Reducing Risk
Landscape Approaches to Sustainable Sourcing
Olam International and Rainforest Alliance Case Study

André Brasser
Author
André Brasser, Beagle Sustainability Solutions

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EcoAgriculture Partners
1100 17th St. NW
Suite 600
Washington, DC 20036
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Cover Photo
Agroforestry in Ghana. Courtesy of Rainforest Alliance.

Correspondence
Please contact one of the Business working group co-leaders with inquiries:
Lee Gross, EcoAgriculture Partners | Email: lgross@ecoagriculture.org
John Buchanan, Conservation International | Email: cbuchanan@ci.org
Edward Millard, Rainforest Alliance | Email: emillard@ra.org

Landscapes for People, Food and Nature is a collaborative Initiative to foster cross-sectoral dialogue, learning and action. The partners involved aim to understand and support integrated agricultural landscape approaches to simultaneously meet goals for food production, ecosystem health and human wellbeing. The Business Working Group seeks to expand the potential for this innovative approach in sustainable sourcing, test the concept with key commodities or sourcing regions and identify future partnerships. For more information, please visit landscapes.ecoagriculture.org.
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Olam is a global integrated supply chain manager of agricultural products and food ingredients, sourcing 20 products, with a direct presence in 64 countries. In Ghana it sources 80,000 Mt cocoa per year, of which four-percent (4%) originates from the western Bia/Juabeso region, representing USD 6 million market value. Olam started its operation in the region by conducting a standard risk assessment. Primary risks identified included community and operational related to farmers’ ability to dependably supply Olam and to deforestation and impacts on cocoa production due to climate change.

The company recognized that the regular producer support programme was unable to mitigate climate change and other resource risks. Therefore, in 2011, Olam partnered with the Rainforest Alliance, to start the “Climate Cocoa Partnership for REDD+ Preparation” project. The main focus of the project is to break the link between cocoa production and deforestation and build cocoa production areas mixed with forest lands to become more resilient to moisture and temperature changes due to climate change. Additionally, the project aims to allow Olam to be the first company to bring climate-friendly cocoa to market, diversify opportunities and increase income for farmers, build efficient value chains, and serve as a learning model for future expansion of the project.

The partnership has worked with stakeholders at all levels through a variety of means in order to accomplish these goals. With farmers, the partnership has been instrumental in training them to be certified under the Sustainable Agriculture Network standard including the additional climate module thus ensuring that both sustainable and climate smart methods of agriculture are followed. Such certification allows for farmers to increase their incomes by not only being paid more for higher quality cocoa but also promotes the intercropping, and maintaining of carbon stocks as supplementary income sources. Additionally, the partnership has been working closely with the Forestry Commission, traditional authorities and private concession holders on partially or wholly devolving land rights to local communities who can then support...
sustainable forest management practices and develop these resources into REDD projects.

Though the project is to last until 2014, there are already results and lessons learned being drawn from the experience. At the end of 2012, there were 833 farmers and 1,259 farms certified, which contributed to an estimated yield of 1,295 metric tons of certified beans sold for US$2.4 million. Sourcing is expected to increase to 3000 metric tons by 2014 and continue to rise over time. While this project represents almost double the cost of a normal business venture of this scale for Olam, the company intends to reduce costs as they learn from mistakes and the project matures. If a success, Olam looks to eventually apply these methods to other cocoa sourcing areas as well to other tree crops, such as coffee.
Case Study

Context and company profile

Olam International is a 23 year old global integrated supply chain manager of agricultural products and food ingredients, sourcing 20 products, with a direct presence in 64 countries. Olam operates throughout the supply chain and describes its business as a “fully integrated seed to shelf operation.”

