



Agriculture's Future, Delivering Net Zero Emissions – Trade, Consumption, Smallholders and Value Chains

Reflections from Discussions at Katowice UN Climate Change Conference (COP24), EU Pavilion Side Event, 7 December 2018

The organisers would like to thank all partners, presenters and participants for the quality of discussion. The session demonstrated the value of learning together and from each other. Sharing collective experiences and ideas can be a powerful tool for promoting change.

The following text represents a summary of the discussions that took place and some of the priorities for change. Reaching net-zero emissions in the agriculture is as challenging for the sector as it is for society as a whole. Yet the opportunities and benefits of doing so are equally large, from the protection of natural resources, improving the health and livelihoods of populations, to enabling new diversified markets and rural development.

Anthropogenic climate change is a product of our patterns of behaviour and the choices we make; whether as consumers or, in the case of farmers, as land managers and producers. This session identified the common threads that could help in changing our behaviour and in the transformation of the agricultural sector. The goal being to deliver net-zero greenhouse gas (GHG) emissions while producing sufficient and nutritious food for the world's growing population. **Action in agriculture is fundamental to climate action overall.** As a sector it is capable of reducing embedded emissions from production, increasing the sequestration of carbon, supporting adaptation to a changing climate and reducing emissions across the wider economy, through the substitution of carbon-intensive products with more sustainable and low-carbon options.



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Too often discussions on agriculture, land use and climate action take place in silos, broken down by specific interests or types of intervention. This ignores the need for a common narrative and its relevance to actors along value chains. It also ignores farmers as consumers. **Only by coordinating actions across both the production and consumption (supply and demand) sides can we transform the way agricultural products are conceived in response to the climate challenge and how the sector can therefore support climate action. Future agriculture must be different from that of today, sufficiently transformed to enable its contribution to combating climate change and the delivery of net-zero emissions, while providing adequate nutrition and other ecosystem services to an increasingly global society.** This transformation will require context specific action tailored to different regions and countries.

Integrated approaches, which can lead to behavioural changes will be necessary for a low-carbon agricultural future. This behavioural change relies on:

- understanding the need for change and the provision of **sufficient information on which to base choices** – both imply a better understanding of risk;
- **effective problem identification** considering different perspectives (e.g. climate, economy, social) to ensure that solutions meet the needs of individuals and communities; and
- **empowering actors and their communities** to determine workable solutions that enable change. This includes empowering and engaging the world's millions of smallholders in transformational change.

The latter implies a strong voice for both consumers and producers in the debate to ensure engagement in the development of solutions. **Too often basic steps for information provision and opportunities to motivate and empower actors to make climate smart choices are missed.**

Inclusion of farmers in climate action is crucial in order to achieve global mitigation targets without compromising global food and nutrition security and the Sustainable Development Goals. It is important to stress that, as stated in the IPCC sp15, **adaptation and mitigation can't be achieved without tackling inequalities and investing in development.** Transformation of the agriculture sector should promote rural development. **Transforming to a climate smart future will take time, requiring long term investment and commitments.** Transformation towards climate-smart choices may not create instant benefits for the farmer, putting especially smallholders at risk. **Access to adequate support to enable transition should be enabled through the UNFCCC process and secured at country or regional level. Currently, less than 5 per cent of climate financing goes to farmers.** This needs to change to better reflect the challenges faced, need for change and to support farmers in making low carbon choices the norm.

When empowering farmers to shift to climate-smart agriculture the question of land tenure rights is important. Permanence is a fundamental factor in long-term climate action. Certainty over land rights and their permanence are therefore central to supporting the transition to a climate smart future. Equally important, particularly in a development context, is the need to defend producer interests, particularly smallholders. Information flow to and from farmers, including on climate change and action needed at farm level should also be supported. Farmer led organisations and structured peer to peer exchanges can play an important role in this – for positive examples of support for change see the work of the [AgriCord Alliance](#).

