



altering imports and exports, markets that disappear because the hospitality industry closes, and a panicky, pastahoarding general public: all in all, the Dutch food industry got quite a shock early this year. Quite apart from the human suffering caused by the coronavirus crisis, it became clear that the food sector would not escape its economic impact either.

The most obvious impact on the Netherlands took the form of surpluses. The sudden end of demand from restaurants produced a potato mountain that could have filled the Amsterdam Arena football stadium three times. Italian demand for Dutch veal

> stopped too, with consequences across the sector - from dairy farmers who couldn't sell their male calves to truck drivers without work. Internationally, problems arose in the grain and rice markets, mainly due to import and export restrictions and protectionist measures.

> > This raises the question of how well equipped the current system is to cope with a serious global crisis. Is it time to rethink the conventional, efficiency-driven system based on complex global supply chains? What lessons can we learn from the coronavirus crisis?

'A number of issues emerged,' says Imke de Boer, professor of Animal Production Systems. 'Firstly, our food system is very global. About three quarters of the land needed to produce the food consumed in the Netherlands is in other countries. At the same time,

**MARCEL VIJN** 

### 'Short supply chains are an insurance against hard times'

we export vast amounts of what we produce ourselves. The crisis showed that those long supply chains are vulnerable, but we already knew that, really. And it's only logical: the more links there are in a chain, the more places there are where things can go wrong. 'What is more: when you think in circular economy terms, you want to keep supply chains short wherever possible too. It is much easier to create a closed loop in a short supply chain. If you want to work towards

**IMKE DE BOER** 

'We must now really insist on a food system that is fair to humans, animals and the planet'

circular agriculture — as I do — you must purchase locally whatever products we can produce locally. So it's fine to look abroad to source avocados and citrus fruit, which we're not going to grow in greenhouses here. But you shouldn't import potatoes from Israel when they are in plentiful supply here.

'Where I think the coronavirus really is a game changer is the conditions in abattoirs. Especially the labour conditions. Currently, it is mostly East Europeans who process our meat for a pittance. They work at close quarters to each other, and are then taken in crowded buses to holiday camps where they are packed into chalets. This has got to stop. We must now insist on a food system that is fair to humans, animals and the planet. I already knew that, but it really has become crystal clear to me now.'

De Boer, Evelien de Olde and their team are among the 10 finalists in the Rockefeller Foundation's prestigious Food System Vision Prize. The team submitted a holistic vision of a healthy and circular food system for the Netherlands in 2050.

### **BUFFER**

Marcel Vijn, who researches urban-rural relations at Wageningen Plant Research, is studying the potential of short food supply chains. 'I agree with De Boer. There is not necessarily anything wrong with long supply chains. They are often very useful. But there is not enough recognition of the importance of the short supply chain.

'Short supply chains and direct distribution from the farmer to consumers can provide a buffer for a few days. The food system is based on the just-in-time economy: supermarkets want to keep their stock moving. When the Icelandic volcano with the difficult name (Eyjafjallajökull, ed.) erupted in 2010

and much of the air traffic over Europe was grounded, the British calculated that London had a food supply to last just three days. "Nine meals from anarchy", they called it with typically British dry humour. The UK is particularly dependent on imports, but in the Netherlands we might only have a few more days than that. The system is totally dependent on a continuous logistical flow.

'And that is where the weak points are. The supply, which comes from a vast number of producers, has to reach a vast number of consumers via just a few very big purchasers — the supermarkets. If you were to draw it, it would look like an egg-timer: everything is funnelled through that handful of buyers. The egg-timer model has its advantages, because it keeps costs down. But it is very sensitive to hiccups.

'In my local supermarket I couldn't get any eggs for a while at the start of the crisis. People had been hoarding them. But the farmer near my home had plenty of eggs, and he has a vending machine at the side of the road. Normally he had to fill it once a day, but now he had to do so continuously. Sales were crazy. In other words: there were still eggs, but something had

**JEROEN CANDEL** 

'The right to food - especially healthy food - is not that well organized' gone wrong in the middle of the egg-timer. 'During the crisis, short supply chain initiatives suddenly sprang up everywhere, such as the "Support your locals" campaign.

Farm shops did a roaring trade, doubling or even tripling their turnover. I think that just goes to show what the potential is. The big question now is: are we prepared to invest seriously in the development of short supply chains. It has real advantages: you can see it as an insurance against hard times. And short supply chains are also good in terms of sustainability issues. Consumers build

a relationship with "their" farmers, and can support the way they work by buying their products. That is worth a lot.'

### **PUBLIC HEALTH**

Jeroen Candel, assistant

professor of Public Administration and Policy, has been working on food policy for years now. If you monitor every aspect of the food system from production to consumption - he believes it is possible to create an integrated policy that tackles several societal problems at the same time. By focusing on food, you can tackle public health, and you can also improve the environment by stimulating more sustainable agriculture.

