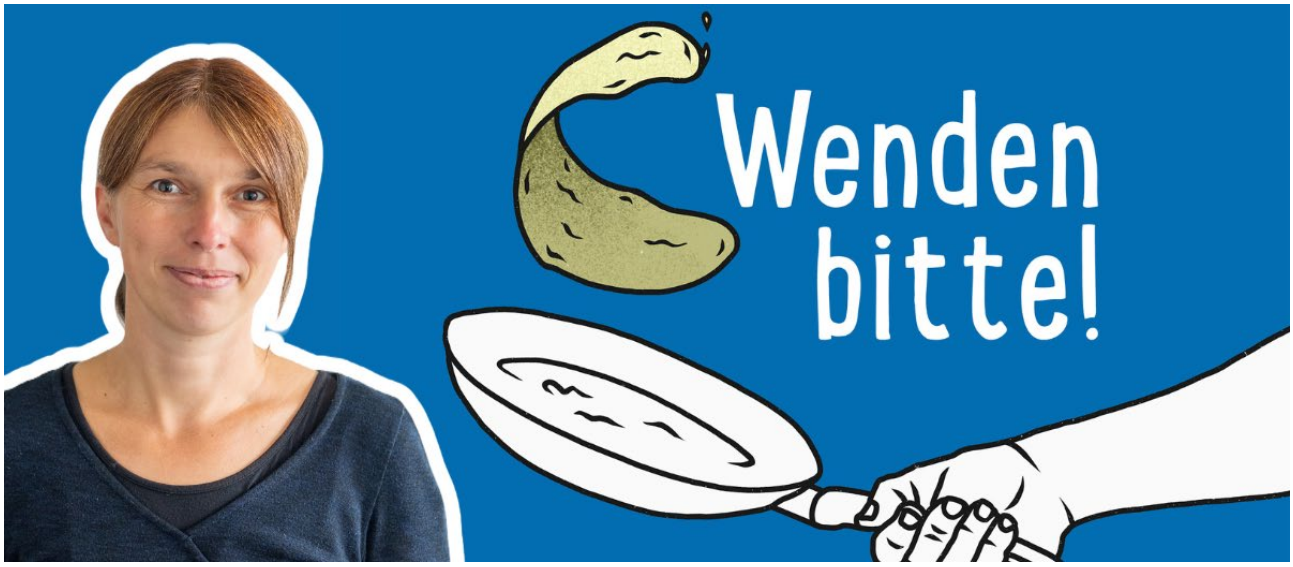

Transcript of the "*Wenden bitte!*" podcast:

Episode 19: "What can be done to make farming more climate-friendly?"

Introducing the subject and today's contributors

Nadine Kreutzer:

Welcome to a new episode of the "*Wenden bitte!*" podcast. Today we're back to discuss one of the hot topics in research for a sustainable future. I'm Nadine Kreutzer and today I am here with Hannah Oldenburg, Digital Communications manager at the Oeko-Institut. We send our good wishes to Mandy Schossig, who will be back next time. But today, we have Hannah with us, so let's get on with the show.

Hannah Oldenburg:

Yes, and hello from me. Today, we will be discussing how to put farming on a low-carbon pathway. The sad truth is that our current land-use practices often have negative impacts on the climate and also on biodiversity. Livestock farming in particular emits large amounts of greenhouse gases that are extremely harmful to the climate.

Nadine Kreutzer:

But as we know, we aim to be climate-neutral by 2045, and that will require some changes in farming as well. So our question for today is: what can be done to make farming more climate-friendly?

Hannah Oldenburg:

Indeed, and to provide some answers, I have invited Margarethe Scheffler to join us today. She is a Senior Researcher in the Oeko-Institut's Energy and Climate Division here in Berlin. Hello, Margarethe, and thank you for joining us.

Margarethe Scheffler:

Hello! Thank you for inviting me.

Nadine Kreutzer:

It's a great pleasure. And a warm welcome from me as well. Margarethe, you have been researching options for eco-friendly agriculture for many years and you also have a direct connection to the topic as you grew up in a rural area, is that right?

Margarethe Scheffler:

Yes, we moved out of town when I was young and we have a large garden where we grow a variety of fruit and vegetables and keep sheep. We also have a smallholding – 10 hectares with extensive grassland and horses. So I spent my childhood and teenage years around the stables.

Nadine Kreutzer:

And that inspired you to make a career of it?

