



RIO CONVENTIONS PAVILION HIGHLIGHTS: 10 DECEMBER 2015

The final day of the RCP at UNFCCC COP21 convened on 10 December 2015, in Paris, France. The day was convened under the theme ‘Synergies and Tradeoffs in Land-based Climate Change Mitigation and Biodiversity.’ Two sessions took place, namely: synergies and tradeoffs in land-based climate change mitigation and biodiversity; and, the contribution of research-action clubs for agriculture and forestry sectors: economic expertise and innovation for climate.

Three films were also screened. The first, titled ‘Youth Climate Report,’ which was produced and directed by students, provided an overview of climate change challenges. The second, ‘Moana Rua,’ depicted the urgency of addressing climate change for Pacific Islanders. The third, ‘Ethiopia Rising’ showed the story of land restoration projects in the Tigray region of Ethiopia.

SYNERGIES AND TRADEOFFS IN LAND-BASED CLIMATE CHANGE MITIGATION AND BIODIVERSITY

Mark Rounsevell, University of Edinburgh, moderated this session. Hoesung Lee, Chair, IPCC, drew on the work of the IPCC. He said the appropriate management of ecosystems can help mitigate climate change, but that tradeoffs will likely be necessary. He closed, saying he looks forward to increased collaboration with the biodiversity community to identify the solutions.

David Cooper, Deputy Executive Secretary, CBD, described, “already seeing the impacts of climate change on biodiversity,” calling for strong mitigation efforts. He framed biodiversity as



Hoesung Lee, Chair, IPCC and David Cooper, Deputy Executive Secretary, CBD Secretariat

part of the mitigation and adaptation solution, and said up to half of the emission reductions needed can come from reducing deforestation, and facilitating regeneration and land restoration. To do this though, he said incentive and policy frameworks are needed. Cooper closed, saying he hopes there is greater integration between the biodiversity and climate communities to develop a range of solutions.

GLOBAL SCENARIOS OF BECCS, AFFORESTATION AND REFORESTATION AND THEIR EFFECTS ON BIODIVERSITY:

Alexander Popp, Potsdam Institute for Climate Impact Research, presented the results of scenario modeling, looking at the impacts of bioenergy combined



L-R: Alex Popp, Potsdam Institute of Climate Impact Research; Almut Arneth, Karlsruhe Institute of Technology; and, David Cooper, Deputy Executive Secretary, CBD Secretariat



with carbon capture and storage (BECCS), afforestation, and business-as-usual scenarios on climate mitigation, biodiversity and land use change. For BECCS, Popp said there are different bioenergy futures, and that sustainable bioenergy expansion needs to go hand-in-hand with forest protection and agricultural intensification. To facilitate this, he suggested employing integrated land use policies.

Questions from the audience raised the importance of specifying what afforestation means in different scenarios.

USING ECOSYSTEM MODELING TO SUPPORT ASSESSMENT OF CHANGES IN ECOSYSTEM SERVICES AND NATURAL CAPITAL DUE TO LAND-BASED MITIGATION: Almut Arneth, Karlsruhe Institute of Technology, opened saying, “forests are more than sticks of carbon.” She described a study looking at natural capital and ecosystem services within different land-use scenarios. She outlined four types of ecosystem services - provisioning, cultural, regulating and supporting services. Stating that all of these are interlinked with biodiversity, Arneth highlighted the importance of understanding how climate-regulating services link to other ecosystem services. She presented on the results of the models, which assessed vegetation cover and carbon, water availability and impacts on the atmosphere. She said, “we need to keep in mind land-based mitigation impacts on ecosystem services.” Closing, Arneth said, “ecosystems are more than carbon dumps; we need to come up with strong land management and governance plans.”

Following Arneth’s presentation, the audience asked a number of questions. These included, among others: how the model projections would react under a 1.5°C or 2°C target; and, how in a high mitigation world, nitrogen oxide (NOx) would be reduced, and how this would affect BECCS. One delegate, pointing to the draft text as it was at the time, highlighted that there was no mention of land use or agriculture more broadly, stating that the draft only mentions the forest sector.

