Strategic Focus and Priorities

2013-2016
The mission of the Climate and Land Use Alliance (CLUA) is to realize the potential of forested and agricultural landscapes to mitigate climate change, benefit people, and protect the environment. The Alliance’s members include the ClimateWorks Foundation, the David & Lucile Packard Foundation, the Ford Foundation, and the Gordon and Betty Moore Foundation. Each of the member foundations brings to this mission distinct organizational perspectives and priorities that inform the development of CLUA strategies and their implementation. The Margaret A. Cargill Foundation works in alignment with CLUA and supports its strategies through the implementation of site-specific activities.

**WITH THE RIGHT POLICIES AND PRACTICES IN PLACE, CHANGES IN LAND USE PRACTICES CAN:**

- Yield substantial, cost-effective emission reductions
- Provide sustainable socio-economic development opportunities
- Improve the livelihoods and control over natural resources of forest-dependent communities, including indigenous peoples and smallholder farmers
- Provide many environmental and social “co-benefits,” including biodiversity protection, reduced air and water pollution, and protection of watersheds, which improve local and regional resilience to climate change

CLUA strategies are currently organized into four geographically focused initiatives (Brazil, Indonesia, Mexico and Central America, and the United States) and one Global Initiative that focuses on relevant public and private sector policies and finance that are international in scope. Our multi-foundation teams bring diverse expertise and seek to develop and maintain strong relationships with partners—ranging from grantees and contractors to other donors, government agencies, and the private sector. We put priority on strategic interventions, aim to fill important gaps, and work collaboratively with others.

CLUA faces a complicated global landscape. International negotiations under the United Nations Framework Convention on Climate Change (UNFCCC) process are too slow and alone will not achieve the fundamental objective for which the UNFCCC was intended—“the stabilization of greenhouse gas concentrations in the atmosphere at a level that will prevent dangerous anthropogenic interference with the climate system”—or the more specific land-use-related task to which it committed itself to “slow, halt, and reverse forest cover and carbon loss.”

A scientific and political consensus has emerged around the imperative of limiting climate change to an increase of no more than 2 degrees Celsius. The opportunity to stabilize greenhouse gas concentrations in the atmosphere at a level that would achieve that result, however, is rapidly slipping away, with current “business-as-usual” projections at 4 to 6 degrees Celsius.
Land use is currently responsible for about 25% of greenhouse gas emissions caused by human activity—more than the transportation sector worldwide. These emissions come predominantly in the form of carbon dioxide (CO$_2$) from deforestation, forest degradation, and the draining and burning of tropical peatlands, as well as nitrous oxide (N$_2$O) production from fertilizer application to agricultural fields and methane (CH$_4$) from rice and cattle production. Avoiding dangerous climate change will be significantly more difficult and costly if emissions from land use are not substantially reduced.

New risks to CLUA’s mission include less political attention to climate change, generally, and to the role of land use, specifically. In addition, unrealistic expectations that accompanied new initiatives to reduce emissions from deforestation and forest degradation (REDD+) have not been realized, despite some very significant progress. Recent poor performance of carbon markets, and the risks of linking forests to those markets, has raised concerns about the “payment-for-performance” approach associated with REDD+.

Meanwhile, the expansion of commodity production and infrastructure expansion—major drivers of deforestation and the displacement of indigenous peoples and smallholder farmers—increasingly threatens tropical forests and the people who inhabit them. Agricultural commodity production itself is no longer driven primarily by demand from the industrial world but by demand from “emerging” economies.

Our strategies must recognize these realities and address the challenges and opportunities they present. We recently developed revised strategies for each of our geographically focused initiatives in Brazil, Indonesia, Mexico and Central America, and the United States, and for our Global Initiative. Collectively, this work is linked by our crosscutting intent to:

**A BRIEF OVERVIEW**

### Greenhouse Gas Emissions From Land Use
Measured in CO$_2$e per year (billions of tons)

<table>
<thead>
<tr>
<th>Source</th>
<th>Emissions (billions of tons)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Deforestation (gross)</td>
<td>3.5</td>
</tr>
<tr>
<td>N$_2$O from soils</td>
<td>2</td>
</tr>
<tr>
<td>CH$_4$ from enteric fermentation</td>
<td>1.9</td>
</tr>
<tr>
<td>CH$_4$ &amp; N$_2$O from other sources</td>
<td>1.2</td>
</tr>
<tr>
<td>Peat drainage and burning</td>
<td>1</td>
</tr>
<tr>
<td>CH$_4$ from rice production</td>
<td>0.7</td>
</tr>
<tr>
<td>Forest degradation (net)</td>
<td>0.6</td>
</tr>
<tr>
<td>CH$_4$ &amp; N$_2$O from manure management</td>
<td>0.4</td>
</tr>
</tbody>
</table>

Shift the expansion of commodity production away from native forests and peatlands to areas that are already under cultivation, where sustainable productivity increases are achievable, or to areas that were previously degraded and are currently underused.

Increase recognition of the rights of indigenous peoples and rural communities over forests as a critical part of achieving clear and more coherent land and resource tenure.

Encourage incentives for emission reductions through policies, measures, and actions that are consistent with internationally recognized guidance on safeguards, monitoring reporting and verification, and carbon reference levels.

Promote transparency and strategic communications.

Build relevant capacities and capabilities within our focal geographies.
Global Initiative

The goal of our Global Initiative for 2020 is to help implement international public and private sector policies that help reduce greenhouse gas emissions from land use, help indigenous peoples and rural communities, protect biodiversity and ecosystem services in CLUA focal geographies, and reduce the risk of diverting deforestation elsewhere by:

1. Removing deforestation and associated rural conflict from the supply of agricultural commodities, while increasing production

2. Improving the rights of indigenous peoples and other local communities to forest resources

3. Increasing the amount and effectiveness of international finance available for reducing deforestation
CLUA’s Global Initiative aims to provide effective and timely support to innovators working at the global level on CLUA’s central mission: to realize the potential of forested and agricultural landscapes to mitigate climate change, benefit people, and protect the environment.

The goal of our Global Initiative for 2020 is to help implement international public and private sector policies that help reduce greenhouse gas emissions from land use, help indigenous peoples and rural communities, protect biodiversity and ecosystem services in CLUA focal geographies, and reduce the risk of diverting deforestation elsewhere. CLUA’s global strategy distinguishes itself from a geographic strategy by drawing on relevant experience from other countries in ways that spur progress in the focal geographies and beyond and by cross-fertilizing and diffusing learning across regions.

This section describes the three main objectives of the Global Initiative and their implementing strategies.

