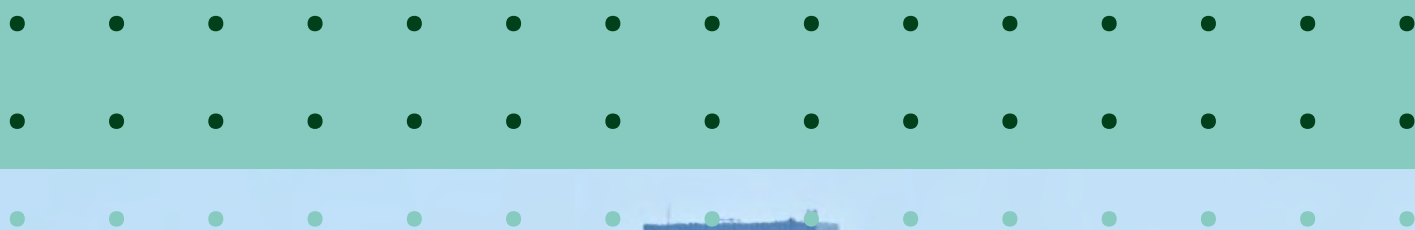




The Netherlands Institute
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Summary

Ten essays on the internationally embedded food system in the Netherlands



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Ten essays on **the internationally embedded food system in the Netherlands**

original title

Tien essays over de internationale verwevenheid van ons voedselsysteem

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Summary: The food system as a ‘wicked problem’

The production and consumption of food in the Netherlands is strongly embedded in an international food system. This affects the room of the Dutch government to guide changes in the food system. This volume therefore aims to contribute to a better understanding of the complexity of food policy challenges by clarifying the fact that this is an interconnected, international system and to consider the implications thereof for citizens in the Netherlands and elsewhere. The contributions contained in the volume were divided into the following three themes:

- 1 The food system as an interconnected international system.** The historic development of this interconnectedness, the contribution made by Dutch food production to the global food supply, and the implications of meat and dairy production for people’s lives elsewhere.
- 2 Developments in European policy context.** This context is where discussions on the future of the food system are held. Topics of said discussions include the changing agriculture and nature policies, developments in commercial policy, and a growing awareness of the importance of strategic dependencies.
- 3 Different perspectives on internationalisation of the food system.** Taken together, these perspectives give an impression of interests and values that play a role in the development of the food system, even if incomplete. This first of two closing chapters gives a summary of the main views from the essays before drawing a few conclusions for policy based on the views. Although the individual essays on occasion make specific policy recommendations, they mostly involve overarching views.

Theme 1: Dutch export model has strong ties to developments elsewhere

The contributions regarding the first theme of the volume use different perspectives to show how the Dutch food system is interconnected with other countries in an economic and institutional sense, and what that means for how this system can be affected by policy. A recurring theme here is that the interconnectedness goes beyond the Netherlands producing a lot of food for foreign consumption, but that food production and consumption in the Netherlands is also heavily dependent on other countries. In essay 1 Poppe shows, for example, how the Dutch government has tried to guide the development of Dutch agriculture within the context of change in both domestic and foreign supply and demand. Low-cost import of feed substances, rising labour cost and growing demand for food from abroad have compelled Dutch farmers to crank up their production and intensify their production methods. Since the end of the nineteenth century, policymakers have made attempts to guide the development of the food system, first through targeted research, information and education policies within the Netherlands, and later in the context of the European Union and the nascent Common Agricultural Policy (CAP). The commercial nature of Dutch agriculture was thus not so much the result of policy as it was perpetuated by Dutch and European policies designed to enable Dutch and European farmers to compete internationally, while also protecting them from the vagaries of the market. Previously, policies removed the rough edges from the threat of sanitation and the conditions of continuing farmers were improved while exiting farmers received support. Poppe argues that current policies, however, put pressure on the income of most farmers.

In essay 2, Oosterveer places the narrative of the Netherlands as a food exporting country in the global context of climate change, biodiversity loss, and global food security. Production in the Netherlands intended for export comes with consequences that are felt not only in the Netherlands, but also elsewhere.

A key resulting question, then, is whether the benefits outweigh the burdens, and whether the system's benefits and burdens are fairly distributed – within the Netherlands, but also between countries. One could also wonder to what extent the Netherlands contributes to global food security. This is because production in the Netherlands is dependent on imported crops that in some instances are also fit for human consumption. In an economic sense, Dutch agriculture produces food relatively efficiently. But, according to Oosterveer, we should qualify that picture when applying a broader perspective on efficiency, one that offers more room for ecological and social implications. Oosterveer thus argues for a critical evaluation of the economic, social and ecological implications of agriculture and agricultural policy. Not just in the Netherlands, but also elsewhere.

