# Realisation of Environmental Targets Progress Report 2007

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Netherlands Environmental Assessment Agency



# **SUMMARY**

This report is intended to assist the annual policy accountability process (the 'VBTB debate') by providing information about trends in pressure on the environment and environmental quality. It also contains an update of emission estimates, which it uses as the basis for indicating whether achievement of the environmental targets – which have often been set for 2010 – is to be expected given current policy. The information about the condition of the environment and the achievement of environmental policy targets is stated using indicators that link up as much as possible to the components of the ministry budget. This is because the accountability debate looks back at the budgets. In September, the Netherlands Environmental Assessment Agency will publish the Environmental Balance, which contains an analysis of the environment policy in a broad context.

#### Most emissions are falling but many environmental targets will still not be achieved

The trends for pressure on the environment and environmental quality are generally favourable. However, given current policy, the targets for many environmental dossiers will not be met in time. An important exception is the Kyoto target.

#### Increased chance of achieving Kyoto and NEC targets

The prognosis for greenhouse gases (Kyoto emission) has been adjusted downwards by 8 Mtonne. The main cause for this reduction is that the emissions ceiling permitted by the European Commission for companies in the  $CO_2$  emissions trading system is considerably lower than was assumed in the 2006 Environmental Balance. This means that Dutch companies will purchase more emission reductions abroad. The prognosis for 2010 is for 216 Mtonne of Kyoto emissions, against the background of a domestic target of 222 Mtonne. This means that the domestic target will probably be met. If the government succeeds in purchasing the intended 100 Mtonne of emission reductions abroad, the Kyoto commitment will probably be met with current policy.

As a result of new scientific insights, there have been major changes in the method for determining traffic emissions. The prognosis for the  $NO_x$  emissions for 2010 has therefore been adjusted downwards by 10% (17 ktonne). As a result, the probability of conformity with the  $NO_x$  ceiling is approximately 50%. Previously, it was thought that the  $NO_x$  ceiling would be exceeded. Because agreements with the energy sector and refineries have been included as policy in the prognoses, the estimate for  $SO_2$  emissions have been adjusted downwards by 13 ktonne. But conformity with the ceiling would appear improbable with current policy.

#### Environmental costs rising, share of GDP stable

The total costs of the environmental measures taken by government, the corporate sector and the general public amounted to more than 13 billion euros in 2006. This corresponds to approximately 2.5% of GDP; this proportion has been relatively constant in recent years. Compared to 2005, environmental costs rose by approximately 5%. Viewed over a longer period, environmental costs have increased annually by an average of 1%. Table 1 summarises the trends in pressure on the environment and quality and states whether the Netherlands is expected to achieve the targets.

	Environmental target	Trend	Trend	Targets
		1990-2005	2000-2005	achieved
	Climate and transboundary air polluti	on		
1	Domestic Kyoto target			(2008-2012)
2	Kyoto commitment			EU (2008-2012)
3	Energy savings		1)	(2010)
4	Renewable energy			(2020)
5	Renewable electricity			(2010)
6	Stratospheric ozone			VN
7	SO <sub>2</sub> emissions			EU (2010)
8	NO <sub>x</sub> emissions			EU (2010)
9	NH <sub>3</sub> emissions <sup>2)</sup>			EU (2010) 3)
10	NMVOC emissions			EU (2010)
	Soil, water and rural area			
11	'Standstill' in general soil quality	4)	4)	(2007)
12	Soil remediation			(2030)
13	Chemical quality of surface water	4)	4)	(2010) <sup>5)</sup>
14	Ecological quality of surface water			EU (2015-2027) <sup>6)</sup>
15	Bathing water quality			(2015)
16	Deposition on nature areas			EU (2015)
17	Desiccation (fall in water table)			EU (2015)
18	Nitrate in groundwater			EU (2009) 7)
19	NH <sub>3</sub> emissions <sup>2)</sup>			EU (2010) 3)
20	Pressure on the environment from			(2010)
	plant protection products			(2010)
	Local environmental quality			
21	Local air quality $PM_{10}$ and $NO_2$			EU (2005/2010)
22	Problem areas with noise nuisance			(2020)
23	Sustainable mobility			(2010)
24	Noise exposure from Schiphol airport			(2006)
	Risks of substances, waste and radiation	n		
25	Emissions of priority substances to			
	ambient air			
26	Waste			(2012)
27	Radiation			
	External safety			
28	Resolution of problem areas inside			
	PR 10 <sup>-5</sup> in vicinity of LPG stations and			(2007)
	companies obliged to produce safety reports			(2007)
29	Resolution of problem areas inside PR 10 <sup>6</sup>			(2010)
30	Schiphol airport: housing inside PR 10 <sup>-6</sup>			

Table 1 Trends in environmental pressure, environmental quality (1990-2005 and 2000-2005) and prognosis for realisation of the target on the basis of current policy.

<sup>1)</sup> 2000-2004 compared to 1995-2000. <sup>2)</sup> NH<sub>3</sub> emissions included in two budget components. <sup>3)</sup> Does not take the 'ammonia discrepancy' into account. <sup>4)</sup> Trend in pressure on the environment rather than environmental quality. <sup>5)</sup> National target; EU target not yet adopted. <sup>6)</sup> Trend according to current targets; EU target not yet adopted. <sup>7)</sup> Achievement of target probable in 2010-2015.

