countries is based in part on those of non-Annex I nations. Dutch policy regarding Annex I countries is considered in Sections 2.5 to 2.7, with policy within the Netherlands itself treated in Sections 2.8 to 2.12.

2.2 In the international arena, what is the Dutch position regarding *short-term* efforts by non-Annex I countries?

In the 1995 Berlin Mandate it was agreed that developing countries should not have to enter into any new commitments under the Convention. This is also the position of the Dutch government. The first priority is for the industrialised nations to take the lead, thereby creating due scope for the developing nations (*cf.* Dutch efforts regarding emission reductions by the industrialised countries) and increase credibility.

2.3 In the international arena, what is the Dutch position regarding *long-term* efforts by non-Annex I countries?

Given the objective of the Climate Convention and the anticipated growth of emissions in non-Annex I countries, in the longer term these nations will clearly have to control their emissions. As yet, the Dutch government has no official position beyond the budget period 2008-2012 on what, in the long term, are to be deemed reasonable long-term commitments by non-Annex I countries, nor on how the global emission ceiling should be distributed over the world's population.

Debating point 1: Should the Dutch government adopt an official long-term position on appropriate commitments by non-Annex I countries and equitable burden-sharing among the various countries? If so, what should be the basis of this long-term position?

2.4 How does the Netherlands support developing countries in tackling the climate change issue?

The Dutch coalition government's policy accord pledges substantial funds to Third World countries to support energy conservation, efficiency improvement and reduced dependence on fossil fuels, through the Clean Development Mechanism (Government Policy Accord 1998) thereby assisting developing countries in meeting their targets under the Kyoto Protocol. For the years 2001 and 2002 NLG the Netherlands has therefore earmarked 200 mln and 300 mln of its development co-operation budget for the CDM. This is at the expense of 0.1% BNP for international environmental policy for developing countries. Additional funds for CDM will be at the expense of other environmental projects such as forests, bio-diversity, etc.
The EU Council of Ministers has decreed that funds intended for development co-operation are not to be used for funding 'flexible instruments' to purchase CO_2 reductions; this includes the Dutch CDM. The Dutch government, however, intends to take into account the emission reduction achieved in non-Annex I countries with this NLG 500 mln in assessing whether the Netherlands has met its own, national reduction target.

There are no other funds earmarked specifically for tackling the climate issue in developing countries. This is not where government expenditure in this area stops, however. The Dutch development co-operation budget as a whole is rooted in the principle of sustainable development, including sustainable development in the climate policy field. Introduction of sustainable forms of energy and reduction of energy consumption are among the objectives of Dutch energy policy in the field of development co-operation (1998 Annual Report, Ministry of Development Co-operation).

The Netherlands considers its development co-operation budget high enough for there to be no need to earmark additional funds for development aid in the framework of climate policy. This is to say that technology transfer or other aid directed towards emission reductions in developing countries will be funded from the standing development co-operation budget.
The Netherlands has set itself a standard of spending 0.8% of its Gross National Product on development aid, resulting in a budget of NLG 6.8 billion in 1998. With this budget the Netherlands, along with Sweden, Norway and Denmark, is one of the only four countries in the world to honour the 1970s United Nations proposal for the industrialised nations to devote 0.7% of their GNP to development co-operation.

Debating point 2: From its budget for development co-operation - international environmental policy section - the Dutch government provides NLG 500 mln support to Third World countries for energy conservation, efficiency improvement and reduced dependence on fossil fuels. The Dutch government intends to use the resulting emission reduction in assessing whether the Netherlands has met its own, national reduction target. Is the Dutch support sufficient or insufficient?

2.5 In the international arena, what is the Dutch position regarding efforts in the industrialised world?

Internationally, the Dutch government seeks an average annual reduction of 1-2% in greenhouse emissions by the industrialised countries as a whole after the year 2000 (Second Memorandum on Climate Change, 1996).