In essay 3, Haalboom elaborates on the food system as an interconnected international system by placing Dutch livestock farming in an international context. The key point of her essay is the emergence of compound feed, enabling extensive division of labour in livestock farming. By importing raw materials for feed, Haalboom argues, Dutch livestock farming competes with the production of crops that are fit for human consumption. This way, livestock farming can be linked to the problematic burden on ecosystems elsewhere. According to Haalboom, livestock feed is a key starting point for discussions on how the food system can serve societies in a broader sense. This is why Haalboom considers the ambitions to invest in more land-based and circular agriculture to be an important step. However, these terms also hide the fact that livestock farming has always been tied to agricultural land – even if a large part of that land is located elsewhere. Contrary to the common narrative that the development of Dutch agriculture is an unavoidable response to developments abroad, Haalboom puts the emphasis on the interests that played a role there, like the interests of the compound feed industry. She does not believe that the development of modern agriculture has been unavoidable, but has rather been the outcome of choices that put certain interests above those of others. Accordingly, Haalboom sees a better balance in the democratic decision-making process as a key condition for policy ambitions in the area of broad prosperity. She states that animal feed can be a key starting point for focusing on broad prosperity implications of Dutch livestock farming in the Netherlands and elsewhere. This does require more transparency, for example on what livestock are fed and where the feed comes from.

Theme 2: Policy objectives from European policy context are not uniform, they require an integrated view

The contributions regarding the second theme of the volume focus on the European policy context. A key challenge for reform of European agricultural policy, Candel argues in essay 4, is finding a new balance between two of the central ideas on which it rests: promoting competition among agricultural entrepreneurs and achieving some degree of solidarity among agricultural areas. Greening the food system is thus also a distribution issue that affects agricultural existence here in the Netherlands and elsewhere in Europe. An important question, therefore, is how different agricultural communities in Europe can be included in the transition. Candel identifies four developments that will affect the Netherlands: 1) declining support in various countries for (unequally distributed) European income support, 2) increasing liberalisation of European agricultural policy, 3) increasing emphasis on consumption of local products, whether or not as an expression of national identity, and 4) the idea that the polluter must pay, which will limit solidarity with Western European countries with a relatively large intensive agricultural sector. The ball is in the court of national politicians, Candel suggests. The challenges ahead require long-term frameworks and a shift of public resources from vested interests to transformative initiatives.

In essay 5, Dries focuses on recent initiatives from Brussels that place increasingly stringent requirements on the import of goods from third countries. Because Europe is an important market for many countries, it has a relatively large influence on global food chains. Europe can thus set standards that also apply to large parts of the rest of the world, says Dries. This can have a positive effect on making global production more sustainable, but can also lead to exclusion and an increase in production costs in the poorest countries. Although it is still unclear to what extent additional standards can be set within the frameworks of the World Trade Organization (WTO), concluding trade agreements with third countries could actually help

the Dutch food sector meet higher sustainability requirements. However, it is important to carefully consider the impact on producers elsewhere.

In essay 6, Huysmans places the discussion around making the food system more sustainable in the context of Europe's ambitions to become strategically autonomous. He discusses a number of strategic choices that the Netherlands and the European Union could make in the area of food supply. Effective food supply is a prerequisite for a well-functioning society. Threats to the food supply are therefore potentially disruptive. This raises the question to what extent the Netherlands and the EU expose themselves to dependency relationships with other countries. Huysmans sees no possibility for the EU to become completely self-sufficient, and he does not expect that using trade relations in foodstuffs as leverage will be very effective, at least for rich countries. Nevertheless, he does see possibilities to reduce dependencies on third countries by diversifying trade flows. This will require the conclusion of new trade agreements – agreements that often have relatively little support.

Theme 3: The international interconnectedness of the food system can have different meanings for people in the Netherlands

The contributions about the third theme focus on different perspectives of citizens that are linked to the food system from a variety of roles. In essay 7, Aarts and Leeuwis discuss making food production more sustainable from the perspectives of agricultural entrepreneurship and nature conservation. Said perspectives have increasingly become opposites in the past decades. In the seventies 'traditional' nature, as could be found in agricultural areas, was still highly valued. However, the eighties saw the emergence of more extensive nature reservation policies rooted in the ideal of 'unspoilt nature'. This collided with concepts of nature as it could be found in agricultural landscapes. That trend did not align well with nature as experienced by most farmers, but did result in the Dutch Nature Policy Plan, which invoked a strategy of separating nature and agriculture. The result was that many farmers felt a lack of recognition, Aarts and Leeuwis argue, and government involvement and regulatory burden had already created ill will among farmers. The Nature Policy Plan thus outlined the contours of the distributive bargaining between nature and agriculture that are now the subject of public debate, most recently reflected in the nitrogen case. If central government wants to increase its focus on nature-inclusive agriculture, it would do well to realise a shift from distributive bargaining to integrative bargaining, with the dependencies between farmers, nature and society serving as its starting point. Aarts and Leeuwis argue that facilitating this type of integrative bargaining requires an active government, as well as a strong lobby for nature inclusive agriculture.