'The coronavirus crisis was a short-term shock that exposed a number of systemic >



**JOOST GUIJT** 

## 'Landless labourers run the risk of sliding into deep poverty and hunger'

problems. The most striking one to me was that the impact of the coronavirus hit the weakest in the food system hardest. Like less well-off consumers, for instance. Social inequality is a crucial issue, if you ask me. 'We are seeing that a growing number of people are dependent on food banks. And yet at the start of the coronavirus crisis, the food banks had to close. That made clear where the pinch is felt: the lower echelons of society are more vulnerable than people real-

ize. Especially if you take a Europe-wide perspective and bear in mind the expected economic downturn. The right to food – especially healthy food – is not that well organized.'

Candel helped write a report called 'A sustainable food system for the European

Union', which was commissioned by SAPEA, a scientific advisory body to the EU. 'The EU pursues an agricultural policy, a food safety policy, and an environmental policy, but that is all very fragmented. Now there is a push to work towards a more integrated food policy, such as European Commissioner Frans Timmermans' Farm to Fork strategy.

This is the food-related component of the Green Deal, the policy that aims to make Europe climateneutral by 2050. Our report was

input for that. One of our main messages was: don't look at food as only a commodity, but also as a public good. And think about how we can distribute food in a fair manner. There is a certain momentum around the Green Deal objectives. It might seem as though the coronavirus has lent them extra urgency, but I am afraid of the backlash. We know from past experience that when economic stress goes up, the environment is put on the back burner. I'm not very hopeful.'

### **VULNERABLE ECONOMIES**

Joost Guijt is worried about the near future too, not so much for the Netherlands or Europe, but especially for vulnerable economies in Asia and Africa. Guijt is Senior Advisor Inclusive Agrimarkets at Wageningen Centre for Development Innovation (WCDI), which focuses on creating a robust food system in developing countries by fostering local knowledge and skills.

'First of all, it could have been a lot worse. Everywhere, as soon as the crisis began, the agricultural sector was declared crucial. As a result, the supply, trade and local markets were reasonably well maintained. But I still fear the worst. Because while we in the Netherlands are fretting about getting seats at pavement cafes, the virus is only expected to peak in regions like East Africa in September. It could get really out of control there. As for crisis areas such as Yemen, cases are not being registered there but you hear from colleagues that there is a steady flow of funerals day in day out. 'It is crucial that the coming harvests go well, so the supply of food is kept up. Because the countries where WCDI works generally lack a good safety net. You can see how the measures to control the coronavirus are starting to have an impact. In the sesame sector in Ethiopia, for example, there are half a million landless farmers and farm labourers, whose movements are now limited. And rightly so, because those labourers are a risk factor for spreading the disease. They live in crowded conditions and lack the resources to take measures themselves. But these measures have a far-reaching impact. 'Sesame farming is labour-intensive. Now that labour is not available, landowners are opting for less risky and labour-intensive crops such as sorghum and millet. And as a result, the landless labourers run the risk of sliding into deep poverty and hunger. We are seeing horrifying developments throughout Africa, in that respect.

'Sesame is also Ethiopia's second biggest source of foreign currency. If 90 per cent of the sesame farmers reduce the amount they sow, it won't just be rural communities that suffer a massive, almost insuperable loss of income: the nation as a whole will lose revenue. And that reduces the country's

ability to respond to emergencies by buying equipment such as ventilators, for instance. 'The strong side of the food systems in the countries we work in is the informal sector: all the small traders who go up and down between the city and the country with relatively small quantities of food products. We see that those informal markets are often more robust in certain respects than the formal markets like the ones we have in Europe. One weak link in the chain here can mean a whole batch of refrigerated food arriving too late, defrosting and having to be thrown out. In informal supply chains you find the supply being spread over many short supply channels in smaller quantities. Regrettably, we still don't know much about how those informal markets are responding to the crisis. Unfortunately, the signs are not positive.'

IMPORTS AND EXPORTS

'Of course, in a crisis of these proportions, the economy as a whole is at great risk,' says Roel Jongeneel, a researcher at Wageningen Economic Research and an assistant professor of Agricultural Economics and Rural Policy. 'It is a fact that the food system is not usually as badly affected as other sectors, simply because people still have

**ROEL JONGENEEL** 

'Short supply chains don't offer an alternative to the food system as a whole' to eat. During major crises, the agricultural sector does not usually shrink as badly as other sectors. But I still thought it was a bit scary, especially for a country like the Netherlands that is so dependent on imports and exports.

'But the European internal market has done well in forestalling trade problems between the member states. "Green lanes" were established at borders so that transport of important products could continue as usual, in spite of the restrictions on travel and

transport brought in because of the coronavirus. That has proven effective. The final safety net that was kept in reserve, an emergency fund with minimum prices for

food products, has hardly had to be used at all. Overall, the food system turned out to be very resilient. Having said that: it is also obvious that it is not perfect, what with the tensions around the climate, the environment, health, and the nitrogen problem. It needs quite a bit of correcting on these issues. 'I too believe that short supply chains deserve more attention; that is a good development. But the food system is diverse. Short supply chains are good for parts of it, but I think they will always be a niche. They don't offer an alternative to the food

system as a whole. That is just pie in the sky. 'One positive consequence of the coronavirus, I think, is the new awareness among the general public. People are taking a fresh interest in where their food comes from, and I think that connection is very important. It's not just that it contributes to a more robust food system because people get in touch with producers themselves. Personally, I also think it's a good way to live. Taking an interest and relating to your food and where it comes from: for me that has almost spiritual meaning.'

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