

Financing Strategies for Integrated Landscape Investment

Financial Institution
Case Studies

Margot Hill Clarvis

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The Landscapes for People, Food and Nature Initiative is a collaborative initiative to foster cross-sectoral dialogue, learning and action. The partners aim to understand and support integrated agricultural landscape approaches to simultaneously meet goals for food production, ecosystem health and human wellbeing.

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34.18	+6.04	+3.01	45	1
58.04	-1.35	-4.57	87	8
87.32	-7.02	-3.72	114	1
73.54	+9.03	+3.96	98	1
52.09	+14.28	+2.54	252	5
101.76	-11.32	-2.13	86	9
215.68	+9.45	+1.96	15	
58.92	+8.35	+3.32	24	
707.18	+6.29	+1.03	39	6
	-13.84	-3.45	54	
			63	

Althelia Ecosphere

Bundling mutually reinforcing revenue streams at the landscape level to align investor returns with sustainable development in forest countries.

Overview

Althelia Ecosphere, launched in 2011, is an asset management platform for investing globally in sustainable land-use projects that deliver multiple social, environmental and economic returns, aiming to demonstrate that financial performance can be fully aligned with sound environmental stewardship and social development. In 2013, Althelia announced the first closing of its Althelia Climate Fund (ACF), an investment fund that will focus on sustainable land use, namely certified sustainable agriculture with landscape level benefits from ecosystem services (EIB, 2013). Althelia aims to raise at least USD 200 million, and is on track to achieving its funding goals with commitments of USD 90 million at its first close in June of 2013 (EIB, 2013; Zwick, 2013). Althelia aims to manage investments with simultaneous positive impacts by: investing in climate resilience (mitigation, adaptation, preservation of ecosystems); investing in food security, local development and poverty alleviation; returning competitive and fair profit to investors, aligning stakeholder interests; develop new investment models to help shape

national and international policies on climate change and natural capital.

Institutional Environment

Through a public-private partnership approach, ACF will benefit from technical, design and implementation support as well as a strong presence on the ground from its partner organisations including Conservation International¹ (CI), SNV and Wildlife Works Carbon LLC² (WWC). In 2011, to facilitate the Fund's start-up, Althelia and CI signed a framework agreement whereby Althelia to get access to working capital, pipeline and technical capabilities (CI, 2011). Althelia has also signed a framework agreement with WWC to finance and jointly develop projects, and a MoU in place with SNV to cooperate on a range of relevant activities relating to provision of technical capacity and finance.

Financial Structure

It is a closed end fund that will develop multiple revenue streams from forest protection and sustainable land use in Africa, Latin America and Asia. Upon achieving its first round close it currently is in its investment phase and also pursuing a second

1. CI provided up-front bridge financing of USD1.35 million to help jump start the ACF, CI will be an integral part of the Fund and its development through its participation in ACF's Expert Board, which will guide the Fund's investment strategy and ensure potential investments meet best practice standards. CI will bring its scientific, project development, policy, standards and markets expertise to guide the Fund's investments to maximize social and environmental benefits, and establish a leadership model worthy of replication. CI will also leverage its on-the-ground presence in over two dozen REDD+ countries to help ACF identify and advance potential investment opportunities (CI, 2011)
2. WWC were the first proponent to achieve project validation under the Climate, Community and Biodiversity Standards for its Kasigau Phase I project (Kenya).

round closing that is scheduled for H1-2014.

Structure and value drivers

The Fund is structured as a Luxembourg SICAV-SIF, and will be managed by its Luxembourg-based General Partner, Althelia Climate Fund GP s.a r.l, and advised by its London based subsidiary, Ecosphere Capital Partners LLP. Returns are based on the value of long term purchase agreements for real assets (e.g. certified commodities, sustainable agricultural produce) as well as environmental services (e.g. payments for ecosystem services such as carbon, water and biodiversity), thus demonstrating the ability to generate an income stream in the form of cash dividends delivered to investors over eight years. Further non-cash benefits relate to CSR benefits, supply chain management and regulatory hedge. For local stakeholders returns relate to enhanced economic and livelihood options, improved mitigation and adaption to climate change (with mitigation also a global benefit), and enhanced biodiversity and ecosystem functioning.

These 'blended value investments' are leveraging mutually reinforcing trends including: the major costs and risks related to the depletion of natural capital; the increasing need for a sustainable intensification of agricultural output (and thus avoid further land degradation and deforestation; the increasing appetite for certified commodities, which

are based on lower-environmental impact, reduced deforestation and social benefits (e.g. Consumer Goods Forum targets for achieving net zero deforestation by 2050, meaning that major businesses will need to green their supply chains); an emerging price signal for components of the landscape that are currently 'economically invisible' (e.g. carbon, clean water, standing forests) (Althelia, 2012).

Criteria for financing

20 projects are currently in the pipeline (further information is currently not available while contracting is still underway in the investment phase). On average, about USD 10 million (with up to 30% capex) will be invested in each project focusing on food security, natural capital preservation and decarbonisation of agricultural and supply chain processes (FMO, 2013). Specifically, ACF will invest in projects where capital can be deployed to reduce harmful environmental and social impacts through the following activities (Althelia, 2012):

- Legalization of communal land and cadastral planning.
- Small productive community projects under conservation agreements.
- Improvement and increased productivity of traditional systems of production.

- Technical and environmental training programmes.
- Protection, control, and monitoring.

Risk management

Althelia has measures in place to offer risk mitigation against a number of REDD and Carbon risks through a mix of revenue diversification, certification, dialogues aimed at securing advanced market commitments (AMCs), as well as applying ESG management and performance criteria for risk management (Althelia, 2012; CI, 2011). The 'payment-for-performance' approach will be used to strictly monitor and control the performance of investments and disbursement of cash.

As a means of managing risks relating to the funds ability to source investable deals exclusive partnership arrangements (with Conservation International and USAID) to ensure preferred access to high quality investment opportunities (field tested and ready for scale-up) to benefit from a significant existing investment pipeline for timely and efficient deployment of capital. Furthermore, key partnerships with government and local stakeholders aim to enhance returns to local stakeholders as well as reduce operational and reputational risk.

In relation to providing stronger guarantees of revenues, securing AMCs could provide a guaranteed

minimum tariff paid over time (often used for renewables) to help ensure the investor that the initiative will not fall below a certain revenue stream (CI, 2013). This form of insurance of guaranteed revenue is of vital importance to securing capital from Institutional Investors and other major investors who could be attracted to this emerging space.

Investors

First round subscriptions to ACF mainly include leading public sector institutions, mostly development banks, including the European Investment Bank (EIB), the Finnish Fund for Industrial Cooperation (Finnfund), and the Dutch Development Bank (FMO), as well as the Church of Sweden and a large European bank. Over the next twelve months, Althelia expects to raise additional capital, targeting an overall level of EUR 150 million (USD 200 million) for the Fund (FMO, 2013). As ACF scales up, it hopes to attract more private-sector investors into the fund (Zwick, 2013). It should be added that for EIB the ACF represents its first REDD+ or sustainable land use fund in which it has invested, contributing up to EUR 25 million (USD 35 million). It ascribes this to the level of risk management due to the diversification of the revenue stream, the credibility of the fund management team's track record and the structure and strength of the partnerships in place on the ground,

thus providing a rigorous and strong pipeline (EIB, 2013).

Entry points to ILM

Althelia aims to utilise the ACF to demonstrate how innovative financial instruments, including those integrating value that could arise from a UNFCCC REDD+ mechanism or voluntary or subnational initiatives like those underway with the VCS, can be deployed at scale to enhance economic, environmental and social benefits for local communities, portfolio companies and investors (EIB, 2013). The generation of multiple revenue streams and the explicit and continuous management of ESG risk factors at project and community levels provide key ILM entry points for Althelia.

Diversifying Revenue Streams through an ILM Approach

Diversification through multiple revenue streams has enabled ACF to build the business case in the absence of a functioning international regime for REDD+ or accessible market price signals for forest conservation and sustainable land use. This approach also provides number of opportunities for ACF funded projects to leverage investments to catalyse a range of positive impacts, including (Althelia, 2012): positively transformed land-use models delivering both certified and sustainable commodities, as well as improved ecological and social conditions for

local stakeholders; reduced greenhouse gas emissions and sustained or enhanced biodiversity and ecosystem function.

Through investing in projects that explicitly focus on enhancing biodiversity and ecosystem services, ACF aims to increase ecosystem integrity, resilience and function, further enhancing carbon storage and sequestration ability of project areas and reduce emissions from the communities involved (Althelia, 2012). Community involvement in, engagement in and support for the projects (including governments, communities and NGOs) through participation and benefit sharing not only will serve to minimise social risks to project performance (e.g. social or political opposition), but should equally contribute to better design of project activities.

ESG Policy and Management System and Standards

Rigorous use of standards and effective ESG management is seen as key to ensure positive synergies across different economic, environmental and social benefits of ACF financed projects. Althelia has therefore worked with investors and NGO partners to design a proprietary ESG policy and management system (FMO, 2013). Projects must comply with the 2012 IFC Performance Standards on Environmental and Social Sustainability, and forest-based emissions reductions financed by ACF must comply with

VCS Protocols for Agriculture, Forestry and Other Land Use sectors, and the gold level CCB certification standards, and REDD+ Social and Environmental Standards (for delivering smallholder/community-led equitable benefits and exceptional biodiversity benefits) (FMO, 2013). Furthermore they must demonstrate the clear consent of involved stakeholders and communities through meaningful participation, dialogue and consultation (verified by the application of the EIB Social Assessment Guidance Notes³ (EIB, 2013). These monitoring and certification processes should ensure that ACF investments are developed as to be eligible for recognition within jurisdictional (subnational and national) REDD+ programmes currently in development (e.g. VCS Jurisdictional and Nested REDD, UNFCCC REDD+ mechanism at the international level, regional frameworks in the Governors' Climate & Forest task-force) (FMO, 2013).

Challenges and opportunities for scaling up ILM finance

Althelia Ecosphere aims to demonstrate that financial performance can be fully aligned with sound environmental stewardship and social development. However, the table below highlights some of the key challenges it has had to overcome in order to raise capital from investors for what was initially a pure play REDD offering.

Challenges	Solutions/Opportunities
Market uncertainty and unfamiliarity of the investment case. Materiality of natural capital depletion, climate change risks not integrated in balance sheets or including in fiduciary risk assessments.	In order to improve the alignment of economic principles with economic realities, ACF developed its original pure play carbon offering to one that was primarily based on a revenue stream from real assets, and thus diversified risks related to both the uncertainty in the international climate regime and unfamiliar business mode by blending multiple revenue streams. Together with AMCs as a key insurance provision for investors, vertically integrated risk management and results-based finance, the approach aims to help build the business case for more conservative investors that these instruments will not fall apart if a credible international regime for REDD emerges or if carbon markets remain highly uncertain.
Up-front financing needed to get projects off the ground.	Althelia has the ability to a proportion of capital commitment up front (e.g. potential for early deployment of up to 30% capital) in order – in some cases this may mean cooperating with a foundation to provide a portion of the early capital. Althelia's partnerships are also key to gaining access to high quality investment opportunities that have already been field tests and are ready for scale-up.
Readiness for investment ready projects and accessing private capital at scale.	The first close comprised of major public and private investors. However, the second round closing will seek additional capital primarily from private institutional investors, with target to reach 2/3 private capital at final closing. Strategic partnerships with CI and USAID enabled Althelia to develop a strong investment pipeline for timely and efficient deployment of capital. Althelia believes that it is now vital to finance those projects that are ready for investment in order to develop a track record and prove there is a business case, and learn from those to adapt and improve for the next generation of landscape intervention funds. It is targeting financial managers with long-term investment strategies, and aims to demonstrate the business case for these innovative financial instruments in order to enhance the valuation of assets that are sustainable and environmentally robust.

TABLE 1. *Althelia Ecosphere challenges and opportunities*

3. Refer to the 2009 EIB Statement of Environmental and Social Principles and Standards.

Bunge Environmental Markets

Addressing landscape inefficiencies through a value chain approach

Background: Bunge Environmental Markets

The focus of this case will be a specific multi-benefit agroforestry project implemented by Bunge Environmental Markets (BEM), a part of Bunge's Financial Services Group that develops emissions reductions projects in established and emerging markets. Bunge is a leading global agribusiness and food company, with integrated operations in over 40 countries and present at almost every step of the world's food production chain. The company sells fertilizer in South America; buys, sells, stores and transports oilseeds and grains to serve customers worldwide; processes oilseeds to make protein meal for animal feed and edible oil products for commercial customers and consumers; produces sugar and ethanol from sugarcane; and mills wheat, corn and rice to make ingredients used by food companies. . Bunge's Financial Services Group provides financial services, risk management and logistics services to end customers as well as executes risk management strategies for Bunge.