Our first objective aims at removing deforestation and associated rural conflict from the supply of agricultural commodities, while increasing production.

By 2030 the world may need to produce 50% more food than it does today, compounding the challenge of reducing GHG emissions from land use. Demand is also increasing for biofuels and for wood products. Population growth, income increases, and changing diets are raising the global demand for agricultural commodities.

The expansion of commodity production to meet this growing demand is a major driver of tropical deforestation, threatening the planet’s biodiversity and ecosystem functions, raising conflicts with traditional inhabitants over land, and converting vast stocks of stored biological carbon into greenhouse gas emissions. But increasing production does not require new land clearing. There are large opportunities to increase yields on lands that are already under cultivation, and vast areas of previously degraded or already cleared lands remain underused.

Although “green” certifications, such as those issued by the Forest Stewardship Council, have influenced the level of consumer demand for more-sustainable products and provided standards that have influenced policy, only a fraction of the world’s timber supply has been certified by credible schemes. More recent commodity-specific roundtables have demonstrated progress, although the standards may fall short of what is needed for sustainable land use and market penetration is also a challenge. Efforts to address illegal logging and deforestation are most effective when they create a fear of legal proceedings against major offenders who otherwise act with impunity. Enforcement efforts can be counterproductive when they serve as a pretext for exerting political authority over vulnerable communities.
CLUA GLOBAL INITIATIVE – OBJECTIVE 1

Substantial and measurable progress toward the elimination of forest and peatland conversion/degradation, and associated rural conflict, from commodity production of palm oil, beef, soy, biofuels, and wood products

<table>
<thead>
<tr>
<th>CHANGES NEEDED</th>
<th>IMPLEMENTING STRATEGIES</th>
</tr>
</thead>
<tbody>
<tr>
<td>Increased governance and legality in wood supply chains, especially in southeast Asia</td>
<td>Defend and enhance effective implementation of U.S. Lacey Act</td>
</tr>
<tr>
<td>Adherence to legal and sustainable practices in commodity production fully mainstreamed as good business practice</td>
<td>Advance national implementation of E.U. timber regulation (EUTR) and associated Forest Governance Voluntary Partnership Agreements (VPAs)</td>
</tr>
<tr>
<td>Reduction in GHG emissions from biofuels use in the European Union, United States and Brazil, including corn ethanol as well as woody biomass as a feedstock</td>
<td>Explore and advance opportunities for expansion of similar policies in Asian and Pacific Region importing countries, including Australia, Japan, and China</td>
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<td></td>
<td>Understand and minimize social risks and potential for perverse outcomes associated with increased enforcement</td>
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<tr>
<td></td>
<td>Build on FLEGT Action Plan and U.S. Lacey Act enforcement templates for improving the sustainability of supply chains for other commodities</td>
</tr>
<tr>
<td></td>
<td>Promote implementation of zero-deforestation commitments by Consumer Goods Forum companies and their uptake by others</td>
</tr>
<tr>
<td></td>
<td>Support an integrated campaign effort aimed at financiers, producers, traders, and consumer-facing companies to eliminate forest and peatland conversion/degradation, and rural conflict, from palm oil production</td>
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<tr>
<td></td>
<td>Support efforts that aim to shift production of beef and soy to more sustainable practices while significantly reducing the loss and degradation of natural ecosystems by working with producers and demand side stakeholders to create a market pull for sustainably produced products</td>
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<tr>
<td></td>
<td>Support market differentiation strategies</td>
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<tr>
<td></td>
<td>Prevent the expansion of acreage and markets associated with corn ethanol and palm oil biodiesel production</td>
</tr>
<tr>
<td></td>
<td>Quantify the volume of biofuels and bio-energy ‘mandated’ by national policies, and the associated land-use, and GHG-emission impacts</td>
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</tbody>
</table>
Our second objective aims at improving the rights of indigenous peoples and other local communities to forest resources.

More than a billion poor rural people depend on forest resources for all or part of their livelihoods.

Forest clearance and degradation directly and immediately affect local and indigenous communities living in and near forests. Bureaucratic barriers, insecure tenure, and unrecognized customary rights limit the legitimate access of local communities to forests outside of the 30% of forest areas in developing countries that are owned or designated for use by local communities and indigenous peoples. Unclear forest rights and incoherent or inconsistent policies can cause conflict as well as exacerbate deforestation.

**CLUA GLOBAL INITIATIVE – OBJECTIVE 2**

**Increased transfer of rights over forest resources to indigenous peoples and local communities**

**CHANGES NEEDED**

- Bilateral and multilateral donors and international processes give greater priority to clarification and security of community rights as an effective climate mitigation strategy
- Communities and indigenous peoples receive greater funding and support services for forest-related activities
- Regulatory and tax burdens imposed on community and small-scale forestry enterprises are reduced
- Influential private companies that invest in forest-risk commodities and acquire land-based assets start to adopt practices that uphold community rights
- Forest resources and assets controlled by communities no longer change designation or classification without free, prior, and informed consent

**IMPLEMENTING STRATEGIES**

- Garner support and evidence for clarification of community rights over forests as an effective climate mitigation strategy
- Advance the case with donors that climate finance be earmarked to secure community control over forests and provide them with models of effective finance they can adopt
- Support international analysis, evidence, and processes that encourage national and local authorities to rethink rules and simplify regulations
- Support community representation in international processes to promote private sector “zero deforestation” standards, policies, and practice in favor of community rights
- Support evidence, analysis, and discussion internationally on the “legality” surrounding deforestation-related natural asset acquisition and investment

Forest governance has been a particularly difficult challenge, in part because state control of forests has generally been a foundation of political power even when initiated under the pretense of forest protection. Centralized states have encroached on local interests to control forests with a colonial culture, including use of force, causing backlash against governance efforts and creating new waves of resistance and conflict. Nevertheless, there have been some successes related to community management of forests, with recent findings indicating that given a supportive policy and legislative environment, indigenous territories can limit deforestation as much or more than traditional nature reserves can, that forest cover can improve under community management, and that community forests can have more and larger trees, fewer fires, and less grazing.
Under the UNFCCC, nations have agreed to negotiate a new legal agreement on climate change by 2015 to come into full effect after 2020. This may create a structure of incentives, legal and financial, that will drive long-term, sustained changes in behavior to mitigate climate change, including through more-sustainable land use and associated emissions reductions. The lack of ambition or, in some cases, of time-bound national targets to reduce emissions, along with insufficient finance to support actions to meet these targets, substantially inhibits progress.

