Sustainability Monitor for the Netherlands 2009

Executive summary

09

Statistics Netherlands

Netherlands Environmental Assessment Agency

The Netherlands Institute for Social Research | SCP

Publisher
Statistics Netherlands
Henri Faasdreef 312
2492 JP The Hague

Prepress
Statistics Netherlands - Grafimedia

Cover
TelDesign, Rotterdam

Information
Telephone +31 88 570 70 70
Telefax +31 70 337 59 94
Via contact form: www.cbs.nl/information

Where to order
E-mail: verkoop@cbs.nl
Telefax +31 45 570 62 68

Internet
www.cbs.nl

6019509010 A-318

Sustainability Monitor for the Netherlands 2009

In 2007 the Dutch government commissioned Statistics Netherlands (CBS), the Netherlands Bureau for Economic Policy Analysis (CPB), the Netherlands Environmental Assessment Agency (PBL) and the Netherlands Institute for Social Research (SCP) to develop a Sustainability Monitor for the Netherlands. On 10 February 2009 the report was presented to the minister for the Environment and Spatial Planning (Jacqueline Cramer) and the minister for Development Cooperation (Bert Koenders).
The English translation of this report (*Sustainability Monitor of the Netherlands 2009*) will be published in September 2009. The monitor will be available on the websites of the participating institutes (www.cbs.nl; www.cpb.nl; www.pbl.nl; www.scp.nl).
The report contains an indicator set with which one can track the progress that the Netherlands is making with respect to sustainability. Furthermore, it contains four chapters in which key issues in the sustainability debate are explored. Lastly, the monitor concludes with a chapter on the trade-offs that exist between the different dimensions of sustainability.
The executive summary of the report is presented below.
If you would like to order a copy of the Sustainability Monitor, or would like more information, do not hesitate to contact the project managers.

CBS
Rutger Hoekstra, r.hoekstra@cbs.nl
Jan Pieter Smits, jp.smits@cbs.nl

CPB
George Gelauff, g.m.m.gelauff@cpb.nl
Herman Stolwijk, h.j.j.stolwijk@cpb.nl

PBL
Frank Dietz, frank.dietz@pbl.nl
Aldert Hanemaaijer, aldert.hanemaaijer@pbl.nl

SCP
Rob Bijl, r.bijl@scp.nl
Jeroen Boelhouwer, j.boelhouwer@scp.nl

Executive summary

1. Introduction

'Sustainable development' is the core concept of Our Common Future, the report of the UN's Brundtland Commission published in 1987. It was defined as follows:
'Development that meets the needs of the present without compromising the ability of future generations to meet their own needs.'
The report showed how economic growth, environmental issues, and poverty and development problems all relate to each other.

Sustainability concerns the scarcity of the resources used to generate welfare. The earth's surface is finite, supplies of natural resources and the absorption capacity of the environment and atmosphere are finite. But a well-educated and healthy population, functioning social networks, public trust, machines and infrastructure, knowledge, and other resources needed for sustainable welfare are also limited in supply.

Because these resources are scarce, the sustainability of present economic welfare is not self-evident; in other words, it is not guaranteed that the present level of welfare can continue to exist until the end of time. Governments therefore have a social responsibility to make and implement sustainability policies, aimed at using available resources in a responsible way. Following from Brundtland's definition, this means that if we use these resources now for our welfare, this may not be at the expense of chances for people living elsewhere, and those yet to be born, to achieve welfare for themselves.

More specifically, this means that people should use natural resources more efficiently; that they should conserve energy and biodiversity; and that they should invest in knowledge and education so that technology can be developed which will enable future generations to realise an acceptable level of welfare with a minimum use of scarce resources and fossil fuels. It also means that people should pay continued attention to improving the social fabric of the community they live in and should promote trust and social participation.

Sustainability is characterised by uncertainty about the future. It concerns the long term, and the longer the term, the greater the uncertainty, especially with regard to demography, technology and knowledge of the robustness of our ecosystems. Because of this uncertainty, a sustainability policy is also in some respects a quest. A quest guided by knowledge and a sense of responsibility for 'elsewhere and later'.

So, is development in the Netherlands sustainable? To answer this key question, the Dutch government asked a number of institutions to develop a monitor for sustainability in the context of its own policy proposals on sustainable development (*Kabinetsbrede Aanpak Duurzame Ontwikkeling*, or *KADO*). As a result Statistics Netherlands, the Netherlands Institute for Social Research/SCP, the Netherlands Bureau for Economic Policy Analysis, and the Netherlands Environmental Assessment Agency have drawn up this Sustainability Monitor for the Netherlands.