BEM works globally, developing and implementing emissions reduction projects for commercialisation with other companies and governments,

thus creating economic incentives for investments in the green economy. Active in the carbon markets since 2004, the group oversees emissions reduction services provided by Ecoinvest Services, Bunge Environmental Markets and Climate Change Capital (CCC). The merging of CCC's Carbon Finance and BEM created one of the world's largest asset managers of emission reduction projects, which at one point reached USD 1.6 billion assets under management.

Leveraging the company's global agribusiness profile, BEM identifies, develops and invests in emissions reduction opportunities relating to a wide range of sectors and projects including renewables, waste-to-energy solutions, responsible forestry, sustainable agriculture and community impact investments among other. The Bajo Mira and Frontera Collective Territory in Colombia is one such project, whereby BEM was approached by USAID to scale up an existing agro-forestry and conservation project for avoided emissions from deforestation in a more sustainable business focussed manner.

Bajo Mira and Frontera REDD Project

The Bajo Mira and Frontera Collective Territory (TCBMF⁴) was originally a pure REDD (Reduced Emissions from Deforestation and forest Degradation) project supported by US AID through their MIDAS (*More Investment for Sustainable Alternative Development*)⁵ programme. MIDAS had engaged with communities over an area of 46,841 hectares (community-owned land), in a biodiversity hotspot in the South West of Colombia, an area that had been degraded through timber over-exploitation, illicit crops and palm oil plantations. The Government of Colombia issued collective land titles (by constitution) to the communities that traditionally occupied the forest area. Forest degradation was due to illegal logging and timber over exploitation with ~80% of the TCBMF economy depending on the sale of timber from natural forests.

The original USAID MIDAS programme had provided financial compensation to the communities for the conservation of an area of 5,200ha, developed a Forest Management Plan and also established about 400 ha of agroforestry for Fairtrade cocoa in already deforested areas. BEM first became involved in the initiative in 2010 when USAID expressed interest integrating a private sector company into the project as a means of ensuring on-going for

MIDAS, which would sunset over the coming years.

The project was originally formulated to generate emissions reductions through averted degradation and deforestation. As such USD 200,000 was invested to determine the feasibility of the project and its ability to be profitable in order to determine the viability of the project. The feasibility study included assessments of the prospects of investment, country and regional risks, counterparty's risk and carbon credits estimates. It highlighted a number of challenges in developing a REDD focussed project. This included specifying the activities that could generate emissions reductions from REDD and ensuring the longer term economic sustainability of relying on payments through emitted carbon once USAID had exited the region and programme.

ILM Entry Point: Scaling up REDD to a value chain approach for sustainable landscape interventions

Given the economic limitations of the pure play REDD model identified in the feasibility study, BEM proposed a project that would develop and improve existing cocoa practices professionally (drawing on its long history and deep integration in the agribusiness supply chain) in order to enhance income generation that would allow for the conservation

4. Territorio Colectivo de Bajo Mira y Frontera (TCBMF)
5. More Investment for Sustainable Alternative Development (MIDAS from its original Spanish language initials – Mas Inversión para el Desarrollo Alternativo Sostenible).

and sustainable management of the forested areas. BEM consulted with the afro-Colombian communities on how best to scale up the USAID programme native forest conservation (started in 2008 on 5000 ha) by supporting the adoption of sustainable agriculture and forestry to adapt to climate change.

The implementation of sustainable agro-forestry practices are intended to lead to a number of landscape level co-benefits as a result of the prevention of unsustainable logging and planting of illegal crops, including, positive impacts on water resource management (preservation of mangrove system), biodiversity conservation, climate resilience and livelihoods improvements. The project therefore hopes to deliver multiple landscape scale benefits relating to:

- Emission reductions: 275,000 tons of CO₂ (restoration and conservation of 46,000 ha) per year certified under the VCS in accordance with REDD.
- Catchment management and biodiversity: restoration and preservation of over 23,000 ha of native and endangered mangroves (creating biological corridors to guarantee genetic flow; restoring mangroves as buffering ecosystems for flood protection in relation to sea level rise and changes in precipitation regimes).

- Sustainable land use / employment: structured and diversified incomes from alternative and certified commodities as well as carbon credits help to address the drivers for unsustainable logging and the planting of illegal crops. Sustainable agriculture is projected to be expanded over 5 years from 400 ha to 4000 ha for increased production of sustainable cocoa, building a business case for local/aboriginal communities that could be integrated into a multi-national value chain.
- Development and aggregation of the supply chain: capacity building for 2000 farmers on sustainable professional cocoa plantations (with USAID).

Economic diversification and value chain optimisation

Given the early identified constraints of the REDD only approach, the local communities granted BEM a mandate to assist in the development of a source of stable economic activity (sustainable cocoa production and to help develop the REDD project from which the carbon credits could be shared 50:50. BEM recognised that in order to develop both the sustainable agro-forestry practices, it needed to apply its long standing experience in agricultural value chains in order to develop capacity, aggregate and optimise key components of the cocoa production value chain, which were at present lacking

in these communities. This included capacity development on farm production of cocoa, business planning for the expansion of cocoa production, the development of shared nurseries, the monitoring of disease and alternative seed stocks, and the monitoring of cocoa production to ensure transparency for certified and export quality.⁶

In order to diversify economically, initially, a broader range of products (e.g. coconut, acai palm, palmetto, etc.) were identified for development and commercialisation outside the territory and export. Secondly, Bunge also has explored how to extend the project's boundaries to include more 'Consejos Comunitarios' in order to scale the production of the different products in consideration. At present, Bunge is still assessing the feasibility of investing in the development of other economic and agricultural activities in order to determine the potential and level of additional investment.

Partnership approaches to build the financial and economic case for enhancing the sustainability of landscape conservation

In order to be able to support the development of the REDD component of the project, BEM agreed to find the best possible financing for the establishment, development and management of the cacao business, and then be responsible for the management, development and distribution plan of cacao. Therefore BEM

identified a strategic supply chain partner who would be involved in the development of the Cocoa business, adapt the project so that it could be both sustainable and competitive within the existing value chain, and potentially be an off-taker of the cocoa.

Reasons for investing for the supply chain partner (the cocoa company) included the fact that good quality cocoa was already being produced in the territory and farmers already had some knowledge of cocoa plantation, so there was strong potential to expand and create a professional cocoa plantation. The cocoa company is now initially providing technical support in order to train farmers in a variety of processes, including collection, drying, fermenting loading, etc. In addition, technical support was provided to complete an inventory of the cocoa planted until now in the TCBMF, vital for providing a baseline to design the expansion plan and complete a full understanding of all the costs involved in each step of the supply chain.

Furthermore, in order to be able to secure finance for the project, one challenge was to generate metrics for investors to report on the project's financial and non-financial returns in relation to the social and environmental impact at the community level. This required an identification of the real needs of the community in terms of social welfare, as well as the concrete environmental

6. Five percent of the cocoa price would be used to absorb the commercialisation costs and operational management.

improvements to be generated. In order to achieve this, the Impact Reporting & Investment Standards (IRIS)⁷ was chosen as the best standard to help BEM determine and measure the impact throughout the lifetime of the project.

Synergizing climate resilience, agriculture and conservation benefits

Originally, climate change adaptation was not a component of the project. However, BEM realised that, given the exposure of the area and vulnerability of the communities to climate change impacts, the project had to foster and strengthen agricultural and agroforestry practices in relation to climate change in order to be successful in the medium to longer term. The project will therefore invest in cocoa production and agro-forestry practices that strengthen capacity building in a way that the improved hybrids of cocoa will thrive under prevailing climatic conditions. Also, since cocoa is such an important product, it is important to maintain a reservoir of other varieties that will be more resistant to climate change (using 'jardines clones'). The project also will broaden the products that the community grows so that they don't depend on just one or just a few producers. The agro-forestry projects will enable the communities to combine trees, bamboos, palms and other non-timber forest products, enhancing diversification and contributing to

improve nutrition, food security, either as part of the family diet or as means to achieve additional income depending on the season and climatic conditions. These on- and off-farm interventions have been included as core components in the implementation plan to enable climate change adaptation.

Challenges and Opportunities

The case shows the limitations and challenges of REDD as a means to demonstrate the feasibility of conserving forests and mangrove while integrating local communities and a multinational corporation into the business case for sustainable adaptation to climate change impacts. BEM found that REDD was simply not going to give the reliable steady income needed to provide them with a descent livelihood and did not have an established market where carbon had a price. As such, an optimisation of the value chain and economic diversification was more understandable for all private stakeholders and became the key pathway that could allow BEM to commit to a range of enabling investments that would enhance the economic welfare and food security of the community and guarantee the involvement of more people within the community in other sustainable productive activities. As such, a core part of the BEM investment was in developing the enabling environment in order

7. Impact Reporting & Investment Standards developed to provide a common reporting language for impact-related terms and metrics. IRIS was initiated and is governed by the Global Impact Investing Network (GIIN).

to ensure that the REDD component of the project would be supported by addressing inefficiencies in the landscape through targeted interventions in the value chain.

BEM wanted to demonstrate that this value chain, implemented in areas of native and pristine forest (key biodiversity areas with vital ecosystem services), could therefore serve as a viable economic model with co-additional benefits for the communities' livelihoods, the ecosystems on which they rely, and global carbon benefits. Therefore, it could serve as a model to structure approaches and finance (BEM funding, co-investment from companies CSR budgets, other investment funds) for similar landscape scale projects and initiatives in the pipeline, albeit for different commodities and areas. BEM have also concluded that investing in projects and initiatives, as opposed to companies, allows for the supply chain approach to better contribute to building the business case for both large and small players in the private sector to undertake REDD activities. Emission reductions present only one of the many benefits obtained by value chain optimization and conservation. Other benefits include access to water, enhanced livelihoods (and not only increased income but also education and social welfare), and setting a precedent for an environmental and social capital-respectful business model of the future.

The PPP approach, while key to the project's development and potential success, can also raise challenges in relation to competing goals and misalignment of time frames within which results are expected by the public and private sector stakeholders. However, the enormous need for capital and the challenges and transaction costs of implementing such projects in communities that lack capacity⁸ make it vital for public and private actors to co-invest and as such better understand their common, but also competing, goals, processes and time-frames in the project preparation stages.

8. Especially given that the TCBMF, and many of the projects in BEM's pipeline, are unlikely to be seen as investable by the majority of the private sector.

EcoEnterprises Fund

Market barriers to transforming established businesses into environmental enterprises at scale.

Overview

EcoEnterprises Fund has been in operation since 1998, providing venture capital to community based sustainable companies in Latin America. It provides growth capital to small-scale and community-based companies that are shown to create economic, social and environmental benefits for the communities and landscapes within which they operate. Now that the initial 10-year closed-end fund, Fondo EcoEmpresas, S.A., has been wound down in 2010, EcoEnterprises Fund are in the process of launching their second fund, EcoEnterprises Partners II, LP. (EcoE II), with the same purpose. The funds comprise of small to medium sized sustainable ventures operating in business niches including organic agriculture, non-timber forest products, sustainable forestry, or ecotourism.

Institutional Environment

EcoEnterprises Fund was launched in 1998 under the umbrella of The Nature Conservancy,⁹ and launched its first fund, Fondo EcoEmpresas, S.A (EcoEnterprises Fund I), as a joint initiative with the Inter-American Development Bank's Multilateral Investment Fund in 2000. In 2010, it became an independent investment

manager in 2010 (EcoEnterprises Capital Management) and launched its second fund, EcoEnterprises Partners II, L.P. (EcoE II). EcoEnterprises Capital Management, LLC serves as the General Partner for the EcoE II Fund. EcoEnterprises Fund utilises its core partner organisations (The Nature Conservancy and the Fund's Limited Partner base) as well as industry groups (the Global Impact Investing Network, the Aspen Institute's Aspen Network of Development Entrepreneurs and Finance Alliance for Sustainable Trade, World Resources Institute's New Ventures) in order to identify and source appropriate ventures for the investment pipeline. Finally, the 'Impact Committee', comprised of environmental and social experts, has been formed in order to ensure the continuing adherence to social and environmental impact criteria of the companies invested in through the EcoE II fund.