This is reflected, inter alia, in the negotiation bid of the European Union agreed to under Dutch presidency in the negotiations of the Conference of Parties at Kyoto (Dec.1997): a European reduction target of 15% in 2010 relative to 1990 for the CO_2 emission-equivalent of the three greenhouse gases CO_2, CH_4 and N_2O. This target of 15% is in line with the aforementioned absolute CO_2 emission reduction target of 1-2% a year. In this exercise, the Netherlands played a leading role in the industrialised world.

The Dutch government regards a 1-2% annual reduction in the collective greenhouse emissions of the industrialised nations over the coming decades as the maximum feasible in socio-economic terms, on the one hand, and as defensible from an ecological viewpoint, on the other.

2.6 Why does the Dutch government regard a 1-2% annual reduction in the collective greenhouse emissions of the industrialised nations over the next few decades as the maximum feasible in socio-economic terms?

There are two basic options for achieving the objective of the Climate Convention:

1 Changes in lifestyle: either by reducing overall consumption or through a shift from energy-intensive to energy-extensive consumption (a theatre visit instead of a tourist trip).
2 Technological measures: through appropriate technological innovation today's lifestyles and level of economic welfare remain intact while greenhouse gas emissions are reduced through improved efficiency (e.g. more fuel-efficient cars), use of renewable energy resources (e.g. wind) or carbon dioxide sequestering (in forests or depleted gas fields).

Internationally, the Netherlands included, citizens have little desire to change their way of life or consumption pattern in any radical way because of the greenhouse effect. This unwillingness to change one's lifestyle is based partly on the expectation that, by and large, technological measures will be adequate to tackle the climate problem at relatively low cost. If this expectation is grounded, it is held, then technological solutions will require less in terms of forfeited prosperity than changes of lifestyle. As a result, there is insufficient public support for policies to reduce growth of private consumption and material living standards or effect a shift from energy-intensive to energy-extensive consumption.[1] The principal focus of the Dutch government is therefore on controlling greenhouse emissions by technological means, thereby leaving consumption patterns and lifestyles largely intact.[2] In this perspective there would be some brake on the upward trend of prosperity, because technological measures, too, would have a price tag for the Netherlands as a whole.

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1 In the words of the Third National Environmental Policy Plan (p.31): "Given continued economic growth, achievement of environmental targets is only feasible if we change our patterns of consumption. This is difficult to accomplish, however, and requires a change in the habits and behaviour of individual citizens. Government intervention, by means of rules and regulations for example, is often impracticable or undesirable in this context, because it would impinge in the private sphere."

2 The Dutch environment ministry's 'Perspective' project has indicated that there are ample attractive options for pursuing a low-energy lifestyle (40% reduced energy consumption and emissions) if people are prepared to make the change.

Debating point 3: Should citizens in the industrialised countries, like the Netherlands, be more willing to change their way of life or consumption pattern because of the greenhouse effect? Should governments, like the Dutch, intensify their role in guiding the private sector and their citizens towards energy-extensive consumption patterns?

There are limits to the use of technological control measures, however. In the Second Memorandum on Climate Change (Meeting of the Netherlands Second Chamber 24785, no. 1) the cabinet has translated the constraint of sustainable economic development mentioned in the Climate Treaty into the following normative principle: "In establishing the tempo of world-wide reduction, due allowance should be made for what is technologically and economically feasible." There are many factors impinging on this constraint: technological and economic progress, population growth, ease of social adaptation and a variety of geographical factors. Global reductions of the order of 1 to 2% *per year* have never yet been achieved. It would therefore seem that major developments and changes in society are needed if the government's envisaged target is to be secured. A worldwide phase-out of fossil fuels in the energy sector might take up to a century, for example, if only because it requires adaptation of the existing infrastructure (cities, roads, railways, etc.), which would be an extremely slow process (Second Memorandum on Climate Change, 1996). Various studies, including those of the IPCC, indicate that absolute annual reduction rates of 1-2% are economically feasible, here taken to mean that there is no major destruction of capital and no depression of economic growth. We would again stress that these studies proceed solely from use of *technological* means, thus excluding specifically, the following options: 1. a change of the 'welfare package', through a shift from energy-intensive economic sectors (such as Dutch greenhouse horticulture) to the service sector, and 2. a shrinkage or less pronounced growth of the welfare package, if society is prepared to reduce consumption levels, for example.
All in all, the Dutch government regards an absolute emission reduction rate of 1-2% a year as the maximum attainable in socio-economic terms in the industrialised countries.