In horticulture in particular, most of the work is done by migrant workers. However, their perspective is often overlooked in discussions on the future of food in the Netherlands. Siegmann discusses in essay 8 the situation of migrant workers in Dutch horticulture by using the term 'regulated precarity', with which she points out the fact that many uncertainties experienced by migrant workers are the result of the way in which laws and regulations are set up. Although the number of people working in the Dutch agricultural complex as migrant workers is unclear, what is clear is that employment conditions are often wanting, as the Roemer Committee recently concluded (Aanjaagteam Bescherming Arbeidsmigranten 2020). This does not only affect the migrant workers themselves, it also causes problems involving poor housing in places where social problems tend to concentrate. The extent of the problem of poor work constructions for migrant workers is unknown, partly because there is doubt as to the number of migrant workers working in Dutch agriculture and horticulture. There is a danger, from the migrant worker perspective, that the discussion about sustainability is limited to ecological parameters that have little bearing on social aspects of sustainability, even if these are embedded, for example, in the sustainable development goals. That comes to no surprise: when a system is ecologically viable, but insufficiently serves the people whose existence depends on that system, sustainability seems an empty shell.

The last two essays of the volume focus on perspectives of citizens as consumers. In the current food system consumers in the Netherlands have access to a wide selection of abundant and relatively cheap food.¹ As consumers, citizens are dependent on the food system; they can, in turn, also influence the food system through the choices they make. In essay 9, Dagevos therefore focuses on the changes we need to make in our eating behaviour that will allow us to continue to produce sufficient food in the future. The key question for Dagevos is how we can cut down on our meat consumption; which has doubled in the Netherlands in the second half of the twentieth century, causing a significant increase in the ecological footprint of our diet. If we want to tackle this problem, we will have to move away from consumption as a standard for prosperity towards an attitude towards food based on ecological boundaries within which it should be produced. To make such a shift a reality is no easy task, says Dagevos. After all, what we consume and the amount we consume is often seen as part of our identity, of what and who we are. Putting the responsibility on consumers implies that we ourselves need to change. This is no easy task and it requires a government taking shared responsibility by broadening the definition of prosperity that goes beyond a narrow focus on stable consumption alone.

Bock and Wiskerke discuss in essay 10 the countermovement that emerged in response to developments in the traditional food system. Where the development in the traditional food system is characterised by three interconnected and mutually enhancing processes of decoupling, detachment and unbundling, there is also a countermovement that focuses on (re)connecting, (re)embedding, (re)broadening and (re)bundling the food production. Bock and Wiskerke discuss a few initiatives that endeavour to create shared responsibility and to give people more say. This is done through new forms of organisation in which the land is owned collectively. This means that the risks of production are not mainly borne by farmers, but are more widely shared by consumers and producers. Not only a focus on sustainability plays a role in such initiatives, but also health, nature, landscape, culture and identity – a common awareness of prosperity that encapsulates more than production cost and sales prices. Such alternative food networks indicate a great willingness among at least some citizens to develop alternatives to the system in place. However, they may also clash with policy ambitions in the area of sustainability, because the distribution efficiency is often of lower quality, or because not all alternative networks are accessible to all citizens. Bock and Wiskerke nevertheless see broad prosperity opportunities through common ownership and land management as a means of giving citizens more control over the food system.

The changing context in which agricultural entrepreneurs operate also had an effect on farming itself. This placed increasing emphasis on increase of scale and technological innovation to keep cost prices down and be able to compete on the European food market (see essay 1 by Poppe). Many farms continued to operate as a family business, even though the modernisation process drastically changed farming and farmers are increasingly seen as independent entrepreneurs on a global market. Farmers have not always fully supported industrialisation in agriculture (see essay 3 by Haalboom). For example, farmers' organisations initially opposed the emergence of private feedstock businesses for fear that only cheap and low-quality ingredients would become part of the diet. Moreover, the modernisation came with increasing regulation in the agricultural sector, causing farmers to deal with many laws and regulations. Some of the laws and regulations originating from the Common agricultural policy were initially designed to be a social safety net for farmers, but proved not to be easily navigable for all farmers. This caused not all farmers to benefit from the various regulations in equal measure. Also, the agricultural sector is regularly displeased about government involvement impeding independent entrepreneurship of farms. There also often seems to be a perceived lack of acknowledgement of expertise of farmers as food producers, landscape managers and conservationists (see essay 7 by Aarts and Leeuwis). Such insights offer context in the recent discontent with nitrogen policy and place it in the long-term perspective of the structural development of the food system.

¹ Even though some people have pointed out that such diversity is mainly a large variety of products based on a limited number of crops, like wheat, soya and corn (e.g. Fitzgerald 2016).

