



## **GLOBE EU Conference on Sustainable Food and Land Use Systems**

**September 8, 2020**

In her welcome remarks, **Sirpa Pietikäinen** reminded participants that the conference is the tenth of GLOBE EU's signature events marking Earth Overshoot Day. She warned of a risk of exponential growth in resource consumption and emphasized the use of system-based analyses and ambitious actions to solve this. Also, according to Sirpa, all sectors should be involved in addressing overconsumption and all interlinkages in society must be considered.

Regarding the specific topic of the conference, she said that sustainability of food and land use systems has long been overlooked. Biodiversity is an important element although much research is still necessary to understand the situation better. The precautionary principle should be used in food production and land use. Regarding consumption, a change in eating habits will be required with diets converting to mostly vegetarian.

**Martin Hojsík** in his introductory comments expressed his wish of having an Earth Dividend Day, i.e., the day when mankind starts giving back to the planet areas for nature conservation and ecosystem services. He mentioned the difficulty in striking the right balance in land use for food production, energy, housing, and nature. He alluded to the Commission's forthcoming zero-pollution strategy as an important initiative. How to deal with soil pollution will continue to be an important aspect, he said, as are maintaining biodiversity levels in the soil.

**Jeremy Oppenheim** in his keynote address stated that the Food and Land Use Coalition (FOLU) in its [report](#) focused on estimating the global economic value of food produced and the costs associated with nutrition. Also, it examined the costs associated with environmental degradation, health, and poverty. He warned that today's farm subsidies are dealing with yesterday's challenges and do not encourage an agricultural system that delivers on the environmental outcome we want. According to Jeremy, the EU is best placed to lead the world in making agriculture and land use more sustainable, not least because its consumers are more sophisticated and are ready for change.

He asserted, however, that the current system needs reform. Changes to the agricultural system to reflect the needs of the 21<sup>st</sup> century, however, must be science-based and supported by sound evidence. Also, these changes cannot be left to the agricultural agencies and ministries only; a system-level approach will be necessary.

He was confident that the need for action is generally recognized and felt that the Commission and Parliament are best placed to drive industrial transformation across the food value chain. He submitted that high-tech (i.e., digitalized) farming and regenerative farming are not conflicting. Finally, in addition to reforming the agricultural subsidy regime, policymakers have a range of other tools, from public procurement (for schools and hospitals) through to food safety standards and consumer-friendly food labelling regimes.

## Measuring Sustainability:

Speaking on measuring the sustainability of land use systems, **Astrid Ladefoged** said that many suitable sets of indicators already exist; what is missing is an understanding of the linkages between the different policy areas (production, supply chain, biodiversity, pollution). The Commission will look at this in the context of the Environmental Action Program Monitoring Mechanism. The downside, however, of increased complexity is that it takes a lot of time to get the required results. Astrid also mentioned the work of the JRC on indicators on food consumption: how does what we eat and how we eat impact the environment over time? In closing, she said that the Commission will be using foresight more systemically in future (e.g., its [2020 Strategic Foresight Report](#)).

**Ben Allen** drew attention to the challenges of measuring sustainability in agriculture and forestry and the difficulty of including the resulting data in different debates: How do we help private investors understand what is “green”? How do you work out what is a “substantial contribution”? Also, what does mankind need from land? How to avoid trade-offs? Ben mentioned that the IEEP for their ongoing work with WWF used backcasting with the Paris Agreement as a “headline” target to establish what is a “substantial contribution”. Going from such targets to something that can be measured on the ground is proving most difficult, e.g., assessing this target for biodiversity and in deciding how investments could support this. Finally, Ben pointed to gaps in the taxonomy regulation where certain natural areas are excluded from existing sectors (forestry, agriculture) because no economic activity is taking place. This constitutes a problem because economic activity usually amounts to exploitation, not protection of natural resources.

## Comments:

- A lack of indicators (or the complexity thereof) should not be used as an excuse not to act; we know enough to know what we should be doing.
- The withdrawn Soil Framework Directive was considered a policy failure. A new Directive would be an uphill battle but should not stop the EU from trying; there are many examples on the ground where soil pollution and degradation was even reversed. Other policy instruments might be available, too.
- EU legislation should not contribute to deterioration of the land use situation outside the EU, but should rather help improve it.

## Food Systems:

**Rudy Rabbinge** in his presentation introduced the concept of “Best Ecological Means”. He emphasized the importance of understanding what the possibilities are, and where, before agreeing on benchmarks.

Over the last 50 years, he said, more food has become available as yields per hectare have increased (land/labor efficiency). The question he was asking is: how do we continue increasing yield without hurting the environment? According to Rudy, examples at systems level (land use scenarios) show that much more can be done with far less. For instance, growing on well-endowed soil requires less input than growing on marginal soil. Other factors, such as water availability, also determine yield. He explained how models can show necessary inputs and pollution caused by growing crops in certain areas. According to these models, agriculture can be made more productive while having a much lower impact on the environment. He regretted that policies are often geared toward using marginal land where much external input is needed. “Best Ecological Means” means a triple win: economically efficient, least impact on the environment and more biodiversity, and best guarantee for food security. In closing, he drew attention to advances in technology showing that drones and farm bots help reduce the environmental impact of farming. Educating farmers on the environmental impact of their sector and how to improve this, however, remains critical.