Olam’s vision is to ensure sustainable and profitable growth, whilst managing its business in a way that is supportive to communities, ensures a safe and productive workplace and is understanding of the environment. The long term target is to pioneer seed to shelf sustainable supply chains across all its businesses, known as the Olam Sustainability Standard. Olam is working through each step of its value chain to identify and implement measures and processes to deliver sustainable products for 16 product platforms in 65 countries by 2020. This is operationalized via the Olam Sustainability Standard consisting of six elements (see Figure 1). Cocoa is just one of the commodities with which Olam is involved.

Business risks and rationale for a landscape approach

Global risks

Olam sees four key developmental changes facing the company: energy security, food security, water security and the impact of climate change. These are mutually-related problems with interlocking causes which need to be addressed holistically. Each of these four areas impact Olam’s business directly. 40-50% of the cost of production in agriculture is energy related. 71% of the world’s fresh water supply is used for agricultural purposes and climate change is causing increased and prolonged episodes of floods, droughts and fire across the globe.

Olam’s approach is to address these global risks through collaboration with partners ranging from national governments, customers, donors, NGOs and private sector organisations to a multitude of small-scale farmers.

It is estimated that 40% of the people on earth earn their living as small-scale farmers working on less than two hectares of land. Critical issues limiting their production potential include lack of liquidity or access to finance, limited inputs, poor plant material, and limited education and training in farming techniques. This leads to low yields, poor crop quality and small incomes, which are even more at risk in cases of frequent episodes of drought and flooding. Lack of transport infrastructure and the many intermediaries buying their products depress prices. Their communities often lack basic social amenities such as schools for children, health care facilities, sanitation, drinking water and electricity. These

“...The long term target is to pioneer seed to shelf sustainable supply chains across all its businesses, known as the Olam Sustainability Standard...”
factors lead to urban migration, with the risk of breaking down rural communities and posing a major threat to agricultural supply chains and global food supply.

Olam’s approach to all the issues facing small-scale farmers above has been formalized into a structure called the Olam Livelihood Charter (see Figure 2). In practice Olam works with more than 200,000 small-scale farmers covered through this Charter. The aim is to move as many as possible of its 3.5 million farmers to the Livelihood Charter Principles. Olam delivered over 62,000 tonnes of certified and audited cocoa and coffee to its customers, provided US$63.8 million as pre-finance to farmers in Africa at zero percent interest and employed 637 extension officers to deliver training and services to small-scale farmers including distribution of crop pre-finance, seedlings and agronomic advice.

Growing world population and changing consumption patterns are resulting in increased demand for agricultural products. To meet this market
demand an extra 100 million hectares of arable land needs to be created globally in addition to production increases required on current arable land. These lands will primarily be found in Latin America and sub-Saharan Africa, areas with poor infrastructure and many productivity challenges. These lands will only come into meaningful cultivation after large investments.

Olam manages significant areas of land and its growth strategy relies on an increase in its land portfolio. The company first looks for brownfield sites for upstream developments to lower the environmental and social impacts. A due diligence process ensures legal compliance and identifies environmental and social risks as per IFC Standards. In addition to this, Olam aims to grow more on less land with modern techniques and reduce land use wherever feasible, as well as increase productivity. The company is working with academic institutions on carbon mapping of its land use.

Cocoa production risks in Ghana

A significant factor in the success of the cocoa industry in Ghana during the 20th century was the availability of nutrient rich forest soils in primary forest lands. Given the fertility of the forest soils and the abundance of available forest land, the use of agronomic inputs was low; profits were best gained through extensive or expansive practices, as opposed to intensive management¹ in order to maintain sustainable high yields. Under a no/low shade regime typical of cleared forest agricultural expansion, significant amounts of fertilizer and other agro-chemicals are required, which many farmers cannot afford. Without continued major investment in the sector the cocoa business in Ghana is at risk. The major risks are summarized below.

**Low productivity:** Producers are underperforming due to limited access to requisite farm inputs (fertilizer, pesticides, plant material) – or an improper use of them - on appropriate credit terms, training in sustainable agricultural techniques and business skills. Further complicated by poor transport infrastructure in some cocoa communities.

