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## Lessons from REDD+ for Agriculture

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### Key messages

- ▶ Agriculture must be part of national and international efforts to reduce net terrestrial emissions, but in doing so should not compromise economic development and food security objectives.
- ▶ Action on Reducing Emissions from Deforestation and forest Degradation (REDD+) has created a foundation of policy experience, technical guidance and capacity on which agriculture can build.
- ▶ A period of review and phased implementation can help build technical and financial confidence.
- ▶ Early donor support for pilot projects is important to demonstrate feasibility, support innovation and generate policy lessons.
- ▶ Capacity enhancement is a priority.
- ▶ Agricultural mitigation needs to be based on a shared vision, rigorous analysis of options and impacts, coordinated effort and a flow of finance.



Smallholders, such as this coffee farmer who uses the traditional system of plantain as a shade crop, are contributing to agricultural mitigation while also generating a higher value crop. More farmers could be encouraged to adopt similar practices via carbon payments and policies that support agricultural mitigation. Photo: Neil Palmer/CIAT

## Introduction

Momentum is growing to address agriculture as part of climate change mitigation efforts. This policy brief examines the lessons that can be drawn from experience with Reducing Emissions from Deforestation and forest Degradation (REDD+), in order to inform policies and programs for agricultural climate change mitigation.

## REDD+

In 2005, the United Nations Framework Convention on Climate Change (UNFCCC) 11<sup>th</sup> Conference of Parties (COP 11) took the decision to consider 'avoided deforestation' as a mechanism for climate change mitigation. Since then countries supporting the UNFCCC and others have invested considerable effort in further developing the mechanism, now known as REDD+. Avoided Deforestation evolved to become Reduced Emissions from Deforestation and forest Degradation (REDD), and finally REDD+, which includes the role of forest conservation, sustainable management of forests and enhancement of forest carbon stocks. The 2006 Stern report<sup>1</sup> established the rationale and urgency for avoided deforestation and demonstrated its likely cost-effectiveness and rapid impacts. Since 2007 Norway has provided financial leadership by promising to deliver about USD 500 million per year to multilateral and bilateral initiatives to catalyze policy and on-the-ground action. The Intergovernmental Panel on Climate Change (IPCC) and Subsidiary Body for Scientific and Technological Advice (SBSTA) have built consensus for technical guidelines, while the Coalition for Rainforest Nations (CfRN) helped bring about agreement between developing and developed countries.

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1. Stern, N. (2006). Stern review on the economics of climate change. UK Treasury.

Over the last few years, public and private entities have invested substantial resources and generated a wealth of valuable experience relevant to REDD+. At COP 16 in December 2010, REDD+ was included in the Cancun Agreements. These request developing countries to prepare strategies, develop reference levels and create monitoring systems for REDD+. The Cancun Agreements also call for a SBSTA work program on REDD+ to be established to address drivers and methodologies, as well as the exploration of REDD+ financing options under the Ad-hoc Working Group on Long-term Cooperative Action (AWG-LCA).

## Agriculture

Agriculture can contribute directly to climate change mitigation through the sequestration of carbon and by reducing emissions of methane (largely from irrigated rice and livestock) and nitrous oxide (mainly from fertilizer application and livestock waste). As importantly, agricultural expansion is the primary driver of deforestation and thereby affects REDD+. An integrated approach to forestry, agriculture and land use change would enable better management of the trade-offs and synergies among mitigation, food security and poverty reduction in rural areas.

Despite overlaps with REDD+, agricultural mitigation will require different mechanisms and incentives. Agriculture involves higher levels of methane and nitrous oxide emissions; lower potential for carbon sequestration; higher reversibility, patchiness and variability; politically sensitive food security and trade issues; higher transactions costs involving numerous owners, often on private land; and complex sectoral and supply chain incentives. A global mechanism for mitigation that includes agriculture is necessary: however, agriculture is likely to require a broader range of financial measures and incentives than REDD+.