2. Putting 'sustainable development' into practice

Sustainability is often seen as a 'vague' concept, and is regularly used as an umbrella term. In this monitor, sustainable development – a broad concept and one that is difficult to grasp – is operationalised with the aid of the capital approach. To do this we start out by identifying and describing the resources (natural capital, social capital, human capital and economic capital) required for both present and future generations to pursue welfare. The term welfare is used in a broad sense here, and includes aspects such as leisure time and clean air alongside material welfare.

On the basis of this method, we selected a consistent set of indicators for 12 sustainability themes: Climate and energy; Biodiversity; Soil, air and water; Social participation; Trust; Labour utilisation; Education; Health ; Physical capital; Knowledge;

Distribution and inequality; and an International dimension (the global consequences of activities in the Netherlands). Together, these themes show whether – and to what extent – the Netherlands is moving in the right direction as far as sustainable development is concerned. The indicators can be followed in time, so that the 'state of affairs' for sustainability can be established at regular intervals.

3. Sustainability – the present situation

The need for government policy

Sustainability is hardly ever the most important motive in the individual pursuit of welfare. There are a number of reasons for this. First of all, an individual person may not have enough information about the consequences of his actions. He may also consciously choose 'here and now' over 'elsewhere and later'. Free-rider behaviour may also play a part: people who live according to sustainability principles make sacrifices from which others can benefit without having to do anything themselves; this reduces the willingness of the latter to adjust their behaviour. The same considerations apply to companies.

To reconcile 'here and now' with 'elsewhere and later', binding agreements – including rules of play – and coordination are needed. This is pre-eminently a task for the government, as it has the possibilities to create institutions that ensure that private individuals and businesses take into account the consequences of their actions that reach further than the 'here and now'.

In an international context, the government itself also benefits from coordination. Unilateral action by the Netherlands in aid of global sustainability burdens Dutch society with the costs, while other countries also benefit from this action. Solutions for these problems require international agreements and institutions. It is not surprising, therefore, that the greatest challenges in the area of sustainability are the global issues (climate change, biodiversity and natural resources).

Sustainability on a national scale

In many respects, the Netherlands is a prosperous country, where public health, average incomes and education levels have all increased considerably since the Second World War. People trust each other and trust national institutions. Dutch companies have built up a large store of knowledge and have a productive labour force at their disposal. The quality of soil, water and air have improved strongly in recent decades, although – as a consequence of high population density - nature and people's health have suffered quite a lot of damage compared with the rest of Europe. Only 15 percent of the original biodiversity remains in the Netherlands. In spite of these negative aspects, the positive trends described above constitute a strong foundation for welfare and sustainability in the Netherlands.

Are there then no sustainability problems in the Netherlands? Of course there are, and they are mainly in the areas of labour and ageing, knowledge, and social cohesion.

– *Labour and ageing*
To achieve sustainable welfare, the potential labour force must be utilised as efficiently as possible. The increasingly ageing population in the Netherlands will put more pressure on both the potential labour supply and participation rates. The consequences this will have for welfare can be compensated, however. Labour productivity can be raised further, for example, and the participation of women, older people and ethnic minorities in the labour process can also be increased. Moreover, at present the Dutch work relatively few hours a week, which also gives room for increase.

Population ageing will also increase pressure on health care spending in coming decades. Competition for financial resources, especially in terms of labour necessary to provide care, which could also be used for other purposes, will therefore become fiercer.

– *Knowledge*

In the long term, labour productivity will only be able to be increased by building up knowledge. A well-functioning education system and active private sector innovation strategies are essential in this respect. Although there are no signs that the Dutch knowledge economy is performing systematically poorly, because of the significance of knowledge for long-term productivity it is important that the points of concern are addressed. In the area of education, drop-out rates, the lack of excellence and teacher shortages are important factors. There are also indications that the quality of education is declining (reading and arithmetic skills). Moreover, there is a noticeable knowledge paradox in the Netherlands: Dutch universities conduct high quality research, but the business sector benefits from this only to a limited extent.

– *Social cohesion*

When asked, a surprisingly high percentage of Dutch people compared with those in the rest of Europe are worried about whether people will still be prepared to help each other out in times of difficulty in the future. This is a sign of concern and doubt about social cohesion in the Netherlands in the future. A large percentage of the population report perceiving tension between ethnic groups, although most of them think that integration problems are mainly a temporary phenomenon. The share of the Dutch population who say they belong to a group that is discriminated against is high compared with the rest of Europe: 7.5 percent. It is difficult to predict how trust between the various groups will develop in the future, as little is known about the mechanisms of this.

Trust, knowledge, participation, income and health are not equally distributed across the population. For most of these aspects, women, ethnic minorities and people with low education levels are at a disadvantage in this respect. The smaller these differences are between groups in society, the better this is for social cohesion, but no critical point can be defined.