Margarethe Scheffler:

Yes, it is always good to have a practical insight into the problems and challenges and maintain that connection.

Hannah Oldenburg:

We are very pleased to have you with us as our farming expert today. So let's jump straight in, shall we?

Sound clip (brief subject overview):

Anyone looking down on Germany from above would see a patchwork of farmland and pasture: fields of maize, cabbage and cereals alongside grazing for cattle and sheep, with animal housing and biogas plants nearby. Half of Germany's territory is used for farming purposes. Efficiency and high yields are the priorities, and while this reduces demand for land, it also has negative impacts on the climate, soil, air, water resources and biodiversity. According to the Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services (IPBES), nearly a million species are at risk of extinction. This is due to overexploitation of resources and intensive land use – in other words, human activity. In Germany, agriculture accounts for around 15% of greenhouse gas emissions. So in order to achieve the goal of climate neutrality by 2045, a transition to sustainability is required in this sector. Sustainable agriculture can only become a reality by working with farmers and consumers and implementing the necessary policy measures. So how can we ensure that our land is used sustainably? How can we protect the climate and biodiversity and preserve precious jobs while also producing enough food for everyone?

The status quo and challenges in agriculture

Hannah Oldenburg:

These are all very important questions, and we will be looking for answers to each of them in turn today. Margarethe, to start us off, can you explain exactly which challenges farming faces today?

Margarethe Scheffler:

Well, there's a whole bundle of challenges that we are dealing with here, starting with climate change, which directly affects farming businesses. In fact, they are in the front line because they directly depend on the natural environment and are therefore exposed to major risks that can affect yields – drought, extreme weather and the like.

On top of that, there are the environmental pressures – or problems – associated with intensive farming. We have high levels of greenhouse gas emissions, heavy nitrogen loads in soil, and biodiversity problems, as well as discussions around animal welfare and pesticide use in farming.

And as a further point, we have the economic challenges facing farming businesses. Product prices are too low and environmental services are not recompensed or reflected in market prices. In addition, there are the major risks associated with crop failures and high investment, as well as a lack of people to take over the farms. In other words, it is an unsatisfactory situation for farming businesses. Not all of them are affected, but some are really struggling. And then they give up farming altogether. Structural change in agriculture has been happening for years and is ongoing.

Nadine Kreutzer:

There are so many problematic areas, but let's stay with emissions for a moment. Perhaps just to clarify a point that was mentioned earlier: what percentage of emissions comes from farming?

Margarethe Scheffler:

It came up in the sound clip: in Germany, it's around 15%. These emissions come from a variety of sources. First, we have the direct emissions from farming; they are attributed to the agricultural sector. These are emissions from livestock production and nitrogen use. Then we have the entire land-use sector. If I plough up my grassland, for example, that releases carbon dioxide. Draining and

farming peatlands also emits large amounts of CO_2. And as a third source, we have energy-related emissions: running a combine harvester or heating livestock housing requires fuel and energy. That's part of it as well, but it is a small percentage and we already have optimised solutions here.

Hannah Oldenburg:

Can you give us some figures? What percentage comes from each of the various sources?

Margarethe Scheffler:

We produced a slightly more detailed breakdown on one occasion. How much comes from livestock farming? How much should we allow for our plant-based food? And what about bioenergy production? And the figures were alarming: we found that almost 80% of emissions can be attributed to livestock farming. This is related to land use and the substantial emissions from peatlands. Germany has a lot of grassland, which is used for livestock farming, and the digestive processes in ruminants also produce large quantities of emissions.

And then we have around 10% of emissions that we can assign to arable farming – growing cereals for bread-making, for example – and 10% that we can chalk up to the cultivation of maize for biogas and rapeseed for biofuels.

Nadine Kreutzer:

Can you shed light on the problem of peatland drainage: what percentage of emissions does this account for? Why is it so important to renaturalise peatlands?

Margarethe Scheffler:

From a historical perspective, the conversion of these sites into fertile and usable land was a major achievement by our grandparents and great-grandparents. The peatlands were drained because that was essential to access and farm the land, which would be impossible if they were still waterlogged.

However, draining peatland and drying out the organic matter causes mineralisation and releases CO_2 into the atmosphere. We are talking about very high levels of emissions – around 40% on top of the rest. So we have around 7% of the farmland – a very small proportion, in other words – accounting for 40% of emissions.