Financial Structure

EcoEnterprises Fund deploys expansion capital that would otherwise be unavailable to growth-stage sustainable ventures in unique business niches such as organic agriculture, non-timber forest products, sus-

9. The Nature Conservancy with an asset base of \$5 billion, is an international nonprofit organization which protects ecologically important lands and waters. <http://www.nature.org/>

tainable forestry, or ecotourism. Through its first fund under management, Eco Enterprises deployed USD 6.3 million in risk capital in 23 small and growing mission-driven financially viable businesses in 10 countries in Latin America that could demonstrate positive environmental and social returns (TNC and UNDP, 2010). EcoE II, launched in December 2011, now has a capitalisation level of USD 35 million (EF, 2013). EcoE II will focus on taking the Fund's activities to scale, by providing expansion capital to the strongest business models for sustainable resource management and livelihoods.

Structure and value drivers

EcoE II will also be a 10 year closed-end fund, with a requirement for capital commitments of 5 years from first closing. The targeted rate of return on investment is 18 to 20 percent on average per deal.

The fund will provide long-term mezzanine capital, providing up to USD 3 million in mezzanine financing through quasi-equity instruments (using royalty streams and warrants, convertible notes, or debt financing) for a duration of 5-8 years (EF, 2012). Investments to a potential range of 10 to 12 companies will be range between USD 500,000 to USD 3 million, with an average of USD 2.5 million (Weil, 2013).

While the majority of capital comes from DFIs, investors include The Nature Conservancy, the Multilateral in-

vestment Fund of the Inter-American Development Bank (also an initial shareholder in Fondo EcoEmpresas, S.A.), European Investment Bank, Netherlands Development Finance Company (FMO), Hivos-Triodos Fonds, Oikocredit, Calvert Foundation, Blue Moon Fund, family offices and private accredited investors. EcoEnterprises Capital Management, LLC serves as the General Partner.

Revenue Sources: Use of proceeds to include purchase of fixed assets, expansion financing, and working capital. Projected sources of this return are principally amortization, revenue and interest payments, and may also include current cash proceeds from the sale, recapitalization, or liquidation of investments.

Risk: The Fund diversifies its committed capital across businesses and countries in order to limit financial exposure and also applies a company specific environmental and social monitoring and evaluation tool to portfolio companies during the due diligence phase (and annually to measure progress on key benchmarks) ensure they continue to demonstrate positive conservation and social impact (EF, 2013).

Criteria for financing

Both the first and second fund provide growth capital to small and medium community based enterprises in the Latin American and Caribbean Region (EF, 2012). EcoE II

is further focussing in on expansion and growth stage companies (with an annual revenue base of up to USD 5 million) incorporated, locally domiciled, private companies in Bolivia, Brazil, Costa Rica, Colombia, Ecuador, Guatemala, Mexico, Panama, and Peru (EF, 2012). The companies operate in the following environmental sectors: organic agriculture (apiculture, aquaculture and community-based energy) ecotourism, sustainable forestry, and non-timber forest products. Furthermore, they must provide livelihoods for 'bottom of the pyramid' communities in a way that also enables protection of the natural capital base through sustainable natural resource management (EF, 2012).

The Fund prioritises finance for companies unable to secure financing from conventional sources, due to the innovation in environmental and social returns (operating in unconventional sectors such as niche organic agricultural products, ecotourism, sustainable forestry etc), their small size, and the financial risks involved. Furthermore, companies are provided business advisory support, and are required to have substantive partnerships with local NGOs and/or communities (TNC and UNDP, 2010).

Track Record: Realised and projected financial performance

The first fund, which closed in 2010, provided USD 6.3 million in growth capital to 23 community-based sus-

tainable companies in 10 Latin America companies in order for them to achieve scale and has achieved the following financial, environmental and social returns (EF, 2013; TNC and UNDP, 2010):

- Funds leveraged by investments: USD 36 million
- Follow-on financing received: USD 102 million
- Estimated sales of companies: USD 282 million
- Entrepreneurs supported: 36
- Companies in conservation zones: 23
- Community groups involved: 293
- Jobs created: 3,513
- Suppliers supported by companies: 13,231
- Local persons impacted: 98,720
- Direct hectares protected: 860,773

Crucially, the Fund demonstrated the business viability of a range of companies that delivered multiple financial, environmental and social benefits to shareholders. To date, 80 percent of the portfolio businesses invested in by EcoEnterprises Fund I continue to grow (EF, 2013; TNC and UNDP, 2010).

EcoE II is targeting countries and companies with the most potential to scale up, with a current portfolio of 3 investments with a total commitment of USD 5.6 million that aims to continue to demonstrate the broad potential of the niche, in part by strengthening portfolio winners from the first fund (EF, 2013; Weil, 2013). This includes providing expansion financing in two companies from their first fund, Terrafertil (a leading global supplier of organic golden berries, a native Andean fruit, with operations in Ecuador, Colombia and Mexico) and Sambazon in Brazil (the leading producer of acai juice smoothies) for which the first provided start-up capital and then exited (Weil, 2013). EcoE II has also invested in Runa (the first company to sell tea beverages made from the leaves of a native Amazonian tree, *Ilex guayusa*) based in Ecuador. (Weil, 2013).

ILM Entry Points

Investments are expected to return real carbon, climate-change, and biodiversity benefits and the M&E tool will help capture these results. The Fund is therefore measured against a 'triple bottom line' of financial, environmental, and social returns, which requires prospective companies to meet the following criteria:

- Work to protect vital ecosystems, encourage sustainability of natural resource base and bio-

diversity, provide employment for local people

- Bring social and economic benefits to surrounding communities.
- Usage of a certification regime such as organic and fair-trade is desired

Screening, Monitoring and Evaluation

EcoE II first screens and then employs an environmental and social monitoring and evaluation tool created by the fund management team for each investment with specific environmental and social criteria based on the industry sector¹⁰ (EF, 2012). This aims to ensure that investments are mobilising ventures that protect vital ecosystems, provide alternative livelihoods for local people, and bring social and economic benefits to rural poor communities (EF, 2013). The Fund has shared this evaluative and impact metrics tool with other funds in the impact investing space and during the development of the Impact Reporting and Investing Standards (IRIS).

Multiple Benefits across a Community and Landscape

Both the first and second funds' portfolio companies must protect critical ecosystems and contribute to climate change mitigation through a variety of means, including avoided deforestation, direct habitat preservation, restoration and reforestation, development and maintenance

10. For a detailed description of the screening guidelines and monitoring and evaluation tool, readers can refer here: <http://www.ecoenterprisesfund.com/index.php/portfolio-for-the-planet>. The Environmental and Social Guidelines for Investment is updated on an as-needed basis with input from The Nature Conservancy and other conservation and development organizations, investors, and stakeholders.

of biological corridors, improved watershed and soil management, and the sustainable use of natural resources (EF, 2013; TNC and UNDP, 2010). EcoEnterprises Fund aims to help drive macro level change by helping these companies scale up, and thus serve as models and catalysts for shifting currently unsustainable practices (e.g. slash-and-burn agriculture, illegal logging, water pollution, etc.) to more sustainable land-use approaches. In addition to the shifts in land and resource management practices, portfolio companies are also required to contribute to social resilience by providing safe and equitable working conditions, as well as through measures such as profit-sharing arrangements, supporting local suppliers in fair-trade certification, and supporting training for diversify family incomes, amongst others (TNC and UNDP, 2010).

For the agriculture sector, activities undertaken might include converting from traditional to sustainable or organic practices, scaling up existing venture, improving production and developing new products, and linking existing enterprises with new markets or distribution channels. In the forestry sector, activities might include converting ventures from traditional forestry to certified sustainable forestry, product diversification with manufacturing of semi-processed products, increased nurseries and production of seedlings (EF, 2013).

Diversifying revenue streams through emerging assets

EcoE II is furthermore looking for opportunities whereby portfolio companies could diversify their revenue streams by capitalising on their role in carbon sequestration, forest and watershed management in order to benefit from monetising value-added opportunities in emerging environmental markets (carbon, forest carbon, biodiversity offsets, PES for watershed protection and soil management) to complement their core businesses. EcoEnterprises Fund directly relates these emerging assets with the potential for higher returns through multiple revenue sources and thus additional upside to the portfolio, but as yet sustainable revenue stream from these niches are elusive.

Portfolio Company Example – Conservation and Social Impact

The Brazilian açai¹¹ juice and beverage company, Sambazon (sambazon.com) was one of the original investments from the first fund (receiving start-up capital in 2003 and a number of debt facilities to support growth) and is now one of the first three portfolio companies of EcoE II. The company has partnered with over 10,000 small producers in northern Brazil, in order to help conserve 1.6 million acres of Amazonian rainforest while providing a sustainable livelihood for local residents (TNC and UNDP, 2010; Weil, 2013).

11. Açai is a traditional fruit that grows in the Amazonian palm trees, *euterpe oleracea*.

Challenges and opportunities for scaling up ILM finance

Challenge	Opportunity
Exits/Illiquidity: Challenge of exiting deals in illiquid (and un-developed) capital markets within the Fund's 10 year term. Exits from smaller businesses also tend to be available through strategic sales and alliances (EF, 2013). Lack of investable deals: Local capital markets in Latin America are not yet deep enough, and require more players and capital (Weil, 2013) to source enough deals beyond the USD 30-40 million range.	Fund provides business advisory support to help strengthen the companies and help them achieve long-term success (TNC and UNDP, 2010). A DFI is likely to only invest in funds in the USD 100 million range – to achieve economies of scale, cover management fees, generate higher returns - (would need to expand globally to be able to source enough companies for this scale of fund) (EF, 2013) Opportunities are there for investors and businesses.(Weil, 2013). The Fund also leverages its network (The Nature Conservancy, bi/multilateral institutions, and local and international business, finance, environmental, and donor communities) to generate deal flow and identify strong transactions.
Businesses in sustainable sectors remain underserved by capital markets: Innovation under-financed as main focus of funds in emerging economies are on conventional business opportunities; social and energy sectors; large scale forestry, etc., and dedicated growth capital for small-to medium-sized sustainable companies in environmental sectors remain limited (Weil, 2013). Mezzanine financing structured to fit the capital needs of small but growing biodiversity-focused businesses is non-existent, and funding is scarce (EF, 2013). Lack of long term capital: These companies also often lack access to long-term capital (constraining growth), situated in the gap between established conventional businesses attractive to mainstream investors and micro-social enterprises focused on by SRI focussed financiers and further exacerbated by the shallowness of local capital markets (EF, 2013).	EcoE II is shifting to mezzanine instruments in order to support larger, more established companies which are diversifying into sustainable practices in environmental sectors. It provides long-term risk capital required to further mainstream this investment approach for these business models.
Limited resources for financing technical assistance: Not only do small businesses require a host of financial advisory services, but must also undergo more rigorous and comprehensive environmental screening and evaluation process (EF, 2013). This places greater demands on technical capacity, as well as time, expertise and financial requirements for due diligence and project approval and monitoring.	Technical assistance and smart subsidies are critical to capacity building for small business success (TNC and UNDP, 2010). The Fund currently utilises grant based finance from DFIs to support this work (EF, 2013), but there is a clear role for governments and development agencies to further support technical capacity in a more comprehensive manner.

TABLE 2. EcoEnterprises Fund challenges and opportunities

Global Environment Facility

Seeking synergies across convention siloes: Multiple benefits at scale through multi-focal area financing

Overview

The Global Environment Facility (GEF) was established in 1992 as a public financial fund with a mandate to serve as the financial mechanism of several major environmental Conventions, notably the Convention on Biological Diversity (CBD), the United Nations Framework Convention on Climate Change (UNFCCC), the United Nations Convention to Combat Desertification (UNCCD), the Stockholm Convention on Persistent Organic Pollutants (POPs), and the Minamata Mercury Convention. It is the only facility of its kind with a total focus on the protection of the global environment and the promotion of environmental sustainable development, focusing on the following key areas: Biodiversity, Climate Change (Mitigation and Adaptation), Chemicals, International Waters, Land Degradation, Sustainable Forest Management / REDD +, and Ozone Layer Depletion (GEF, 2010b).

