

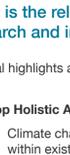
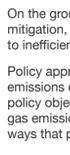
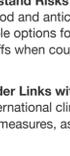
Introduction and Meeting Objectives

With support from the Climate and Development Knowledge Network (CDKN), Meridian Institute convened and facilitated a workshop *Agriculture and Climate Change: Learning from Experience and Early Innovations* in Rome, Italy on 21-23 October 2012.

The objective of this workshop was to capture and share information on how a diverse set of agriculture and climate change initiatives are organized, supported and implemented. The workshop outputs are designed to share the breadth of experience and information through various media to facilitate access and broad dissemination.

This document provides an overview of several key themes that emerged from the workshop that could be helpful for informing ongoing discussions and learning. Workshop materials including case studies, video archive of presentations and panels are available on <http://climate-agriculture.org/LEEI.aspx>

Key Themes

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Policy Elements: What are the relationships between policy development, implementation on the ground, and feedback mechanisms that serve to identify needs and inform future activities and policies?
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Farmer-centric Approach: Who and what are the sources of information for farmers, and how can project and national level approaches best engage and communicate to those actors in order to effectively reach farmers?
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Financing Mechanisms: How are existing financing mechanisms coordinated, relevant to available metrics, and responsive to needs on the ground?
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Measurement and Evaluation: What are the different methods and metrics that can be applied to measure adaptation and mitigation impacts, and how can these be designed to support smallholder context?
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Knowledge Management and Cross-Scale Communication: How are information and lessons learned documented and shared with others; and how can projects at one scale better communicate and share information with those at other scales?

Policy Elements

What is the relationship between policy design, implementation on the ground, research and innovation, and policy amendments?

General highlights and key take-aways from the discussions on policy include:

Develop Holistic Approaches to Adaptation, Mitigation, and Food Security Objectives:

- Climate change policy approaches need to be holistic by considering the broader context and priorities within existing sustainable development objectives (e.g., promoting improved livelihoods, farmer resilience, animal welfare and food security).
- On the ground, many projects successfully integrate multiple components (food security, adaptation, mitigation, development), but institutions that support those projects are often fragmented by topic, leading to inefficiencies, conflicting communications and lack of coordination.
- Policy approaches should recognize that the agriculture sector will likely continue to increase in absolute emissions due to food production and food security demands of a growing global population. Therefore, policy objectives could focus on reducing emissions intensity through increased efficiency in greenhouse gas emissions per unit of agricultural product, and promoting sustainable intensification of production in ways that provide overall sequestration.

Understand Risks and Developing Decision Support Tools: There is a need for additional information on the likelihood and anticipated scale of climate change threats, the anticipated social and economic impacts, and the available options for addressing these threats (e.g., decision support tools) to help assess various synergies and tradeoffs when countries are aiming to increase resilience and reduce vulnerabilities.

Consider Links with International Policy: Lack of clarity on the scientific and technical aspects of agriculture in the international climate change policy arena result in uncertainty in regards to whether and how to pursue national policy measures, as well as challenges for ensuring successful implementation on the ground.

Utilize a Farmer-centric Approach: In order for any policies to be successfully implemented, it is critical to take a farmer-centric approach by first understanding who and what are the sources of information for farmers, and how project and national level approaches can best engage and communicate to those resources.

A Farmer Centric Approach: Who and what are the sources of information for farmers, and how can project and national level approaches best engage and communicate to those actors in order to effectively reach farmers?

Figure 1.1 | A Farmer-Centric Approach to Policy Development, Implementation and Information

The below figure demonstrates a farmer-centric approach to informing, developing, and implementing national agriculture and climate change policies; and the cycle of national policy implementation and feedback mechanisms to inform future policy developments from actors and farmers on the ground.



Bottom-Up Information Sharing and Lessons Learned:
From a bottom-up perspective, farmers on the ground and surrounding actors help gather information, experiences, and needs to help evaluate effectiveness, inform their own work, and future policy developments.

Informed Policy Implementation:
From a top-down perspective, national policy informs key actors including extension services, financiers, civil society, and science and research communities.