The challenge is that there are quite substantial variations in regional distribution here. We have some rural districts where peatlands cover 25-50% and others with none at all. So if we decide that things have to change and these sites have to be rewetted, it will no longer be possible to farm them as we do today.

But this will mean a major structural change in these regions. What we have here, in the main, are ruminants on grassland, so our beef and dairy farming really would be affected to a very significant degree.

Hannah Oldenburg:

If we look at ruminants, we're not just talking about CO_2 emissions; it's mainly methane, isn't it? And that's a very potent gas.

Margarethe Scheffler:

Exactly, we have methane emissions here. So if we are looking at direct emissions from agriculture, excluding land use, around 40% comes from ruminants' digestive processes; in other words, solely from our cattle stocks.

Methane is a very potent gas, but it is also short-lived. This means that it breaks down quickly in the atmosphere; it doesn't hang around for 100 years like CO_2. But it also means that measures to reduce methane emissions would have a major impact in terms of reducing greenhouse gases and mitigating climate change.

Hannah Oldenburg:

You previously mentioned nitrogen as one of the problems facing agriculture. Precisely what effects does it have?

Margarethe Scheffler:

Just to clarify: nitrogen is a vital nutrient for plant growth. We have come out of a deficit situation: in the past, there was not enough food for everyone and using nitrogen has enabled us to achieve much higher yields.

The problem we are facing today is that we are using far too much nitrogen – more than the crops can absorb. And so the nitrogen is released into the atmosphere or leaches into the soil or water – and that's not where we want it to be. And then it causes nitrate contamination in our groundwater. The nitrate then has to be removed because otherwise, the water wouldn't be safe to drink. We also have nitrous oxide or ammonia being emitted into the atmosphere, driving climate change and producing particulate matter and so on.

Hannah Oldenburg:

But if it is so harmful, surely there must be some rules stipulating how much nitrate can actually be used?

Margarethe Scheffler:

We have a series of rules, particularly at EU level, where there are numerous directives: the Water Framework Directive, the Nitrates Directive, the Ambient Air Quality Directives – a whole raft of them. We have transposed all of them into national law, so we do indeed have a package of legislation to regulate fertiliser use. However, these national laws were never tough enough.

As a result, over a 10-year period from 2013, we were embroiled in infringement proceedings, initiated by the EU, because our fertiliser legislation fell short of what was needed to meet nitrate limits in groundwater. This has been dragging on for 10 years. We have made some changes; we have adopted new legislation. In good news, the infringement proceedings have now been dropped because we are finally on track. Will it be enough? We'll see. For now, at least, we have managed to rid ourselves of the spectre in the room, namely the prospect of having to pay heavy financial penalties amounting to almost one million euros a day.

Land use and biodiversity

Nadine Kreutzer:

Coming back to biodiversity, we know that species diversity is suffering from the effects of climate change. How exactly is agriculture contributing to this decline in biodiversity?

Margarethe Scheffler:

Well, around 50% of our territory is farmed, so it's clear that our farming practices will have an impact on biodiversity. Of course, our infrastructure or how we design our gardens affects biodiversity as well. But they don't cover 50% of our territory.

And there are two major issues that need to be addressed. First of all, agriculture in many regions is very low in structural diversity: it consists of monocultures with no structural elements. So a hare that would normally hop from one hedgerow to another has no hedgerows at all because a single field can cover as much as 100 hectares. This is mainly the case in the East German states, where we have extremely large fields. Another problem is that we no longer have complex crop rotations; we just plant one maize crop or one wheat crop after another. So there is a lack of diversity in the succession of crops that we are growing. Then we have all the chemical inputs. Nitrogen has an impact on species composition, and the pesticides, herbicides and fungicides that we're using – all of them – affect the species that are present in our environment and they are dying as a result of that.

Nadine Kreutzer:

These wildflower strips that are always being talked about and which many farmers are planting: do they make a difference? Do they have any kind of impact?

Margarethe Scheffler:

Well, as far as we can tell, they do make a difference. And they make the biggest difference when they are maintained for several years so that the wildlife can adjust to their presence and stay local. But there aren't enough of them. We have now raised the target. We want at least 4% to be wildflower strips or fallows. That's always the question: if I have some fallow land, should I simply set it aside or should I go in and plant something extra? Both of these options have impacts. More is better. Especially in intensively farmed regions – there, wildflower strips and fallows have all the more impact.