Disbursing finance effectively is critically important for successful implementation, both to reward emissions reductions in countries where rates of deforestation are slowing and to support those ready and willing to change specific policies and implement measures that can “turn the tide.” Activities supported with multilateral and bilateral funding establish important precedents, provide technical assistance and money for action on deforestation, send signals for how incentive-based payments might work to scale in the future, and can create vested expectations of results.

A fourth priority objective is behavioral change that reconciles consumption habits with the goal of reducing greenhouse gas emissions from land use. CLUA is not currently allocating resources to this objective, although we recognize its fundamental significance.
Brazil

The goal of our Brazil Initiative for 2020 is to contribute to the sustained achievement of the Brazilian government’s efforts to reduce deforestation in the Amazon region by 80%, in ways that protect biodiversity and the rights of traditional peoples and rural communities by:

1. 
Strengthening and effectively monitoring implementation of the National Climate Change Policy

2. 
Consolidating territorial management and sustainable production systems by rural communities

3. 
Accelerating the shift of cattle production from expansion into native forests to intensification on previously deforested lands

4. 
Promoting sustainable, low-emissions development through existing and new economic instruments
Brazil is recognized as a global leader in the international climate change arena and has already reduced deforestation in the Amazon by 76% between 2005 and 2012. In 2012, Brazil announced the lowest rate of deforestation since the adoption of its annual monitoring system in 1988, although preliminary data for 2013 suggest a likely increase.

Since 2005, deforestation has declined due to a combination of:
- Lower commodity prices
- Increased governance
- Establishment of new protected areas

Since 2004, some 50 million hectares of federal and state protected areas have been created, accounting for half of the deforestation avoided between 2005 to 2009. At the same time, several major law enforcement operations were aimed at illegal deforestation and corruption in environmental agencies.

In the next four years these reductions could be reversed if policies that promote the expansion of agriculture, mining, and infrastructure do not prioritize forest conservation. As a result, maintaining and accelerating the reduction of deforestation and forest degradation and promoting sustainable, low-emission land use remains challenging.

As part of its National Climate Change Policy (NCCP), the Brazilian government has committed to an 80% deforestation reduction target for the Amazon region. The goal of CLUA’s Brazil Initiative for 2020 is to contribute to the sustained achievement of this target in ways that protect biodiversity and the rights of traditional peoples and rural communities. We also recognize the importance of related NCCP land use emission reduction targets for the Cerrado biome, and for direct agricultural emissions.

This section describes the four main objectives of the Brazil Initiative and their implementing strategies.

Our first objective is to strengthen and effectively monitor implementation of the National Climate Change Policy.

The NCCP has set ambitious targets for reducing emissions from land use and deforestation. The NCCP’s effectiveness depends on its key policies, specifically the state and national Plans for Control of Deforestation and the Low Carbon Agriculture Program. In addition, implementation of a newly revised Forest Code will have a big influence on achievement of NCCP targets. The Code requires implementation of a rural land registry (CAR) that could be a powerful instrument to monitor and prevent deforestation. In late 2012, the Ministry of Environment announced the ambitious aim of having all of the country’s 5.5 million rural properties in the National CAR system by the end of 2014. This registry has also been expanded to other land use types, such as agrarian settlements and quilombos, and it could contribute to the advance of land regularization in private properties if it is well integrated with the land titling process.

CLUA resources will support civil society organizations’ analysis and advocacy, along with government processes, to monitor and advance the transparency, effectiveness, accountability, and better integration of the implementation of these key climate and related socio-environmental policies.
Our second objective is to consolidate territorial management and sustainable production systems by rural communities.

Approximately 60% of Brazil’s indigenous population lives in the Amazon region; demarcated Indigenous Territories occupy 22% of the Amazon area and contain 30% of the Amazon’s carbon stock. In addition, “sustainable use protected areas,” such as extractive reserves and quilombos, occupy an additional 6%.

Promising sustainable management models for indigenous lands and rural settlements are emerging and being strengthened in specific territories in recent years.

CRITICAL CHALLENGES FOR THESE INITIATIVES INCLUDE:
- Lack of customized technical assistance
- Differentiated access to markets
- Inadequate regulatory frameworks

Ensuring the recognition of traditional peoples’ lands and their tenure security addresses both a right included in the Brazilian Constitution and a precondition for traditional peoples to improve their livelihoods and plan the sustainable management of their territories. Indigenous lands and extractive reserves occupied by traditional peoples have been shown to serve as effective barriers to deforestation.

CLUA will emphasize the expansion and consolidation of traditional peoples’ land and resource rights. We will support improved territorial protection and management and seek to promote the long-term economic viability of their forest-based economies. CLUA will also contribute to analysis of the role of public lands in preventing land grabbing, contributing to low-carbon development, and recognizing indigenous peoples’ and rural communities’ rights to forests.
Our third objective is to accelerate the shift of cattle production from expansion into native forests to intensification on previously deforested lands.

Brazil is the largest producer, consumer, and exporter of beef in the world, with a herd of more than 200 million head, of which 70 to 80 million are in the Amazon region. Cattle ranching occupies 62% of the area deforested in the Amazon region and was responsible for half of all Brazilian greenhouse gases emissions between 2003 and 2008.

In response to NGO and legal pressure, major players in Brazil’s beef industry started to adopt social and environmental safeguards in 2009, including commitments to prohibit the purchase of cattle from newly deforested areas. The need to intensify beef production systems is now starting to be mainstreamed among key influencers and opinion formers, and it is the most important target of the Low Carbon Agriculture Plan (ABC). The beef industry has a very dispersed supply chain, however, with several large players and a large number of small, unregulated producers and processors, and 40% of the industry is estimated to be non-compliant with environmental regulations.

CLUA will focus on strengthening the commitment of the main slaughterhouses to eliminate deforestation from their supply chains. We will also help to scale up successful pilot projects that offer targeted technical assistance, preferential credit, and visibility for intensification and compliance with environmental legislation in order to hasten the development of a new production and supply chain model.
Our fourth objective is to promote sustainable, low-emissions development through existing and new economic instruments.

The Low Carbon Agriculture Program is a low-interest credit line that aims to stimulate the adoption of low carbon emission agricultural practices included in the NCCP. This funding is important to promote intensification of cattle ranching production in the country and supports restoration of degraded pastures. In addition to ABC, there are other specific credit lines stimulating new production models, such as PRONAF. The Climate Change Fund, created in 2010 and funded by oil royalties, last year disbursed US$115 million, working mostly in the northeast region on disaster preparedness, emissions monitoring, and scientific studies.