Institutional Environment

The GEF unites 178 member governments (in partnership with international institutions¹², non-governmental organisations, and the private sector) (GEF, 2010b). It has an independent secretariat based

in Washington DC. The World Bank acts as the financial trustee of the GEF (ClimateFunds, 2013). The Scientific and Technical Advisory Panel provides technical and scientific advice on the GEF's policies and projects. The GEF has been criticised as a primarily donor driven institution, despite the representation of developing countries within its decision making structure,¹³ which in turn has also been criticised as being complex and opaque with a slow moving project cycle due to bureaucracy and high transaction costs (ClimateFunds, 2013).

Financing

Today, GEF is the largest funder of projects to improve the global environment. Since 1991, GEF has provided 11.5 USD billion in grants and leveraged 57 USD billion in co-financing for over 3,215 projects in over 165 countries. Furthermore, through its Small Grants Programme (SGP), the GEF has also made more than 16,030 small grants directly to civil society and community based organisations, totalling 653.2 USD million. GEF funds are contributed to by donor countries,¹⁴ and the GEF Trust Fund is replenished every four years based on donor pledges, with funding made available for

12. The GEF partnership includes 10 agencies: the UN Development Programme; the UN Environment Programme; the World Bank; the UN Food and Agriculture Organization; the UN Industrial Development Organization; the African Development Bank; the Asian Development Bank; the European Bank for Reconstruction and Development; the Inter-American Development Bank; and the International Fund for Agricultural Development.
13. The double majority voting structure gives developed countries more voice when consensus cannot be reached; contributor countries have made GEF replenishments conditional on the adoption of new processes and conditions.
14. The GEF Trust Fund has 39 donor countries; SCCF Trust fund has 13 donors; LDCF Trust Fund has 19 donors.

activities within the GEF Focal Areas defined during the replenishment discussions. Any eligible individual or group may propose a project provided that it is: consistent with national priorities and programs in an eligible country, and endorsed by the government; addresses one or more GEF Focal Areas, improving the global environment or advance the prospect of reducing risks to it; consistent with the GEF operational strategy; seeks GEF financing only for the agreed-on incremental costs on measures to achieve global environmental benefits; involves the public in project design and implementation (ClimateFunds, 2013).

Structure

The GEF is an independently operating financial institution, with a mandate to provide grants and concessional funding to developing countries and economies in transition related to the following areas of concern; biodiversity, climate change, international waters, land degradation, the ozone layer, and persistent organic pollutants. The GEF administers three trust funds, the Global Environment Facility Trust Fund (GEF), the Least Developed Countries Trust Fund (LDCF) and the Special Climate Change Trust Fund (SCCF). In addition it administers the Nagoya Protocol Implementation Fund (NPIF) and provides secretariat services, on an interim basis, for the Adaptation Fund.

Entry points to ILM: Better addressing multiple landscape components through Multi-Focal Area projects (MFAs)

The GEF has been criticised as supporting one-off projects, rather than programmatic approaches, as well as not paying due attention to the underlying policy, regulators and strategic barriers to environmental sustainability (ClimateFunds, 2013), while also recognising the inherent challenges of realising synergies across the separate conventions within their mandate. These issues represent clear challenges in terms of channelling finance to realise multiple benefits within a landscape. Both these challenges are related to the fact that the development of focal area strategies for the GEF's financing activities therefore must be in line with the mandates in response to guidance from the relevant Conference of the Parties (COP) (Bakarr et al., 2013), with each mandate being quite siloed. Furthermore it is the countries themselves that choose how to use GEF resources, in accordance with their own priorities, and thus the GEF must take heed of the emerging development priorities, notably driven by the demands of food security for an ever-growing populations and changing global environmental conditions (Bakarr et al., 2013).

The following section will therefore highlight the institutional processes that have developed in order to better enable countries to design more integrated projects that can access multiple sources of finances for more effective coordination of funding across the individual objectives of each convention in the GEF's mandate. As such, the financing of multi-focal area projects (i.e., the integration of separate focal areas concerning biodiversity, climate change and land degradation) enabled by the System for Transparent Allocation of Resources (STAR) process is of primary interest to explore the GEF's ability to finance ILM at scale.

Moving from Operational Programmes to Strategic Focal Areas

The GEF provides support to countries to ensure that project design not only is in accordance to their own priorities, but also meets the requirements of the MEG commitments related to the different conventions within the GEF's mandate. Prior to 2007 (i.e. for previous replenishment periods), the GEF provided grants to eligible activities under the framework of its 15 operational programmes (OPs) covering priorities for biodiversity, climate change and international waters. OP 12 (Integrated Ecosystem Management - IEM)¹⁵ covered cross-cutting projects that addressed how ecosystem management could optimise goods and

services in at least two focal areas. However, the GEF acknowledged the challenges of this approach and that few of these projects however convincingly presented potential synergies among focal areas.¹⁶ The consolidating of multiple OPs to a streamlined handful of GEF Focal Area Strategies for the 5th replenishment period has intended to set out clearer priorities in each of the GEF's focal areas and cross-cutting thematic areas of work to guide the countries' planning process.

Since 2007, the GEF has set out focal area strategies for biodiversity, climate change mitigation and adaptation, land degradation, international waters, chemicals, and an incentive mechanism on sustainable forest management/REDD+. In addition, financing has also been allocated to the focal area for cross-cutting capacity development projects in order to help reduce, and where possible eliminate, the institutional bottlenecks to a more synergistic implementation of the Rio conventions (GEF, 2011b). These projects would therefore focus on enabling investments in the environmental governance system, in order to catalyse the ability of countries' to meet their obligations under the conventions and mainstream global environmental issues into national development programmes by improving operational effectiveness (data monitoring, gathering, engagement, policy and legislative frameworks) (GEF, 2011b).

15. See: http://www.thegef.org/gef/operational_programs

16. See: <http://www.thegef.org/gef/sites/thegef.org/files/documents/Review%20of%20the%20GEF%20OP12%20Integrated%20Ecosystem%20Mgmt.pdf>

Country Driven Multi-Focal Area (MFAs) Projects

Therefore, despite the siloed mandates of the conventions within the GEF's mandate, the GEF has gradually sought to better enable countries to develop projects across multiple focal areas that can secure finance from across the different funding objectives, and thus across landscapes and jurisdictional levels. For example, through multi-focal area projects that include resources from the focal areas on biodiversity, climate change and land degradation, the GEF has sought to emphasise 'integrated natural resource management' in order to protect vital agro-ecosystem components (water, healthy soils and biodiversity) and recognise the synergies between these three focal areas related to the CBD, UNFCCC and UNCCD conventions (Bakarr et al., 2013; GEF, 2011b). In practice, this means that programmes are supported that can produce multiple environmental and social benefits, for example habitat protection in combination with carbon sequestration and watershed management gains.

Since its inception, USD 2 billion of GEF resources have funded multi-focal area projects and programmes, with specifically around 350 multi-focal area projects and programmes conducted in relation to SFM and REDD+ (GEF, 2013). Furthermore, USD 1.67 billion in GEF financing has leveraged USD 8.3 billion in co-financing for forest conserva-

tion and management (GEF, 2013). In the period 2010 – 2014, a USD 250 million SFM/REDD+ incentive mechanism has sought to mobilise USD 1 billion of GEF funds in support of forests (seeking multiple benefits relating to biodiversity and habitat improvements, soil erosion and desertification reduction, livelihoods enhancements, water supply, flood control). In 2013, an analysis of a detailed analysis 192 projects in the GEF demonstrated how GEF could finance specific components that supported agriculture and food security, through its strategic focal areas, amounting to an aggregate total of USD 810.6 million, or 75 percent of total GEF grants (Bakarr et al., 2013).

Supporting Project Diversification - STAR Planning Process as a means of increasing predictability of funding to countries.

In addition to the complexity of the OPs, another major challenge for countries to diversify projects across the different GEF funding windows was the lack of predictability of funding, as funds were disbursed on a first-come first-served basis. The System for Transparent Allocation of Resources (STAR) was developed during 2009-2010 to address these challenges related the predictability of financing, building on the Resource Allocation Framework (RAF) from the fourth replenishment period of the GEF (GEF-4) (GEF, 2010b). In the fifth replenishment period of the GEF (GEF-5), the STAR includes

three focal areas of biodiversity, climate change and land degradation (since these are the focal areas for which unique country-level indices are currently available).

A total of USD 968 million for Biodiversity, USD 1,088 million in Climate Change and USD 324 million in Land Degradation were allocated to eligible countries under the STAR (GEF, 2010b). Furthermore, the STAR guidance document states that the GEF Council has set aside resources from the three focal areas in order to create SFM/REDD+ incentive programme of USD 200 million to ensure that the GEF can finance strategic projects that support the different international conventions that address forest issues, while also addressing the synergies and trade-offs between different focal area objectives (GEF, 2010b). The STAR therefore aims to afford countries increased predictability of guaranteed funding (subject to project approval) and flexibility within their programming so that countries are more incentivised to propose MFA projects, thus ensuring that more holistic MEG commitments are met, rather than sampling tapping explicit funding allocation for each of the separate conventions.

Indicative country allocations (i.e. the funding envelope that a country can access during the replenishment period) are calculated on the basis of a number of different factors, including the GEF benefits index (GBI), an index to measure GEF's investment

benefits in a specific focal area in a country. Notably, there are separate GBIs for the three different focal areas within the STAR, though the GBI for climate change did incorporate a 5% component related to forest cover and deforestation in 2009 (GEF, 2010a). However, reference to the GEF-5 Focal Areas Strategies shows a number of cross-cutting issues and MFA benefits within the objectives of each separate focal area¹⁷ (GEF, 2011b).

Specific country examples

MFA projects account for about 2 billion of total GEF financing, the following section provides a few illustrations of the multiple entry points through different landscape components for MFAs as they align with a range of countries' priorities. Projects were chosen that conformed to the definition of ILM finance¹⁸ and that are enhancing national and regional government's ability to finance multi-focal programmes to address synergies and trade-offs between land use, climate and conservation issues at the landscape or jurisdictional programmes.

Climate change adaptation by addressing land/water degradation in micro-catchments in El Salvador (OP 12)

While GEF climate change adaptation financing must align with country priorities identified in the National Action Plans for Adaptation

17. For example Land Degradation Objectives 1 details that one of the key outputs of projects supported under this objective will include reduced rates of soil erosion, reduced GHG emissions from agricultural (crop and livestock) activities and maintained habitats in the agricultural landscape (p58, GEF, 2011).

18. ILM finance refers to both the financing of integrated landscape initiatives, and targeted land based investments that have multiple financial, economic, environmental and social benefits at different landscape scales.

(NAPAs) and other national plans and strategies (Bakarr et al., 2013), MFA projects can and do integrate a number of different objectives into adaptation focussed projects, as well as including climate resilience in conservation and SLM projects. An example of a project (USD 1.5 million project grant and USD 5.8 million in co-financing) approved in 2011 in El Salvador (GEF, 2011a) provides evidence for how the implementation of micro-watershed management plans (implemented in targeted micro-watersheds of a set of sub-basins) are being used to enable local communities to adopt integrated landscape management practices with multiple aims: reduce climate change vulnerability; diversify and strengthen livelihoods and sources of income; improve agricultural management and sustained flow of services in agro-ecosystems (soil quality enhancements, increased water quality and quantity).

Financing was directed to four key areas.¹⁹ A USD 200,000 grant (USD 800,000 indicative co-financing) financed the development of local institutions to design and implement the 'fragile micro-watershed management plans' (i.e. developing methodology guidelines, government agency workshops, development of local management committees) on a participative and gender approach. USD 521,370 grant (USD 2 million indicative co-financing²⁰) financed specific land management interventions (increasing vegeta-

tive by strengthening agro-forestry nurseries, farmer field schools to develop capacity for integrated natural resource management, technical demonstration households). A USD 400,000 grant (USD 2.2 million indicative co-financing) financed components related to the increase in water quality and quantity to diversify livelihoods (developing shared decision making across households on construction, management and maintenance of rainwater catchment systems for multiple uses). A USD 300,000 grant (USD 700,000 indicative co-financing) financed the development of disaster risk management for enhanced adaptive capacity of communities living in the micro-watershed (developing and communicating disaster risk information on and response mechanisms/action plans for extreme weather events and climate change risks).

