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No deal on farming: lessons from the Netherlands

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The agricultural sector is currently the subject of intense political attention and scrutiny: despite numerous CAP reforms aiming at more sustainable practices, the sector's environmental impacts have not been reduced to the extent deemed necessary to protect biodiversity and climate. Recent protests across Europe show that farmers are economically vulnerable, which makes the transition to a different business model very risky. Is challenging the status quo, which has prevailed for decades, simply impossible? It is as if political negotiations are taking place too late. However, this is exactly the moment when a new deal between farmers and society needs to be struck. At the European level, the Green Deal's Farm to Fork Strategy can be interpreted as an attempt in this direction, in that it adopted a food system perspective that encompassed all stakeholders, from farmers and food processing industries to consumers and retailers. This attempt, however, sparked political uproar and several of its legislative initiatives were blocked. In the Netherlands, farmer protests began as early as 2019 because of a ruling on nitrogen by the highest administrative court, which required new governmental action with a considerable impact on Dutch livestock farmers. In this blog post, PBL research fellows take stock of the nitrogen crisis in the Netherlands, looking at the historical perspective, which is necessary to understand the political and economic root causes, and identifying possible avenues for a new agricultural deal.

In recent weeks, many European countries have faced major farmer protests. But in the Netherlands, these protests started as early as October 2019 with a large demonstration in The Hague, and with different motives compared to the recent protests in Germany, Romania, France, Belgium and Brussels, as the Dutch

case centres around what is called the ‘nitrogen crisis’. This crisis culminated in summer 2022, with fierce protests, intimidations, and upside-down national flags across the Netherlands. However – and in contrast with the protests in other countries – since that summer, things have seemed fairly quiet again in the Netherlands. What ignited the crisis in the Netherlands, what could come next, and what lessons can we draw from this example?

A crisis with history

The Dutch nitrogen crisis has a long history. Livestock and manure surpluses have been a recurrent and fiercely contested theme in Dutch politics, while being a rather lingering issue in societal debates. The issue tipped into a fully fledged crisis with a landmark ruling by the Council of State (the country’s highest administrative court) in combination with the political reaction to this ruling. To fully understand the roots of this crisis, one must go back to the strong growth of the livestock sector in the Netherlands between 1960 and 1985 and the political reaction to the environmental problems that arose.

During this period, the livestock herd in the Netherlands grew rapidly: numbers of pigs and chickens grew by a factor of 5 to 10, while milk production doubled. The increase was mainly in areas with small farms, such as on the sandy soils in the south and east of the country. Farmers saw keeping more livestock as the only way to grow economically. This growth was reinforced by the entire agri-food complex: the livestock feed sector, processing companies, banks, etc., while the government also provided support. This livestock expansion was made possible by large imports of feed materials. The Netherlands benefits from a relatively cheap supply of animal feed compared to many other European areas due to the favourable geographic location of the port of Rotterdam and solid infrastructure. The combination of a good knowledge infrastructure, strong processing companies (dairy companies and abattoirs) and a large market in North-Western Europe made livestock farming very competitive. This led to almost unbridled growth, which was only curbed by government intervention in 1985 when legislation was introduced to halt further growth in pig and poultry farming. After a few years, a national system of tradable production rights was introduced to cap the total number of pigs and poultry. Without these rights, farmers are not allowed to farm pigs or chickens. With some minor alterations, this system remains in place more than 30 years later. Belgium is the only country in Europe with a similar system.

For dairy farming, the EU intervened through the introduction of milk quotas. Unlike the environmental motives behind the introduction of production rights for pigs and poultry, these quotas were economically motivated to avoid an overproduction crisis. When milk quotas were abolished in 2015, the Dutch dairy herd grew sharply for several years. When this led to new problems, the government intervened again, introducing a similar production rights system for cows (‘phosphate rights’). The main reason for this was that national manure production was set to exceed the ceiling set by the European Commission, which would have jeopardized the Nitrates Directive derogation, which allows dairy farmers to apply more manure than the standard 170 kilograms of nitrogen per hectare.

As a result, livestock density in the Netherlands became the highest in Europe. Five Dutch provinces are among the top ten areas with the highest number of livestock units per hectare, with three Flemish provinces and two German neighbouring regions completing the list. This high livestock density causes many problems, such as the leaching of nitrogen and phosphate to ground and surface water, nitrogen emissions to the air and subsequent nitrogen deposition on Natura 2000 sites. Addressing these problems led in turn to a national manure surplus, which incurs high costs for farmers for manure disposal and necessitates the processing and exporting of manure.