THESE FUNDING SOURCES HAVE GREAT POTENTIAL BUT ALSO FACE A SET OF OBSTACLES TO EFFECTIVE IMPLEMENTATION:

- Administrative and bureaucratic hurdles tend to exclude many stakeholders.
- Design issues need to be worked out, including making the funding sources more accessible to landowners.
- Bank officials need to become familiar and engaged with these new and complex funding sources, and instruments need to be established to track the use of these credit lines.

CLUA will support analysis and advocacy that promotes the improvement of existing funding mechanisms and helps priority groups that are key to the climate change agenda gain access to these resources, in particular the Amazon Fund, ABC Program, and PRONAF. The Alliance will also support the development of new economic mechanisms and their integration within relevant development policies.
In addition to these four objectives, there are two other objectives that CLUA Is not currently allocating resources to, although we also consider them to be significant.

The first is to protect 60 million hectares under the Amazon Region Protected Areas Program (ARPA). The numbers and extent of the protected areas in the Amazon Region are already impressive, and their importance is nationally and internationally recognized. ARPA is considered the largest conservation program in the world. It is funded by the Global Environment Facility, the German government, and the Amazon Fund. ARPA is now beginning a new phase, targeting fundraising through public-private partnerships to ensure the long-term viability of protected areas.

The second is to promote the restoration of 15 million hectares of degraded pastures. The Ministry of Agriculture is responsible for implementation of the US$2 million Program of Degraded Areas in the Amazon (Pradam), which has the financial support of the U.N. Food and Agriculture Organization. Pradam will stimulate good practices related to the restoration of degraded pastures and the development of sustainable production systems.

### CLUA BRAZIL INITIATIVE – OBJECTIVE 4

**Promote sustainable, low-emissions development through both existing and new economic instruments**

<table>
<thead>
<tr>
<th>CHANGES NEEDED</th>
<th>IMPLEMENTING STRATEGIES</th>
</tr>
</thead>
<tbody>
<tr>
<td>Innovative funding instruments established to incentivize sustainable, low-emissions land use</td>
<td>Promote the development of new economic instruments that incentivize sustainable, low-emissions land use</td>
</tr>
<tr>
<td>Improve implementation of existing economic instruments for low-emissions land use</td>
<td>Unlock the use of existing economic instruments for low-emission and sustainable land use</td>
</tr>
<tr>
<td>Improved Amazon Fund implementation promotes access to funding support for traditional peoples and social movements</td>
<td>Enable traditional people and members of social movements to access the Amazon Fund</td>
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</tbody>
</table>
Indonesia

Our Indonesia Initiative’s goal is for local communities, government, and the plantation sector to negotiate and achieve a shift to a high-carbon-stock, low-emissions rural economy that enhances local livelihoods and results in greenhouse gas (GHG) emissions in 2020 from forest and peatland at least 1 Gt below business as usual by:

1. Integrating the concept of a more balanced rural economy as the basis for implementing emission reductions into the development of the newly created REDD+ agency and reporting and verification system, and other related government agencies.

2. Extending and strengthening community rights over land and forest resources in order to contribute to a low-emissions rural economy.

3. Ensuring that leading private sector actors adopt good practice based on mutually enforceable contracts with communities.
Indonesia is a major emitter of carbon dioxide, mostly from deforestation and peatland degradation. Annual deforestation estimates range from 350,000 to 1.5 million hectares, and greenhouse gas emissions data remain hotly contested—a recent Planning Ministry publication concluded that half of Indonesia’s emissions came from peatland degradation, while the economic activity generated on peatlands contributes roughly one percent of GDP.

Indonesia has committed to achieving, with foreign assistance, total net emissions in 2020 that are 41% less than the projected business-as-usual level. This means bringing Indonesia’s emissions back down to slightly below the 2005 level by 2020. While this is ambitious, large reductions in emissions can be achieved from improved management of peatlands and forests.

The predominant rural development paradigm in Indonesia prioritizes creation of wealth from the extraction of natural resources (minerals, oil, timber) and monoculture production of commercial crops (mostly fiber for paper production and oil palm). These large-scale investments have resulted in the opening up of sizeable areas of Indonesia through infrastructure development, and the organized and spontaneous migration of millions of people attracted by the prospect of employment and land. They rely heavily on large capital investments, inexpensive labor, and government-assisted access to land. Industrial pulp and paper operations also receive substantial direct government subsidies and access to cheap fiber from “pulping” natural tropical forests. The pre-eminent role of the capital intensive, investment- and private-sector-driven model of economic growth is reinforced by the government’s Masterplan for the Acceleration and Expansion of Indonesian Economic Development 2011–2025.

Mitigation of emissions from deforestation and peatland degradation is intrinsically linked to the wider context of land rights and governance in Indonesia, where more than 60% of the nation’s land is classified as permanent forest estate. Corrupt practices dating back to the dictatorship give preference to the expansion of monocultural plantations by national and international business elites over the management of native ecosystems and the customary rights of Indonesia’s indigenous communities.

Yet there are indications that some Indonesian leaders in both government and industry now favor a more balanced rural economy, with changes in business-as-usual practices to:

- **Increase sustainability**
- **Lower risks particularly from conflict with local communities**
- **Retain access to markets that demand legality and adherence to socio-environmental standards**

The Indonesia Initiative focuses on strengthening the land and tenure rights of communities in forest and peatland areas to contribute to livelihood improvements and to lower emissions from those landscapes. An increasing body of evidence supports the view that local land tenure security, appropriate incentives, and a consistently enforced regulatory framework supporting sustainable land use can reduce deforestation. Furthermore, if plantation developers respect and negotiate with local communities, rather than trying to usurp lands by using their influence with government, it will further support this outcome.

The goal of this Initiative is for local communities, government, and the plantation sector to negotiate and achieve a shift to a high-carbon-stock, low-emissions rural economy that enhances local livelihoods and results in greenhouse gas (GHG) emissions in 2020 from forest and peatland at least 1 Gt below business as usual.

Achieving this goal will require systemic transformation of the way that use of land and forest resources are allocated and controlled. This means informing the decisions and actions of three key groups: decision makers in the priority setting and decision making agencies of government, members of rural communities, and executives and managers in private companies. This section describes the three priority objectives and the implementing strategies identified by CLUA as goals on which it could have the greatest impact with limited resources.
Our first objective is to integrate the concept of a more balanced rural economy as the basis for implementing emission reductions into the development of the newly created REDD+ agency and reporting and verification system, and other related government agencies.