2.7 Why does the Dutch government regard a 1-2% annual reduction in the collective greenhouse emissions of the industrialised nations as defensible from an ecological viewpoint?

In the Second Memorandum on Climate Change (Meeting of the Netherlands Second Chamber, 24785, no. 1) the cabinet translated the aforementioned basic premises of the Climate Treaty into the following *normative* lower limits to policy efforts.

- To avoid dangerous anthropogenic influence of the climate system, global temperatures should ultimately rise to no more than 2°C above pre-industrial levels and sea levels by no more than 50 cm.
- To allow ecosystems to adapt to the pace of climate change, according to present understanding, the global average rise in temperature should not exceed 0.1°C per decade (the so-called Villach-Bellagio norm).

The long-term target of the Villach-Bellagio norm has been translated into a 'safe' global emission ceiling of 14 GtC eq. in the year 2020. It has been agreed that developing countries need make no new commitments under the terms of the Climate Treaty. If the collective emissions of developing nations are then taken to be in line with the IPCC's IS92a scenario (no greenhouse measures), then these nations will emit approx. 8 GtC eq. in 2020. There

then remains approx. 6 GtC eq. emission reduction for the industrialised nations. Current emissions by the latter countries total some 8 GtC eq. An annual reduction rate of 1% would bring this figure down to the upper emission limit (6 GtC) by 2020; a rate of 2% would result in approx. 4.3 GtC in 2020.

The advisory council of the Netherlands Ministry of Housing, Spatial Planning and Environment (VROM-Raad) makes the following remarks. Calculation of the 'safe' upper emission limit is based on a climate sensitivity figure of 2.37°C. In its scenarios the IPCC, in contrast, gives a low, best and high estimate of 1.5°C, 2.5°C and 4.5°C. Even this does not represent the total range of uncertainty, for a higher or lower value cannot be excluded on the basis of current understanding. Given this uncertainty, the question is whether the choice to base calculations on a climate sensitivity figure of 2.37°C is in line with the precautionary principle, which was already taken as the basic starting point of the Dutch government's first climate policy paper as well as being accepted as the underlying premise of the Climate Treaty. If calculations are based on a climate sensitivity figure of 4.5°C, the upper bound of what is to be deemed a 'safe' emission will be substantially lower. If climate sensitivity is indeed greater, it seems extremely unlikely that the proposed 1-2% annual emission reduction target will be sufficient to achieve the reduction of risk in fact envisaged in adopting the Villach-Bellagio norm (passages from *VROM-Raad*, 1998).

Debating point 4: Is it an acceptable risk to base current Dutch policy on the IPCC's middle estimate, adapting policy if it should become apparent in the near future, on the basis of new knowledge, that climate sensitivity is in fact greater?

2.8 What target has the Netherlands set for itself?

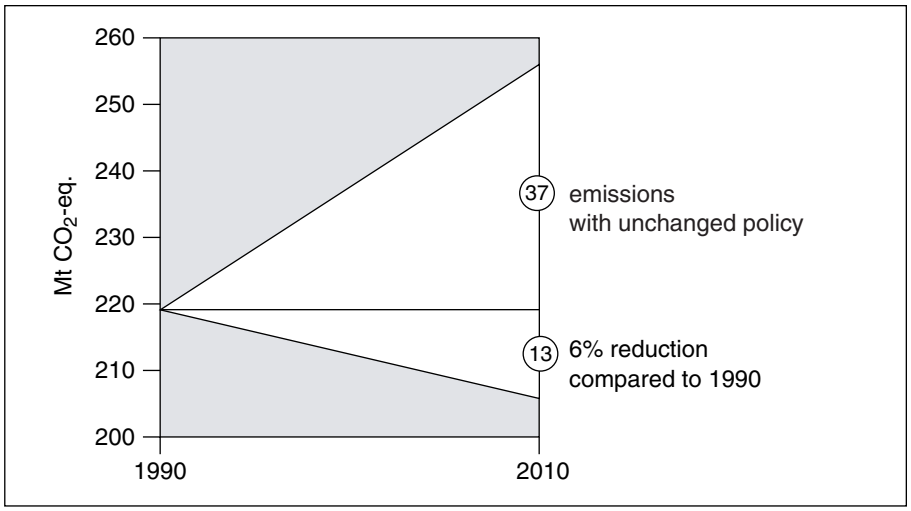
The Dutch government has committed itself to reducing Dutch greenhouse gas emissions by 6% between 2008 and 2012, relative to the 1990 level (Government Policy Accord 1998).

