Deep climate mitigation through sustainable agriculture

PrepMeeting for COP22 – Oct. 20th 2016, IIASA, Laxenburg

Background

Reducing climate change to "well below 2 degrees", conserving biodiversity, saving water, reducing the nutrient load on ecosystems, avoiding and reverting land use changes and feeding nutritious food to an ever increasing population represents a formidable ensemble of challenges. While the energy sector has seen significant advances in scaling up investments and in understanding how countries can decarbonize their energy systems, agriculture and the broader land-use challenges have received much less attention.

Agriculture, forestry and other land use (AFOLU) account for about 24% of global anthropogenic greenhouse gas (GHG) emissions. 25-50% of the total accumulated mitigation effort for the 2 degree target is directly or indirectly related to agriculture, thus, depending on the success to incentivize >2 billion farmers, mostly in food insecure developing countries, serving hundreds of end-use products associated with a myriad of other ecosystem services essential to reach the SDGs.

Negative emissions technologies undoing historical emissions from industrialization have become essential to reach ambitious climate targets. Measures to increase the land sink through measures such as soil carbon and afforestation and the use of bioenergy with carbon capture and storage (BECCS) are the two most widely considered negative emissions technologies today. These technologies, if deployed on large scale, would also require large areas of land and are, thus, in competition with increasing demands for agricultural production to feed and every increasing and affluent global population.

Given the centrality of the agricultural sector to the achievement to almost every Sustainable Development Goal (SDG), it is deeply concerning how little investment the sector has seen in the past decades. In particular, in the climate negotiations agriculture has not even become a matter of negotiation. The land-use sector is almost absent in the Intended Nationally Determined Contributions (INDCs).

It is the purpose of the workshop to identify strategies to best position agriculture and sustainable land use for the climate negotiations and the wider SDG processes, and to develop tools and pathways at the national and global scales to achieve the relevant SDGs in an integrated manner (especially SDGs 2, 6, 13, 14, and 15 in particular). In particular, this workshop will prepare for the Low-Emission Solutions Conference (LESC) at COP22 (November 14-16) regarding the integration of agriculture, land use, water, energy, and GHG emissions, and discuss ways to create national-scale planning tools and pathways akin to the Deep Decarbonization Pathways Project but for sustainable land use. The workshop will also directly contribute to the pathways and modeling for The World in 2050 program. The core goal is to identify analytical and modeling capacities to support various stakeholder processes (e.g. NDCs, sustainable supply chains, conservation planning) at national and global scales associated with the Climate negotiations as well as the SDGs.

Meeting outline

Wednesday 19th October

19:00-21:00 Early arrivals dinner at Gregor Schup, Josefigasse 8, 2353 Guntramsdorf, Tel.: +43 (0)2236/53291

Thursday 20th October

Opening

9:00-9:10 Pavel Kabat (IIASA) – Intro to IIASA

9:10-9:20 Jeff Sachs and Michael Obersteiner – Introduction to workshop: Goals and anticipated outputs

Modelling Mitigation in the Land use sector – Global, regional, national

9:20-9:30 Petr Havlik (IIASA) – Mitigation in and by agriculture in the SSP scenarios

9:30-9:40 Aline Mosnier & Hugo Valin (IIASA) – Globally consistent national mitigation planning

9:40-9:50 Gilberto Camara & Alexandre Ywata (INPE/ IPEA) – Deforestation Brazil

9:50-10:00 Nicklas Forsell & Stefan Frank (IIASA) – AFOLU and bioenergy in Europe

10:00-10:10 Justin Baker (RTI) – US land use mitigation

10:10-10:30 Discussion

10:30- 10:45 Break

Demands for analytical and modelling capacity to elaborate globally consistent burden sharing strategies

10:45-10:55 Ger Klaassen, EU DGCLIMA

10:55-11:05 Heru Prasetyo, Indonesia

11:05-11:15 Gilberto Camara, Brazil

11:15-11:25 Tobias Baedecker, DevBank, World Bank

11:25-11:35 Justin Mundy Prince Charles' Sustainability Unit

11:35-11:45 Christine Negra, EcoAgriculture Partners

11:45-11:55 Nathalie Walker, Sustainable supply chains – NWF

11:55-12:05 Thomas Brooks, Mobilising data following IUCN standards to support land use scenarios modelling

12:05-12:15 James Watson, Biodiv mainstreaming, WCS

12:15-12:30 Discussion

12:30-13:30 Lunch Break

Chair Patrick Goymer 13:30-14:30 Group discussion - Key knowledge gaps and how to use existing knowledge more effectively

Chair Guido 14:30-15:30 How to support development of national pathways for sustainable agriculture and land-use change

Chair Jeffrey Sachs 15:30-16:30 Preparing for COP22, governance structure for analytical platforms feeding into negotiations/policy processes

16:30-17:30 Next steps

All - Dinner at Hotel Jagdhof