Several existing agencies, most importantly the Ministry of Forestry, Presidential Unit for Monitoring and Control of Development (UKP4), the National Development Planning Agency (BAPPENAS), and the Ministry of Environment, have responded to the challenges of climate change by issuing strategies, policies and undertaking studies, but coordination across sectors has been a challenge. A dedicated REDD+ agency, and MRV agency, and REDD+ Trust Fund as envisaged in the Indonesia–Norway agreement, are all moving ahead.

CLUA will support work inside these agencies, providing data and information to bolster arguments for change, as well as outside of them, supporting legal and communications/campaigning actions that promote the issues and solutions. CLUA will also support efforts to reform the way that existing institutions implement and interact, with a particular emphasis on those responsible for spatial planning, recognition of local land rights, and allocations of land conversion licenses.

Recognizing that ultimately what is needed is reform of bureaucratic processes to make them more results-oriented and accountable, CLUA will explore support to long-term programs of influencing and capacity building through the training centers of relevant ministries, the National Administrative Agency, the National Planning Agency, and other priority institutions.

Transparency of information and decision-making is a central theme that underpins many of the specific changes that CLUA wishes to support. Work with government institutions on this may include capacity building, piloting data registers, and development of frameworks for data sharing, whilst efforts outside include the use of the Freedom of Information law, and the creation of public, alternative datasets that implicitly challenge government to share its own data.

### CLUA INDONESIA INITIATIVE – OBJECTIVE 1

An effective REDD+ agency, a reporting and verification system, and any related government institutions adopt the balanced rural economy concept as the basis for implementing emissions reductions

#### CHANGES NEEDED

- Effective, independent REDD+ and MRV agencies and interim financing mechanism established and resourced
- Credible evidence on the need for emissions reductions through a balanced rural economy that's used by key agencies
- Lessons learned from pilots inform planning and implementation activities for promoting a balanced rural economy

#### IMPLEMENTING STRATEGIES

- Develop and implement effective land use change monitoring systems
- Mobilize public opinion and decision makers around the need for an effective institution through public fora, national and international diplomatic interventions, and the use of popular media
- Capacity for continued data collection and policy analysis developed
- Analysis and communications on expansion plans, their emissions implications, links to corruption, human rights, rural livelihoods
- Develop and implement license and rights register
- Improved participatory spatial planning and monitoring
The role of sub-national governments—both provincial and district—is crucial not only for action in CLUA priority geographies, but also because of the influence these bodies can have within national policy debates. The actions outlined above apply equally to sub-national governments, with a particular emphasis on identifying districts that have an interest in reform, transparency, and improved land use planning.

Our second objective is for community rights over land and forest resources to be extended and strengthened in order to contribute to a low-emissions rural economy.

Marginalization of rural communities within development decision making and the dominant development paradigm has enabled the development of a high-emissions economy and created conflict and legal uncertainty, which poses practical and regulatory risks for emissions reduction initiatives. A crucial first step is to define, recognize, and secure collective customary rights, allowing local communities to assert their right to participate in land use planning and to free, prior, and informed consent on land use, as well as to demand improved services from government and to negotiate more effectively with private-sector partners.

**CLUA INDONESIA INITIATIVE – OBJECTIVE 2**

**Community rights over land and forest resources extended and strengthened to contribute to a low-emissions rural economy**

<table>
<thead>
<tr>
<th>CHANGES NEEDED</th>
<th>IMPLEMENTING STRATEGIES</th>
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<tbody>
<tr>
<td>- Mechanisms and legal basis for recognition of customary rights created</td>
<td>- Support and implement mechanism for registering mapping initiatives</td>
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<tr>
<td>- Formal community rights to access and manage forest resources significantly expanded</td>
<td>- Support implementation of the ongoing forest gazettement process</td>
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<td>- Community livelihoods from sustainable forest management enhanced</td>
<td>- Public information campaign on customary rights issues</td>
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<td>- Catalyze creation of a mechanism to formally recognize the validity of indigenous land rights</td>
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<td>- Scale up community mapping</td>
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<td>- Propose land allocation within spatial and forest use plans</td>
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<td></td>
<td>- Support arguments for simplification of regulations and procedures for community forest licenses</td>
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<td>- Provide legal support to specific cases and establish legal precedents</td>
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<td></td>
<td>- Strengthen community institutions for resource governance and community-based conflict resolution</td>
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<td>- Support pilot projects which strengthen community-based forest management by rights holders</td>
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</table>
Experience in Indonesia to date has shown, however, that recognition of rights is a necessary but not sufficient precondition for realizing low-emissions practices. Indeed, without appropriate safeguards, recognition of rights alone can lead to increased sales of land and forest resources for short-term gain. Practical assistance is needed to help rights holders maintain and enhance their traditions of sustainable forest management.

CLUA support will focus on strengthening and scaling up existing initiatives for community rights and on supporting ongoing policy dialogues, in particular the forestry macro-tenure reform process, which is piloting the use of the forest gazettement process as a tool for conflict resolution. In addition, CLUA will support groups working on the implementation of a recent Constitutional Court decision that recognizes customary rights inside the forest zone and of existing laws that strengthen recognition and the role of local and indigenous communities in natural resource decision-making but that, to date, lack implementing regulations. In parallel with this work, CLUA will support pilot interventions to strengthen sustainable forest management by rights holders, enhancing the contribution of such management to local livelihoods where possible.

Our third objective is for leading private-sector actors to adopt good practice based on mutually enforceable contracts with communities.

Palm oil and pulp and paper producers are some of the strongest supporters of business-as-usual practices, but there are examples of individual companies and groups starting to adopt “good practice” in response to actual or anticipated pressure from markets and creditors. Tighter definitions of good practice and transparent monitoring are needed to serve as the standard against which to judge company commitments and actions. These include watertight measures to remove deforestation and natural fiber from the supply chain, a demonstrable move to plantation development in low-carbon landscapes, and documented and independently verified community engagement processes, including the use of free, prior, and informed consent. The demand for good practice—and the comparative advantage of those companies who adopt it—can be increased by documenting and exposing poor practices. This includes work in Indonesia and market countries, as well as on the links between them.

Companies that make commitments to sustainability have found that regulations or interpretation of regulations are sometimes barriers to successful implementation. For example, land set aside for protection as “high conservation value” or “high carbon stock” may be defined as ‘undeveloped’ and therefore vulnerable to being annexed and re-allocated to another company. Regulations may also incentivize bad practice—for example by allowing a company to use unresolved conflict as a reason to redesign its land holding, rather than resolve the problem. Even where regulations are well proscribed, enforcement may be token or corrupt and therefore ineffective. CLUA will support activities of civil society organizations and community groups that wish to work with companies, regulatory authorities and, where appropriate, the anti-corruption agency or other law enforcers to provide independent, verifiable monitoring of the implementation of commitments on the ground.