Hannah Oldenburg:

Wildflower strips are a good start, then. But there is still some way to go and we know that we certainly can't carry on as we are. That's why specific targets have been set for agriculture to show where we should be heading. I would be interested to hear what kind of smart ideas the politicians have come up with.

Policy goals for sustainable farming

Margarethe Scheffler:

Well, the politicians have come up with plenty of ideas. When it comes to setting targets, they excel themselves; instead of dealing with the specifics, they can simply start off by setting ambitious targets.

The most ambitious targets are set out in the Green Deal. Here, we have climate neutrality, but we also have fairly detailed goals for the agriculture sector in the Farm to Fork Strategy. These targets relate to 2030; in other words, they should ideally be met within seven years. They include a 50% reduction in the use of chemical pesticides and a 50% reduction in nutrient losses from nitrogen inputs. We have a 25% target for organic farming at the EU level, as well as a national 30% target

in Germany's coalition agreement. In other words, we have a multitude of targets. How they are to be achieved is still an unanswered question in many cases, though.

Nadine Kreutzer:

All right, so we are aiming to be climate-neutral by 2045, and that includes the land-use sector. But is achieving climate neutrality really feasible?

Margarethe Scheffler

In the agricultural sector, it's very difficult because biological processes come into play. There are the methane emissions, the nitrous oxide emissions from fertilisers and the carbon dioxide emissions from soil use. These are biological processes which will continue as long as we carry on farming, so they can't be reduced. As soon as you apply nitrogen to soil, you have nitrous oxide emissions. As soon as you start keeping dairy cows, you have methane emissions from their digestive systems.

This means that we will always have a proportion of agricultural emissions that will be hard to reduce because the technical mitigation options are limited. There is some potential here, but we will never reduce the figure to zero. We will always have residual emissions from agriculture. The level of these emissions will largely depend on the size of our livestock herds in future. And of course, we do have the option of creating sinks – carbon sinks – on our farmland in order to offset these residual emissions. And that's a great opportunity for the farming sector, because we can create these carbon sinks here.

Action for more sustainable agriculture

Nadine Kreutzer:

How confident are you that this action will be successful in future? Are there any specific proposals on the table?

Margarethe Scheffler:

Well, we still have a long way to go; I feel that we're just starting out. For the agricultural sector, we have only a handful of climate change mitigation options, most of which are technical in nature. We are working on nitrogen efficiency, we're producing biogas, we are addressing the issue of energy efficiency in relation to fuel use, and we are expanding our renewables. As for the major areas which need work – livestock farming and emissions from peatlands – we really do need to show more commitment.

Hannah Oldenburg:

You mentioned residual emissions a moment ago. What's happening here?

Margarethe Scheffler:

If we want to be climate-neutral by 2045, we will have to offset these emissions. We can offset them using natural sinks, which means storing carbon in forests, planting trees and so on.

But if this is not enough because our forests are impacted by climate change or we don't have enough space to create new carbon sinks on farmland, there is the option to offset these emissions using technical sinks. Direct Air Capture is one possibility, for example. This means that we use technology to remove CO_2 that we have previously emitted from the atmosphere and store it underground. In this way, we can reduce our emissions or become climate-neutral. The major

problem, of course, is that it starts to get expensive. It will depend on how much importance we attach to the consumption of animal products, since we will have to offset this consumption by relying on costly technical measures.

Hannah Oldenburg:

Other countries have climate targets as well. Can you tell us about any good examples of action that they are taking?

Margarethe Scheffler:

Good examples? That's always the question. Some countries have already moved ahead of us in taking action, but this has also caused considerable disquiet and sparked numerous protests. On the other hand, this has created an awareness that there is a problem. The Netherlands, for example, tends to start by addressing nitrogen-related issues because they have much more intensive livestock farming. And they are willing to spend a good amount of money as well: they are buying up 3,000 farming businesses located in nature conservation areas so that livestock farming can be phased out in these regions. Or take Ireland, where a high percentage of emissions come from agriculture because they have traditionally maintained large areas of grassland for dairy farming. Even in Ireland, we are now seeing the start of a discussion on whether premiums should be paid to reduce herd sizes.

We are not having these conversations here yet. At the moment, we are not talking about buying up livestock farms on peatland sites, although we know that this is what we need to do.

Hannah Oldenburg:

And why not?