Conclusion

Food production and consumption involves a wide variety of values and interests. The contributions to this volume have provided insight into the values and interests involved in an internationally interconnected food system. Access to affordable and healthy food is a prerequisite for a society to reach optimal prosperity. Some perceive global food security as the primary framework for the future of the food system, while others focus more on the earning capacity of the Dutch economy, or the impact of the food system on the living environment and nature. Because food production and consumption is strongly interconnected with other countries, interests outside the Netherlands also play a role. Through trade relationships, international companies and organisations, and ecological interconnectedness, choices made in the Netherlands affect the lives of people elsewhere. The diversity of values and interests means that any food policy objective can quickly become a complex problem. In policy literature, such problems are sometimes referred to as ‘wicked problems’; problems that are difficult to define and have no ultimate solution. That is partly because solutions often generate new problems, and partly because the objective cannot be determined unequivocally (Head and Alford 2015). Whatever solutions are put forward to address a policy objective, they will always lead to dissatisfaction among some groups.

Due in part to the complexity of the challenges facing the food system, many essayists say this calls for a decisive government. Although it was not the intention to exhaustively discuss the government action perspectives in this volume, the essays did address various action perspectives. They often pointed out the opportunities for governments to take on a more guiding role, in which the government could, for example, focus more on knowledge transfer through renewed research, information and education policies or pricing or rewarding (non-)sustainable practices. The government could also focus on providing clear visions of what is meant by sustainable and nature-inclusive agriculture and establish appropriate reward structures. Other possible ways for the government to guide the process is by improving the working conditions and terms of employment of groups including migrant workers, and by actively intervening in the consumptive environment, reducing consumers’ incentives to over-consume. Whether the government wants to take on that role, however, depends on political considerations. Other social considerations may also play a role in that respect, such as the affordability and accessibility of food for various groups in society (see essay 10 by Bock and Wiskerke). Provided no flanking measures are taken, the pricing of ecologically burdensome forms of production and consumption could have relatively severe consequences for those groups in society that already find it difficult to make ends meet (De Kluizenaar et al. 2024).

However, a decisive government also means that choices will be made that will not be to everyone’s satisfaction. In the past, the government has been able to pursue effective agricultural policies because social interests (preventing a cold restructuring of the countryside) and economic interests (access to cheap food) meshed well with each other and with the business interests of the agricultural complex. Ecological interests played a lesser role in that respect. This was partly due to insufficient knowledge of the impact of intensive production, and partly because ecological interests played a minor role in the assessment framework for agricultural policy. As described in this volume, this could give rise to a situation in which agricultural interests come up against the interests of nature conservation. As the interests have become diverse and less unambiguous, it will be more difficult to achieve adequate policy through broad consultation. This does not mean that the system cannot be changed, as there are enough potential measures that would allow the objectives set by politicians in recent years to be achieved. The challenge is in the social objective. How do we find solutions that are perceived as just and legitimate, even if they are not to everyone’s satisfaction? And how do we ensure that citizens are not disappointed because created expectations cannot be lived up to, which could affect trust in government and politicians? This will be elaborated on in the concluding discussion.

Lastly, it must be said that the contributions to the volume have not been exhaustive in describing the values and interests involved in the food system. Some values and interests were not sufficiently addressed for that to be the case. These include animal welfare and the role of actors like supermarkets

and financial institutions. As a whole, the volume thus offers bases for an integrated perspective on the food system. However, a number of questions have been left unanswered, such as the expectations that people have when it comes to the food system and the extent to which this aligns with the assumptions embodied in policy, which justice principles are leading for people in an internationally interconnected system such as the food system, and people's opinions on how animals are treated in Dutch livestock farming. In other words, much can be done in future research to highlight underexposed perspectives on the internationally interconnected food system in order to contribute to the further development of an integrated perspective on two essential aspects of any society: food production and consumption.

Concluding discussion: Justice in the international food system

The emergence of the term ‘broad prosperity’ has increasingly caused the Dutch government to adopt the ambition in recent years to not only steer towards economic growth, but also towards ecological and social dimensions of prosperity. However, the government’s scope in this regard is largely influenced by the various ways in which our institutions are interconnected with other countries. Key social developments that can have major consequences for people’s lives in the Netherlands tend to have a strong international character. The policy designed to guide such developments is also often implemented in a multi-level governance setting in which supranational administrative bodies, local authorities and everything in between play a role. The international interconnectedness of Dutch society often give policy objectives an additional layer of complexity. Those objectives are complicated enough as they are. With this volume, we wanted to shed light on the consequences of the international interconnectedness of Dutch society for people in the Netherlands and elsewhere. We also wanted to zoom in on the scope of the Dutch government to direct this process. We did so by taking a closer look at the international character of the food system and ascertain what that interconnectedness means for the policy objectives before us.