The outcome of the Kyoto negotiations of December 1997 was a target that boils down to an absolute reduction of the collective annual greenhouse emissions of the industrialised nations by 5.2%, with 1990 as base year. This reduction is to be achieved in the 2008-2012 budget period. The reduction is measured in terms of CO_2-equivalents and applies to the greenhouse gases CO_2, CH_4 (methane), N_2O (Nitrous Oxide) and the fluorine compounds HFCs, PFCs and SF_6.
It has also been agreed that there should be national/regional differentiation in reduction targets. For the EU the target is -8%, for the US -7% and for Japan -6%. Developing countries such as China and India are not obliged to reduce their emissions.
The EU target has been assigned to individual member states on a consensus basis and using uniform criteria for the envisaged improvement of energy efficiency, use of renewable energy sources, etc. in three sectors, viz. electrical power generation (fuel mix), heavy industry (economic structure) and 'other'. Here, the Netherlands has committed itself to a target of -6%.

In the Netherlands Climate Policy Implementation Plan calculation of the required absolute emission reduction is based on the government's so-called Global Competition scenario. This scenario is based on a figure of 3.3% economic growth and on climate policy to date. This translates to an emis-

sion level (CO_2, CH_4, N_2O, HFCs, PFCs, SF_6) of 256 Mt CO_2-eq. in 2010. The 1990 baseline emission was 219 Mt and a 6% reduction is therefore equivalent to an emission of 206 Mt. These figures mean that the Netherlands must reduce its emissions by 50 Mt CO_2-eq. by the year 2010, which in practice means that the Netherlands must reduce its emissions by a little under 20% by 2010 to meet its international obligations. See figure 1.

Figure 1 Dutch greenhouse emissions in Mt CO_2-eq.: business as usual and 6% reduction relative to 1990



2.9 Why does the Netherlands not set itself higher greenhouse gas reduction targets than those agreed to internationally?

As stated in Section 2.4, in international negotiations the Dutch government seeks to achieve a 1-2% average annual reduction of the collective greenhouse emissions of the industrialised nations over the coming decades. The Dutch government policies are governed largely by international circumstance. Whether or not the Netherlands secures the Kyoto target is also dependent on whether other countries commit themselves to that target. The principal reasons why the Netherlands does not wish to move too far ahead of other countries are the following:

- Under the terms of the Climate Convention, potential costs are to be shared fairly among countries (equitable burden-sharing). In this context due allowance should be made for the progress already made by countries in the past and for the cost involved in further abatement measures.
- The costs incurred in reducing emissions may not damage Dutch competitiveness or employment. The Netherlands has a very open economy: half its Gross Domestic Product (GDP) accrues through exports. In 1996 exports totalled NLG 332 bln, with GDP 668 bln (CBS, 1998). In addition, the Dutch economy is very energy-intensive; its strongest sectors are basic chemicals, primary metals, transportation and agriculture (energy for greenhouse heating and fertiliser production), with an aggregate turnover of approx. NLG 135 bln. All these sectors are very export-oriented. In the export market the Netherlands has to compete internationally and if its policies go further than those of other nations Dutch companies will be faced with higher costs than competitors abroad. This may impact adversely on competitiveness, which in an open economy like that of the Netherlands may result in a loss of income and employment.