Margarethe Scheffler:

Well, I think people shy away from this social debate. Agriculture has always had special status because it produces the food we eat and contributes to our food security. We had the Veggie Day proposal from the Greens, which cost them an election. So politicians are somewhat hesitant to move in that direction. And we are still having a conversation about whether food is a private matter. This contrasts with the situation in other sectors, such as energy, where it is clear that we need 100% renewables, or transport, where we have reached a consensus on embracing e-mobility. There is still no such clarity about objectives for agriculture and no progress on this, although we are already at the point with peatlands where we are saying, OK, we know what we need to do.

Agricultural subsidies and financial incentives

Nadine Kreutzer:

Agricultural subsidies are another important issue. Are there any rules on climate change mitigation and biodiversity that you can tell us about here?

Margarethe Scheffler:

Yes indeed, we do have rules here. But first, let's take a step back and look at the problem with agricultural subsidies. We disburse most of these subsidies – perhaps 50-60% – as direct payments. We can visualise them as being similar to child benefit. So if you farm a hectare of land, you're paid a cash amount for that. And as with child benefit, it is not dependent on income – in other words, on

how much revenue the farm generates from other sources. In the same way, if you have two children, your benefit increases, regardless of your income. Some farms are heavily reliant on this funding because these direct payments amount to more than 50% of their income. And some farms probably don't need the payments; for them, it's just a welcome source of additional income. So that's the first part of the payments, amounting to around three billion euros a year.

And then there is the other part, which is disbursed for measures relating to the environment, climate and nature conservation. That amounts to a further three to four billion euros in spending. The EU's target is for 40% of the agriculture budget to be climate-relevant. This means three billion euros a year that can potentially be spent on climate action. We did some sums and we worked out that because the non-income-dependent direct payments – which are not coupled to specific measures at present – account for such a large proportion of spending, only around 10%, or 20% at most, can go towards climate-relevant action.

Nadine Kreutzer:

The German government's Commission on the Future of Agriculture has said that it will cost 11 billion euros a year if we want the agricultural sector to operate sustainably. So the EU subsidies are not enough, are they?

Margarethe Scheffler:

No, we have mentioned all the challenges – animal welfare, climate, biodiversity and so on – that farming businesses will have to contend with. The figure of 11 billion is a rough estimate; it might be slightly more or it might be slightly less. But we will not be able to cover the full amount solely from our agriculture budget; we will have to leverage additional funding to meet our ambitions.

Nadine Kreutzer:

And where is this cash supposed to come from?

Strategies for more sustainable agriculture

Margarethe Scheffler:

There are various approaches. We are seeing this in other sectors. We have an emissions trading system, so we could consider whether this model might be a good fit for agriculture as well. We have Germany's Renewable Energy Sources Act – the EEG – in the energy sector, which has helped to drive the expansion of renewable energies. And we are currently working on an exciting project that explores this particular issue. We are looking at whether we can transfer the EEG model to agriculture, with a surcharge for ecosystem services. We will be involving farms and carrying out environmental, animal welfare or climate interventions on their land; the funds that they will require for that purpose would be recouped from consumers via a surcharge on products. This would increase the prices paid by consumers but as the surcharge would apply to all products, it would probably be a nominal amount.

Nadine Kreutzer:

When you say "we", who do you mean?

Margarethe Scheffler:

The Oeko-Institut together with FiBL and Bioland. We have also involved a biodiversity institute – IFEU – because the project operates within the framework of biodiversity research.

Hannah Oldenburg:

So this would be a kind of EEG for agriculture?

Margarethe Scheffler:

Precisely, that's the basic idea. It is a little more complex than in the energy sector because we have so many products. We already have various funding schemes, such as the EU's CAP, so we will have to look at how they all fit together.

But we also have numerous goals for the future and, in parallel, we are establishing a number of funding schemes – the climate funds are just one example – so we will have to think about a strategy in any case. How can we blend funds from private sources with public funding and bring them together in subsidy programmes?

Nadine Kreutzer:

Let's think about land for nature conservation. How much of this really needs to be located on farmland?

Margarethe Scheffler:

Good question. We have a target in the biodiversity strategy: it states that approximately 10% of the agricultural area should be designated as high-value habitat. In our project with IFAB, we looked at which species exist in the regions and what they need in terms of habitat. And we arrived at a figure that was closer to 20%. Not all of this land would be set aside; some of the measures that promote biodiversity can be integrated into the production system. We compared this with the status quo; we are currently at 4%, and if we have 4% and we need 20%, that's a lot of ground to cover.