**Soil degradation:** Yields in the northern districts of the Western Region are for the moment the highest in Ghana, but may decrease in the near future. Due to high levels of soil nutrients after forest conversion and higher than average application rates of fertilizers and pesticides. The soils will degrade further and farmers will not be able to afford the required use of inputs even organic ones to compensate.²

**Farms not profitable enough to attract a new generation of farmers:** Cocoa, for the most part, grows in areas that lack basic social amenities. A better agriculture system and improved living conditions in communities including good housing, schools for their children, running water, and electricity are required to counteract urban migration trends. If these services do not become available at an affordable price, youth will continue to migrate to urban areas, increasing the risks of cocoa lands being converted into other land uses or abandoned.³

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Climate change: Cocoa trees are vulnerable to increases in temperature and changes in the seasonal distribution and total volume of rainfall. Cocoa is highly susceptible to drought. The pattern of cropping of cocoa is related to rainfall distribution; it can only be profitably grown under temperatures varying between 30-32 degrees C mean maximum and 18-21 degrees C mean minimum with an absolute minimum of 10 degrees C. Black pod disease is more prevalent in damp situations and is most destructive in years when the short dry period from July to August is very wet.

Lack of land-use planning: Traditional chiefs and cocoa farmers have presided over Ghana’s cocoa farming lands in an ad-hoc manner for the past century and land-use planning has been absent. In addition, though the Forestry Commission (FC) manages a large number of forest reserves across this cocoa landscape, structured discussions and planning between the FC, Ghana’s Cocoa Board, and other cocoa sector entities does not exist.

Mitigating cocoa production risks in Ghana

Under today’s business-as-usual model, Ghana’s cocoa is farmed inefficiently and causes deforestation, biodiversity loss and negative ecosystem impacts. Despite this reality, Ghanaian national policy has two clearly stated, but as of yet disconnected and opposed goals, namely to:

- Increase annual cocoa production to 1,000,000 tons, and
- Reduce Emissions from Deforestation and Forest Degradation (REDD) as outlined in the REDD+ Readiness Preparatory Proposal.

Without major changes in both the cocoa and forestry sectors, and a genuine multi-stakeholder effort, it is fundamentally impossible to achieve both goals. Under the business-as-usual scenario, cocoa production cannot increase at scale without further deforestation into gazetted forest reserves. Similarly, there is no way to significantly reduce carbon dioxide emissions from agriculture and land-use change without halting and possibly reversing the expansion of new cocoa farms.

A climate inclusive approach has been developed in “The pathway towards a climate smart cocoa future in Ghana”. The model presents a sustainable intensification strategy that combines increased shade cover (40-50 %), as recommended by the Sustainable Tree Crop Programme (STCP), with the adoption of “best agricultural practices”. In this scenario cocoa management would result in higher productivity per area unit, but would also increase the climate resilience of the cocoa systems as fertilizer and shade trees contribute to better litter decomposition rates and higher drought resistance. In this scenario the degradation and (deforestation) pressure on forest reserves will be reduced and forest/trees in the off-reserve landscape enhanced leading to the maintenance and enhancement of carbon stocks in the landscape, as demonstrated in Figure 3.

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6 Katoomba Group, Climate Focus, Unique, NCRC, and Forest Trends, 2011. The case and pathway towards a climate smart cocoa future in Ghana.
8 See: [http://www.treecrops.org/](http://www.treecrops.org/)
Figure 3. Climate-smart cocoa land use pattern
Rainforest Alliance’s landscape approach

As a response to the inefficient cocoa production in Ghana, Rainforest Alliance is developing a landscape approach by linking the forestry and cocoa sectors in Western Ghana. In identifying a site for a REDD+ project in the Bia/Juabeso region in Western Ghana region under the FCCA programme (see Box 1), it was concluded that most forests had been converted into cocoa lands and decided to integrate cocoa certification and REDD+ into one innovative landscape approach for working in the project site.