- A competitive disadvantage for the Dutch economy may lead to relatively energy-intensive production processes being relocated from the Netherlands to countries where there is less incentive to conserve energy. In that case, there may ultimately be a rise in CO_2 emissions. Dutch energy-intensive industry (and the same holds for Europe in general) is among the most efficient in the world: commodity production involves less energy consumption than in comparable production processes elsewhere (VNS, 1998), mainly because of the lower energy prices abroad, e.g. in the United States. In 1995 Dutch CO_2 emissions per unit GDP (in kg CO_2/US$) were 0.57 compared with an average figure of 0.94 for the world (Costa Rica 0.67; Benin 0.24; VS 0.85) (IEA, 1998).
- The Netherlands is dependent on international decision-making. To a large degree, the boundary conditions for effective national policy must be created at the EU level. Given the internal EU market, certain measures are indeed only feasible within the European framework and the broader support of the EU is necessary for considerations of competition.

For these reasons, and given the lack of international agreement in the past, Dutch climate policy has always been based on the 'no-regret' principle. This meant that priority was given to implementing measures that either brought financial benefit or simultaneously contributed to tackling other (environmental) problems than climate change.

Consequently, the Dutch government has stated that fulfilment of its emission reduction commitment of 6% between 2008 and 2012, relative to the 1990 level is contingent upon the following conditions:
- ratification of the Kyoto Protocol by the US and Japan;
- due implementation of agreed climate policy at the European Union level (e.g. promotion of renewable energy, energy conservation, combined heat and power generation (CHP), and measures relating to traffic/transport, waste disposal, industry and agriculture);
- introduction of a European energy tax at a substantial level, also for large-scale industrial users, by 2002 at the latest;
- adequate scope (approx. 50%) for use of flexible instruments such as Joint Implementation (JI), the Clean Development Mechanism (CDM) and tradable emission rights.

All of this is not to say that the Netherlands adopts a 'wait-and-see' attitude, or has adopted so in the past. Under the last government a total of NLG 1500 million was allocated for stepping up Dutch climate policy and a regulatory domestic energy charge was also introduced. Furthermore, a start will be made with the implementation of the Netherlands Climate Policy Implementation Plan, independently from the fulfilment of the conditions mentioned above. However, in the year 2002 the Dutch government will evaluate further implementation on the basis of, among others, the fulfilment of these conditions.

Debating point 5: Should the Netherlands make its national policies less dependent on international circumstance? How does present policy compare to the basic premise of the Sustainable Development Agreements: to consider what course the partner countries can pursue in the absence of international consensus?

2.10 In meeting its Kyoto commitments, what share of its set emission reduction does the Netherlands intend to secure abroad?

To avoid unnecessary loss of economic welfare, the Dutch government intends to make use of the option of securing its national target by achieving emission reductions elsewhere in the world if this approach is more cost-effective. For this reason the government has stated its intention to make approx. 50% use of flexible instruments such as Joint Implementation, the Clean Development Mechanism and tradeable emission rights (Government Policy Accord 1998).

In the Third National Environment Policy Plan total government expenditure on climate policy in the period 1999-2010 is estimated at NLG 21.6 bln (this figure already includes the possibility of JI). This sum of money justifies seeking ways of achieving the target at lower cost. Study has shown that there are major inter-country differences in the cost of reducing CO_2 emissions. In the Netherlands, for example, costs are high because the Dutch have already made considerable progress in energy-saving.

Under the Kyoto Protocol countries that do not secure their targets may purchase 'emission credits' from countries that do remain below-target in the current budget period. The protocol also provides ample scope for securing targets by means of Joint Implementation and the Clean Development Mechanism. The Dutch government has made implementation of the Kyoto target contingent upon there being sufficient scope (approx. 50%) for use of these flexible instruments (Government Policy Accord 1998).