Hannah Oldenburg:

If we want to allocate more land for nature conservation, does this mean that there will be less land available for farming?

Margarethe Scheffler:

That's exactly the point: here we have the problem of competition for land and rising demand because we have a growing world population. We have the major issue of the bioeconomy. We want to produce resources from biogenic substances instead of fossil resources. All of this will rely on farmland.

Hannah Oldenburg:

I sense that it is becoming increasingly obvious that there are diverse interests at play in the competition for available land. In one of our episodes, we talked about this in relation to forests; we need land for agriculture, but we also need land to maintain healthy forests or wetlands and for infrastructure. Is there a solution to this?

Margarethe Scheffler:

We are familiar with the "food versus fuel" debate. There is a solution: we have to set priorities. Food comes before fuel, as we know, but I would fine-tune this and say that plant-based foods are what

we should have on our plates. And as a second priority, we must meet our environmental targets because a healthy environment is the basis of our production system.

And once we all have enough to eat and our environmental targets have been met, then we can think about what to do with the rest of the land. Do we use it for livestock? Do we use it to create natural sinks? Do we use it to produce more crops for export because our climate is likely to be conducive to farming, whereas other regions of the world will be facing a very different set of climate impacts? That's a conversation that we as a society will need to have, and some bargaining will be involved.

Nadine Kreutzer:

If it is about feeding everyone on the planet while protecting the climate, there is the Planetary Health Diet. Can you tell us a little about that in two or three words and explain the underlying concept?

Margarethe Scheffler:

The scientific publication about the Planetary Health Diet appeared in 2019. A commission was set up; this was the EAT-Lancet Commission. Scientists from various disciplines and countries came together and, over the course of four or five years, developed a concept showing how it is possible to feed a growing world population while respecting planetary boundaries – climate change mitigation, cropland use, nitrogen application and so on. And they produced practical dietary recommendations setting out how many grams of meat, dairy, legumes, nuts and whole grains we can incorporate into our diets so that everyone has sufficient food while reducing environmental impacts.

Hannah Oldenburg:

And you recently published a very interesting study on this topic. Can you give us some figures?

Margarethe Scheffler:

Certainly. On behalf of Greenpeace, we looked at what would happen if the Planetary Health Diet model were adopted in Germany. What would be the benefits compared with our current diet? And we found that greenhouse gas emissions can be drastically reduced, especially with a radical decrease in meat and dairy consumption. We also found that we would reach our environmental targets while still being able to free up 40% of our arable land for alternative uses: raising livestock, creating natural carbon sinks or producing additional food for export.

Nadine Kreutzer:

What kind of livestock numbers would still be allowed? Do the experts have any percentages? Are they saying, actually, we need to reduce them to X?

Margarethe Scheffler:

I think that the drastic figure on the table relates to the switch to the Planetary Health Diet. What is interesting is that it really does focus on the issue of dairy farming, unlike many other dietary recommendations. We know we have to cut down on meat. If we really were to implement the Planetary Health Diet, we would reduce our livestock numbers by around 75%. That is the most drastic figure on the table. There are other estimates; in some cases, for example, we are saying that roughly halving our livestock populations is the figure that will enable us to reach our climate targets, as well as our land-related and environmental goals.

Hannah Oldenburg:

And as for the remaining 25%, is there any scope to make this livestock farming more sustainable?

Margarethe Scheffler:

Yes, it's always about quality, not quantity. This means that if we have lower livestock numbers, there may be a greater willingness to pay higher prices because if we only eat meat or drink milk or enjoy a piece of cheese once a week, it is something quite special. And then we can undoubtedly do more for animal welfare. We can keep the animals on grass, we can create more indoor enrichment, give them more exercise, and so on. That would be the ideal; that's how we should be caring for our livestock.

Nadine Kreutzer:

But we have to get the farmers on board – they have to be involved to make this happen. Will they generate enough income if there is less land available and output is reduced, as you have described, in line with the goals of sustainable farming?

Margarethe Scheffler:

If we start with a vision of what the farming system should look like, then livestock will still be part of that because we have grasslands that can only be used as pasture for ruminants. We can achieve closed nutrient cycles effectively with livestock farming. We have residues – agricultural by-products – which livestock can utilise efficiently. And we would have higher product prices.