## Lessons from REDD+

The development of agricultural climate change mitigation policy will require parallel advancement in six areas: policy making; implementation mechanisms and governance; monitoring, reporting and verification (MRV); finance; capacity strengthening; and co-benefits. Table 1 provides a summary of the lessons from REDD+ for agriculture in each of these areas.

### *Policy making: Create political space*

Avoided deforestation was initially a contentious issue under the Kyoto Protocol for a number of reasons. Concerns existed about developing nations not taking responsibility for climate change; driving down carbon prices with a large increase in carbon credits; uncertainties regarding the definition of avoided deforestation; a lack of capacity for monitoring; and high levels of corruption and poor governance in many forest nations. Support coalesced when, in 2005, the Coalition for Rainforest Nations (CfRN) reframed 'avoided deforestation' as an economic development strategy for developing countries rather than as an emissions reduction requirement. The CfRN successfully built consensus among developing and developed countries at COP 11 in Montreal to investigate further deforestation-related mitigation. The Bali Action Plan, agreed at COP 13 in 2007, introduced the concept of REDD and opened the door to an intensive two-year process of planning for an agreement on REDD at COP 15 in 2009. The COP 16 then revisited REDD+ as part of the 2010 negotiations and included the concept within the Cancun Agreements.

In a similar way, agricultural mitigation policy must support economic development and food security if it is to gain consensus. Decades of experience already exist in sustainable land management techniques that sequester carbon and methods for carbon measurement are well

understood, which should build policy makers' confidence in the feasibility of agricultural mitigation. The policy process should be informed by rigorous analysis of mitigation potential and impacts of proposed mechanisms, as well as on-the-ground projects that demonstrate feasibility. A review period would allow policy makers to consider technical advances and financial arrangements, building further confidence.

While REDD+ has developed quickly, civil society participation has been poor. The development of REDD+ has been top down with highly centralized national processes. The Interim REDD+ Partnership<sup>2</sup> has encountered difficulties adopting rules for stakeholder participation in meetings. Stronger participation of different sectors, civil society and indigenous groups will be needed at all levels of both REDD+ and any proposed agricultural mechanism. Ad-hoc expert groups or standing working groups including a range of stakeholders can help inform policy decisions. Agricultural mitigation should seek to maintain the principles of participation and free, prior and informed consent, and should establish clear rights to carbon.

### *Implementation mechanisms and governance: Demonstrate feasibility*

REDD+ drew heavily on experiences with forest conservation projects such as the Noel Kempff Mercado Project in Bolivia. In the same way, agricultural mitigation can draw on project experiences with sustainable agriculture, agroforestry, payments for environmental services and the Clean Development Mechanism (CDM). Agriculture can also benefit from standards developed in the voluntary and compliance markets, which have been used to define the

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2. Launched in 2010 by the governments of Norway and France, to advance implementation of REDD+ after the COP 15 in Copenhagen failed to produce a decision on REDD+.