Table for Figure 1.1 | Unpacking the Processes of Policy Development, Implementation and Information

National Policy & Legislation Process Once motivation for a policy process is underway, there are some key elements for policymakers and supporting actors to consider:	<ol style="list-style-type: none"> 1) Existing Policy Assessment: examine relevant agricultural policies across a range of appropriate ministries/agencies such as: agriculture, climate change, food security, water, and land use; 2) Identify gaps, by: comparing policies with national approaches and examining what is happening on the ground 3) Determine Policy Coherence & Consistency, both: <ul style="list-style-type: none"> • Within the country: are some policies inconsistent or in conflict? (e.g., could some policies be promoting poor adoption or more GHG-intensive systems?) • Internationally: are national policies aligned with international obligations?
Informed Policy Implementation:	National government agencies engage actors who will help implement policies and practices, and especially those that interact with farmers on the ground. These include, but are not limited to: <ul style="list-style-type: none"> • Extension services • Financiers • Civil Society • Other Farmers • Science and Research
Informing Farmers and Farming Practices:	Farmers receive information, training and resources to implement policies and practices on the ground. Therefore, it is important to first understand where farmers are receiving information and what is informing their decisions, and engage those actors. For example, extension Services, civil society and other farmers, often train farmers on how to implement new policies and practices
Evaluate Effectiveness:	On-the-ground experience informs the community of actors surrounding farmers and feeds back into the national policy and legislation process. Activities to assess efficacy include: <ul style="list-style-type: none"> • Conducting ground-truthing/ reality-testing to determine pros and cons of policy implementation (e.g., Kenya holds climate change hearings with farmers to hear what is working and what is not) • Downscaling tools to assess policies on the ground • Considering gaps between methodologies and actions on the ground to help inform science research agendas that, in turn, inform policy development • Identifying challenges in implementing policies on the ground and determine how should policies be amended to address this • Addressing perverse incentives (e.g., does a climate-related agriculture policy dis-incentivize removal of invasive species?)

Figure 1.2 | Agriculture and Climate Change Activities at Different Scales

In order to ensure long-term success, ease of implementation and sustainable adoption by farmers, project- or national-level initiatives should apply a two-step process to developing and undertaking activities:

- first, consider how to improve income for farmers; and
- second, provide incentives to increase productivity in a sustainable way which will increase farmer income and improve livelihoods, while reducing emissions intensity at the same time.

National Level Initiatives

- National initiatives on climate change in agriculture should be driven by national circumstances and should be contextualized in national strategies.
- Given the high level of uncertainty about whether and how to pursue agricultural adaptation and mitigation at the national level, there is a need to recognize gaps in knowledge and existing capacity constraints in order to refine approaches to mitigation and adaptation over time. This can be done in a way that allows immediate action on low risk, "no-lose" opportunities, with a process for incorporating new information along the way.
- National initiatives focused on climate change can benefit from getting fundamental components of their agriculture sector policy in order before overlaying climate change policy. They can also benefit from a holistic climate/agriculture approach with early private sector engagement and international partnerships.
- Many countries have very diverse agricultural sectors and climate regimes. Therefore, national policies need to accommodate a high level of diversity at the country level (there is no "one size fits all" approach).

Two-Way Connectivity: Project-level initiatives can share lessons learned to help inform national approaches and policy-making; and project-level activities can benefit from coordinating with national-level strategies and policy contexts.

Project Level Initiatives

- Project benefits need to be clearly and candidly defined to avoid false expectations and unrealistic hopes from communities and communities.
- Inclusion and involvement of all primary stakeholders at all levels of project development is critical. Involving government actors and farmer organizations is especially important and can help provide a sustainable exit strategy for the project.
- Project level initiatives provide a unique opportunity for innovation and context specific action and research; and the experiences and lessons learned from projects are instrumental to informing large-scale, national level activities.
- Project-level initiatives should aim, and then shoot, meaning they should provide solutions, not experiments. Agriculture in developing country contexts is too important to experiment with.
- Projects should consider how to "hinge" to the national strategy and also inform policy development through sharing experiences and lessons learned.

Financing Mechanisms: How are existing financing mechanisms coordinated, relevant to available metrics, and responsive to needs on the ground?