For cocoa farms Rainforest Alliance has developed an approach in which certification against the Sustainable Agriculture Network (SAN) standard is extended with the adoption of the new SAN Climate Module, enabling communities to adapt to the changing climate while also mitigating climate change by applying climate friendly practices on their farms (see Box 2).

This integrated approach achieves the interactive benefits from combining trees with better management of cocoa crops, not only on isolated farming practices but on a relevant landscape level. These benefits are: more trees (shade), carbon (soil and aboveground) and mulch, better farm management, higher yields, less waste and greater efficiency.

Working at the landscape level provides a stronger assurance that improving performance at farm level will reduce incentives for farmers...
to expand their farms. This is the intended result of intensified production, better land tenure arrangements and improved management of forested lands. This is critical in this part of the Western Region where cocoa completely dominates the landscapes and illegal encroachment into forest reserves is still observed. The project concept is ultimately to replicate this model in other biodiversity hotspots in the country where cocoa is grown.

**Olam’s rationale for landscape approach**

Olam has a standard risk assessment in place for establishing cocoa projects in new areas. This includes review of community risk from the point of view of assessing the farmers ability to be good cocoa suppliers to Olam and their capacity to evolve into commercial partners to justify Olam’s investments in training, input supplies and others. Olam also prefinances with zero interest and no collateral. Therefore it also assesses the potential production and willingness of farmers to repay via the crop. This procedure has been applied in the Bia/Juabeso area. The Rainforest Alliance project in this area offered Olam the opportunity to pilot a landscape approach and test how to integrate cocoa certification in agroforestry systems. Olam’s rationales are:

» **Reputation:** Opportunity to be the first company to bring climate friendly cocoa to the market.

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**Sustainable Agriculture Network Climate Module**

The voluntary additional module to the SAN standard contains 15 new criteria aimed at ensuring farmers have the awareness and technical ability to adapt to the world’s changing climate, while reducing their impact on climate change by reducing emissions and increasing the carbon stored in their farms in trees, plants and soil.

**Principle 1 Social and environmental management system**

1.12 The farmer’s social and environmental management system must assess climate risks and vulnerabilities and must include a plan to adapt to and mitigate climate change.

1.13 The farmer must report data and its main GHG emission sources. At minimum this should include: nitrogen fertilizer input, pesticide input, fossil fuel use from machinery, methane from waste, waste water treatment and animal husbandry.

1.14 The farm must obtain available information on climate variability and its predicted impacts and adapt farm practices considering that impact.

1.15 The farm must map its land use and keep records of land use changes.

1.16 The farm’s adaptation and mitigation practices in climate change must be included in its training and education programs.

1.17 The farm must, to the extent possible, choose service providers that include climate friendly practices in their operations.

**Principle 2 Ecosystem conservation**

2.10 The farm must reduce vulnerability, prevent land degradation or enhance ecological functions by planting native or adaptive species or promoting natural regeneration.

2.11 The farm must maintain or increase its carbon stocks by planting or conserving trees or other woody biomass. The farm must conduct tree inventories every five years.

**Principle 4 Water conservation**

4.10 The farm must analyze and implement waste water treatment that reduces methane emissions from waste water treatment and recover the generated methane to the extent possible.

**Principle 6 Occupational health and safety**

6.21 The farm must implement an emergency preparedness and response plan for extreme weather events to prevent damage to people, animals and property.

6.7 The farm must initiate or actively participate in community’s climate change adaptation and mitigation efforts, including identification of relevant resources.

**Principle 8 Integrated crop management**

8.10 The farm must reduce nitrous oxide emissions through the efficient use of nitrogen fertilizers to minimize the loss to air and water.

**Principle 9 Soil management and conservation**

9.6 The farm must maintain or increase its soil carbon stock by implementing management practices, such as crop residue recycling, permanent cover crops, reducing tillage and optimize the soil’s water retention and infiltration.

9.7 The farm must implement organic residue management that reduces GHG emissions, such as production of organic fertilizer or biomass energy generation.