Colour	Trend	Achievement of target
	favourable trend	probability of target being achieved greater than 66%
	-	probability of target being achieved greater than 55-66%
	no significant trend	probability of target being achieved greater than 45-55%
	-	probability of target being achieved greater than 33-45%
	unfavourable trend	probability of target being achieved greater than 33%
	not applicable	no target adopted
	impossible to determine or not determined	impossible to determine or not determined

#### Climate and transboundary air pollution

- 1. Under current policy, the estimated Kyoto emissions in 2010 are expected to be 6 Mtonne less than the domestic target (222 Mtonne). This means that it is probable that the domestic target will be met.
- 2. If the government manages to purchase a total of 100 Mtonne from other countries through CDM and JI in 2008-2012, the Kyoto commitment (202 Mtonne) will probably be met. However, since mid-2005, there has been hardly any progress in entering into project contracts. At present, just over half of the required contracts have been concluded.
- 3. The rate of energy savings has not exceeded 1% a year in recent years. This means that it has failed to reach the target of 1.3% annually.
- 4. Sustainable energy as a proportion of energy use has increased gradually and was 2.6% in 2006. It is expected that this proportion will increase to a maximum of 4.4% in 2010.
- 5. The proportion of sustainable electricity is expected to be more than 9% in 2010. This means that probability of the 9% target being achieved is well over 50%.
- 6. The Netherlands conforms with the Montreal Protocol. No more CFCs or halons are being produced. The concentration of ozone-depleting substances will fall, resulting in time in the recovery of the ozone layer.
- 7. The NEC ceiling for  $SO_2$  (50 ktonne) will, given current policy, probably be exceeded by 3 ktonne.
- 8. The estimated  $NO_x$  emissions will be 2 ktonne above the NEC ceiling of 260 ktonne in 2010. The probability of conformity with the ceiling is approximately 50%.
- 9. The estimated  $NH_3$  emissions will be 2 ktonne above the NEC ceiling of 128 ktonne in 2010. The probability of conformity with the ceiling is well over 50%. However, this does not take into account the 'ammonia discrepancy', and so the prognosis may therefore be adjusted upwards by 3-23 ktonne.
- 10. The NEC ceiling for NMVOS (185 ktonne) will, given current policy, probably be met.

#### Soil, water and rural area

- 11. The environmental burden on soil has been reduced in recent years, but a 'standstill' in soil quality has still not been achieved.
- 12. The number of completed soil remediation operations increased in 2005 by approximately 20% compared to 2004. The current remediation rate is, however, too low to achieve the cleanup of all urgent sites before 2015 and all sites before 2030.
- 13. Chemical water quality has hardly improved at all since 1990. The standards for copper, zinc and chromium are exceeded most often.
- 14. Eutrophication continues to be an obstacle to good ecological quality in many waters. The situation has improved slightly since 1990.
- 15. In 2005, the standards were met in 98% of bathing water sites.
- 16. Nitrogen deposition, when measured against the targets for the national ecological network of protected areas (EHS) and Natura 2000, is too high in many nature areas. Over the past 15 years, the fall in nitrogen deposition has primarily been the result of general policy. Measures targeting specific areas have made a limited contribution, given current background deposition.
- 17. Given the current rate of measures for combating desiccation (fall in water table), hydrological recovery of 40% of the desiccated area in 2010 is improbable.
- 18. The nitrate concentration in the uppermost groundwater has been halved since the launch of the MINAS system (in 1998). Compliance with the standard in sandy regions is expected sometime between 2010 and 2015. Regionally, however, exceedance of the standard will persist.
- 19. The estimated  $NH_3$  emissions will be 3 ktonne above the NEC ceiling of 128 ktonne in 2010. The probability of conformity with the ceiling is well over 50%. However, this does not take into account the 'ammonia discrepancy', and so the prognosis may therefore be adjusted upwards by 3-23 ktonne.
- 20. The environmental load from plant protection products has fallen sharply, but the fall is inadequate to achieve compliance with the water quality standards.

#### Local environmental quality

- 21. Air quality has improved since 1990. There will be a sharp fall in the number of areas where there are problems with air quality in the next 5 to 10 years. The most stubborn problems are located in areas near ring roads and the busiest streets in the Randstad urban agglomeration.
- 22. The number of areas where there are problems with noise has fallen since 2000, near both national roads and railways. There was an increase in the number of problem areas adjoining national roads between 1987 and 2000. This number will have fallen considerably in 2020, but the problems will not have been resolved completely.
- 23. Emissions of greenhouse gases from traffic are closely linked to the number of kilometres driven. The  $CO_2$  prognosis for traffic exceeds the target. There has been a slight reduction in the noise load in problem areas, despite the increase in the amount of traffic. The environmental costs have not been fully integrated in the price of mobility.

24. After a long period marked by a decline in the noise load around Schiphol airport, the level has been reasonably stable since the opening of the 5<sup>th</sup> runway in 2003. The limit values for noise were exceeded in three of the 35 enforcement sites in 2006.

### Risks of substances, waste and radiation

- 25. The emissions of priority substances to ambient air for which reliable emissions data are available fell considerably after 1990, with the exception of copper.
- 26. The targets for waste management have been achieved.
- 27. In recent decades, there has been an increase in the radiation load for the Dutch population as a result of exposure to radon, UV, electromagnetic fields and as a result of medical diagnostics.

## External safety

- 28. The 2007 target for problem areas in the 10<sup>-5</sup> risk contour around LPG stations, and around companies obliged to produce safety reports, has been achieved.
- 29. It remains uncertain whether the 2010 target for problem areas in the  $10^{-6}$  risk contour will be achieved because the introduction of a basic network for the transportation of dangerous substances has not yet got off the ground. There will also be problems associated with pipelines.
- 30. The local risk around Schiphol has fallen since 1990.