Beyond working with companies that have made commitments, other companies need to be encouraged to join. Leading companies are reluctant to be too high profile about their actions, but they need to be encouraged to persuade their peers to make similar commitments. Continued work on demand-side campaigns is important in this respect, with a new emphasis on positive stories about the successes of committed companies.
**CLUA INDONESIA INITIATIVE – OBJECTIVE 3**

**Leading private-sector actors adopt good practice based on mutually enforceable contracts with communities**

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<tr>
<th>CHANGES NEEDED</th>
<th>IMPLEMENTING STRATEGIES</th>
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<tr>
<td>- Leading companies proactively seek to develop and test good practice measures</td>
<td>- Produce credible evidence of the business case for good practice</td>
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<td>- Target companies reduce poor practice as a result of negative campaigns and loss of market share</td>
<td>- Support the development and monitoring of enforceable community-company agreements in specific cases</td>
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<td>- Integrated approaches to provide incentives for low-emissions livelihoods and limits on licensing development on high carbon areas result in pilots of low carbon development in selected innovative districts</td>
<td>- Document cases and issues around poor practice, including those connected to human rights, and fiduciary good practice</td>
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<td>- Campaign for change at appropriate venues (international markets/buyers, associations, and sensitive governments)</td>
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<td>- Develop a “threat atlas” and identify high-risk, high-potential districts</td>
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<td>- Adapt existing delivery mechanisms for incentivizing low-emissions activities at community level</td>
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<td>- Define, analyze and publish data on alternatives to using land in high-carbon landscapes</td>
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<td>- Ensure land use licenses are in low-carbon areas and have community consent (use FPIC)</td>
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**FOR EACH OF THESE CLUA OBJECTIVES, ESSENTIAL COMPLEMENTARY WORK MUST BE DONE AT A BROADER SCALE THAT LIES BEYOND OUR SCOPE AND CAPACITY TO IMPLEMENT, INCLUDING:**

- For Indonesia to apply the more balanced low-emissions rural economy approach on a “whole-of-government” basis
- To mainstream innovative, low-emission economic development models for rural communities, including but not limited to forest management
- To fully implement and enforce an effective, mandatory national framework for private-sector good practice
The goal of our Mexico and Central America Initiative is to support the development and implementation of an effective, sustainable, and equitable strategy for cutting forest emissions in Mexico to zero by 2020 and for reducing them in Central America by 75% in ways that protect the rights and improve the incomes of indigenous peoples and rural communities and that reduce forest emissions elsewhere by disseminating elements of that strategy to other regions by:

1. Ensuring that relevant stakeholders outside the region adopt community rights to forests based on the lessons from Mexico and Central America
2. Having Mexico’s forest policies strengthen community management of forests
3. Securing greater support for community forest rights in Central America
Public policies in most tropical countries have failed to effectively protect forests and biodiversity, respect the rights of forest dwellers, and provide them with adequate standards of living. This had led to massive carbon emissions from deforestation and degradation, contributing to global warming. The dominant forest policy approaches—which rely heavily on state ownership of forests, logging concessions, state-managed protected areas, and tree-planting campaigns—have occasionally proved effective but often disappointed. Many government agencies have lacked capacity to manage forests or have been corrupted and captured by powerful interest groups, rather than serving the public good.

Community rights over forests and community management of them is one of the most promising sets of options for reducing forest carbon emissions as well as for improving local governance and maintaining livelihoods and biodiversity and other environmental services. Community rights and management can take various forms, including recognition of ancestral land claims, allocation of public forests to local groups that agree to manage them well, support for small-scale and communal forestry enterprises, co-management of protected areas, and the removal of obstacles that restrict the ability of communities and smallholders to harvest and sell forest products.

Mexico and Central America have gone further than any other region in promoting a diverse set of community forestry options. And the region has great potential both for improving existing community forestry efforts and for disseminating the lessons to other regions. There are promising opportunities to reduce carbon emissions and the loss of other environmental services resulting from the clearing and degradation of the region’s 85 million hectares of forests, as well as to sequester carbon by applying silvicultural practices and restoring forests on abandoned pastures and croplands.

The assertion that this Initiative can significantly reduce forest loss outside of Mexico and Central America is difficult to demonstrate but is not farfetched. Academics have documented many cases in which forest policies have spread across countries. For example, Costa Rica’s experience with payments for environmental service and national parks has influenced global thinking about these issues and contributed to the adoption of similar policies in other countries. If Mexico and Central America took further steps to support community rights and communities improved their capacity to manage their forests, the region’s success story could be even more compelling for decision makers elsewhere.

The potential benefits from improving forest policies for Mexico and Central America are important in their own right. Twelve million people live in the region’s forest communities, many of whom have low incomes and suffer discrimination. There is an urgent need to defend their rights and improve their well-being. Rural Mexico and Central America is vulnerable to droughts, floods, hurricanes, fires, pests, and diseases associated with climate change; community resource management can make these areas more resilient. Collective efforts to manage forests create sorely needed social capital and improved local governance and gender equality. The investments, regulatory and tenure reforms, and related efforts promoted in this Initiative could benefit several thousand communities that engage in commercial timber production, as well as many others that depend on forests for fuelwood, medicinal plants, fodder, housing materials, and other products and services. Other expected co-benefits include less violence and fewer illicit activities in forested regions, less loss of biodiversity, less erosion and sedimentation, and greater resilience in the fact of climate change.

With this in mind, the goal of the Mexico and Central America Initiative is to support the development and implementation of an effective, sustainable, and equitable strategy for cutting forest emissions in Mexico to zero by 2020 and for reducing them in Central America by 75% in ways that protect the rights and improve the incomes of indigenous peoples and rural communities and that reduce forest emissions elsewhere by disseminating elements of that strategy to other regions.
THE CENTRAL CHALLENGES THAT THIS INITIATIVE ADDRESSES ARE TO:

(1) Help to overcome obstacles that limit the contribution of community forests in Mexico and Central America to reducing emissions, improving livelihoods, conserving biodiversity, providing hydrological services, and strengthening social capital and governance.

(2) Provide decision-makers and opinion leaders from other regions with convincing reasons to adopt community rights based on Mexican and Central American experiences and help them to learn from those experiences.

From 2005 to 2010, Mexico lost an average of 155,000 hectares of forest per year (net) and Central America lost 250,000 hectares per year (net). During this period, forest degradation severe enough to be detectable by traditional remote sensing in Mexico was roughly 300,000 hectares per year. Deforestation and forest degradation accounted for an estimated 13% of Mexico’s total greenhouse gas emissions in 2006, although this may be a significant underestimate since it does not include forest degradation that is not visible using traditional remote sensing methods.