A cautious political approach, lacking a clear vision

In recent decades, the typical policy and political response to address environmental problems has been mainly reactive and incremental. The same is true for other challenges, such as animal diseases, the use of antibiotics or animal welfare issues. In a rather depoliticized agri-environmental discourse, farm development and environmental protection were reconciled via the stimulation of production optimization. Typically, only one problem was addressed at a time (e.g. phosphate) and mainly technical solutions were chosen, such as decreasing phosphate levels in feed or low-emission stables to reduce nitrogen emissions. The main reasons for this are likely the economic importance of agriculture and the effective lobbying of the sector. This is not just about farmers: feed companies, abattoirs and dairy processors also have a major interest in maintaining the status quo of large production volumes. The choice of technological solutions strengthened the lock-in of the previously chosen development path of growth and cost minimization, as this was the only way for farmers to survive. Another characteristic of Dutch livestock farming is that many products are exported and that these 'commodities' are not very distinctive on the market. Another route is to opt for products with higher added value, such as organic products, which a growing number of farms are now doing, but the organic sector is one of the smallest in Europe.

Hence, Dutch politicians were typically waiting until it became absolutely necessary to take more steps to tackle the problems. However, these steps were often not big enough to really solve the problems and, moreover, only one problem was being addressed. After taking such action, the issue disappeared from the political agenda setting off a (sometimes rather short) period of apparent calm and a balance between different interests until the next necessity to act. From the farmers' perspective, this approach never seemed adequate, with new policies continually emerging. These new policies, in turn, meant uncertainty and additional costs for companies. What also makes it difficult for farmers is that several problems cannot really be solved at the farm level. This concerns issues that are mainly caused by the size and regional concentration of livestock farming in the Netherlands. These issues include the national (and regional) manure surplus, the emissions of which are hard to fully prevent, such as ammonia emissions to air or nitrate losses.

The calm before the storm

By 2019, everything seemed relatively stable. The largest environmental excesses had been tackled and some of the 'low hanging fruit' had been harvested. Real progress had also been made on several points. For instance, ammonia emissions were cut by almost 70% compared to 1990 levels, thanks to this policy and substantial efforts by farmers. Nitrogen losses to the soil fell by 40%, which led to a significant improvement of ground water quality. In both cases, most of the reduction was achieved in the period 1990-2010, followed by a period of stagnation.

Despite these major reductions, emissions per hectare remained among the highest in Europe. For example, nitrogen deposition on Dutch nature reserves was still far too high, which was one of the causes of the decline in nature quality. The Habitats Directive states that Natura 2000 sites should aim for a 'favourable conservation status'. In 2015, the national government introduced the 'Programmatic Approach to Nitrogen' (PAS).

The PAS formed the basis for local governments to authorize new economic activities that emit nitrogen, such as ammonia emissions from agriculture. Ammonia escapes into the atmosphere from stables and when livestock manure is applied on fields. Ammonia is also released from fertilizers and to a limited extent from crops. If ammonia is deposited on natural areas, this can lead to ecosystem disturbance. A significant proportion of ammonia is deposited within a few kilometres of farms. This makes the source location important. If it is close or even within a vulnerable nature reserve, it causes more damage. The PAS also applied to activities in which nitrogen oxides are emitted, resulting from burning fossil fuels for industry, transportation or heating houses.

The start of the nitrogen crisis in 2019

In a trial brought by an environmental NGO, the Dutch Council of State ruled in May 2019 that the chosen 'programmatic approach to nitrogen' was in violation of the European Habitats Directive, after questions had been referred to the European Court of Justice for a preliminary ruling. One of the reasons for the Council of State's decision was that the PAS did not guarantee that new activities involving nitrogen would only be allowed when the government had taken sufficient prior measures to offset the risks of extra nitrogen deposition and to take sufficient measures to ensure that Natura 2000-sites would be maintained in a favourable conservation condition. The PAS sought, partly for the sake of protecting the economic viability of livestock farming, the edges of what was legally possible.

It became a real national crisis as the ruling also had far-reaching consequences for other sectors such as housing, industry, and traffic. This meant that no permits could be issued for those sectors either. From the perspective of farmers, solving the crisis focused too much on livestock farming and much less on other sources. Matters escalated when an agricultural spokesperson of a governmental party proposed a halving of livestock numbers. In October 2019, the first major farmer protest took place.

The focus of the discussion is on nitrogen, due to its negative impact on the conservation status of Natura2000 sites. But nitrogen deposition is not the only cause of deterioration of nature quality. In other words: by reducing other pressures, nature quality can improve. These actions include improving water quantity and quality, reducing fragmentation and improving management.

A reduction in livestock production seems inevitable to reach a set of environmental goals

Solving the nitrogen crisis is challenging. Not only as this will have a large impact on the agricultural sector, but also because the legal aspects are complex. The purpose is to enable permits to be issued again. The seriousness of the situation has led a political majority to believe that a reduction of livestock is inevitable. Of course, this reduction will not happen by itself. The government reserved billions of euros for buy-out schemes for livestock farms, a policy unique for Europe. Farmers can now register for this scheme and a considerable number of farmers have already applied. However, it remains to be seen how many farmers eventually sign up to this agreement. The companies bought out are remunerated for the production rights they surrender and for the residual value of the stables.