**Table 1.** Lessons from REDD+ for agricultural mitigation

<b>Element of REDD+</b>	<b>Lessons for agriculture</b>
<b>Policy making</b>	<ul style="list-style-type: none"> <li>▶ Economic incentives for developing countries are essential.</li> <li>▶ High level political engagement needs to be maintained.</li> <li>▶ A period of preparation and a phased approach to capacity strengthening will help create consensus, and technical and financial confidence.</li> <li>▶ Lessons from the field level should be linked back to policy processes.</li> <li>▶ Political negotiations should focus on larger strategic policies. Technical details are better addressed by experts in relevant fields.</li> <li>▶ Political participation should be inclusive and transparent.</li> </ul>
<b>Implementation mechanisms and governance</b>	<ul style="list-style-type: none"> <li>▶ Mechanisms should build on existing programs, policies and projects.</li> <li>▶ Mechanisms and governance measures will be necessary at multiple scales.</li> <li>▶ Capacity strengthening is a priority for successful implementation.</li> <li>▶ Technical information should be made accessible to decision makers early on.</li> </ul>
<b>Monitoring, reporting and verification (MRV)</b>	<ul style="list-style-type: none"> <li>▶ MRV should be simple, streamlined and cost-effective.</li> <li>▶ A global MRV framework that is accessible and affordable to developing countries is a priority.</li> <li>▶ Integration of agriculture and forestry would help to address agricultural expansion and leakage.</li> <li>▶ Balance is needed between precision of measurement and cost.</li> <li>▶ Independent and reliable standards and verification are necessary.</li> <li>▶ The concept of additionality should be re-examined.</li> </ul>
<b>Finance</b>	<ul style="list-style-type: none"> <li>▶ Early donor support and leadership are critical for demonstrating feasibility and building readiness.</li> <li>▶ Coordination of finance among donors and investors is a priority.</li> <li>▶ Finance should be mainstreamed and integrated with sustainable development investments.</li> <li>▶ Distribution mechanisms need more attention.</li> </ul>
<b>Capacity strengthening</b>	<ul style="list-style-type: none"> <li>▶ Capacity strengthening at the national level helps build confidence and readiness.</li> <li>▶ Readiness programs help shape national mitigation programs.</li> <li>▶ The implementation of readiness plans takes time.</li> </ul>
<b>Co-benefits</b>	<ul style="list-style-type: none"> <li>▶ Standards and safeguards promote environmental and poverty alleviation aims, but must be independently and robustly implemented.</li> <li>▶ Early provision for structured participation and attention to free prior and informed consent principles and procedures are priorities.</li> <li>▶ Delivery of co-benefits will depend as much on elements outside the UNFCCC process as on a mechanism under an international agreement.</li> </ul>

rules for carbon accounting and project design for REDD+.<sup>3</sup> Bringing experts and negotiators together to define operational mechanisms can help create a shared vision and broader political ownership.

### ***Monitoring, reporting and verification (MRV): Keep it simple***

REDD+ developed a strong foundation of monitoring, reporting and verification (MRV) tools and approaches for forest-related emissions, much of which is relevant to agriculture. The IPCC's greenhouse gas (GHG) accounting guidelines provide technical guidance, but are written in an inaccessible manner. Practitioners in developing countries may not have the capacity to compile data and estimate uncertainties in line with the IPCC guidelines.

Lack of capacity to use tools and technical measures and establish monitoring systems has posed challenges for REDD+ projects. Strict project-level MRV requirements have inhibited the establishment of forestry projects under the CDM. For agricultural mitigation to move forward, streamlined project approaches and more credible verification will be needed. The cost-effectiveness of investing in more accurate methods must be considered in relation to the needs of different finance arrangements. Technical convergence is needed on the best ways to combine measurement and modeling approaches to provide credible, cost-effective GHG estimation and accounting. Monitoring of governance safeguards and impacts on local people's wellbeing will need more attention in agriculture than they have received under REDD+.

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3. Standards include both registries and certification-type standards such as the Climate, Community and Biodiversity Standard ([www.climate-standards.org](http://www.climate-standards.org)). To date, the only registry with a global scope is the Voluntary Carbon Standard ([www.v-c-s.org](http://www.v-c-s.org)).

Measuring additionality for REDD+ has proven subjective, costly and a disincentive for projects that already provide mitigation, suggesting that documenting the positive impacts on climate change mitigation may be more important than demonstrating additionality.

### ***Finance: Catalyze early action***

REDD+ may be financed through market-based trading of forest carbon credits or through fund-based mechanisms. Within the current mix of regulated and voluntary offset credit markets, biocarbon credits have a relatively low value. This reflects the delayed development of domestic trading frameworks, as well as low confidence in the establishment of credible national MRV systems. Given these low values, significant market demand for carbon credits in agriculture in developing countries seems unlikely in the near future. Alternative financing mechanisms and incentives will be needed to supplement market approaches.

Foundations and developed country governments have provided critical funding to support REDD+ pilot projects, as well as activities ranging from capacity enhancement to negotiations. Norway's role has been pivotal in fostering cooperation and supporting international institutions (eg. UN-REDD) and bilateral REDD+ agreements. The World Bank's BioCarbon Fund is now catalyzing early efforts in agricultural mitigation at a smaller scale. More can be done to build on such efforts.