Sustainability on a global scale

The Netherlands is just one country in the world. Together, people in the Netherlands have an effect on global sustainability. And vice versa, what happens outside the Netherlands today and tomorrow will have a great effect on sustainability in Dutch society. Clearly, in the long run the Netherlands will not be able to maintain a sustainable way of life in a world that cannot do so. In this context, climate change and the problems facing global biodiversity and natural resources are particularly important. These problems reach beyond the sphere of influence of national institutions and therefore necessitate global agreements and institutions.

– *Climate change*

According to current global trends the temperature will have risen by more than two degrees by the end of this century. Although it is technically possible to limit the climate problems to no more than a two-degree temperature rise, it has as yet proven impossible to achieve the global agreements required to realise this. Without these global agreements, the benefit of realising the EU climate goal of a 20 percent reduction in the emission of greenhouse gases will be only very limited.

The allocation of emission rights and thus also costs is one of the largest challenges facing global climate negotiations. This also raises the question of the extent to which ‘developed’ countries will be prepared to contribute to the costs of the collection and storage of CO_2 if China and India start consuming cheap coal on a massive scale. This may ensure a reliable supply of energy, but it will intensify climate change.

For the national goals for emission reduction, energy efficiency and sustainable energy in the work programme ‘Clean and Efficient’ for 2020, the efficiency of measures will increase if EU policy is more stringent. Quite apart from EU policies, there is a lot to be gained in the built areas of the Netherlands.

In view of the small share of global greenhouse gas emitted in the Netherlands, climate change is one problem on which Dutch policy can only have a small effect. Isolated national policy – however stringent and ambitious – will have hardly any effect on the extent of the problem. The limited Dutch influence gives a moral connotation to climate policy.

– *Biodiversity and natural resources*

Increasing prosperity and the growth of the world's population seem to be leading to an inevitable acceleration in the depletion of natural resources. Agriculture places a lot of pressure on the world's land and thus on the world's biodiversity, especially as a result of growing demands for food and wood. Global trends point to a fast decline in biodiversity; and in the future this decline will be even faster.

The Netherlands takes up a relatively large share of natural resources of other countries. In spite of the higher level of consumption, use of space per inhabitant is at a global average level. The reason for this is mainly that both within and outside the Netherlands highly productive agricultural land is used.

To increase global sustainability the efficiency of the production system must be improved. An increase in agricultural productivity across the world would moreover provide prospects both for a decrease in poverty and food problems, and for biodiversity. It would also mean that more production can be realised from a smaller area. This would lead to a smaller demand for agricultural land, which in turn would be beneficial for existing biodiversity. The conservation of forests would also contribute positively to the solution to the climate problem, as forests (with the CO_2 they store) will not then be cleared. The other side of the coin is that increasing agricultural productivity is often accompanied by an increased use of water, nutrients and pesticides.

Technology on its own will not be enough to stop the loss of biodiversity. Reduced meat consumption, too, may contribute to this. An opposite trend is visible in this respect, however. In developing countries in particular, people are eating more and more meat.

Just as for climate and energy, Dutch opportunities to contribute to halting the global reduction in biodiversity are limited. It can be argued that the Netherlands - in view of its relatively large use of natural resources from vulnerable countries and the wealth this helps create - has a larger responsibility than average to tackle these global problems.

4. Challenges and trade-offs

Sustainable development will not happen of its own accord. The sustainability of the present level of wealth for future generations and the use of resources in ways that are not detrimental to people living outside the Netherlands pose a number of challenges to Dutch society. To make the necessary choices it is important to realise that not all goals can be realised at the same time. Trade-off is a key word in sustainability policy.

If we look at local sustainability first, challenges and trade-offs are concentrated in the areas population ageing, social cohesion and knowledge. Climate change and biodiversity are the main global issues for the Netherlands.

1. Labour force and population ageing. Here the main challenge is to restrict the decrease in labour participation as a result of population ageing by increasing the participation of older people themselves, people with a non-western foreign background and women. In doing this it must be realised that this will be at the expense of leisure time and volunteer work. And that this leisure time also contributes to prosperity.
2. Social cohesion. The term social cohesion means being involved in society and being an active part of social relationships. Social cohesion is an important condition for sustainable welfare. The challenge is not to let people's interest in each other and in society become eroded. Possible risk factors in this respect are the process of individualisation and the increasing variety in ethnic composition of the population. Excessive inequality – and especially income inequality - is also detrimental to social participation. On the other hand, a dynamic technologically advanced society with open borders cannot function without differences in remuneration. There is a trade-off relationship between social cohesion versus productivity and material production. The trick is to develop a policy that strikes an optimal balance again and again to ensure long-term welfare.
3. Knowledge. The quality of human capital depends to a great extent on the availability of high quality education that quickly incorporates new developments in its programmes. Preserving and advancing this will be an important policy challenge in the coming decades. Precisely because the fruits of this can only be reaped on a