The food system is interconnected with Dutch society in various ways and affects not only the quality of life in the Netherlands and elsewhere, but also distribution issues. Given the complexity of the food system and the many varying values and interests involved, guiding that system is no easy task. In addition to the technical challenges hampering sustainability policy (Boezeman et al. 2024), there are also social challenges. For example, there is disagreement about which objectives should be leading for agricultural and food policy, and which interests should have priority. While the need to make production and consumption sustainable is evident to some, it is not to others. Moreover, the objectives and the prioritisation of the interests can change over time, as the toning down of the policy ambitions of the European Green Deal has already showed. If the ambitions cannot be achieved, despite the huge efforts, this will also affect the trust in government and the relationship between citizens and government in a broader sense. The scope of the Dutch government to guide the economic, ecological and social outcomes of the food system is also determined in part by the way in which food production and consumption are connected to other countries. As not everyone can be satisfied and the legitimacy of the policy cannot be based on results alone, it is important to develop a clear vision of the principles on which justice of the agriculture and food policy is based. People are generally willing to accept policy, even if it does not serve their own interests, as long as the choices are considered just. Justice, in other words, can be a prerequisite for public participation and acceptance of policy (Mouter et al. 2021).

With this concluding reflection, we want to contribute to the development of such a vision by clarifying the justice dimensions of the food system. We do so by considering the meaning of justice in an internationally interconnected food system and by discussing how considerations of justice can play a role in policy choices.

Varying values and interests can cause justice to have different meanings

Complex social challenges require policy to properly weigh different private and public interests. As Aarts and Leeuwis already concluded in essay 7, current agriculture and nature policies often still have the character of distributive bargaining. Little attention is paid to the perspectives of various parties. The emphasis is on people’s own positions and little care is taken of others. When policy cannot satisfy all groups, the guiding justice principles must be properly considered; what must be expected from citizens and why? Such an ‘integrative approach’, as argued by Aarts and Leeuwis, requires attention for different

perspectives and the conditions under which citizens can, want, must and/or may participate in the intended changes. For example, making the food system sustainable means considering the conditions under which farmers and consumers can and must participate in making agriculture in the Netherlands sustainable (see essay 7 by Aarts and Leeuwis, and essay 9 by Dagevos).

Not all farmers have the same freedom of movement (Trienekens et al. 2024). The transition to modern agricultural systems, in which farmers operate on the global market as independent agricultural entrepreneurs, has turned most agricultural businesses into capital-intensive enterprises. The average farm today is nearly 900,000 euro in debt (Berkhout et al. 2022). The small margins and substantial debts mean, for example, that agricultural entrepreneurs often have limited room to tinker with their business model, and that small changes can have major financial consequences (Vink and Boezeman 2018). Also for this reason, current nature and nitrogen policies heavily focus on cessation of farming, without related rights being resold to businesses seeking higher nitrogen emission allowance. The potential sustainability benefits on a voluntary basis appear limited, and how other benefits are to be achieved remains unclear (Boezeman and Vink 2022). Although consumers show great willingness to live a more sustainable life, in practice this proves to be difficult. Behaviour only partially reflects the intentions (Geerts et al. 2023; Versantvoort et al. 2024), further limiting the financial leeway for food producers to become sustainable.

The degree to which people want and can contribute to making the food system sustainable differs. As shown in the various contributions in this volume, a wide variety of values and interests can play a role in this respect. For example, some people are concerned about the state of nature, health and/or the treatment of animals in intensive livestock farming. Others are mainly concerned about the uncertainties facing farmers in a changing society and/or the affordability of food. Views on the treatment of animals in agriculture have become increasingly prevalent on the political agenda (Verdonk 2009). What upsets most of the population is the emergence of large-scale livestock farming or the bio-industry, which produces mainly for export. In terms of economics, this only benefits a small group, while saddling a large group with the adverse effects. For others, animal products are key Dutch trade products. They believe that farm families must be able to make a living from this and consider livestock farming as cultural heritage to be preserved (Mouter et al. 2021). Many people therefore also believe that what is asked of livestock farming is not fully proportionate to what is asked of other major nitrogen-emitting businesses (Mouter et al. 2021; Den Ridder et al. 2023). The local farmer is then pitched against the more cosmopolitan vegan (Smouter 2022). This can quickly turn agricultural politics into a heated societal controversy. The farmers' protests resulting from the Council of State decree to declare the Action Plan for Nitrogen invalid did not get a response from just the farmers themselves. The protests also resonated in Dutch society, following on from wider regional and/or peripheral resentment and dissatisfaction with national politics (Smouter 2022; Van Vulpen 2023). Most people agree on the notion that the way the food system is set up should be fair and just. The question is: Just for whom?

Justice in an internationally interconnected food system

The perception that policy and its outcomes are just can be a prerequisite for the acceptance and legitimacy of drastic measures (Mouter et al. 2021; Van Noije 2019). That is why policy recommendations increasingly address equity of sustainability policy, often focussing on distributive justice. In a recent report, The Netherlands Scientific Council for Government Policy (*Wetenschappelijke Raad voor het Regeringsbeleid*, or WRR 2023) clarified a number of principles that could be leading in perceptions of justice in the apportionment of costs of Dutch climate policy. In one of its publications, the Advisory Council on International Affairs (*Adviesraad Internationale Vraagstukken* (AIV 2023)) discussed the justice issue of climate change and climate policy from a global perspective. It raised questions like: Which countries are to blame for climate change? And which countries face the most severe adverse effects of climate change?