Consolidating public-private initiatives to conserve globally significant biodiversity and multiple ecosystem services (STAR)

A 2013 approved project in Chile²² (USD 5,807,200 with USD 19,350,000 in co-financing), demonstrates how GEF funding aims to build incrementally on existing government efforts to conserve a diverse mosaic of forest and non-forest areas and multiple ecosystem services in the mountain areas of Chile's Mediterranean Ecosystem in the Metropolitan Region, increasing habitat connectivity and addressing

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19. See: [http://www.thegef.org/gef/sites/thegef.org/files/gef_prj_docs/GEFProjectDocuments/Multi%20Focal%20Area/El%20Salvador%20-%20\(4616\)%20-%20Climate%20Change%20Adaptation%20to%20Reduce%20Land%20Degradation/9-26-2011%20%20ID4616%20%20El%20Salvador%20PIF%20-resubmission%2026%20Sept%202011.pdf](http://www.thegef.org/gef/sites/thegef.org/files/gef_prj_docs/GEFProjectDocuments/Multi%20Focal%20Area/El%20Salvador%20-%20(4616)%20-%20Climate%20Change%20Adaptation%20to%20Reduce%20Land%20Degradation/9-26-2011%20%20ID4616%20%20El%20Salvador%20PIF%20-resubmission%2026%20Sept%202011.pdf)
 20. Co-financing sourced from Ministry of Agriculture and Livestock, Family Agriculture Plan, FAO.
 21. Protecting Biodiversity and Multiple Ecosystem Services in Biological Mountain Corridors in Chile's Mediterranean Ecosystem: http://www.thegef.org/gef/project_detail?projID=5135
 22. [Protecting Biodiversity and Multiple Ecosystem Services in Biological Mountain Corridors in Chile's Mediterranean Ecosystem: http://www.thegef.org/gef/project_detail?projID=5135](http://www.thegef.org/gef/project_detail?projID=5135)

competing land use pressures in and around them. GEF funds intend to consolidate public-private initiatives and foster a heterogeneous array of complementary interventions in 30 adjacent municipalities. Grants are being provided for four key components relating to biodiversity, land degradation and SFM/REDD+ focal areas of STAR. This includes a USD 2.15 million (USD 7.5 million co-financing²³) to develop local environmental governance capacity and knowledge management on biodiversity conservation and sustainable land use (integrated municipal land-use plans, introduction of SFM practices, coordination mechanisms set in place for municipalities in the mountain areas).

A USD 1.21 million grant (USD 7.19 million co-financing) is provided for the implementation and promotion of best practices for the sustainable management of landscapes (capacity building and development of monitoring systems for biodiversity conservation for public-private stakeholders, compliance labels and market options, strategy for improved dissemination and application of existing financial resources as incentives for biodiversity conservation among private land owners). A USD 1.76 million grant (USD 2.88 co-financing) is available to develop two pilot-scale areas as 'Integrated Conservation Districts' for soils, forests and water (the intended outcome is to implement 100,000

hectares of production/conservation pilot areas).

Challenges and Opportunities for scaling up ILM finance

The increased predictability and simplicity of financing enabled by the transition to the strategic focal areas and STAR are intended to not only better balance the need to meet the funding requirements aligned with the international conventions under the GEF mandate (i.e. ensuring better coverage across all the conventions in country projects), but also to better address the challenge of developing the capacity to design and implement more complex cross-cutting projects within sectoral institutions (GEF, 2011b). Another challenge facing the GEF is the ability to leverage private sector investment at scale through the types of projects financed through national governments within countries. While GEF-eligible countries are encouraged to include CSOs, CBOs and the private sector in their internal discussions on programming GEF resources, there are some funding options specifically for these sectors. CSOs can apply to the GEF Small Grants Programme (SGP), while the GEF Earth Fund²⁴ (www.thegef.org/gef/PPP), formerly the GEF Public-Private Partnership Fund, specifically targets the private sector in order to leverage private sector investments for GEF focal areas (GEF, 2010b).

23. Co-financing provided mainly by Chilean government ministries (Environment, Agriculture, National Public Lands), as well as the Regional Development Undersecretariat, Agriculture and Livestock Service, as well as the National Forestry Corporation, regional government and municipalities, NGOs (The Nature Conservancy, Chile Sustentable), UNEP and Gasco (a private sector partner).
24. Example projects from GEF Earth Fund: Greening the Cocoa Industry - Market Transformation (global project for USD 5 million project grant, USD 15 million co-financing) (http://www.thegef.org/gef/project_detail?projID=4070); Public-Private Funding Mechanisms for Watershed Protection (supporting the establishment of at least five water funds across Latin America and the Caribbean (LAC) USD 5 million project grant, USD 15 million co-financing) (http://www.thegef.org/gef/project_detail?projID=4260).

Finally, there has been a shift in the funding call to countries for the 6th replenishment period from targeting specific individual goals through focal areas to tackling four broad themes of mega-environmental problems. The proposed 'signature programs' outlined in the draft GEF-6 programming directions consist of: taking deforestation out of the commodities supply chain; rebuilding global fisheries; sustainable cities - harnessing local action for global commons; fostering sustainability

and resilience of production systems in Africa; and a new development path for the amazon basin.²⁵ While it is too early to understand the implications of this shift for recipient countries and implementing agencies, it is likely to have significant relevance to the way GEF funds can be directed towards landscape level challenges and actors as a means to co-ordinating strategic interventions to address these cross-cutting priorities.

25. See: <http://climate-l.iisd.org/news/gef-holds-second-meeting-of-the-gef-6-replenishment/>

Moringa

Diversified returns from agroforestry with positive environmental and social impacts for local populations

Overview

Moringa²⁶ is a private equity investment vehicle focused on supporting the development of profitable, sustainable and replicable agroforestry projects with strong positive environmental and social impacts on local populations implemented through Portfolio Companies in Africa²⁷ and Latin America.²⁸ The Fund is seeking to raise between EUR 100 million and EUR 140 million (USD 135-190 million), achieving its first closing of EUR 51.4 million (USD 70 million) (target was EUR 50 million) (Moringa, 2013). Moringa aims to provide attractive returns to investors through a diversified revenue stream of permanent food and export crops (e.g. coffee, cocoa, tea, fruits, nuts), biomass and timber for local and international markets (with sequential agroforestry), as well as credits for the carbon and PES markets.

Institutional Environment

Moringa (Moringa S.C.A., SICAR) is sponsored by the La Compagnie Benjamin de Rothschild (CBR) of the Edmond de Rothschild Group and ONF International (ONFI), the international subsidiary of French National Forestry Organisation. Moringa Partnership acts as the investment

advisor with partner organisations assisting in the provision of a strong regional presence, proprietary deal-flow and technical knowledge of financial, forestry, agroforestry, environmental and social components. In addition to the investment vehicle, a Technical Assistance Facility is being established as a grant-based programme for contributing to project preparation, capacity building and technical strengthening.

Financial Structure

Moringa will invest in profitable larger scale agroforestry projects with high environmental and social impacts via equity and quasi-equity investments of EUR 4-10 million (USD 5.4 – 14 million) (Moringa, 2012b). Its targeted size is EUR 100 million (USD 135 million), with a maximum size of EUR 140 million (USD 190 million) and an estimated holding period of 6 to 10 years (considered an optimum duration to manage risks and obtain maximum asset value appreciation) from first closing with a conservatively estimated 10-12% annual IRR to investors (based on strong fundamentals and market growth) (Moringa, 2012a). Funds will be used to invest in a broad range of risk capital in Portfolio Companies in

26. Please note that where an explicit reference is not given for information in the case study, the Moringa Private Placement Memorandum (2013) can be inferred as the source material.

27. Principal focus countries: Cameroon, Democratic Republic of Congo, Gabon, Ghana, Ivory Coast, Madagascar, Mozambique. Secondary focus countries: Benin, Burkina Faso, Central African Republic, Guinea, Kenya, Liberia, Mali, Niger, Nigeria, Republic of Congo, Senegal, Sierra Leone, Tanzania, Togo, Uganda, Zambia.

28. Principal focus countries: Brazil, Chile, Colombia, Péru. Secondary focus countries: Argentina, Bolivia, Costa Rica, Ecuador, Guatemala, Guyana, Honduras, Mexico, Nicaragua, Panama, Paraguay, Surinam, Uruguay.

order to generate long term capital gain from sustainable, resilient and replicable agroforestry projects. Returns will be generated by both capital value appreciation of Portfolio Companies at exit, as well as short/medium term cash flows from the projects.

Structure and value drivers

In contrast to timber or carbon funds, the agroforestry approach will provide diversified revenue streams from a wider range of growing local and international markets. These include a variety of products such as timber and wood products, biomass and biofuel, as well as agricultural products, potentially complemented by PES and carbon markets (both regulated and voluntary) to remunerate environmental services provided by forests. Key value drivers relate to the expected long term growth in national and international forestry, agricultural and environmental markets (i.e. timber and biomass based commodities, agricultural commodities, arable land, PES and carbon markets) but that the diversification of agroforestry projects provides a favourable risk/return profile, given both global economic and environmental market uncertainties and drivers of de-forestation in high-yield tropical forested areas.

Moringa will make direct equity and quasi-equity investments in Portfolio Companies, considering scaling up (upgrading, upsizing or further developing) existing brownfield

opportunities as well as investing in greenfield opportunities (i.e. newly developed projects). Projects will be sought through which investment can take a successful pilot study of several hundred hectares to a larger scale (e.g. 3,000 – 15,000 hectares). This involves investing in both forestry and agricultural elements of a project, as well as key components of the value chain such as processing, manufacturing and biomass cogeneration facilities, while taking into account logistical and governance aspects such as routes to market and land tenure.

Criteria for financing

The Initiators have identified a strong pipeline of brownfield and greenfield investment opportunities in Sub-Saharan Africa and Latin America using their permanent field presence, experience and network in more than thirty tropical countries. The partnership with ONFI contributed a substantial list of potential investments at first close, with expected investments in between 10 and 15 Portfolio Companies through the life-time of the Fund. Portfolio Companies must meet a number of economic, technical, social and environmental criteria, to ensure that projects:

- Provide a projected return on investment to meet the Fund's targeted net IRR on a portfolio basis with a strong sales potential of the assets generated (timber, biomass, food, PES and

carbon credits) in export and domestic markets.

- Provide credible risk mitigation through market and asset diversification.
- Exhibit a clear exit potential, for example via industrial groups or forestry and agricultural funds or other financial buyers.
- Are of an industrial yet manageable scale (typically 3,000 - 15,000 ha/project)
- Produce a positive environmental & social impact, especially for the surroundings populations, through:
 - » Verified through a dedicated methodology to assess the projects before and after the investments (making use of the ONFI field network), compatible with IFC and other performance standards & utilise relevant third party certifications (FSC, SAN, CCBs, etc.).
 - » Will typically be structured in partnership with local industrial or financial players or entrepreneurs and will involve local communities to minimise social risks.
- Are in adequacy local environmental conditions (species, spatiotemporal combination of tree species, animals and crops)

and have sufficient technical capacity.

Risk management

Moringa positions the agro-forestry approach as enabling better risk mitigation and earlier profitability in the short term as well as higher profitability in the long term than more traditional approaches (i.e. intensive crops, pasture ranching, intensive logging) (Moringa, 2012a). These include technical risk; agricultural and environmental risk (soil exhaustion, pests); market risks (price fluctuations); social risks (food competition, land rights issues); regulatory risks at local and international levels. Moringa further emphasises the importance of a number of other strategies to minimise investment risk. These include diversification at the portfolio (geographically in relation to political and currency risk; a clear, realistic and diversified exit strategy from the beginning of the investment; high governance and environmental and social standards and monitoring in the pre-investment phase and in managing Portfolio Companies; detailed list of exclusion criteria). The Moringa Environmental and Social System framework (more detail is given in Section 3) is fundamental to enabling business and environmental risk mitigation in part as a means to ensure a higher exit value for the projects through a biological and social capital increase during the investment holding period. Furthermore, projects are likely to seek

relevant third-party sustainability certification (e.g. Forest Sustainability Certification, Climate Community and Biodiversity Standard, Sustainable Agriculture Network) as well as Fair Trade, organic or other certification from consumer associations where relevant.

Investors

In addition to CBR, Moringa's investors at first close include are FISEA (vehicle dedicated to investment in Sub-Saharan Africa owned by France's Agence Française de Développement), CAF (the Development Bank of Latin America), FMO, the Finnish Fund for Industrial Cooperation Ltd (Finnfund), the Fund for Development Promotion of the Spanish Cooperation (FONPRODE), and Korys (the investment holding company of the Colruyt family) (Moringa, 2013). Minimum commitments per institutional investor are set at EUR 2.5 million and for non-institutional investors at EUR 1 million.