THE LIMITATIONS AND CONSTRAINTS TO LAND-BASED MITIGATION: Mark Rounsevell began by quoting Bertrand Russell, who said, “the whole problem with the world is that fools and fanatics are always so certain of themselves, and wiser people are so full of doubts,” and underscored the challenges related to uncertainty as it pertains to climate science modeling. He said one of the biggest uncertainties



Almut Arneth, Karlsruhe Institute of Technology



Hoesung Lee, Chair, IPCC

regarding land-based mitigation, is the variability of the tools and models used to make assessments. He cautioned that if the tools are uncertain, the consequent policy recommendations will also be uncertain. Rounsevell shared an example of variability in cropland, pasture and forest models, pointing out the diversity of change reflected in the different models. Despite uncertainty, he said that models are still needed, for example, to understand tradeoffs as they relate to the “intensification or extensification” of croplands for food production or bioenergy production. Rounsevell also cautioned that models do not take into account the spatial diffusion of a particular policy role-out, such as a focus on increasing bioenergy production, and that transitions, for example, away from fossil fuel dependency, do not occur instantaneously.

He shared modeling studies, which examine the mitigation potential regarding the role of diets, and shared experiments that look at how to reduce the carbon- and land-intensity of diets.

PANEL DISCUSSION ON FINDING SOLUTIONS TO TRADEOFFS IN LAND-BASED MITIGATION: Encompassing the previous presenters, the panel discussion addressed, among other issues: how to incorporate socioeconomic factors into models, for example, as they pertain to the specific context of dryland areas; the importance of having global models, noting that efforts to address mitigation, for example, by producing bioenergy in one country, will have a limited mitigation impact if this increases food purchasing from elsewhere; uncertainty as it relates to organic aerosols in climate models, as well as cloud modeling; and, the carbon capture and storage potential of bioenergy, especially third and fourth generation bioenergy technologies, such as microalgae or usage of farm-based residuals.

Responding to a question on the draft text of the Paris climate agreement as it stood at the time, which reduced the significance of land use to address climate change, Cooper highlighted that how the agreement is implemented is important. He pointed out that in many INDCs, there are “strong commitments” on reducing deforestation and increasing



L-R: Marianne Rubio, ONFA, France; Philippe Touchais, APCA, France; and, Claudine Foucherot, I4CE

reforestation. Panelists were asked to share their perspectives on how BECCS can support mitigation, with several panelists noting that it can be effective under particular contexts, using Brazil as an example where sugarcane produces high-energy bio-ethanol. Cooper stressed the importance of land zoning and enforcement in the Brazilian case, stating that sugarcane farming is not allowed in the Amazon biome. An audience member expressed the importance of “context sensitivity” regarding BECCS, providing an example from Canada that did not consider local climate contexts.

FILM SCREENINGS

‘Youth Climate Report,’ produced by students, was screened, showing climate movements and challenges around the world, interviewing climate leaders, thinkers and scientists within their communities. David Cole, UNEP, answered questions from the audience following the screening.

‘Moana Rua,’ a tale on the potential impact of climate change on Pacific Islanders was rescreened.

‘Ethiopia Rising’ was also screened, which tells the story of how a community was mobilized to undertake activities to regenerate the surrounding land by restoring forests, and regenerating soil to ensure livelihoods and well-being within the community.

THE CONTRIBUTION OF RESEARCH-ACTION CLUBS FOR AGRICULTURE AND FORESTRY SECTORS: ECONOMIC EXPERTISE AND INNOVATION FOR CLIMATE

FORESTRY, AGRICULTURE AND CLIMATE: THE RESEARCH CLUBS’ EXPERTISE: Benoît Leguet, Institute for Climate Economics (I4CE), introduced the afternoon session, outlining the purpose of the research clubs to produce expertise from the network of stakeholders, and generate tools and knowledge.

Claudine Foucherot, I4CE, outlined the format of the session and described the history of the research clubs. She summarized their current activities, including monitoring science and economic tools, sharing experiences between network members, implementing projects, and organizing events, capacity building sessions and meetings.

Philippe Touchais, Chamber of Agriculture and Land (APCA), France, then provided an overview of the agriculture club’s focus and activities. He described it as being a network of organizations that support and advise companies and farmers, providing them with information and trainings on

energy efficiency, emission reductions, adaptation, and climate change. He said they also aim to mobilize key figures and authorities to work on climate change.

Marianne Rubio, National Forestry Office (ONFA), France, spoke on the forestry club stating, “the impacts of climate change on forests are already being felt.” She said forests and forest products can sequester and store carbon, providing examples of offset projects in France and abroad, and underscoring the need for finance to support these projects.