Apart from distributive justice, academic literature distinguishes two other dimensions of justice: procedural justice and recognition justice (see e.g. De Bruin et al. 2023). Procedural justice is about how decisions come about. How are citizens involved in this? And who is responsible for implementing the policy? In the context of sustainability policy, recognition has different dimensions in literature (Van Uffelen 2022). This, among other things, involves the question as to whose interests should be considered when making policy decisions and how this should be done. What weight does the perspective of agricultural entrepreneurs carry compared to consumers, other users of the living environment, or the fate of migrant workers? Should the interests of animals also be considered? Does the sustainability issue only relate to food security, or also to health, the earning capacity of the Dutch economy, and the contribution made by the Netherlands in finding a solution to global ecological problems? Recognition therefore implies a certain degree of solidarity (perceived or institutionalised forms of shared fate); the perceived lack of recognition can contribute to social discontent (Geurkink and Miltenburg 2023).

The contributions in the volume point out a number of considerations in the area of justice that could be key to the legitimacy of sustainability food policy:

- 4 The Dutch food system depends on import and export from and to other countries. That is why the just distribution of that system does not only involve how the benefits and burdens of the sustainability policy in the Netherlands are perceived, but also how the benefits and burdens of the food system are distributed internationally. For that reason, it can be of importance for the legitimacy of sustainability policy not to just consider the perceived justice of the distribution of the benefits and burdens of the system in the Netherlands, but also elsewhere.
- 5 There are different perspectives on what sustainability means in the context of the food system, the degree to which non-ecological factors should play a role there, and also what a future-proof and sustainable food system should look like. Individuals could use different values as their starting point. While one places great store by biospheric values with an emphasis on ecological aspects, the other places more emphasis on the importance of food security or the earning capacity of the agriculture sector. This comes with the risk that the interpretation of the term 'sustainability' as applied by policymakers, not always aligns with the ideas about this subject that exist in society. This may cause normative expectations in government to arise that inadvertently contribute to excluding other perspectives (Blijleven et al. 2023). Citizens and farmers may, for example, have different ideas about nature and nature management and can feel unappreciated if policy does not sufficiently take their ideas into account (see essay 7 by Aarts and Leeuwis). If the government wants to bring along citizens and/or place the responsibility for the sustainability transition of the food system with citizens, clarity is needed concerning the meaning of sustainability as defined by the government, and the scale at which solutions should be sought.
- 6 The international character of the food system has also raised important questions about procedural justice, who is involved in the decision-making process and how, and how decisions come about. For example, internationalisation in the food system has gone hand in hand with market concentration for supply products and distribution. The development of the current food system has created interests thus established, which, according to some, have a disproportionately large influence on the further development of the system (Mooney 2017; see essay 3 by Haalboom). Moreover, the decision-making process takes place in a layered government structure. The main topics are often broadly outlined at supranational and (to a lesser degree) national levels, and are often (but not exclusively) elaborated at national, provincial and municipal levels. The question is whether and how the different interests and perspectives in society can be taken into account in decision-making, and how local, national, European and international policy priorities can be reconciled.

Choices for a future-proof food system

In this exploration of the international interconnectedness of the food system we do not just want to show the complexity of policy reality, but also offer guidance for policy making. For that reason, this concluding section offers a reflection on choices arising from the international interconnectedness of the food system, taking into account the considerations of justice referred to above. There is no unequivocal answer to these choices. How politicians will deal with these tough choices will partly relate to the aspects of broad prosperity that will become the focus in the years to come.

1 Sustainability through extensification or intensification

Often the conversation about the future of Dutch agriculture centres on whether, to what extent, and in which areas the sector should extensify or intensify (Westhoek et al. 2010; see also Mann 2018). Policymakers may choose to discourage further intensification of production (in some areas) with measures targeting the input factors or outputs of agricultural activities. Alternatively, they may choose instead to further encourage such intensification in areas where social and environmental impacts are relatively small, and make room for the opportunities offered by technological innovation. Extensive production techniques are often better for soil, water and nature, but are also often associated with reduced farmland productivity. As a result, problems may arise if global agriculture extensifies simultaneously and the composition of the global diet remains unchanged (Migchels et al. 2023). Again, innovation may offer a solution, but through organic methods. In the past, European agricultural policy has encouraged intensification of production. Although the European Union seemed to be moving toward extensification with the “farm to fork” strategy, policy ambitions have since waned and the future of the strategy has become uncertain. Planned reforms of the Common Agricultural Policy and the European Nature Restoration Act are also under pressure. Such measures are part of the European Green Deal through which the European Commission intends to respond to global climate and biodiversity challenges. However, there are also concerns about impacts of the measures on European farmers and reduced agricultural productivity (Baquedano et al. 2022; Bremmer et al. 2021).