Deforestation rates have gradually declined over the last two decades as more accessible forests have already been cleared, as an increasing portion of remaining forests are in protected areas, indigenous territories, or community forests, and as government policies have provided fewer incentives for agricultural expansion. Appropriate policies and investments could accelerate this process and favor widespread reforestation and regeneration of forests. Community forest management is particularly promising for addressing forest degradation, since there are many low-cost opportunities for reducing degradation and enhancing regrowth in the areas that communities have kept as forest.

In Central America, deforestation remains the most pressing threat. Degradation would be harder to address there because governments are weaker and there are fewer commercial community forestry enterprises. One key reason CLUA decided to include Central America in this Initiative is that it offers a greater diversity of community rights options than Mexico. Mexico’s community forests are all in ejidos or agrarian communities—two uniquely Mexican institutions.

CENTRAL AMERICA HAS A MULTIPLICITY OF ARRANGEMENTS, INCLUDING:

- Multivillage indigenous territories
- Individual villages with land titles
- Community forestry concessions
- Community usufruct agreements
- Municipal forests
- Forestry cooperatives

Central America’s weak governments and heavy reliance on donors are also more representative of most tropical forest countries.

This section describes the three priority objectives and implementing strategies that CLUA identified as goals on which it could have the greatest impact with the limited resources at its disposal—mostly activities where CLUA’s role is expected to be catalytic.

Our first objective is to have relevant stakeholders outside the region adopt community rights to forests based on the lessons from Mexico and Central America.

Communities own more than 60% of Mexico’s forests, and they own or manage a large share of the forests of Central America. Almost 2,000 Mexican communities hold permits to harvest timber, and Mexico has more independently certified community forests than any other country. The region has also pioneered innovative schemes for paying communities for environmental services. In general, the evidence suggests that the region’s policies favoring community rights have benefited both people and forests.

CLUA MEXICO & CENTRAL AMERICA INITIATIVE – OBJECTIVE 1

Relevant stakeholders outside Mexico and Central America (MCA) adopt community rights to forests based on the lessons from MCA

CHANGES NEEDED

- Policy makers and opinion leaders are convinced by and learn from MCA’s experiences with community rights

IMPLEMENTING STRATEGIES

- CLUA and grantees document and disseminate MCA lessons
- MCA governments share lessons about community rights
- International agencies disseminate MCA lessons related to community rights
This first objective provides one of the main rationales for CLUA to give priority to this region due to its potential to inspire decision-makers and opinion leaders in other regions and to provide relevant lessons that can help improve their policies and practices. To meet this objective, Mexican and Central American community rights efforts must be as successful as possible, and CLUA must have a well-designed strategy for disseminating the lessons to other regions. The groundwork for this objective will be laid during 2013–2016. The main achievements will probably occur after that.

Our second objective is to have Mexico’s forest policies strengthen community management of forests.

Mexico’s forest policies strengthen community management of forests

Changes Needed

- More funds for community forestry; prioritize degradation; PES for management; less over-regulation; more participation of other stakeholders; policies consider regional specificities; attention to needs of Indigenous Peoples and women; training and certification of service providers; better monitoring and evaluation

Implementing Strategies

- Advocacy and communications by Mexican NGOs
- Pilot projects and alliances with state and municipal governments
- Analysis and information sharing
- Alliances with other donors
- Alliances with Mexican legislators

Existing forest policies in Mexico have nurtured a successful community forestry enterprise sector. Nevertheless, there is room to make the policies affecting community forests much more effective, efficient, and equitable. There is a particular need for policies that are suited for forests with little valuable timber and for communities that are poorly organized or have conflicts, which is where most deforestation and degradation is currently occurring. Similarly, non-timber forest products are very important for rural women, yet current policies largely ignore them.

Mexico has a strong federal government, which invests hundreds of millions of dollars in forestry each year. Given the scope and the magnitude of those investments, it makes sense for the Initiative’s work in Mexico to focus on improving the federal forest policies, both directly and through state-level initiatives and demonstration projects.

There is great potential for reducing carbon emissions and achieving other benefits by:

- Improving community logging techniques, silvicultural and grazing practices, fire control, and assisted natural regeneration
- Promoting non-timber forest products, among other goods
Our third objective is to secure greater support for community forest rights in Central America.

Indigenous peoples and other forest communities manage a large share of Central America's forests and have helped keep them from being cleared. Nonetheless, forests are under increasing threat from outside groups and the weakening of local traditions.

**THIS IS PARTICULARLY RELEVANT IN THE LARGE REMAINING BLOCKS OF FOREST IN GUATEMALA AND ALONG THE CARIBBEAN COAST, WHICH FACE SERIOUS THREATS FROM:**
- Ranchers
- Palm oil companies
- Small-scale farmers
- Loggers
- Mining companies

Unlike Mexico, most of Central America does not have strong forestry and environment agencies. Donor projects often overshadow government programs, and the region includes seven separate countries. In addition, a relatively small number of grassroots organizations influence a significant share of community-managed forests. There is also a history of intraregional networks and exchanges. This suggests that the best way to support community rights in Central America would be to work regionally with the main grassroots organizations involved with forests. A regional platform could work with a wider set of stakeholders as opportunities arise, while creating enough of a critical mass of forest and capacity at the regional level to attract outside attention and resources.

**CLUA MEXICO & CENTRAL AMERICA INITIATIVE – OBJECTIVE 3**

Greater support for community forest rights in Central America

**CHANGES NEEDED**
- Greater community participation in decisions about forest and climate policies; more funds for territories and community forest; secure tenure for community forests; investments respect FPIC; reduce regulatory burden; allow communities to benefit from carbon markets; incorporate a gender perspective

**IMPLEMENTING STRATEGIES**
- Consolidate a regional platform for community and indigenous forestry organizations
- National advocacy in support of community and indigenous forestry
- Pilot projects

CLUA also identified two other overall objectives that it does not expect to be heavily involved in at this time: efforts to improve protected area management and to change agricultural policies and practices in order to reduce pressure on forests.
United States

The goal of our U.S. Initiative is to reduce net GHG emissions from U.S. agriculture by 20% by 2020 from the current 450 mmt CO₂e (~90 mmt), thereby demonstrating technical feasibility of mitigation options to other major agricultural nations by:

1. Creating a model system within the United States for reducing agricultural GHG emissions and enhancing carbon sequestration through federal and state policies and private-sector purchasing policies
Greenhouse gas emissions (GHG) associated with agriculture account for roughly half of total global land use emissions. Agricultural GHG emissions are mainly from non-CO$_2$ sources including soil fertilization and disturbance (nitrous oxide), enteric fermentation (methane), manure management (methane and nitrous oxide) and rice cultivation (methane). Agricultural GHG emissions are projected to grow by nearly 30% between 2005 and 2030 due to population growth and a worldwide increase in meat consumption. Agricultural soils also offer the potential for sequestering substantial amounts of carbon through cropland and grazing land management.