We have to pay our farmers more. This can include payments for environmental services provided by farmers: they might contribute to more biodiversity, take action on animal welfare or climate change, create a carbon sink or expand an agroforestry system, for example.

If we establish market-based mechanisms similar to carbon trading, this will generate income that can be used to pay compensation for measures such as these.

Hannah Oldenburg:

We have talked a lot about farmers. What can we do to persuade consumers to switch to a sustainable diet and encourage them to pay these higher prices?

Margarethe Scheffler:

I think that the key issue here is for the government to signal where change needs to happen. There is no direction at present. As I mentioned earlier, food is regarded as a private matter. A citizens' assembly was recently set up; it's called "Food in Transition: Between individual choice and government responsibility". So a discussion about the fact that this is not just about individual choice is gradually starting. And a lot can be achieved through price signals.

More VAT increases on animal products are probably the quickest and most effective solution in the short term. In the long term, carbon pricing of foods or animal products may be an option; this would have a more targeted impact, also in terms of providing an appropriate range of products for consumers. If a hotdog is cheaper than hummus, it's obvious which one most people will choose.

Outlook and conclusion

Hannah Oldenburg:

So what we're saying is that there is certainly scope to make healthy and sustainable food more affordable and thus improve public health to some extent as well. Margarethe, you're the expert; you have been working on this issue for a long time. If you were the Chancellor, what is the first action you would take to make farming more sustainable?

Margarethe Scheffler:

That's a difficult question as it's a complex topic. I would start with a vision so that I know what farming needs to look like in order to be climate-neutral by 2045. It's a vision that will endure throughout the bargaining process within society. I would invest all my energy in making it a reality and I would create a raft of measures and mechanisms in order to enable producers and consumers to get on the right track. The most important thing, put in sharp relief by the events of recent weeks [concerning the calamitous communication of policies to promote the energy transition in Germany], is that we need to focus on communication so that we have a common basis for a bargaining process.

Nadine Kreutzer:

Exactly, and for our listeners who would like to learn more about the topic, there is plenty of reading material on the Oeko-Institut website. Margarethe, is there anything that you find eye-opening or you yourself as an expert enjoy reading that might offer a different perspective on the topic?

Margarethe Scheffler:

I recently finished Juli Zeh's new book *Zwischen Welten* – Between Worlds. It explores alienation between the rural and the urban populations. I think it very aptly describes the dilemma that we currently face. It offers a good description of the status quo, although it doesn't offer any solutions.

Nadine Kreutzer:

We were so pleased to have you with us today, Margarethe, with all your expertise.

We also have a recommendation for our podcast fans; you might like to listen to the sustainability podcast "Die Zeit ist JETZT" (Now's the Time), which features an interview with our colleague Judith Reise. This was Judith's second conversation with Katja Vittinghoff and Episode 30 looked at the significance of peatlands, which we also touched on today. And then in Episode 43, Judith talked about renaturalisation. Do please listen in if you are interested in these topics. In her podcast, Katja turns the spotlight on a wide range of sustainability issues. If you are interested and have time, it's certainly worth listening to the show. And of course, it's available from all the usual podcast services.

Hannah Oldenburg:

Yes, and thank you again, Margarethe, for answering all our questions as today's expert here in the studio.

Margarethe Scheffler:

Thank you for inviting me.

Nadine Kreutzer:

All the best and enjoy the summer!

Hannah Oldenburg:

Next time, we will be celebrating our anniversary. I can scarcely believe it – we will be recording our 20th episode of "*Wenden bite!*" And to mark the occasion, we will be joined by our CEO, Jan Peter

Schemmel. The Oeko-Institut has been conducting research on a wide range of environmental and sustainability issues for more than 40 years. And with Jan Peter Schemmel as our podcast guest, we will be discussing whether this is still important – or perhaps more important than ever. We will also be looking at which particular aspects are most relevant and what the future holds for the transition. I'm looking forward to it already.

Nadine Kreutzer

Yes, I'm very pleased to have this opportunity to meet the Oeko-Institut's CEO. Some of you may already have some questions for next time; if so, please send them to podcast@oeko.de ahead of the show. And of course, we are always delighted to receive your feedback and a short review on your favourite podcast platform. That's all for today. Thank you for listening and see you next time.

Hannah Oldenburg:

See you soon.

Margarethe Scheffler:

Goodbye.