Within the European policy context, the Dutch government can place different emphases on food system development through measures that promote extensification or, conversely, a combination of extensification and intensification. As noted earlier, intensive production can be a source of income for some, while others experience inconvenience mainly through deterioration of air quality, housing problems and concentration of minerals that can be harmful to nature, environment and climate. Although in this picture the greatest financial benefits of production accrue primarily to a small group of producers, the burdens are diffuse, spread over a large segment of the population that is affected by intensive production to varying degrees. Thus, in addition to the question of how and to what extent the Netherlands should contribute to global food security, and combating climate change and biodiversity loss, there is also the question of what a just distribution of benefits and burdens looks like. Opting for targeted intensification can create space for extensification in other places, but can raise questions about how the benefits and burdens are distributed between areas.

For farmers, the discussion around intensification and extensification is also about socioeconomic security. After all, the intensity of production is an important aspect of the agricultural business model. Given the thin margins that a large proportion of farmers work with, policies that contribute to uncertainty about the earnings model quickly meet with resistance from the agricultural sector. Moreover, the need for agricultural entrepreneurs to get a return on business investments can contribute to sustainability measures having unwanted side effects. For example, additional nature and environmental requirements can actually reinforce the need to reduce costs through intensification and increase of scale (see essay 1 by Poppe). Organic farmers also do not appear to be entirely positive about initiatives to make extensive production the new normal. After all, part of their income comes from their access to a niche market where consumers are willing to pay extra for sustainable products. With equal demand, an increase in the supply of organic products could also put pressure on their income (Oudman 2023).

2 The role of livestock farming in the Netherlands

The question regarding the position of livestock farming in the Netherlands, is whether the Netherlands wants to continue to specialise in the production of animal products, or whether we will see livestock farming primarily as a processor of agricultural residues (Bos et al. 2023). Curtailing livestock farming can reduce nitrogen and greenhouse gas emissions, adjust groundwater levels and prevent subsidence, and create more space for nature. It can also reduce the supply of products often associated with harmful impacts elsewhere in the world, such as soy imports for animal feed and/or fertilizer. Many agree that there are many benefits to reducing the size of the livestock industry. However, opinions differ on the extent to which livestock farming should be reduced, how this should be done, and whether reducing livestock farming should be a goal in itself (IBO Klimaat 2023; Reudink et al. 2023). Moreover, plans to downsize the livestock sector have met with much resistance in recent years. The plans create much uncertainty for agricultural entrepreneurs. Moreover, many livestock farmers see downsizing plans as unjust, because they feel that they are thereby paying for the nitrogen crisis, while other major polluters are being spared (De Witte and Molema 2023: 23). Moreover, as already indicated, such feelings of injustice may resonate more broadly in society (Mouter et al. 2021). The government may therefore also choose to maintain livestock farming in the Netherlands as much as possible. Policy makers must then consider, in the context of broad prosperity, how to deal with side effects such as the impact on the living environment, housing for migrant workers who shoulder the efficiency of the processing industry, and greenhouse gas emission.

The contributions in this volume have shown that the future of livestock production cannot be separated from the international context for three different reasons. First, much of livestock production is destined for other countries. This means that the benefits of livestock farming tend to be concentrated among a relatively small segment of the population, while the burdens are borne much more broadly by society as a whole. Second, the Dutch livestock industry is dependent on foreign countries for the supply of fertilizer and raw materials for animal feed. As a result, Dutch livestock farming is tied to land use outside its own borders, where it may compete with crops fit for human consumption. Third is the contribution of the Netherlands to the global food supply. Although the Netherlands is a net exporter of food measured against net added value in economic terms, looking at net added nutritional value blurs the image, as Oosterveer argues in essay 2. That much of the production takes place in the Dutch livestock industry is part of the reason for this discrepancy. Whether the Netherlands can contribute to 'feeding the world' in a sustainable way by reducing its livestock will therefore depend on a number of factors. Policymakers have only partial influence on this. For example, it may be that part of the production moves elsewhere, so that with unchanged production and consumption, the global gains in terms of climate, biodiversity and food security are only limited, or may even be negative. But if reduction measures can be linked, for example, with additional requirements for the import of animal products, such as an extension of the carbon border adjustment mechanism (see essay 5 by Dries), then the measures can have a net positive effect on global food security, climate, nature and animal welfare.