The reduction of livestock has become particularly urgent as the European Commission decided in 2022 that the Netherlands will lose its Nitrates Directive derogation. This means that the permitted level of livestock manure usage will be significantly lowered in 2026 (from the current 250 kg to 170 kg nitrogen per ha) leading to a much larger national manure surplus. This triggered some agricultural sector leaders and more farmer-friendly political parties to accept that a reduction in livestock is not only acceptable, but also that a gradual reduction is also desirable. This is also likely to lead to better outcomes for remaining livestock holdings as it will reduce the cost of manure disposal. A reduction of dairy cows will most likely also be needed to realize the Dutch methane pledge and greenhouse gas reduction obligations sharpened by the Fit for 55 objectives.

In addition to the national buy-out schemes, there is a second policy pathway. The national government has asked provincial authorities to come up with regional plans. These plans should not only address the nitrogen problem, but also improve water quality and biodiversity and significantly reduce greenhouse gas emissions. The government has proposed a fund of almost 25 billion euros for these measures, including the budget for the buy-out schemes. Currently, provinces are drawing up plans for rural areas and land-use change that are demanding much more money than the planned 25 billion euros.

In the spring of 2023, the government attempted to conclude a comprehensive agricultural agreement with all parties. This is in line with the Dutch tradition of consultation and consensus. This agreement would then have to include measures to achieve the environmental objectives and, at the same time, to provide farmers with solutions. This would consist partly in measures for young farmers, partly in compensation to farmers for extensification of land use and agri-environmental schemes, and partly in a new sustainability standard to be developed. The buyers of products, such as retailers and the manufacturing industry, would then reimburse farmers for the additional costs of complying with this standard. Negotiations came to a stop when the largest farmers' organization withdrew. The reason given was that the envisaged agreement could not provide a viable future for farmers. Moreover, farmers disagreed with the proposal to introduce a livestock density standard.

What's next?

The coalition government fell in summer 2023, and the coalition lost its majority in the elections. The Farmer-Citizen Movement (BBB) won several seats, but with about 5% of votes it is far from being the biggest party; while the PVV, the right-wing populist party, gained almost a quarter of the votes. It is still unclear which new cabinet will be formed, which means the future is very uncertain. Furthermore, there may be budget cuts, which raises questions about whether the aforementioned 25 billion euros will still be available. The current pathway also means that the policy is slowing down and that the 2030 environmental targets are unlikely to be met. In addition, many farmers are unsure about what will happen to their business.

Observations and lessons

The Dutch example shows that it takes a long time to alter a situation that evolved more than fifty years ago. The approach has largely been in the form of small steps and a lot of political attention was needed. The debate seems to centre around two classic points of view in the social debate. On the one hand, there are those who believe that problems can best be solved by technological solutions, such as better stables and precision farming. While others think that the primary solution involves reducing livestock numbers. This polarized debate tends to hinder an open discussion about a broader vision on the future of agriculture, let alone an even broader one on the desired future of rural areas or on the future food system.

For many years, the Netherlands has implicitly chosen a process of incremental and largely technological progress. Structural causes of recurring problems, such as high livestock density, are not addressed in this way. This also applies to other structural causes, such as low farm incomes, continuous increase in farm size and specialization. Another risk of this incremental approach is that it is never completed, and farmers always feel that they are falling short and need to do more because of the incident-driven approach. But the nitrogen crisis can no longer be addressed in this way as technological measures alone will not be sufficient. This is forcing drastic and costly interventions, such as the livestock farms buy-out schemes. The need to reduce livestock numbers was intensified by the loss of the Nitrate Directive derogative.

A second observation is that the policy debates have been conducted between, and focused on the role of, the government and the primary (agricultural) sector. The government requires something because it is of social importance and farmers must comply. The policies proposed most often lead to additional costs for farmers, without providing them with any certainty that they can earn back these extra costs on competitive international markets. This situation resembles a zero-sum game. This could change if the rest of the food system became involved, from feed producers to supermarkets. Supermarkets can set requirements for how the products they sell are produced. And they can compensate farmers for additional costs, which might lead to minor increases in food prices. This already happens in several areas, such as for animal welfare and the reduced use of pesticides.

The Farm to Fork Strategy also had the premise of giving the agri-food value chain more responsibility for sustainable and healthy consumption and production. This was the idea behind the proposed but postponed Sustainable Food Systems Law. The Farm to Fork's Code of Conduct is based on this principle but is very non-committal. Truly fundamental change in the agricultural sector can only be realized if the entire EU food system is involved. Meeting the agri-environmental challenges today is not only about sustainable production. It is also about sustainable consumption and the responsibility to be taken by different actors in the food chain.

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