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**Box 2. SAN climate module**
» **Community concerns:** Income opportunities from carbon markets for farmers by increasing carbon stocks.

» **Supply chain efficiencies:** Option to build resilient supply chains when farmer communities are getting sensitized and starting to understand the concept of managing a landscape as opposed to managing cocoa farm on a sustainable way. Plus, the opportunity to break the link between cocoa production and deforestation.

» **Mitigation of operational risks:** Due to climate change and resource security, yields are expected to decline in some areas that see decreasing rainfall. Trees on-farm maintain a slightly more favorable moisture level and temperature, partially protecting production from reduced rainfall.

» **Learning:** Above all, Olam is approaching this as a learning exercise, to improve programmes.

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**Modes of engagement in the landscape approach**

In 2011 Olam partnered with the climate, forestry and certification departments of Rainforest Alliance to start the project “Climate Cocoa Partnership for REDD+ Preparation” in the Bia/Juabeso region of western Ghana (see Figure 5). The project area includes land use management for sustainable forestry, protected areas, and cocoa agroforestry.

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**Figure 5.** The Olam/Rainforest Alliance project ‘Climate Cocoa Partnership for REDD+ Preparation’ is a 24,000 ha site situated in Juabeso/Bia region in western Ghana, including 36 communities who rely mainly on cocoa production for their livelihoods.
In addition to a “business as usual” cocoa certification programme Olam and Rainforest Alliance established partnerships with stakeholders from the forestry sector to develop four integrated cocoa/forestry interventions at the landscape level.

**Partnerships**

- **Olam:** The company aims to improve and increase production within a group of 2,000 cocoa farmers until 2014. Olam is targeting to have access to about 3,000 MT (Metric Tons) of cocoa beans from certified farms over 3 years for the international market, with the intention to further increase sourcing.

- **Rainforest Alliance:** The project contributes to a wider FCCA programme (see Box 1) of Rainforest Alliance with three donor organisations to map and quantify the interactive benefits from combining trees with cocoa crops, not only on an isolated farm level but on a relevant landscape level.

- **Forestry Commission, Traditional Authorities and private concession holders:** Collaboration is required to either partially or wholly devolve rights and responsibilities, to these resources to local communities who can then develop these resources into REDD+ projects.

- **Local communities, NGOs and other local stakeholders:** The aim is to clarify the complex issues surrounding REDD+ and secure local partnerships in developing REDD+ pilots.

- **National REDD+ platform:** A national initiative to prepare Ghana for REDD+ implementation. Ghana received a Forest Carbon Partnership Facility grant of US$3.4 million (World Bank) and shall become one of the first African countries to fully develop a national REDD+ strategy. Work at the policy level has focused on REDD+ readiness.

**Modes of intervention in the landscape**

**Regional producer support:**

- Climate smart cocoa certification: Training in SAN standards including the newly approved Climate Module aims to build a group of Rainforest Alliance Certified cocoa farmers, as the economic basis for raising their awareness on climate change, and engaging their communities in the REDD+ project.

- Farmers are trained both on sustainable farming practices at farm level and on landscape level. In practice the latter is limited to basic REDD+ and climate education. Organization of farmers is strengthened to make them certificate holders themselves rather than depending on an Licensed Buying Company holding the certificate.

**Future Carbon Finance:**

- “Climate friendly” cocoa certification complements forest certification in the selected pilot sites. Additional incomes from premium payments for these certified cocoa beans can be an added revenue stream for cocoa farmers and can serve as an incentive to not expand production, avoid further deforestation and increase carbon stocks in cocoa plantations. This is aimed to prepare the ground for possible REDD+ carbon finance options in the future.

- In a next step cocoa communities could benefit by generating carbon credits if they collectively choose to halt the expansion of new cocoa farms into forested areas, including Forest Reserves (FRs) and unprotected patches of forest. Farmers could also generate carbon credits through maintenance of carbon stocks and/or carbon sequestration by choosing to integrate more shade trees into their farms at levels that are higher than the common practice. The project tries to build a model for future REDD+ project integration.