JI allows the industrialised countries to secure part of their emission reductions in other industrialised countries. In the case of the Netherlands this might mean Eastern and Southern Europe, for example. This is an attractive arrangement, because these countries have made far less progress in energy conservation than the Netherlands and a guilder invested there will therefore lead to a far greater emission reduction. A study by the Netherlands Energy Research Centre (ECN) indicates that the potential scope of JI in the Central and Eastern European countries amounts to 1200-2100 Mt CO_2-eq. (ECN, 1997).
The CDM, a mechanism designed with the developing countries in mind, has three aims. First, it seeks to help these countries in their transition to sustainable development. Second, it may contribute to achieving the ultimate aim of the FCCC. Third, it provides an additional opportunity for the industrialised nations to meet their Kyoto commitments. To this end a certification system is to be established. Under this scheme industrialised countries will be permitted to include a certain (yet to be fixed) percentage of these 'certified' emission reductions in developing countries when assessing achievement of their own Kyoto target.[3]
Finally, the Kyoto Protocol (Art. 16) allows countries to fulfil part of their national commitment by purchasing emission quota from countries where emissions remain below the set target during the current budget period.

[3] Under the Kyoto protocol the CDM may only be used in the context of projects that contribute to sustainable development in the countries concerned. As yet, however, there is no international consensus on the concept of sustainable development on project level. The Netherlands queries the necessity of setting criteria for the CDM, thereby assuming that the recipient country can itself determine how and when it develops sustainable. Establishing precise criteria may mean the CDM scarcely getting off the ground.

The terms and conditions of these mechanisms are still to be elaborated by the signatories of the Kyoto Protocol. The situation is expected to be clarified further at the 5th Conference of Parties, to be held in Bonn at the end of 1999.

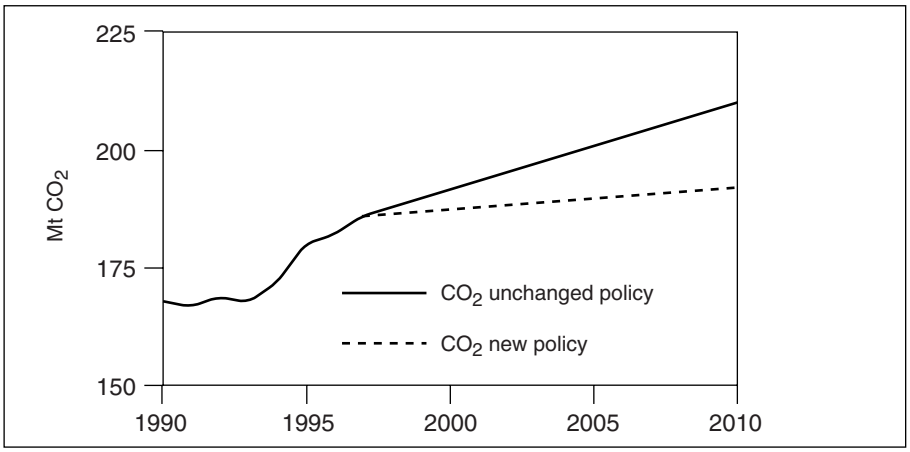
Debating point 6: Should the Dutch government intend to make more or less then 50% use of flexible instruments such as Joint Implementation, the Clean Development Mechanism and tradeable emission rights?

2.11 What measures is the Netherlands taking at home?

In its choice of appropriate policy measures the Dutch government has opted for a 70/30 percentage split between CO_2 and the other greenhouse gases (CH_4, NO_2, HFCs, PFCs, SF_6). This split is roughly in line with the current split between the respective emissions. Although the potential scope for reducing non-CO_2 greenhouse gases is considerable and relatively cheap to effectuate, the Dutch government's position is that by focusing on this item the inevitable, and indeed ultimately desired, 'trend breach' vis-a-vis CO_2 emissions will be postponed far into the future.

The various measures are described in Chapter 3.

Figure 2 Dutch CO_2 emissions (Mt): business as usual and after implementation of the Netherlands Climate Policy Implementation Plan



2.12 What is the likelihood of the Netherlands meeting its commitments?

The Netherlands has set national targets to reduce greenhouse emissions in the past, but except in the case of methane these targets were never achieved. Although solid guarantees can obviously not be given, there is now a greater likelihood of the Kyoto targets being secured (assuming that the conditions cited in Section 2.9 are met), for the following reasons:

- More funds have been earmarked for climate policy.
- Emission reduction measures have been fleshed out in more practical and detailed terms than in earlier policy plans and have been assigned, in absolute terms, to the various 'target groups' distinguished in Dutch environmental policy.
- Policy is based on projected trends that are more cautious than the often optimistic estimates employed in the past (e.g. projected economic growth rates and energy prices).