Farmers face increasing risks due to more frequent extreme weather patterns, among other things. There is a need to look for medium and long-term solutions that assist them to manage risk whilst reducing the initial cost of change. Future adaptation should take

Event Chairs –

Ben Allen, IEEP

Xiaoting Hou Jones, IIED

Carina Millstone, Feedback

Event Speakers –

Anna Lorant, IEEP – Net Zero Agriculture

Tiina Huvio, representing the AgriCord Alliance – Bringing Farmers on Board

Dean Cooper, SNV – Energising agricultural value chains

Majola Mabuza, SACAU – Getting everyone on board, farmer organisations

Lennart Ackzell, International Family Forest Association – Forestry and farming – the complimentary pillars of farm reality

David Blandford, Professor Emeritus Pennsylvania State University – The role of international trade in reducing carbon footprints in agriculture

Franz Pretenthaler, Joanneum Research LIFE – Measuring climate risks

Carina Millstone, Feedback – The food we eat and the food we don't

Catherine Bowyer, IEEP – The future bioeconomy

into account the role of different decision makers at the farm and family level, including differences in gender and generational roles.

Farmers and consumers need to be informed and incentivised to contribute to climate mitigation. Policy solutions should focus on information, empowerment and incentivising positive change. For example, sustainable (climate 'friendly') products need to become cheaper and more convenient, whilst unsustainable ones should become more expensive and more difficult to obtain. **Trade is an important driver of both producer and consumer behaviour. A low-carbon transition in the agriculture sector does not imply a reduction in trade, but a need for it to become orientated towards the supply and consumption of low carbon products.**

Substituting into society the use of low carbon products will often require the demonstration of financially viable (hence sustainable) business models and involve clean and efficient energy supplies that improve agricultural output. **The farm level solutions promoted must reflect the availability of local, renewable energy sources and must adapt to the needs expressed by the farmers where they align with climate goals.** Local engagement is critical for the acceptance of new products and processes, for the motivation of the target farmers, and for delivering a successful climate outcome. This may require advice and educational support.

Determining the safe operating space for livestock production and meat consumption in a carbon constrained world is a priority. There is a need for markets to promote a demand for sustainable products to which farmers can respond. This requires not only addressing over-consumption of carbon intensive products, but also inefficiencies in current systems, particularly food waste. **Food waste represents a loss of revenue to farmers, a reduction of the food available to the wider society and an inefficient use of our carbon budget. Wasted food generates GHG emissions during production, harvest and processing; needlessly adding to our emissions.** Addressing food waste starts with better planning and risk assessment, determining what crops are needed and what crops are viable as climatic conditions change.

The choices we make now will impact future generations; determining the scale of climate change and the ability of society to adapt to its effects. The cultural importance of food and landscape means that the positive changes we can achieve in the supply and demand for agricultural goods will embed these values for future generations.

Agriculture is a powerful tool for rural development but should be used in ways that ensure that development occurs along sustainable pathways. Such development should make the most of climate smart opportunities offered by **the evolution towards a sustainable and circular bioeconomy - which should provide a wide range of products and services to society, while reducing the use of fossil energy and carbon intensive products.** For such an evolution to be climate smart, the circular-bioeconomy must be set in the context of a frank and open debate about future resource demands and priorities and further research and innovation to understand the sustainable potential of the bioeconomy. Only in this way can it be part of the solution and enable sustainable long-term development of agriculture and other land-using sectors and their contribution to the climate challenge.

Agriculture's Future, Delivering Net Zero Emissions - Supporting Publications

Agriculture and its role in meeting the EU's climate commitments, IEEP, 2017 - <https://ieep.eu/news/agriculture-and-its-role-in-meeting-the-eu-s-climate-commitments>

Forest and Farm Producer Organizations – Operating Systems for the SDGs, FAO 2016. - <http://www.fao.org/3/a-i5765e.pdf>

30x30 Actions for a Sustainable Europe #Think2030 Action Plan, IEEP, 2018 - <https://ieep.eu/publications/30x30-actions-for-a-sustainable-europe-think2030-action-plan>

Promoting a circular, sustainable bioeconomy – delivering the bioeconomy society needs, IEEP 2018 - <https://ieep.eu/news/promoting-a-circular-sustainable-bioeconomy-delivering-the-bioeconomy-society-needs>

Joining the dots - soil health, agriculture and climate, IEEP, 2017 - <https://ieep.eu/publications/isq-aper-joining-the-dots-soil-health-agriculture-and-climate>



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