Climate Smart Agriculture, Agroecology, and Food Security:
Lessons Learned from Research and Community Development Projects in Africa
Cornell University, UNDP Small Grants Program, and the French CIRAD

Tuesday, 8 November 2016, 12.00 - 14.00, Salle 1
Refreshments Provided

Agenda

Time	Welcome & Introduction
12:00	Chair: Allison Chatrchyan, Director, Cornell Institute for Climate Smart Solutions & Climate Smart Farming Program, Cornell University, Ithaca, NY
	Presentations
12:05-12:20	*Climate Smart Soil Management for Africa* Johannes Lehmann, Professor, Cornell University, Ithaca, NY
12:20-12:35	*Food-security Interventions as a Vehicle for Ecosystem Rehabilitation and Climate Change Mitigation: Lessons from Ethiopia's Productive Safety Net Programme (PSNP)* Tefera Tadesse, NRM Director, Ethiopian Ministry of Agriculture and Natural Resources Dawit Solomon, Senior Research Associate, Cornell University, Ithaca, NY
12:35-12:50	*Addressing Climate Change Challenges through the Malawi Farmer-to-Farmer Agroecology Project* Rachel Bezner Kerr, Associate Professor, Cornell University, Ithaca, NY *
12:50-13:05	*Climate Smart Agroecological Projects with the UNDP Small Grants Program* Charles Nyandiga, Program Manager, UNDP Small Grants Program, New York, NY Badia Sahmy, UNDP Small Grants Program, Morocco
13:05-13:25	*Improved Practices to Reduce the Carbon Footprint of Farming and Increase Carbon Sinks in West Africa:* Emmanuel Torquebiau, CIRAD, Montpellier, France
	Panel Discussion and Exchange with the Audience
13:25-13:50	*Questions from the Audience and Discussion with the Panelists* Moderator: Allison Chatrchyan
13:50-14:00	**Conclusions**

Background

Climate change impacts to agriculture have been increasing and are projected to become more severe by the end the century. Climate change poses unprecedented challenges for agriculture due to the sensitivity of agricultural production to changing climatic conditions, the challenges of year-to-year variability and increases in extreme weather events, the difficulty of providing education and support to farmers so that they can change behavior, and the costs of implementing new adaptation and mitigation practices. Small shareholder farmers and rural communities are often the most at risk from climate change impacts. As the challenges to global food security intensify with further climate change, it is imperative that agricultural, ecological, and social systems adapt and mitigate their greenhouse gas emissions across multiple scales (Adger, et al., 2005). Stakeholder-driven biophysical and social science research needs to guide short-term and long-term investments. Rapid change will be most

successful if those communities and stakeholders who are most directly affected are included in the decision-making processes (Prokopy et al., 2015; Howden, et al, 2007; and Meinke et al, 2006).

National governments, research universities and international development organizations working in the sustainable natural resources management, agricultural and climate change sphere, including Ethiopian Ministry of Agriculture and Natural Resources, Cornell University, CIRAD, and the UNDP Small Grants Program, are conducting climate smart initiatives and research on adaptation and mitigation practices and implementing integrated research and community-based projects in many African countries, with varying methodologies, community partners, and outcomes.

This session will provide lessons learned from these research and development projects in Africa, including specifically in Ethiopia, Malawi, Morocco, and Senegal. We will also provide an update on newly published research findings from Cornell University on soil health and carbon sequestration using biochar systems and the applicability of this research in the African context.

These case studies will help demystify and de-politicize the concept of climate-smart agriculture (CSA) as a new discipline by instead focusing on a set of existing climate-friendly integrated watershed management interventions and agroecological practices that can help to rehabilitate degraded land under agriculture, forestry, and other land uses (AFOLU), generate ecosystem services and benefits to reduce societal vulnerability, as well as provide adaptation and mitigation co-benefits for communities. These community-based projects are working to raise awareness of climate change, build in-country capacity and through provide provision of training and implementation of agro-ecological and climate smart agricultural practices (such as integrated watershed management interventions, improving soil health by reducing tillage or adding amendments such as composts or biochar, cropping systems or waste management; experimenting with new varieties; utilizing integrated pest management and landscape watershed management,; and making use of weather and climate forecasts and decision tools) that will increase resiliency and reduce greenhouse gas emissions. The objective is to present concrete case studies of climate-smart farming projects that engage farmers and community stakeholders in identifying local needs and supporting research, outreach, and adoption and scaling up of best management practices.

The session will provide link between chronic food insecurity and land degradation, new insights into what has been successful and challenging with these research and development projects, including the need to: provide support for long-term, stakeholder-driven projects; increase awareness and change attitudes to increase the rates of adoption of agricultural resiliency and mitigation practices; provide adequate education and training with severe limitations in funding, information, research and extension programs; and change policies to scale up community-based projects to reach more agricultural communities.

It will also highlight how both to the national and international policy makers and development partners can integrate watershed management into food security by promoting and/or capitalizing on large-scale land-based food security interventions and use such climate smart initiatives as a vehicle for (i) restoration of degraded (agro)ecosystems, (ii) building soil carbon and biomass greenhouse gas sinks, (iii) enhance ecosystem services and co-benefits, such as enhancing soil fertility, combating desertification and conserving biodiversity, (iv) climate change mitigation and adaptation, and (v) incentivize such climate-smart food security interventions via future climate finance to increase their scale and sustainability.

Panelists

Name	Organization/Position	Email	Phone Number
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* Pre-recorded Presentation