- The agreements arrived at in Kyoto are legally binding. As yet, though, there is no agreement at the international level on sanctions for countries that do not achieve their national targets. Agreement on this point is a priority issue in negotiations. The Dutch government has not adopted an official position with respect to the kind of sanctions desired, or their severity.
- The government has a 'back-up' package of policy measures to choose from should the measures from the 'basic' package prove insufficiently effective. A decision on this point can be made on the basis of the interim reviews scheduled for 2002 and 2005. The back-up package comprises the following: an increase of the REB energy tax, an increase of motor fuel excise duty and underground sequestering of CO_2 from large-scale industrial sources. This package also comprises one measure targeted at 'other' greenhouse gases: reduction of NO_2 emissions in the chemical industry. The technology for this is still to be developed, but once R&D is successful this measure will indeed have to be implemented.

Debating point 7: Should the Dutch government adopt an official position with respect to the kind of sanctions on countries not meeting their targets? If so, what should be the basis of this position?

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3 Basic policy package for the Netherlands

The Dutch government has announced a 'basic package' of extra policies designed to reduce national greenhouse gas emissions by 25 Mt CO_2-eq. For each of the 'target groups' of Dutch environmental policy these policies are reviewed below, specifying their respective yearly share in the intended reduction.

3.1 Energy companies

Coal-fired power stations - 6 Mt CO_2-eq
The government is to conclude (voluntary) agreements with the operators of coal-fired power stations to bring down the average CO_2 emission per generated kWh to the level of gas-fired power stations by the year 2008. This can be achieved by an increase in efficiency and the substitution of coal by biomass and natural gas.
Renewable energy - 2 Mt CO_2-eq
The government target is for renewable energy sources to contribute 10% by 2020. To formalise the renewable energy commitment made at Kyoto, an interim target of 5% has been set for 2010.
Guaranteed heat utilisation at new power plant
The Dutch government has agreed with industry that Dutch industry will belong to the top 10% of the world with regards to energy efficiency ('Benchmarking Agreement'). Combined heat and power generation (co-generation) remains an important route to energy conservation.

3.2 Industry

Energy conservation - 2.3 Mt CO_2-eq
Through various measures, including the agreement that Dutch industry will belong to the top 10% of the world with regards to energy efficiency ('Benchmarking Agreement').
PFC reduction, aluminium industry - 1.2 Mt CO_2-eq
The PFC emissions associated with primary aluminium production can be controlled by means of relatively straightforward process changes.
HFC reduction, chemical industry - 2.5 Mt CO_2-eq
The sole Dutch producer of HCFCs recently installed an afterburner unit and the company's HFC emission should be down by 90% by the end of 1999.
Reductions of HFCs en PFCs - 4 Mton CO_2-eq
Reductions of emissions of the HFCs and PFCs, replacing the ozone damaging (H)CFCs and halons, in applications such as insulation, fire-extinguishing and other foams, heat pumps and cooling pumps, medical applications, cooling plant and use as cleaning agents and solvents.

3.3 Households

'Recommended Energy Performance' scheme - 2 Mt CO_2-eq
Now that energy standards are in place for new dwellings, the government is to focus on the older housing stock. Consumers taking action to reduce their energy consumption will be eligible for an 'energy bonus', to be recycled

from revenues from the standing energy tax. In 2002 the government will be reviewing the effectiveness of this voluntary scheme. If results prove disappointing, consideration will be given to compulsory measures, including some form of government approval scheme or a statutory minimum energy-efficiency level.

Low-energy appliances - 0.3 Mt CO_2-eq

Consumer purchase of energy-efficient domestic appliances is to be rewarded with an 'energy bonus' budgeted from energy-tax revenues. The appliances must be the most efficient of their kind, certified by means of a so-called 'A-label'.

Promotion of 'green' energy

The Dutch energy tax is not levied on energy from renewable sources. As set out in its policy accord, the government has raised the energy tax and the price differential between 'green' and conventional energy is consequently decreasing. These policy measures will help achieve the aforementioned interim target of 5% renewables by the year 2010.