Entry points to ILM

The agroforestry approach aims to generate attractive returns to investors, economic benefits to stakeholders, while providing a sustainable and profitable alternative to the unsustainable land use scenarios that drive deforestation (Moringa, 2012a). The approach opens up a number of entry points to enhancing social and environmental impact for local communities. The implemen-

tation of better land management practices and intervention across the value chain should enable:

- Scaling up sustainable agroforestry projects from a few hundred to a few thousand hectares (e.g. 3,000 – 15,000 hectares) and the potential conversion of mono-culture to agroforestry developments as a diversification opportunity.
- Local environmental benefits relating to enhanced ecosystem services including soil improvement (refertilisation, productivity, water retention); watershed regulation (water provision and flood protection); micro-climate improvement/stabilisation.
- Local social and economic benefits relating to increased productivity and product diversification, employment, higher and more stable local incomes alleviating poverty, social inclusion of the projects; enhanced climate resilience; longer term strengthened livelihoods.
- Global environmental benefits from enhanced climate resilience (reduced emissions, preservation of tropic forest with implications for local and regional weather patterns) and biodiversity protection.

Furthermore, Moringa aims to implement projects through a partnership approach with local communities

while also engaging the support of local public institutions and the NGO community. Portfolio Companies will also likely feature partnerships with locally active industrial, financial or operating organisations.

Diversifying Revenue Streams through an ILM Approach

Moringa aims to differentiate itself from other investors in the timber or carbon investment space by specifically using the agroforestry approach to leverage the synergies of a landscape approach to reduce risk and generate earlier and more diversified returns from different value drivers. Moringa sees this as providing a variety of financial as well as environmental and social benefits, including:

- More sustainable land management practices (i.e. best practice planting techniques) implemented in reduced-fertility savannahs or eroded, compacted and damaged lands will lead to a number of environmental and social benefits for surrounding communities.
- Given the continuing complexity and uncertainty of the carbon markets and nascence of PES markets Moringa is not seeking its principal source of income from carbon and PES credits, but will seek opportunities to generate additional income through the regulated or voluntary markets.

- Close consultation with local populations will aim to ensure that projects have a positive impact on livelihoods and thus reduce the risk of social conflict (associated with mono-specific plantations and non-inclusive land sales strategies).²⁹

Therefore, while the primary and early stage revenue streams are driven by tangible assets (timber and agri-products), the diversified and synergistic approach ensures engagement at a broader landscape level enabling Moringa to engage in the REDD+ agenda but not relying on carbon credits as the main source of return.

Moringa Environmental and Social System Framework

The Moringa E&S System framework is comprised of 10 key criteria assessed on 5 levels in order to assess whether a project is eligible for investment in addition to the exclusion criteria. The E&S system assesses the environmental and social value of a project. Environmental value is assessed by measuring its impact on, inter alia, energy, climate, resources and waste (including soil and water), health and toxicity, biodiversity. The social value of a project is evaluated by measuring its impact on, inter alia, workforce, community participation, local development, access to common goods (e.g. land, water, biodiversity, heritage) and social equity.

29. The investment advisor assures that any increase in company value will be principally the result of the agroforestry activities pursued by the Portfolio Companies.

Challenges and opportunities for scaling up ILM finance

Challenges	Opportunities
Market uncertainty and weakness	Returns are primarily derived from forestry revenues and secondly, those relating to local and international agricultural markets (the latter providing a much earlier revenue stream, particularly in brown field sites), with only about 2-5% of revenues from unregulated markets relating to carbon credits and payments for other ecosystem services.
Such projects have significant investment requirements and allow benefits to be derived from technical excellence, economies of scale and replicability.	Strong field presence and network through core partners is fundamental. The TA facility provides key assistance and thus reinforces the impact of the fund. This early stage support from public and grant money is vital to compensate for shortcomings in the local business environment and strengthening of investee businesses.
Challenge in finding enough projects that are investable for a robust pipeline. Sequencing of public – private investments - and proving the business case to conservative investors.	Moringa has a strong field presence and network through core partners, which enables them to identify the most investment ready opportunities in key geographies. Their aim is to focus on a small number of selected projects that have clear beneficial local impacts. By providing case studies and demonstration sites of success, Moringa aims to encourage the public sector into continuing to develop the enabling environment to scale up the number of such efforts and investable opportunities.

TABLE 3. *Moringa challenges and opportunities*

Norwegian Agency for Development Cooperation & Norway's International Climate and Forest Initiative

Enabling investments for REDD+ through funding programmes to address climate, conservation, deforestation and livelihoods at the landscape level

Structural Overview

The Norwegian Agency for Development Cooperation (NORAD) is focussing on empowering recipient countries to achieve their own development goals, thus reducing global poverty (Norad, 2011). NORAD is a directorate under the Norwegian Ministry of Foreign Affairs (MFA), with its functions laid down in the agency's terms of reference and annual letters of allocation issued and the majority of Norwegian ODA is administered by the MFA.³⁰ Climate change and the environment as well as energy are two of the 5 elected thematic areas of Norwegian development cooperation.³¹ Within the focus on climate change and environment, Norway focuses its cooperation on four key areas, the sustainable management of biological diversity and natural resources, climate change and access to clean energy, the management of water resources, water and sanitation, and hazardous substances.³²

The Government of Norway's International Climate and Forest Initiative (NICFI) is an integrated part of the

Ministry of Environment (MoE), through which they have managed the Norwegian funds for REDD+ since 2003. NORAD manages a large share of the funds on behalf of NICFI, including grants to civil society.³³ For the purposes of the ILM agenda, this case study shall focus on NORAD's more integrated financing of different global environmental policy commitments through its focus areas under the climate change and environment theme, its management of NICFI grants, adaptation to climate change and mitigation (core activities include REDD, CDM and the Clean Energy Initiative).³⁴ Within these thematic areas, NORAD manages the following relevant funds: Clean Energy for Development to promote access to sustainable energy services for developing countries and the Climate and Forest Support Initiative for the fight against global warming in developing countries (with a linked fund that at some point will be sun-setting Climate and Forest funding to civil society).

30. See: <http://www.NORAD.no/en/about-NORAD>

31. See: <http://www.NORAD.no/en/thematic-areas>

32. See: <http://www.NORAD.no/en/thematic-areas/climate-change-and-the-environment/climate-in-norwegian-development-policy>

33. Prior to 2013 the funds were granted by the Ministry of Foreign Affairs and programming decisions were made jointly between the Ministries of Environment and Foreign Affairs.

34. See: <http://www.NORAD.no/en/thematic-areas/climate-change-and-the-environment>

Financing

Total Norwegian development aid (in the form of grants) distributed in 2012 amounted to NOK 27,644 million (USD 4,250 million),³⁵ with 18% (NOK 4,962 million – USD 830 million) spent on environment and energy thematic areas (the largest spend of all thematic areas). NOK 2,259 million (USD 378 million) was spent on energy generation and supply, NOK 1,910.2 million (USD 320 million) on forestry, and NOK 793.5 million (USD 133 million) on general environmental protection. Since 2007, the Norwegian government has granted up to NOK 3 billion (USD 480 million) annually to programmes for REDD in developing countries through NICFI. As part of this overall fund, total grants for the period 2009 and 2012 to over 40 civil society and research organisations were NOK 650 million (USD 109 million) for local, national and international projects in connection with REDD (Norad, 2010). For the 2013-2015 NICFI portfolio, 42 projects have been approved (out of 633 reviewed concepts) for a total budget of NOK 820 million (USD 137 million). The majority of projects are financed in Brazil and Indonesia, while 'Sustainable Landscape' had the highest budget percentage of the thematic categories (i.e. commodities, analysis, and consensus).³⁶

Furthermore, Norway is a key donor to a number of multilateral initiatives from which eligible tropical forest countries may receive financial

support, including the UN-REDD Programme, the Forest Carbon Partnership Facility (FCPF) and the Forest Investment Program (FIP) (Norad, 2012a).

Access and criteria for funding (NICFI)

NICFI finances projects globally, focussing on key REDD countries, providing funding to civil society organisations (specifically through the civil society funding window, including NGOs, research institutions and PPPs, as well as regional and national level governments (e.g. Governors' Climate and Forest Taskforce) (Norad, 2012c). To receive funding through the civil society window, partnerships and deep co-operation are encouraged between the CSOs and other relevant stakeholders (such as national or regional authorities, indigenous peoples and forest dependent communities, local civil society, NGO's or private sector entities). Organisations are expected to consider and address a range of environmental and social challenges (poverty reduction, gender, rights of indigenous peoples and forest dependent communities, environmental safeguards). Projects are thus expected to contribute to the advancement of practice and knowledge across the thematic issues of NICFI (i.e. development of a credible MVR system for REDD, capacity building for REDD+, promotion of natural forest conservation to maintain carbon storage capacity)

35. See: <http://www.NORAD.no/en/tools-and-publications/norwegian-aid-statistics>

36. See: <http://www.NORAD.no/en/support/climate-and-forest-initiative-support-scheme/overview-and-analysis-of-the-2013-2015-portfolio>

(Norad, 2012b, c). NORAD also has other funding schemes available to support private sector development in developing countries, which include funding for feasibility studies and certain trainings, as well as building and strengthening institutions and private sector actors in certain developing countries (prioritising LDCs in Sub-Saharan Africa).³⁷

Entry points to ILM - Enabling and supporting multi-functional landscape interventions through the NCIFI

While NORAD's mitigation and adaptation foci also touch upon components of ILM, it is the enabling investments made through the NCIFI funds that NORAD most clearly engages with the ILM agenda in a more integrated manner. Since 2008, through the initiative, NORAD has aimed to help enable the inclusion of REDD+ in the new international climate regime, be an early mover in cost-effective and verified reduced emissions, and promote the conservation of primary forests for their carbon storage capacity and biological diversity (Norad, 2010). The initiative's overarching goal is that these efforts should promote sustainable development and reduce poverty.

In addition to its international diplomatic role in the UNFCCC negotiations, the NCIFI has enabled Norway

to establish a series of partnerships with key forest countries and contribute to advances in the theory and practice of developing a REDD+ mechanism under the UN Framework Convention on Climate Change (UNFCCC) (Norad, 2012a). The large-scale partnerships with key forest countries as well as CSOs has sought to demonstrate projects and actions at scale as well as contribute to the design of an integrated architecture of multi-lateral REDD initiatives that encourage and address large scale emission reductions, and through sustainable forest management and a livelihoods approach alleviate poverty. A core part of NCIFI's funding therefore has been directed to financing NGOs, research institutes and civil society organizations to provide analyses, pilot projects and demonstrations supporting the REDD+ negotiations and learning through field experiences.³⁸

The Norwegian Climate and Forest funding to civil society

A considerable tranche of NCIFI's funding has therefore been directed, through the CSO window, to funding developments and advancements in the enabling environment for a REDD+ mechanism. This funding has provided support to increase the capacity and competence of local and regional civil society in forest countries with respect to climate and forests, understanding of how to safeguard the rights of indigenous peoples as well as of others who

37. See: <http://www.NORAD.no/en/support/private-sector-development>

depend on the forests for their livelihood in national forest and climate plans, how to forest and climate projects with the development of communities and improvement of their livelihoods (Norad, 2010). NORAD reports that the CSO window will be phasing out in the near future.³⁹

ILM relevant funding categories: sustainable landscapes, commodity supply chains

Projects within NCIFI must relate to one or more of the thematic categories identified by NORAD, with the most relevant to ILM being the 'sustainable landscape' and 'commodity supply chain' categories (Norad, 2012b). The purpose of the sustainable landscape category is to promote integrated sustainable land use planning by focusing on sectors and dynamics that may not be directly connected to forest but that nevertheless represent important drivers of deforestation. This includes exploring approaches to agricultural and energy production that may reduce deforestation and forest degradation while also contributing to improved livelihoods, employment, food security, energy access and efficiency (Norad, 2012b).

The commodity supply chain category supports initiatives that engage multiple stakeholders, placing CSOs in key roles, to develop and promote the supply chains of relevant commodities (palm oil, beef, soy, sugar, biofuels, timber and wood products) for meeting market and consumer

demand without contributing to deforestation and forest degradation practices. Activities financed include concepts that address and promote major voluntary fora for sustainable supply chains, such as roundtable processes, sector associations or national sector development; facilitate the participation of smallholders in sustainable supply chain commitments; enhance transparency in commodity supply chains and promote enforcement of relevant policies, laws and regulations as well as/or link voluntary commitments to other public/private sector policies.