**Integrated cocoa and forest area management:**

- The project is piloting a landscape-level, cross-sector approach that emphasizes devolution of forest governance authority to local communities and traditional authorities. The aim is to induce improved integrated management practices across the spectrum of forestry including agroforestry land uses where local communities make their livings from a diversity of on-farm, forestry and off-farm activities.
Defining a common idea to pilot community forestry in the off-reserve area in Ghana has been a primary challenge for the project. The forest landscape in the off-reserve areas in Ghana is fragmented, making it difficult to practice community forestry from the conventional point of view of declaring a large standing forest for community management. Currently, cocoa farmers lease the majority of forestlands in the off-reserve areas and clear additional forested land annually to expand their cocoa farms. Most of these areas, surrounded by forest reserves are underpinned by complex land tenure arrangements which will need to be overcome to encourage forest resource creation. A landscape approach that explores the opportunities of devolution of ownership rights to local communities with elements of sustainable forest management seems to be the obvious approach to overcome this challenge.

The usefulness of certification as a facilitating tool for advancing SFM and REDD+ on off-reserve land is being evaluated in the context of linkages to adjacent forest reserves (concessions) and the greater importance of non-timber forest products. These are livelihood economic activities designed to reduce pressure on forest ecosystems (e.g. bush meat hunting). The Juabeso-Bia landscape in particular contains important beekeeping resources that can create wealth for the communities in the area. Significantly for the REDD+ landscape approach being applied, bees are very important to the cocoa industry as they are responsible for the pollination of both cocoa and wild plants in the forest resulting in improved yields. Beekeeping enterprise would, therefore, complement biodiversity activities in the landscape by ensuring conservation of shade vegetation and adjacent natural forest stands. Additionally, the project is piloting grasscutter husbandry enterprise development. Their domestication is seen as having potential positive impacts on maintenance of secondary forest vegetation.

<table>
<thead>
<tr>
<th>Activity</th>
<th>Results</th>
</tr>
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<tr>
<td>Number of certified farm owners (Expected, certification committee met on 23/11/2012)</td>
<td>833</td>
</tr>
<tr>
<td>Number of farms certified</td>
<td>1,259</td>
</tr>
<tr>
<td>Total farm holdings</td>
<td>2,372 Ha</td>
</tr>
<tr>
<td>Estimated yield for 2012 main crop season</td>
<td>1,295 Metric Tons (MT)</td>
</tr>
<tr>
<td>Quantity of certified beans purchased as at 29/11/2012</td>
<td>178 MT</td>
</tr>
</tbody>
</table>

Table 1. Outcomes realized by end of 2012.

A series of grassroots-level workshops were held, engaging local communities, NGOs and other local stakeholders to clarify the complex issues surrounding REDD to negotiate effectively and credibility give their prior, free and informed consent for the REDD+ project moving forward.

Working directly with government agencies and other actors involved in preparing national strategies for REDD, ensuring that field-level realities feed into national-scale dialogues and policy development.

The project has become part of the REDD readiness process, working with a range of stakeholders to ensure that field realities inform REDD policy dialogues by advocating a “nested approach” to REDD.

**Outcomes and value proposition**

**Outcomes**

In the short term: more productive and profitable cocoa farms will provide an economic backbone for co-
coa communities and conserve their natural assets for future generations. In the medium term, cocoa REDD+ readiness will generate additional carbon revenues from the farm and the landscape.

**Value proposition**

Olam and Rainforest Alliance are still looking at the economic returns of the system. It is too early to quantify the value proposition as the project is still just starting-up, but a first assessment is possible.

For Olam the project is not commercially viable as a business as usual project. It is at least double the normal cost of the programme, which is about US$425,000 for this scale. Olam aims to reduce costs as it is learning and as the project matures. Olam mentions that the whole project would be difficult to finance without donor start-up support. The project is regarded as Research and Development. Lessons will be applied to direct cocoa farmer based operations in other origins and other tree crops such as coffee.