**Andy Griffith** commented that the COVID-19 crisis has shown that the social model is broken and that solidarity must replace competitiveness. Commenting on the role of the food industry in the transformation of the global food system, Andy emphasized bold nutritional science, the promotion of regenerative agriculture, an increase in the availability of nutritious food, and driving efficiencies across the value chain to reduce food waste. Also, he felt that the sector should take an integrated approach and deliver collaborative action to achieve carbon neutrality by 2050. Since dependencies on natural assets are often similar, sharing dependencies on landscapes would encourage businesses to act together and drive shared interest investments (Landscape Enterprise Networks). Nestlé is working with local communities in the UK to help develop finance propositions for farmers.

## Resource Efficiency:

**Nicolas Verschuere** in his introduction made the case for regenerative agriculture. A farmer himself, Nicolas found that soil fertility and biodiversity can be improved by minimizing the use of synthetic agrochemicals, covering the soil with living roots year-round, and limiting soil disturbance. To successfully regenerate soil and improve farm profitability, those principles must be adapted to local pedo-climatic conditions. He was also supportive of herbivores integration, which can be effective as well as economical. Based on his experience, regenerative agriculture can be introduced incrementally while being profitable from the start. During the first years, economical gains come from fertilizers and pesticides savings. A lack of information/education, however, is what is preventing farmers from having the confidence to start with regenerative agriculture. He submitted that more independent advisers would be necessary to avoid conflicting interests. Finally, Nicolas stated that regenerative farming is naturally sequestering carbon in the soil and that this would be encouraged if farmers were paid for providing the service.

**Michel Obersteiner** in his introduction focused on land sparing and land sharing: how much can we give back to nature? He positioned that the social and economic relevance of the agricultural sector is frequently underestimated. Also often forgotten is that global forests and ecosystems help reduce carbon emissions. According to Michel, the potential for land saving is enormous and would help reduce the environmental impact of agriculture. Interestingly, if regenerative technologies were implemented globally, cropland would shrink by 50 percent (even more when pastureland is included). Even under a business-as-usual scenario, land saving would be 40 percent. The [WWF's 2020 Living Planet report](#) shows that biodiversity can give back to nature by 2030 (“bending the curve” concept). As to policy measures governments could implement, he stated that trade-offs between the environment and the economy did

not exist; government policies should therefore promote agri-environmental measures in the interest of both. He added that tools to measure policy transition risks exist, which could be a new approach to assessing policies in the EU.

## Biodiversity:

**Luc Bas** opened by stating that agriculture is destroying the very nature it depends on. He pointed out that food consumption (and the resulting waste) had been largely ignored but remains a major problem, especially meat consumption. He agreed with previous speakers that the EU continues to support unsustainable agriculture, but felt that the Green Deal, including its Biodiversity Strategy, should put it on the right track, especially if the 50 percent reduction in pesticides could be achieved. He was adamant that the Green Deal will lose all credibility if the CAP reform were not serious. He mentioned the [IUCN Common Ground report](#) on conserving soil biodiversity, which shows large financial benefits from storing water and carbon. He also mentioned IUCN's recent [report on sustainable agricultural practices](#).

**Andreas Huber** stated that innovation had been a key driver of yield increase having focused on improving productivity over the past 100 years. He agreed that, now that food security is no longer a concern in the EU, yield increase is no longer a driver for innovation. Farmers, however, need to be trained on how to combine technologies to reduce environmental impacts. He added that increasing the nutritional value of feedstock for dairy cows, for instance, can contribute to lower carbon emissions because of reduced imports. He submitted that farming not only contributes to climate change but also suffers the consequences; the development of new drought-resistant crops would help the sector survive. If no action is taken, however, food production will use lands we want to preserve. Soil nitrification remains an issue, although the technology exists to reduce the nitrogen surplus. Also, digital solutions exist to help farmers achieve a closed nutrient cycle on their farms and more balanced nutrient levels in soils.

In the closing comments, **Heidi Hautala** referred to the interventions as a call for joint action: she reminded participants of Jeremy Oppenheim's statement that the EU is in the best possible position to lead global efforts under the umbrella of the Green Deal. She agreed with Luc Bas' comment that the CAP reform should correspond with Green Deal principles but added that alliances with other sectors (notably health, climate, and biodiversity) would be necessary. In this context, she referred to the multi-stakeholder [statement](#) initiated by Janez Potocnik on a Green Recovery in Agriculture. Heidi was optimistic about the possibilities of regenerative agriculture. She emphasized the importance of a multi-stakeholder approach and mentioned how a coalition of cocoa and coffee producers had committed to fighting deforestation. Finally, she was pleased with the EU Commission's plan to propose legislation that would hold producers accountable for the environmental and human rights harm their supply chain may cause.