The United States is the fifth largest source of land use GHG emissions and, since U.S. forest area is increasing, these emissions are primarily associated with agriculture. U.S. agricultural emissions, amounting to about 450 million metric tons (mmt) CO$_2$e annually, have remained relatively constant over the past decade and are split between livestock (60%) and croplands (40%), with the largest sub-categories being nitrous oxide emissions from soil management (fertilizers and crop biological fixation) and methane emissions from livestock digestion (enteric fermentation).

Opportunities appear to exist to reduce agricultural emissions at very low or even negative costs. Even in a country with relatively efficient fertilizer use like the United States, farmers tend to apply more fertilizer than is economically optimal in most cropping systems. More precise application (in terms of amount and timing) could increase farmers’ profits, while reducing GHG emissions. Similarly, other changes in management practices, such as the installation of methane digesters to produce power from manure in livestock and dairy operations, can be profitable for farmers while reducing emissions.

The goal of the U.S. Initiative is to reduce net GHG emissions from US agriculture by 20% by 2020 from the current 450 mmt CO$_2$e (~90 mmt), thereby demonstrating technical feasibility of mitigation options to other major agricultural nations.

Our objective is to create a model system within the U.S. for reducing agricultural GHG emissions and enhancing carbon sequestration through federal and state policies and private-sector purchasing policies.

We believe that this can be achieved through three basic changes that we describe in more detail below: providing the tools for monitoring and measuring emissions, changing policies to provide incentives for agriculture emission reductions, and changing purchasing practices in the private sector to create a demand for reduced agricultural emissions.

The first change needed is the development of credible and rigorous methodologies and protocols for monitoring, measuring, and verifying agricultural emission reductions and carbon sequestration.
CLUA UNITED STATES INITIATIVE – OBJECTIVE 1

Create a model system within the United States for reducing agricultural greenhouse gas emissions and enhancing carbon sequestration through federal and state policies and private-sector purchasing policies

**CHANGES NEEDED**

- Develop credible and rigorous methodologies for monitoring, measuring, and verifying agricultural emission reductions and carbon sequestration
- Incorporate incentives for agriculture emission reductions into federal and state policies and regulations and remove disincentives
- Include requirements for agricultural emission reductions in the purchasing policies of major retailers

**IMPLEMENTING STRATEGIES**

- Identify agricultural practices for which sufficient information exists to quantify emission reductions
- Develop methodologies and protocols for measuring emission reductions through multi-stakeholder processes
- Support multi-stakeholder groups to develop principles and policy recommendations for agricultural emissions
- Provide recommendations and technical assistance to facilitate the incorporation of agricultural offsets in AB-32 implementation
- Support advocacy and education to inform Federal and California state policies affecting agricultural emissions
- Support education and advocacy to encourage retailers to reduce agricultural emissions in their supply chains
- Support voluntary agricultural emissions reporting that's associated with agricultural products in supply chains
- Provide technical assistance that can enable retailer commitments to be translated into changes in farmer practices with measurable emission reductions
A problem that has bedeviled work to reduce agricultural emissions has been the relative difficulty in measuring emissions and carbon sequestration. Without cost-effective and rigorous methodologies, market mechanisms such as carbon-offset programs cannot be applied to agricultural emissions, and it is similarly difficult to judge the value and impact of regulatory or incentive-based programs to reduce emissions. To address this problem, CLUA has been the primary donor supporting work to identify the most promising methodologies for reducing agricultural emissions and to develop methodologies and protocols for measuring and monitoring emission reductions.

The second change needed is to incorporate incentives for agriculture emission reductions into federal and state policies and regulations and to remove disincentives from policies and regulation.

Within California, this work has primarily focused on implementation of the State’s Global Warming Solutions Act (AB-32). More specifically, CLUA is supporting a multi-faceted strategy involving research, technical input, advocacy, education, stakeholder dialogues, farmer outreach, and private-sector investments all aimed at ensuring that agricultural emission reductions can be included as “offsets” under the cap-and-trade systems launched in 2013.

At the federal level, a number of existing policies provide both incentives and disincentives for agricultural GHG emissions. For example, within the Farm Bill, programs that encourage farmers to establish and use nutrient management plans, or that protect grasslands or other habitats from conversion to agriculture, result in lower emissions from agriculture. In contrast, programs such as subsidized crop insurance lead to greater expansion of agriculture than would otherwise be the case and, consequently, greater emissions as habitats are converted to agriculture. In the face of the need to reduce federal spending, many farm bill programs that are beneficial for reducing emissions are facing cuts and CLUA has supported education, research and advocacy to protect those programs, while encouraging the elimination of programs that increase emissions.

The third change needed is for major buyers of agricultural products to include requirements for agricultural emission reductions in their purchasing policies.

Federal and state agricultural policies have historically used only incentive-based approaches, rather than regulatory approaches, to encourage improved conservation stewardship on agricultural lands, and this arrangement is unlikely to change in the next decade. A useful complement to these incentive-based approaches could be the creation of an actual “demand-side” driver for reduced emissions. By way of analogy, it has long been known that significant and cost-effective opportunities exist for improved energy efficiency in the manufacturing sector. Many of those opportunities, however, were not pursued by the firms involved until major buyers, such as Walmart, started to require their suppliers to take steps to increase their energy efficiency. The result was good for the firms involved (reduced operating costs), good for the retailers (cheaper products), and good for the environment.

Through our CLUA strategy, we are supporting work to develop these demand-side drivers for agricultural emission reductions in the United States. An important first step is to bring greater transparency to the actual emissions associated with agricultural products in the supply chain. CLUA has supported work to establish public reporting mechanisms in agricultural supply chains so that buyers can better understand the emissions associated with agricultural products. In addition, we are supporting organizations that provide technical assistance to private firms interested in exploring how they might be able to reduce emissions associated with their agricultural supply chains. Finally, as firms make commitments for emission reductions (for example, Walmart has committed to reducing GHG emissions from its supply chain by 20 mmt), CLUA supports non-governmental organizations working with farmers to help meet those commitments.