

How the Dutch nitrogen policy failed and led to serious nitrogen deposition reduction

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Abstract

In 2015 the Dutch government introduced the Programmatic Approach on Nitrogen (PAS) to reduce nitrogen deposition to the sensitive Natura 2000 areas without affecting economic growth. May 29 the highest judge in the country decided that this policy is insufficient to protect the quality of the 160 Natura 2000 areas which have a protection status according to the European guidelines (Bird and Habitat Directive). An appeal to this judgement is not possible. This decision has had major consequences: no new project that emit nitrogen oxides or ammonia, even a tiny fraction, were blocked. Therefore, the whole economy was affected: new housing, building roads, an airport, industry, traffic and farmers all are affected. And the decision was so strict that there was no easy solution other than a significant reduction in nitrogen deposition scientifically grounded and ecologically sound. It is an opportunity for a serious nitrogen policy and maybe an example for other nations!

Keywords: nitrogen, policy, Programmatic Approach Nitrogen, Dutch Council of State, Natura 2000

1. Programmatic Approach to Nitrogen (PAS)

In 2015 the Programmatic Approach to Nitrogen (PAS) was approved by the Dutch government as an instrument for improving environmental conditions in natural areas. In this programme the national and provincial governments are taking habitat restoration measures and measures to reduce nitrogen deposition on Natura 2000 sites to levels that will create room for further economic development in nearby areas. Restoration measures were expected to compensate for the negative impacts of excessive nitrogen loads - temporarily or permanently - while deposition levels are still too high. Such measures were aimed primarily at restoring the abiotic conditions required by particular species and habitat types (management objectives). They aim to remove nutrients, for example by removing soil, sod cutting, extra mowing and extra grazing. In general, the lower the local exceedance of the critical load, the more successful and lasting the effects of these measures will be.

In addition to restoration measures to combat the effects of deposition, source control policy measures and additional

PAS emission control measures were agreed to reduce the levels of nitrogen emissions and deposition.

2. Dutch court rejected the PAS

In May 2019 the Dutch Council of State, the highest judge decided that the PAS was not suitable to protect Nature 2000 areas from nitrogen deposition and fulfill the requirement of the Habitat Directive to maintain and improve nature quality. This decision has had major consequences for any new project that require a new nature protection limit. As a consequence of this over 18.000 projects were stopped among them building of new roads, housing, airports, windmill parks and industrial facilities and new or expanding agricultural farms. The economic loss was estimated to be over 14 billion euro's on the short term. A special commission led by the former minister Remkes was established to advice the government about solutions on the short term for restarting the permit procedures in September and advice for long term solutions in May 2020. In September the commission presented their long awaited advice to the government and in October the government will come-up with policies for the short term to reduce nitrogen deposition and a procedure to restart certain projects. Given

the advice the only short term measure is lowering the speed limit from 130 to 100 km/hr on highways and from 100 to 80 km/hr on provincial roads. All other proposals, such as area specific measures such as the voluntary buy-out of high emitting farms near the Nature 2000 areas, will take much time. The reduction of the speed limit will reduce the nitrogen deposition to the Nature 2000 areas by 4%. Its contribution is now 6,5% and this will drop to 6%, a reduction of 4 mol/ha/yr on the average in the Netherlands. Since the norm is zero enhancement in deposition, this might create some room for projects that emit a very small amount of nitrogen, such as the buiding of new housing for citicenz in overcrowded cities. When this abstract was written it is unsure if the Dutch government will use this measure to create room for certain projects and if this is juridically also acceptable. The government probably has to comu up with serious measures to reduce nitrogen more than just a few mol/ha and guarantee that the critical loads will come into reach in the near future. Otherwise the council will not grant ermission to any new nitrogen emitting activity.

3. Options for long term nitrogen deposition reduction

The possibilities for the long term should focus on the reduction of the new sources of nitrogen at the beginning of the cascade (Galloway et al 2003; 2008). This includes burning of fossil fuels and biomass, import of feed and the production and use of fertilizer. To reduce the deposition NO_x and NH₃ should be treated separately: NO_x is a technological problem and need a technological fix: catalysts, sustainable energy (no biomass) and electric vehicles. NH₃ on the other hand is a biological and ecological problem and need a new agricultural policy focused on circularity with far less inputs. This also means a focus on different, diverse markets, instead of bulk product on a world market towards quality products to more regional, European markets. It requires a shift in focus: from production to focus on the quality of production means: soil, water, air, nature and landscape.

4. An important example for other European countries

These are exiting times for new nitrogen policies and could become a major example for the world on how to combat nitrogen pollution. At the time of he conference probably major steps have been taken and an overview of the history and the future will be presented.

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