In the ensuing discussion, participants addressed the impacts of mitigation projects “on the ground.” Panelists responded to questions, on how carbon is sequestered in forests, explaining that it is sequestered in the trees’ trunks, branches, and leaves through natural processes. They also described North-South reforestation efforts, noting that there are also domestic reforestation projects.

CARBON CERTIFICATION IN EUROPE: Julia Grimault, I4CE, moderated the session. She introduced the club’s efforts to work with companies to offset carbon, specifying that carbon cannot be reduced via measures such as energy efficiency. Grimault noted several obstacles, including: difficulties to write-up methodologies; and, the low transparency and visibility in voluntary markets, which limits demand.



Julia Grimault, I4CE

Lucio Brotto, ETIFOR, stated that over the last four years, ETIFOR has been involved in 57 projects in the forestry carbon market sector, in Italy, Latin America, and Africa. He noted several challenges, including the diversity of the projects types, addressing REDD, afforestation and “green infrastructure” projects, making it difficult to quantify.

Pat Snowdon, Forestry Commission, UK, presented on the UK Woodland Carbon Code, which is a voluntary standard for UK woodland creation projects’ carbon trading platform in order to provide the assurance of high standards in the voluntary carbon markets. Snowdon provided an overview of how the code operates, saying that next steps include completing a small woods scheme pilot, gathering more evidence on the wider benefits of the projects, and broaden its scope.

CARBON PROJECTS’ DEVELOPMENT IN FRANCE:

Jean-Baptiste Dollé, Livestock Institute, France, spoke about low-carbon dairy farming and the process of developing a methodology for voluntary emissions reduction in dairy farming. He described an initiative in France that was started in six regions across 4,000 farms, which was later increased to 5,000 farms.

Thierry Geslain, French Dairy Interbranch Organization (CNIEL), built on the initiative described by Dollé, outlining plans to further up scaling. He highlighted the need to find additional financing to scale up project activities and said carbon credits can act as an incentive for farmers to adopt the practices.

Pierre Compere, InVivo AgroSolutions, described the potential to reduce GHG emissions in agriculture, citing 19% of GHG emissions in France are linked to agriculture. He said that solutions exist, outlining growing leguminous crops that fix nitrogen, such as pulses, as an option.

Stéphane Le Goff, Groupama, described his company’s activities on asset management of forests. Speaking on corporate social responsibility activities, he said these involve, among others, studies on carbon storage and increasing forests’ positive impacts on climate and sustainable development, responsible consumption, and monitoring activities.

Alexander Murillo, EcoAct, spoke about working with companies to reduce and offset their carbon emissions. He said they do this by focusing on GHG emissions related to energy consumption, and by estimating carbon stock, and carbon stored in wood products.

CONCLUSION AND PERSPECTIVES: Noting that many initiatives have been implemented to expand France’s forest cover, Olivier Picard, National Centre for Forest Owners (CNPf), France, underscored the need to highlight the “value



Joseph Lunet, Ministry of Ecology, France

created” from the forestry sector, and called for involving different stakeholders and developing supportive financial systems.

Caroline Marie, GIP Massif Central, described several reforestation projects, and the importance of obtaining carbon credits in reforestation projects. She underscored the need to work on local projects and with companies. Marie pointed to a “pioneering” collaboration with the French postal service, La Poste, developing a forest carbon framework.

Odeline Jacob, Association Aquitaine Carbone, underscored the importance of working with public and private forest owners to improve forest management. She highlighted work to protect forests in four regions, identifying efforts to protect the declining chestnut tree population. She called for integrating different sectors, such as the building and agricultural sectors.

Joseph Lunet, Ministry of Ecology, France, closed the session, lauding the efforts of the two clubs, and reflected on the session’s key messages, highlighting the potential of the agriculture and forestry sectors to reduce GHGs in France, and in other European initiatives.

RCP SUMMARY: The summary of the Rio Conventions Pavilion at UNFCCC COP21 will be available on Monday, 14 December 2015, online at: <http://www.iisd.ca/climate/cop21/cbd-rcp/>



L-R: Pierre Compere, InVivo AgroSolutions; Thierry Geslain, CNIEL; Jean-Baptiste Dollé, Livestock Institute, France; Stéphane Le Goff, Groupama; and, Alexander Murillo, EcoAct