3 Between globalisation and regionalisation

A third choice concerns the extent to which the Netherlands wants to push for further globalisation of the food system and the further expansion of global trade flows, or instead work toward a system in which production chains are predominantly regional, i.e., at the European level. The current food system already has a regional character, in the sense that by far the majority of food trade is with immediate neighbours and other EU Member States. Yet there are also a number of specific production chains with a distinctly global character. For example, the Netherlands imports a lot of soy, meat, fruit and fruit juice from Brazil and the United States, and natural fats/oils and animal feed from China. The Netherlands exports a lot of baby milk powder and pork to China and a lot of beer to the U.S. (see essay 2 by Oosterveer). This also involves trade in so-called tertiary products, such as fertilizers, agricultural machinery, and pesticides. The Netherlands can work to increase global trade flows through European trade agreements with third countries, or alternatively refrain from further liberalisation of trade flows in agricultural goods, and encourage the further development of regional, European food networks.

When making the choice for globalisation, or regionalisation, several considerations about broad prosperity come into play. Many exporting countries would like better access to the European food market, but come up against the increasing desire of European countries to impose stricter sustainability requirements on such access. While trade liberalisation can increase overall economic prosperity in the EU and improve the availability of certain products, it also means that part of the agricultural sector may suffer. To the extent that producers elsewhere are held to lower standards than agricultural entrepreneurs here, European food producers may fear that further liberalisation will lead to unfair competition. At the same time, there is the fear that further liberalisation will have adverse side effects if no or few additional conditions are imposed on production elsewhere. To what extent such conditions can be set within the current frameworks of the World Trade Organization, however, is not yet clear (see essay 5 by Dries). Questions around climate justice also play a role in deciding how Europe, and thus the Netherlands, will relate to trade liberalisation in the area of food. African, Asian and Latin American countries are likely to experience productivity declines due to climate change. As a result, additional conditions on trade flows may be perceived as unjust (AIV 2023). Moreover, there are growing concerns about the dependency that may arise from intensification of trade flows (WRR 2024), when trade flows are concentrated and no good alternatives are available (see essay 6 by Huysmans). Such external considerations will have to be properly weighed with internal considerations, and require making clear choices from an integrated assessment framework.

4 Reliance on market mechanisms or strong government intervention

To achieve sustainability goals, the government may choose to take drastic measures itself. In recent decades, however, the government has increasingly chosen to place much of the responsibility for making the food system more sustainable on market participants. This suggests that policy makers put confidence in the fact that market mechanisms will lead to the best outcomes. In this mode of governance, the national government sets the goals, but places implementation primarily with decentralised governments and the market. In the area of agricultural policy, the government has adopted such a decentralised approach with the National Programme for Rural Areas, in which the national government has combined the targets for nitrogen, nature, climate and water and asked provincial governments to come up with plans with which the targets can be met with sufficient certainty (Boezeman et al. 2024). On the consumption side, the market approach seems dominant. For example, with the Food Agenda 2016-2020, the national government focused on increasing consumer awareness and improving transparency in the chain. The national government also entered into a partnership with market participants with the Market Programme on Making Animal Products More Sustainable.

The contributions in this volume show that there are also significant drawbacks to market thinking. These drawbacks may possibly preclude the food system becoming more sustainable. For example, focusing on increasing consumer awareness can be an attractive alternative to drastic and controversial measures that directly affect producers' livelihoods. However, this will hardly be effective if there is little change in what Dagevos calls the consumptogenic system in his essay. The fact that consumers seem to have difficulty turning sustainable intentions into behaviour, Dagevos attributes in part to environmental factors aimed at encouraging more consumption. In other words, structural change in consumer behaviour can only be realised when the government starts actively steering consumption. This can be done, for example, through financial incentives that encourage consuming less, Dagevos argues. There are both advantages and disadvantages to placing responsibility with business. Large companies, such as supermarket chains, financial institutions and transport companies, often operate internationally. As a result, they can be key players in changing behaviour. Not only in the Netherlands, but also across national borders, as Dries suggests in essay 5. There is a downside to this, however. Because these companies often operate internationally, it can be more difficult to impose conditions on production when the level playing field is at stake. The structure of the food system thus affects the government's control capacity.

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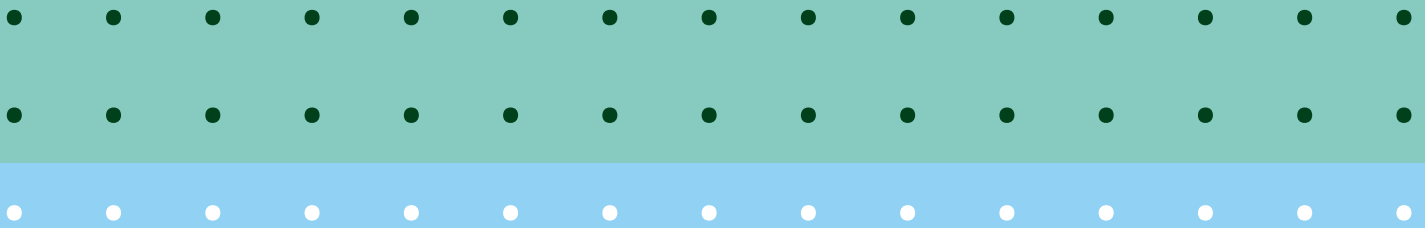
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