Specific Projects

Sustainable landscapes and integrated accounting in Brazil

The Sustainable Landscapes in Brazil and Indonesia programme, implemented by the Nature Conservancy, (NOK 40 million/USD 6.7 million for 2013-2015 up from NOK 12 million/USD 2 million in 2010-2012)⁴⁰ focuses on increasing economic development and human well-being while minimising carbon emissions and habitat loss in two important sub-national demonstration landscapes, and at the State, Province and National levels.⁴¹ NORAD is also financing a project through the Fundacion Solidaridad LatinoAmerica to pilot practices for land neutral agricultural expansion and ecological restoration that will address the possibility to sustainably intensify cattle ranching by implementing

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38. See: <http://www.NORAD.no/en/thematic-areas/climate-change-and-the-environment/norways-international-climate-and-forest-initiative>
39. See: <http://www.NORAD.no/en/support/climate-and-forest-initiative-support-scheme>

40. See: <http://www.NORAD.no/en/support/climate-and-forest-initiative-support-scheme/sustainable-landscapes-in-brazil-and-in-donesia>

41. See: <http://www.NORAD.no/en/support/climate-and-forest-initiative-support-scheme/sustainable-landscapes-in-brazil-and-in-donesia>

42. See: <http://www.NORAD.no/en/support/climate-and-forest-initiative-support-scheme/land-neutral-agricultural-expansion-and-ecological-restoration-in-brazil-%28LNAE%29>

43. The project was also implemented at the national level in Costa Rica, and at the sub-national levels in San Martín and Madre de Dios (Peru) and Mai Ndombe Province (the Democratic Republic of the Congo). See <http://www.v-c-s.org/jnr-pilot-programs>

44. See: <http://www.NORAD.no/en/support/climate-and-forest-initiative-support-scheme/addressing-large-scale-drivers-of-deforestation-in-the-mekong>

climate-smart techniques aimed at mitigating the deforestation pressure of 20,000-100,000 hectares from agriculture expansion in the Amazon and Cerrado biomes.⁴²

Another NORAD NCIFI financed programme in Brazil supported the development and piloting of an integrated JNR accounting and verification frameworks at the sub-national levels in the States of Acre in collaboration with the VCS.⁴³ VCS received a NOK 8 million (USD 1.4 million) grant over a three-year period (2013-2015) for the project. The state of Acre in Brazil is now on its way to become the first jurisdiction-wide program to deliver compliance-grade REDD+ credits. KfW (the German government-owned development bank) recently agreed to performance-based payments totalling around USD 25 million through its REDD Early Movers (REM) programme, which Acre plans to deliver via use of the JNR Framework. Acre also has an MOU with the State of California to provide a pathway for its early participation in California's cap-and-trade system.

Landscape and jurisdictional approaches

NICFI is also financing a suite of other projects that are addressing large-scale drivers of deforestation and forest degradation by integrating multiple goals at the landscape scale. For example in the Mekong region (Cambodia, Lao PDR, Myanmar and Vietnam)⁴⁴ a NOK 20 million

(USD 3.3 million) implemented by the Wildlife Conservation Society is addressing large-scale drivers of deforestation from outside the forest sector and demonstrating land-use planning for multiple goals at a landscape scale. This project synergises with thematic priorities relation to commodity supply chains (with a particular focus on agricultural products) as well as 'contributing to planning and implementation of REDD+' through its support of Governments that are undertaking national REDD+ readiness processes to improve regulations to combat illegal deforestation and forest degradation. These activities include the implementation of land-use plans by governments to meet economic development and forest conservation goals across four critical landscapes covering 2 million hectares of forests in the region.

Another project, financing the World Agroforestry Centre (with the Munden Project as the private sector partner), is contributing to the development and promotion of sustainable multifunctional landscapes with the ILM goals of being climate smart (reduce emissions and human vulnerability by facilitating adaptation to climate change), eco-efficient (deliver on ecosystem services) and development friendly (enhance peoples livelihoods) through action research on landscape approaches (in 4-5 demonstration sites) to emission reductions with sustainable ben-

efits that are done in an effective, efficient and equitable manner.⁴⁵

NICFI is also supporting the promotion and development of jurisdictional REDD+ frameworks. In addition to support of the VCS's Jurisdictional and Nested REDD+ (JNR) accounting and verification framework in Peru, Brazil (Acré), Costa Rica, and the DRC,⁴⁶ NICFI is also supporting projects that combine the support of market driven efforts for deforestation free supply chains together with government led jurisdictional REDD+ mechanism implementation.⁴⁷ NICFI is supporting the National Wildlife Federation with NOK 21 million (USD 3.4 million) to improve monitoring capabilities and incentives for small-holders to improve agricultural productivity, meet certification standards and thus reducing drivers of deforestation while improving livelihoods.

Scaling up private sector

NICFI also funds a directly targets the catalysing of REDD+ financing schemes, with the aim of supporting the development of incentives to replicate sustainable forest management and low carbon development at scale, often through jurisdictional REDD+ policy frameworks⁴⁸ and sustainable supply chain approaches.⁴⁹ NICFI is financing IUCN NOK 21 million (USD 3.4 million) to work towards mobilising private investment in community based carbon intensive landscape restoration in order to enhance carbon stocks, and improve

social and economic returns to farmers, communities and investors.⁵⁰

NICFI is also financing (NOK 12 million; USD 2 million) the Environmental Defence Fund to design, catalyse and launch pilot options transactions for REDD+ credits in order to attract private companies and investors to finance high quality results-based REDD+ programs to scale over near and medium terms.⁵¹ This includes the design of complementary instruments (e.g., price floors, buffer funds, and other risk guarantee and insurance approaches) and contract structures (e.g., public-private partnerships) to contribute to reducing risks for buyers and sellers of jurisdiction-scale REDD+ credits, and make most effective use of limited public funds to leverage private financing and supply development.

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45. See: <http://www.NORAD.no/en/support/climate-and-forest-initiative-support-scheme/secured-landscapes-sustaining-ecosystem-and-carbon-benefits-by-unlocking-reversal-of-emissions-drivers-in-landscapes>. Total financing for the two periods 2009 – 2012 and 2013-15 is NOK 58.9 million (USD 9.5 million).
 46. See: <http://www.NORAD.no/en/support/climate-and-forest-initiative-support-scheme/developing-and-piloting-integrated-jurisdictional-and-nested-redd-jnr-accounting-and-verification-frameworks-linked-to-new-sources-of-finance>
 47. See: <http://www.NORAD.no/en/support/climate-and-forest-initiative-support-scheme/promoting-deforestation-free-agricultural-commodity-supply-chains-and-the-link-to-jurisdictional-redd-frameworks-for-deforestation-free-commodities-and-redd>
 48. See: <http://www.NORAD.no/en/support/climate-and-forest-initiative-support-scheme/for-est-and-climate-initiative>
 49. See: <http://www.NORAD.no/en/support/climate-and-forest-initiative-support-scheme/building-bridges-between-commodity-roundtables-and-redd-phase-2-short-name-rt-redd-phase-2>
 50. See: <http://www.NORAD.no/en/support/climate-and-forest-initiative-support-scheme/advancing-redd-mobilising-private-investment-for-community-based-carbon-intensive-landscape-restoration-%28pillar%28%80%93private-investment-in-landscape+restoration%29>
 51. See: <http://www.NORAD.no/en/support/climate-and-forest-initiative-support-scheme/options-market-and-risk-reduction-tools-for-redd>

World Bank BioCarbon Fund - Initiative for Sustainable Forest Landscapes (Tranche 3)

Creating multiple revenue streams from the sustainable transformation of landscapes.

Overview

The BioCarbon Fund was created in 2004, within the World Bank's Carbon Finance Unit, as the first carbon fund established to focus on emission reductions generated from the land use, land-use change and forestry (LULUCF) sector, and as such open the carbon market to forestry and agriculture activities.⁵²

Structured as a public-private sector initiative, it mobilises finance to help develop projects that sequester or conserve carbon in forest and agro-ecosystems, through the improvement of land and forest management with added benefits of transforming landscapes and directly benefitting poor farmers.

The BioCarbon Fund was initially developed in order to both pioneer transactions and build capacity for stakeholders⁵³ involved in the forestry and agricultural land management segment of the carbon market (LULUCF and AFOLU), underdeveloped to a large part because of limited market demand due to the restrictions imposed on the tradability of credits from LULUCF projects in the CDM and their exclusion in the European Union's Emission Trading

Scheme (WB, 2012). Tranches 1 and 2 focused mainly on A/R CDM, with some small funds to pilot LULUCF/AFOLU activities not included under the CDM. Tranche 1 started to pilot REDD+ at project scale (through the voluntary carbon market) and Tranche 2 with sustainable agricultural land management (also in the voluntary carbon market).

In November 2013, the Fund launched the Initiative for Sustainable Forest Landscapes (ISFL), which builds from its track record to "deliver landscape level transformations using results-based financing" (WB, 2012). As such the focus for this initiative will be to develop integrated landscape-level programs (including improved livestock management, climate-smart agriculture, and sustainable forest management) with a focus on protecting forests and greening and securing supply chains. ISFL seeks to reduce greenhouse gas emissions from the land sector, providing grants and results based financing to reduce greenhouse gas emissions from the land sector, through REDD+, climate smart agriculture practices and land use planning (WB, 2013c).

52. With land use degradation accounting for about 20% of annual greenhouse gas (GHG) emissions, yet transactions based on forestry and agricultural projects only has a share of less than 1% of the total market (<https://wbcarbonfinance.org/Router.cfm?Page=BioCF&ID=9708&ItemID=9708&ft=About>)

53. Project entities, governmental agencies, policy-makers and project auditors.

Institutional Environment & Governance

The Carbon Finance Unit (CFU), within the Climate Policy and Finance Department of the World Bank, is comprised of multiple approaches (carbon funds and facilities), most of which originally worked within the framework of CDM or Joint Implementation (JI) to purchase emission reductions on behalf of the contributor from a range of different projects. Instruments include the BioCarbon Fund; Forest Carbon Partnership Facility (FCPF); Carbon Partnership Facility; Partnership for Market Readiness; Carbon Initiative for Development; Prototype Carbon Fund; Community Development Carbon Fund; Carbon and CDM Facilities (Netherlands, Denmark, Italy, Spanish, etc.). These instruments utilise funds contributed by public and private entities (governments and companies) to purchase carbon credits from projects in developing countries or countries with economies in transition.

The BioCarbon Fund consists of the Tranches (Tranche 1, 2, and now 3) as well as the Technical Assistance Fund, BioCFplus, which supports the projects and programs in the Tranches and provides capacity building, promotes policy research, and supports further methodological work (WB, 2013a). The day to day operational team of the BioCarbon Fund is responsible for supervising and monitoring existing projects and activities, proposing new projects to

fund participants for review, as well as contributing to the development of the land-use sector (WB, 2013a). Stakeholders of the BioCarbon Fund include the public and private entities contributing funds (governments and companies) who are involved in decisions concerning the inclusion of projects in the portfolio and other operational considerations (WB, 2013a). Furthermore, the World Bank serves as Trustee of the BioCarbon Fund, with its operations fully integrated into the Bank's processes and team for financial management, legal guidance and technical support. This means that the Bank's environmental and social safeguard policies apply to all BioCarbon Fund's operations and project design (WB, 2013a).

Financial Structure

Tranche One and Two of the BioCarbon Fund committed about USD 90 million to over 20 projects in 16 countries (in Africa, Asia, Europe, and Latin America) since 2004. These projects⁵⁴ have restored 150,000 hectares of degraded lands, reduced deforestation in over 350,000 hectares of land, sequestered 15 million tons of CO₂, and avoided the release of 5 million tons of CO₂ in their first 20 years of operation (WB, 2013a). Tranche One has a total capital of USD 53.8 million and Tranche Two (operationalised in March 2007) has a total capital of USD 29.5 million, with both now closed to new fund participation.

54. 20 afforestation and reforestation projects, 5 avoided deforestation projects and soil carbon and agriculture pilots (WB, 2012a).

The BioCFplus programme (about USD 6 million) is a fund for carbon asset development and technical assistance for the support of project development and implementation through capacity building and training, carbon accounting methodological and tool development, as well as the promotion of policy dialogue and dissemination of lessons learned (WB, 2012). In November 2013, the BioCarbon Fund launched its USD 280 Million Initiative for Sustainable Forest Landscapes (ISFL).