The cocoa volume Olams expects to source from the Bia/Juabeso area will be approximately 3000 metric tons per year, in the current project start-up plan in the first two years, but this will significantly rise. This is less than 4% of the total 80,000 Ton/year Olam is currently sourcing in Ghana, but will rise. Assuming a farmgate price of around US $2,000/Ton it roughly represents a value of US $6 million.

Olam may negotiate a higher premium for climate friendly farms (US $50 greater than in 2012) in addition to the premium paid for SAN certified beans (approx. US $150/ton). This adds roughly an additional US $600,000 in value.

In 2012 (see Table 1) Olam bought approximately 1200 metric tons of
certified beans representing US $2.4 million.

The increased revenue for farmers comes primarily from two sources: increased volume from Good Agriculture Practices (GAP) and Integrated Pest Management (IPM); and a higher sale price for certified beans. Although the price of beans is fixed by the COCOBOD, farmers benefit from an additional premium paid for quality and sustainability.

**Key lessons learned and next steps**

Olam views Juabeso/Bia as a cocoa production landscape. In this sense, on-farm production partly depends on off-farm management. On-farm production and sustainability is improved by rewarding management that increases carbon stock through increasing shade, enhancing soil management and introducing better agricultural practices. Off-farm, production and sustainability are supported by building links with public and private land owners of forested lands using sustainable forest management, certification, and REDD+ as tools. Olam is collaborating with governments to induce better legislation and secure basic quality of the wider cocoa production landscape.

Despite being only a little more than two years old, Olam’s landscape approach has achieved some early successes that suggest it is on the right track. There are several factors that have been pivotal to these early successes.

» Interventions are targeted at a characteristic cocoa landscape: the Juabeso/Bia is a typical mosaic of cocoa farms and forest lands, enabling a coherent approach to improve on- and off-cocoa farm management.

» Engagement links with the existing company strategy: The landscape project builds on Olam’s existing sustainability strategy and Livelihood charter. It further enhances the development of thriving cocoa communities by integrating forestry land use solutions into the existing strategy to build resilient sourcing areas.

» The approach was selected based on a solid risk assessment: The project is linked to Olam’s company-wide assessed risks of climate change, reputational, and operational risks, community concerns and value chain efficiencies.

» The company has found a strong NGO partner: Olam has developed a partnership with an organization, Rainforest Alliance, whose vision of the landscape syncs well with Olam’s vision of a sustainable cocoa sourcing area.

» The project has clear role division: This allows Olam and its partners to focus on areas of core competence, avoiding wasted effort and building momentum.

» Stakeholders are well defined and included: The project has well identified modes of engagement, with regional producer support, carbon financing, integrated forest management and partnership building as mechanisms.

» The project takes an R&D approach to the issue: Immediate ROI is not a critical project component. Olam has shown a willingness to invest in a project that is not yet commercially viable with an eye on the long-term sustainability of the business.

**Next steps**

There is a clear need for a landscape approach to forest resource management and REDD+ readiness in the off-reserve areas of the western region of Ghana. This approach has emerged as the most appropriate given the lower economic potential of remaining off-reserve forest resources that have been highly degraded.

Traditional participatory approaches are important but not sufficient for REDD. Although the process is quite advanced, Ghana faces important challenges in preparing for REDD, most notably the need to enable greater local participation, and to develop appropriate policy frameworks to strengthen such governance arrangements.

Agricultural best practices leading to certification under the Rainforest Alliance standard will be an important complement to forest certification given the dominance of cocoa production and the potential to raise yields and quality and access new markets for certified supplies.

Field pilots will be a critical mechanism for informing the national policy process. The ongoing policy dialogue has created positive momentum for piloting and testing innovative community-based forest management arrangements supported by FCCA that can be the underlying foundation for REDD+. 