Financing Mechanisms: Observations and Ideas

- Funding and Donors Need Improved Coordination & Synergies**
 - Multilateral financing needs to be synergized especially within the same geographies.
 - Every funder has its own modalities and priorities. We need a landscape map of funding flows for climate-related agriculture to better understand gaps, overlaps and opportunities for greater synergy or coordination.
 - We know enough about on-the-ground needs to broadly inform funding measures, but we need more specific and differentiated knowledge in order to bring existing activities to scale.
- Flexibility to Respond to Needs On the Ground**
 - There is a need for more flexible financing options to enable support for mitigation activities that are too challenging to measure on a small scale, or are outside of market-based or compliance approaches.
 - These more flexible financing mechanisms may provide incentives for including greenhouse gas mitigation as a co-benefit to other objectives and activities already taking place, such as sustainable development or increased production from smallholder farmers.
- Country Contexts Should Inform Financing Streams and Objectives**
 - It is important to appreciate that countries are at different levels of development and climate change governance policy ambition, which directly correlates with their national priorities and abilities in pursuing adaptation and mitigation activities.
 - We cannot import solutions for agricultural activities. Although, there may be opportunities to learn from a set of shared principles or goals for adaptation that have been successfully implemented elsewhere, it is important for financing mechanisms to recognize that adaptation needs and solutions are country- and context-specific and therefore, need to be developed from the ground, up.
- Financiers Need to Recognize the New Paradigm Agriculture is Facing**
 - Increasing demand for agricultural products are anticipated to increase with prices demand, posing food security challenges on the one hand, and on the other hand, providing opportunities for developing countries with a strong agriculture sector.
 - Smallholder and poor farmers represent the greatest potential for meeting increasing food security demands. The challenge will be how to increase food production while also working to reduce emissions intensity. In order to not sacrifice food security priorities, agricultural emissions could be treated as inefficiencies that should be minimized in order to have a more profitable, efficient system.

Measurement and Evaluation: What are the different methods and metrics that can be applied to measure adaptation and mitigation impacts, and how can these be designed to support smallholder context?

- Mitigation Efforts:**
 - To be successful in the long-term, mitigation efforts must be considered and undertaken within the broader context of sustainable development objectives such as food security, livelihoods, and animal welfare.
 - Monitoring and reporting of agricultural greenhouse gas emissions could benefit from a more flexible approach, especially in a smallholder context where applying multiple tiers of greenhouse gas accounting could present a more pragmatic approach. This could create the basis for continuous improvement and recalculations as improved models and tools become available. A "one size fits all" approach may not work.
 - Research and evaluation is needed to determine how existing mitigation measurements and data could be used as indicators for assessing improved adaptation and resilience, which are more challenging to measure or quantify, but are equally, if not more important in developing country and smallholder contexts.

- Adaptation and Resilience Efforts:**
 - We need greater monitoring, measurement and evaluation of adaptation and resilience, not just carbon, simply because it is easier to quantify.
 - Initial adaptation measurements may measure progress on activities (e.g., changed farm practices in response to forecasted weather events), which can be tested by intermediate outcome metrics, which can feed into the resilience metrics that measure long-term response to climate change (e.g., income stability, farm productivity, socio-economic indicators and biophysical indicators).
 - Adaptation and resilience for agriculture in a changing climate requires:
 - o the ability to bounce back from extreme events using credit, savings and/or insurance;
 - o farmers having the ability or knowledge to adopt more resilient practices;
 - o anticipation, early warning and access to information and weather and climate forecasts;
 - o better to help sustain livelihoods such as price stability and grain stores; and
 - o the ability to effectively monitor and evaluate these systems before and after crisis situations.

Knowledge Management and Cross-Scale Communication: How are information and lessons learned documented and shared; and how can projects at one scale better communicate and share information with those at other scales?

Knowledge Management and Cross-Scale Communication

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 There is a need for additional forums to learn from project- and other countries experiences; exchanging lessons learned provides a unique opportunity to speed up the learning curve.
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 There is tremendous potential in the system for additional capacity building at multiple scales through training, information sharing, knowledge management, and decision support systems.
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 Information on climate change anticipated impacts, research methods, approaches to mitigation and adaptation could be organized into knowledge sharing system(s). However, it would need to be well organized and would require a coordinated comprehensive effort. Special care would be needed to make it accessible and usable by local actors across multiple scales.
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 Increasing concerns about agricultural- and national- security could catalyze investment in knowledge systems, especially given that such systems would likely require significant upfront costs.
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 There are innovative uses of cell phones and networks that can be expanded upon as a multi-directional communication tools: farmers can provide feedback to researchers, and receive information on weather forecasts, market pricing, and relevant policy decisions.

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