Public education

Changes in consumer behaviour can have a substantial impact on domestic energy consumption, both direct (e.g. heating) and indirect (in products and services). The environment ministry's 'Perspective' project has demonstrated that there are ample attractive options for pursuing a low-energy lifestyle. An additional budget of NLG 15 mln has been earmarked for public education activities.

3.4 Trade, services, government

'Recommended Energy Performance' - 1 Mt CO_2-eq

The aforementioned REP programme will also be targeting the current utility building stock. Analogous to the scheme for private dwellings, owners of utility buildings will be rewarded for investments in energy efficiency, using energy tax revenues to this end. Here again the government is to review the effectiveness of this voluntary approach in 2002, when it will be decided whether obligatory measures are necessary (again including some form of government approval scheme or a statutory minimum energy-efficiency level).

'Duty to conserve'

In 1998 the government introduced the first series of amended General Administrative Orders under the Environmental Management Act obliging individual industrial operators to conserve energy. The companies affected must now take measures to improve efficiency and report on their efforts to the competent authorities, who may then require operators to take additional action. The government has set of figure of 15% for the minimum conservation efficiency of measures (based on 5-year payback).

Promotion of green energy

As for households.

3.5 Traffic and transport

More fuel-efficient cars via European agreements - 0 to 0.4 Mt CO_2-eq

In 1998 the European Commission and European car manufacturers signed a negotiated agreement specifying that in 2008 all new cars coming on sale are to emit 25% less CO_2 per kilometre than 1995 vehicles.

Tax incentive for fuel-efficient cars - 0.6 Mt CO_2-eq

Within the next two years every new car is to be awarded a label indicating the vehicle's relative fuel-efficiency in its class. By lowering the Vehicle Pur-

chase Tax rate for efficient vehicles and raising it for 'gas-guzzlers' the government will be rewarding purchase of the former.

Road-pricing - 0.2 Mt CO_2-eq

A system in which road users pay per kilometre travelled is mainly introduced to regulate traffic jams. A certain degree of energy conservation is also hereby achieved, however.

Taxation to discourage use of private transport for commuting - 0.1 to 0.3 Mt CO_2-eq

The current tax break for commuting by private transport is to be abolished and the deduction for commuting by public transport is to be cut by 35%. Variable rates are also to be introduced for the 'car benefit charge' for private use of company cars.

Enforcement of speed limits - 0.3 Mt CO_2-eq

Enforcement of statutory speed limits is to be stepped up on all motorways, particularly on those in the coastal conurbation. A lower speed saves energy.

On-board instrumentation - 0.5 Mt CO_2-eq

There is now on-board instrumentation available to help (commercial) drivers drive more fuel-efficiently. By excluding the value of such provisions from the Vehicle Purchase Tax base, the government hopes to provide an incentive for installing such technology. At the same time negotiations are being held with transport branch organisations on standard installation in new vehicles.

Higher tyre pressure - 0.3 Mt CO_2-eq

Fuel consumption can be reduced simply by ensuring that tyres are pumped to the right or, on average, higher pressure. Drivers will be encouraged to do so by means of a public education programme and sectoral agreements.

Special projects - 0.2 to 0.3 Mton CO_2-eq

From its budget for stepping up climate policy, the government has earmarked NLG 70 mln for projects relating to traffic and transport; including programmes to improve the logistical efficiency of the freight sector and to encourage a fuel-efficient driving style.

NO_2 emissions from catalytic converters - 0.5 Mt CO_2-eq

Since the introduction of closed-loop catalytic converters, traffic NO_2 emissions have doubled. Research is underway to tackle this problem, and the aim is to develop abatement technology within the next few years that can be in place by the year 2006.

3.6 Agriculture

Greenhouse horticulture - 2 Mt CO_2-eq

The agricultural sector's share of emission reduction under climate policy has been regulated mainly via the negotiated agreement ('covenant') with greenhouse horticulturists. Measures include CO_2 fertilisation, waste heat utilisation, improved energy efficiency in new greenhouses and general energy conservation.