Experience with REDD+ has demonstrated the need for more coordination at the country level, both between donors (bilateral, multilateral and private) and among domestic government agencies.

### ***Capacity strengthening: Prepare quickly and coordinate***

Capacity strengthening efforts under REDD+ have focused on the national level. Two major multilateral efforts have helped to build confidence and readiness for REDD+. The Forest Carbon Partnership Facility (FCPF), coordinated by the World Bank, has established 37 'REDD countries', 11 of which have submitted REDD Readiness Preparation Proposals. UN-REDD, which was established in 2008, has provided readiness support to 29 countries. Coordination between these two major efforts is improving.

These two efforts have provided funds and created a systematic approach to national preparation for REDD+. By so doing, they have spurred countries to explore the potential shape of a national REDD+ program, and have helped to highlight differences between countries. Proposals for readiness often take some time to implement on the ground, as efforts remain largely at the level of principles rather than practical actions.

### ***Co-benefits: Establish principles***

Co-benefits generally refer to the positive environmental and social impacts beyond climate change mitigation. They are often treated together with safeguards, which seek to limit negative impacts. REDD+ projects have demonstrated the feasibility of generating tangible co-benefits in the form of income and land rights for forest owners and forest-based communities. They have also identified the importance of distributing benefits through investments in community development rather than as payments to individuals.

Standards and certification systems, such as the Climate, Community and Biodiversity Standards, establish a vision and guidelines against which the co-benefits of REDD+ projects can be

assessed. Certification measures pose a potential conflict of interest where proponents pay for their own certification assessment, suggesting the need for more independent verification.

The treatment of co-benefits under REDD+ has been much debated, with concerns that inclusion would complicate REDD+ programs and reduce the mitigation outcomes. Others consider the inclusion of co-benefits to be essential in order to generate wide stakeholder support and achieve REDD+ aims.

## **Conclusions and proposed actions**

Agricultural mitigation is in the early stages of development, yet the prospects are promising. Although the history of REDD+ is unique, in many ways it has paved the way for agricultural mitigation. Two immediate challenges are evident:

- ▶ **Creating policy space for agricultural mitigation.** This requires shared leadership that supplies vision, resources and momentum, and is informed by clear analysis of specific issues related to finance, incentives, carbon rights, technical standards, food security and co-benefits. Policy making must be transparent and inclusive.
- ▶ **Building operational feasibility.** This requires the provision of incentives for farmers and other land users to adopt climate-friendly practices. Investments are needed to develop capacity, gain experience and identify the best approaches for reducing emissions from agriculture. A phased approach will enable donors and investors to develop confidence and ownership, and overcome the obstacles in such areas as finance, MRV and independent verification. Key concepts that shaped REDD+, such as permanence, will need to be adapted for agriculture and aligned with the need to protect livelihoods and the basic right to food security.

To create the policy space and operational feasibility necessary for agricultural mitigation, simultaneous progress is needed along four parallel tracks (see Figure 1). These are:

- ▶ encouraging both formal and informal stakeholder engagement, through a range of events that bring diverse perspectives together, as well as efforts by respected leaders and thinkers.

### 1. Develop a shared vision

A shared vision for achieving agricultural mitigation that reflects stakeholders’ priorities and identifies the major drivers of agricultural emissions should be developed by:

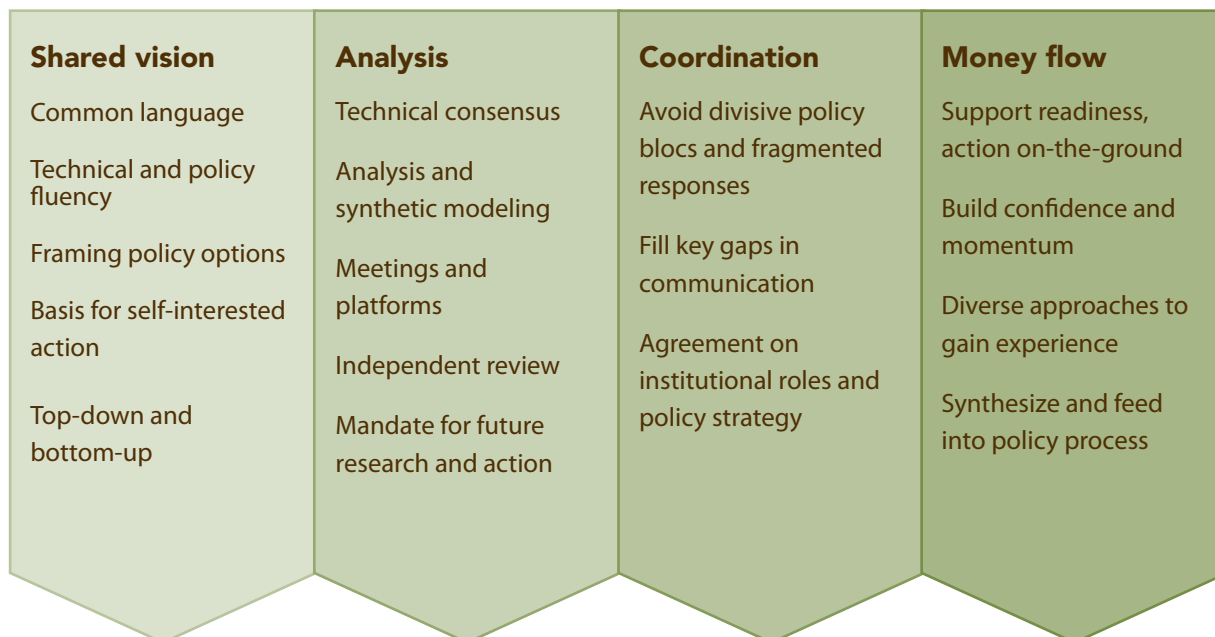
- ▶ developing a common language among technical experts, policy makers and practitioners that allows concerns to be more fluently addressed, and enables the clear framing of policy options
- ▶ acknowledging deadlocks, making the case for self-interested action at national and sectoral scales, and integrating top-down design with bottom-up field experience

### 2. Analysis of high priority mitigation options and impacts

Policy and implementation options for agricultural mitigation should be informed through:

- ▶ focused efforts to promote consensus on technical issues by multilateral agencies, research consortia and other communities of practice through synthetic modeling and analysis, as well as meetings and other platforms
- ▶ an authoritative independent review that puts agricultural mitigation in a global context;

**Figure 1.** Key parallel actions for progress in agricultural mitigation.



rigorously outlines the potential for mitigation options and impacts; identifies the necessary policy and financing strategies; and sets out a mandate for further research and action.

### 3. Coordinate efforts

Countries, agribusiness and trade groups, farmers' associations, indigenous communities and multilateral agencies must work together to avoid the creation of divisive policy blocs and fragmented technical and institutional responses. Coordination efforts should:

- ▶ be grounded in a comprehensive understanding of the drivers, actors, policies and institutional arrangements currently influencing global agriculture
- ▶ identify and fill key communication gaps
- ▶ clarify institutional roles and responsibilities, and establish agreement on an overall strategy for developing an agricultural mitigation policy.

### 4. Encourage money to flow

Money from donor agencies, foundations and industry is essential to support preparation for agricultural mitigation, development of infrastructure and project implementation at local level. Increased investment will build confidence and momentum around agricultural mitigation, and will mobilize technical activity and institutional engagement. Key elements of a strategy to increase the flow of funds include:

- ▶ leadership by 'anchor' donors, who invest through bilateral agreements and multilateral programs
- ▶ experimentation with supply chain projects, payment for environmental services initiatives, and other market incentives
- ▶ development of mechanisms for sharing results, synthesizing findings and feeding them back into policy processes.

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