longer term there is a trade-off between spending resources to satisfy short-term needs and long-term investment in high quality education.
4. Climate change. The challenge for the Netherlands here lies in finding ways of contributing maximally to a global climate policy. National CO_2 emissions can be reduced in many ways. For example by investing in renewable energy, the introduction or more efficient technologies, imposing higher taxes on CO_2 emissions, stimulating the capture and storage of CO_2 etc. As this involves large investments in the short-term, there is a trade-off with material wealth. The rewards of the Dutch climate policy will only be reaped later. Whatever the case they will be modest for the Netherlands itself.
5. Biodiversity and natural resources. An important challenge for biodiversity is the legal protection of natural areas, especially areas with a high biodiversity value. For the Netherlands this means that areas that are valuable in an international perspective in particular have to be protected. For example: the Netherlands has an international responsibility for a number of species and ecosystems, such as water/ delta ecosystems. Areas with a high biodiversity value which are also suitable for intensive agriculture are most under pressure. These areas are located in tropical regions in particular. Here the trade-off with alternative land use for food and biomass production plays an important part.

Dutch Cabinet's approach to sustainable development (Kabinetsbrede Aanpak Duurzame Ontwikkeling (KADO)

The Dutch cabinet bases its approach to sustainable development on the elaboration of six themes which are connected to global solidarity and directly related to climate change and biodiversity. Each of these six themes offers opportunities, but to actually realise these, policy choices have to be made. This is illustrated by an example for each theme:

1. For water and climate adaptation, steering spatial development offers the possibility of limiting the vulnerability of the Netherlands to flooding in the long term.
2. To realise the national emission reduction goals in 'Clean and Efficient', stringent European policy is necessary for appliances and cars.
3. For biofuels an important challenge is to map the indirect effects of land use, prices and development opportunities in more detail and include these aspects in the policy.
4. A lot still needs to be invested in the construction of infrastructure to capture and store CO_2. On the short term it must be made clear whether this will be publicly or privately financed.
5. In the area of biodiversity, food and meat, there are concerns in the Netherlands about the effects of shifts in diet and changes in the meat and dairy production chain and international competitiveness. On the other hand the intended diet shifts do have positive effects on public health.
6. With respect to sustainable construction and urban development, from a technical point of view there is enough knowledge present or in development to render the built environment in the Netherlands energy neutral by 2050. To realise this, the present 'best practices' must become the standard. As the KADO themes are elaborated further, we may expect this to result in more opportunities and at the same time provide a better insight into all relevant trade-off relations. This in turn will contribute to the implementation of a more internally consistent overall policy and prevent unnecessary loss in adjacent areas. It may also prompt the introduction of flanking policies to compensate for large negative effects on other areas and specific socio-economic groups.

5. Conclusion

If future generations are also to enjoy sustainable wealth, we must be careful how we use resources. For a number of themes, this monitor shows what the pre-conditions are for maintaining wealth for future generations. It concludes that developments in a number of areas can be labelled as favourable, such as health, education level and trust.

Alongside these positive conclusions, there are a number of concerns at a national level (labour and ageing, knowledge and social cohesion). The main problems however, are playing on a global stage (climate change, biodiversity and natural resources). Although the Netherlands claims a disproportionate share of these natural resources, in absolute terms its contribution to these large global problems is small. Moreover, in view of the expected demographic and economic developments the relative contribution of the Netherlands will probably decrease in the coming decades. As there is no way the Netherlands can solve these global problems on its own, sustainability policy for global problems in the Netherlands therefore partly has a moral connotation.

Sustainability policy is about choices. Choices against a background of scarcity and uncertainty. This means that trade-offs come into play. More of one thing implies less of another. As the consequences of the policy often differ widely for different domains, not everybody will come to the same conclusion in the sustainability debate. Therefore in the formulation of a sustainability policy it is essential to take into account which potential trade-offs are likely to arise.

The pursuit of sustainability is characterised by uncertainties. Sustainability is a long-term issue, the longer the term the greater the uncertainties. Uncertainties in the areas of demography, technological developments knowledge of the robustness of our ecosystems are especially important in this respect. These uncertainties make sustainability policy in some respects a quest. A quest in which knowledge about the Netherlands in the world, and a sense of responsibility for ‘elsewhere and later’ are the leading principles. This monitor hopes to contribute to this quest.