Structure and value drivers

The BioCarbon Fund assists in the development of forestry and other land use activities in developing countries, and then purchases the emission reductions from these activities on behalf of the Fund's Participants (WB, 2013a). Participants may choose whether to use the emission reductions (either under the UNFCCC's CDM of the Kyoto Protocol, the voluntary carbon market, or other future mechanisms) or even to retire the emission reductions (WB, 2013a). Major uncertainties include the compliance-grade nature of purchased credits in the carbon market under a future climate agreement as well as successful implementation of the activities themselves (WB, 2012). Not only does the World Bank acts as Trustee to the Fund, but its activities must conform to the World Bank's environmental and social safeguards, with special attention to benefit sharing. Additionally,

projects in Tranches 1 and 2 have usually received their first carbon payments at advanced stages of the carbon certification process (i.e., project registration or verification), which leaves a gap between project implementation and the first carbon payment, which could take up to 4-5 years.

Criteria for financing

For local communities multiple revenue streams are generated including, financial returns from the sale of emission reductions (i.e. carbon credits), increased local incomes, and indirect financial (and ecological) benefits from sustainable land management practices. For example, a project in Ethiopia⁵⁵ (Humbo Assisted Natural Regeneration project) has used regeneration techniques to reduce erosion and provide alternative livelihoods to the surrounding population of 50,000 (7 community cooperatives established) while bringing back native forest species (WB, 2013b).

The BioCF ISFL will operate at the jurisdictional level. The preliminary average size of each ISFL jurisdictional program is initially estimated at USD30-50 million (WB, 2013c). It aims to provide two categories of financing to countries (WB, 2013b):

- Technical assistance and grant funding to support countries with the implementation of their REDD+ strategies and the creation of enabling envi-

55. See: <http://www.worldbank.org/en/news/press-release/2013/08/30/government-of-norway-partners-with-world-bank-to-support-ethiopia-in-scaling-up-climate-smart-land-management>

ronments that change the way land-use decisions are made. Grants will be disbursed through the BioCarbon Fund's associated technical assistance facility, the BioCFplus, based on performance milestones.

- Results-based financing (a.k.a., payment for performance) based on achieved emission reductions. The main metric for results-based payments will be emission reductions, but other economic, environmental and social indicators will be monitored. Carbon payments (including some upfront milestone payments) will be made through the BioCarbon Fund.

Participants

For the Fund participants, assets generated are the carbon credits for the CDM, voluntary markets, or other future mechanisms. Participants currently investing in Tranches 1 and 2 of the BioCarbon Fund include six governments and public entities (Canada, Italy, Luxemburg, Spain, Ireland, Agence Française de Développement) and 11 private companies (Idemitsu Kosan Co., Ltd. Japan Petroleum Exploration, Sumitomo Joint Electric Power, Suntory Food and Beverage, The Japan Iron and Steel Federation, The Okinawa Electric Power, Tokyo Electric Power, Sumitomo Chemicals, Syngenta). ISFL is being supported by the governments of Norway, the United Kingdom, and the United States,

whom together committed USD 280 million (up to USD 135 million from Norway, USD 120 million from the U.K, and USD 25 million from the U.S.) as part of their efforts to slow climate change. Private companies are not expected to put funds in the BioCF, but rather partner on operations on the ground where there are synergies with their supply chains. Additional donors are reviewing their participation and could make a future pledge. Fund participation for both private and public entities (donors and carbon fund participants) is set to a minimum amount of USD 2.5 million as the first-time contributor to the BioCF, or USD 1 million as the current contributor to one of the other tranches to the BioCF.

ILM Entry Points

The reduction in CO₂ emissions from reduced deforestation and land degradation accrues multiple benefits relating to the improvement of degraded and eroded land, increased protection and restoration of fragile ecosystems and biodiversity, and improved productivity of agricultural systems. Broader landscape benefits, or economic, social and institutional 'co-benefits', are sought in addition to the revenue stream generated by the land-based emission reduction projects, including biodiversity conservation, improved water services, and social or institutional benefits (e.g., improved land tenure, stronger community organisations, new employment opportu-

nities, improved income from higher yields in agricultural, timber or wood fuel products) (WB, 2013a).

Addressing fragmentation and under-representation in LULUCF carbon projects: Tranches One and Two

Tranche One and Two of the Bio-Carbon Fund sought to address the challenge of land based and landscape scale projects under CDM, which has led to a relatively fragmented and small scale A/R projects (i.e. to date only 52 A/R projects registered out of a total of more than 7,000 projects registered CDM projects according to UNFCCC Data). The first two Tranches were focussed on supporting in pilots to demonstrate how carbon sequestration from sustainable land-use management could deliver carbon credits. The average project size of ~5k ha for reforestation, ~ 30k ha for agriculture, and ~ 100k ha for REDD. Projects focussed on environmental restoration, afforestation, reforestation, sustainable agriculture, and project-level REDD, but were mostly concentrated A/R projects. Notably, Tranches 1 and 2 were not geared to providing up-front financing for projects, which raised significant challenges for project developers to scale-up to more comprehensive and integrated projects (WB, 2012).

Utilising climate Finance to catalyse large-scale regeneration of degraded lands and sustainable land management

ISFL seeks to develop capacity in carbon markets, despite on-going policy uncertainty, and challenges relating to the transaction costs of verifying and monitoring small scale fragmented projects⁵⁶ and the up-front project costs before forest carbon credits are ready from A/R. ISFL thus aims to scale up land-management practices from the project level to large 'jurisdictional' landscapes, thus supporting national and jurisdictional governments to break down current sectoral siloes in land-use climate mitigation. With its current amount of funding the ISFL will create a portfolio that could include 4-6 jurisdictional programs with country and regional diversity (Africa, Asia, and Latin America).

Scaling up to jurisdictional level

Operating at the scale of the jurisdictional landscape (an estimated minimum of 100,000 hectares with blended climate and development impacts, at the sub-national scale within a defined boundary) is considered one of the key design features of the ISFL. The jurisdictional approach aims to better enable national or jurisdictional governments to consider the trade-offs and synergies between different land-uses that may compete in a jurisdiction (i.e. agriculture, energy, and

56. Fragmented accounting of multiple benefits and project components rather than crediting any land-based activity that led to an increase in carbon.

forest protection) and successfully identify integrated solutions (both policy changes and on the ground actions) that serve multiple objectives (WB, 2013b). It further aims to incentivise all stakeholders (farmers, government representatives, private companies and non-governmental organizations) to change their patterns of behaviour and lessen the pressure on forests through better land management at a greater scale (Baroudy, 2013).

On the ground interventions would be at a significant scale and policy interventions would impact the whole jurisdiction (rather than a collection of isolated project-like interventions) or even national scale. The initiative will combine reforestation, reducing emissions from deforestation and forest degradation, agriculture, biomass energy activities, and policy interventions in an integrated approach to tackle climate change, strengthen food security, and increase the resilience of local communities and environments (WB, 2013b).

Looking for ways to expand the recognised role of the private sector

ISFL will work with private companies (multi-national corporations to large national actors and emerging SMEs and smallholders) in order to accelerate 'forest-proofed' sourcing of commodities, thus providing a better vehicle to redirect market forces for the creation of sustainable, longer-term economic incentives to maintain better land use

(WB, 2013b). In order to facilitate the participation of the private sector, large multinational companies such as Unilever, Mondelez, and Bunge were brought to the table from the inception to discuss preliminary models of implementation (Baroudy, 2013).

ISFL will work with private sector counterparts (off-takers, private partners operating across the jurisdiction, financiers, etc.) in a variety of manners (WB, 2013b): off-takers will be supported to make advanced commitments to purchase declared volumes or values of sustainably sourced products from ISFL jurisdictions, either through multi-national companies liaising with local intermediaries or local retailers; operators (small holder farmers or SME agribusinesses) will be motivated to align their current activities or intentions with land management schemes of a jurisdiction and thus link their activities to incentive payments from local government pool of capital; financiers will be incentivised to provide capital to operators to cover upfront project costs, where ISFL's payments for tons of CO₂e could cover the roll-out of new financial products or reduce specific investment risk. Carbon payments will not, however, subsidize private sector activity, but reduce additional cost burden of incorporating sustainable land use practices, and thereby access additional capital, operational resources, technical expertise and innovative strategies (WB, 2013b).

Benefit sharing with local stakeholders

Based on the approach to benefit-sharing with all eligible beneficiaries under BioCF Tranches 1 and 2, BioCF will ensure that the benefit sharing arrangements under the new initiative are: i) based on a consultative, transparent and participatory process throughout the program design and implementation; ii) pragmatic and simple, i.e., they need to be easy to understand for all involved and allow for a pragmatic way of implementation; iii) designed taking into account effective incentive structures, i.e., that there is a reward mechanism to the key actors that generate and deliver ERs in the landscape; and iv) built to ensure sustainability, i.e., by encouraging reinvestments for further landscape improvements and supporting economic development. The BioCF's aim for the longer-term is to support a smooth shift away from any reliance on ER payments upon the end of program terms (WB, 2013b).

Coordinating across finance mechanisms

A number of closely related initiatives within the CFU such as the Forest Carbon Partnership Facility (FCPF) as well as instruments under the Climate Investment Funds (CIFs) such as the Forest Investment Program (FIP) and the Pilot Program for Climate Resilience (PPCR)⁵⁷ also provide the opportunity for synergies and the generation of vital

lessons on result-based finance for the implementation of projects for a range of policy objectives, including REDD+ (WB, 2013d). Furthermore, the BioCarbon Fund also works with the World Bank Institute (WBI) to build capacity of project entities in developing countries to facilitate access to carbon markets (WB, 2012). Institutional and thematic synergies also exist with the climate-smart agriculture programmes developed by the Agriculture and Rural Development (ARD)⁵⁸ unit of the World Bank, notably where the Fund is piloting agriculture projects that lie at the nexus of improved food security, adaptation and mitigation (WB, 2012). In these cases the BioCarbon Fund aims to identify 'triple win opportunities' where additional revenue streams might be brought to farmers for mitigation in addition to the primary goal of better land management for increased productivity, while simultaneously improving social and ecological resilience to climate variability (WB, 2012).

Challenges and opportunities for scaling up ILM finance

Despite its potential to mitigate climate change, the experience in the LULUCF sector in the CDM has so far been limited due to a variety of issues: non-permanence limiting the contribution of carbon revenues' to improve projects' cash flows; A/R emission reductions in

57. Forest Investment Program (FIP), Forest Carbon Partnership Facility (FCPF), Program on Forests (PROFOR), World Bank Treasury, Multilateral Investment Guarantee Agency (MIGA), World Bank President's Initiative for Climate Smart Agriculture all have synergies with the objectives of the BioCF.

58. Now known as Agriculture and Environmental Services (AES).

such projects tend to be low and is limited in realising the full potential of LULUCF activities that could be implemented in a landscape; high transaction costs are incurred by the complexity of CDM rules and the lack of capacity for effective GHG accounting. However, depending on their size and timely delivery, carbon revenues have however been seen to positively impact the viability of land use projects, particularly those with limited sources of income and in

countries where there is no national incentive to improve land management. Continuing monitoring and payment for results over time further incentivises different stakeholders to collaborate to deliver results. While the multiple project benefits generated (greater land tenure security, employment opportunities, and new sources of income) are also strong incentives for local participation and long-term commitment. [See Table 4 on following page.]

Challenges	Opportunities
Carbon Markets: Land-based Carbon Finance and Forest Market: Demand & uncertain markets	
Lack of clear signal for the international compliance market for land use in relation to the pending decisions of the UNFCCC process. Restricted demand for forest credits for statutory compliance purposes because forest credits are temporary (tCERs or ICERs⁵⁹) under the CDM rules and are ineligible in other large markets (e.g. European Union's Emissions Trading System) (WB, 2012). Voluntary market is small, but growing.	Risk allocation and risk mitigation will be assessed throughout the structure of the land-based activity and will examine how the risks to all parties of developing a high-quality carbon asset be minimized in an uncertain regulatory environment (WB, 2012). The price paid per ton of CO₂e in emission reductions achieved is yet to be determined. A case-by-case discussion on price may be needed when the price makes a significant difference to the viability of a program (WB, 2013b).
Complex methodologies and fragmented accounting (WB, 2013a).	
Complex rules and regulations for developing carbon assets, which do not adequately reflect the synergies between different components of a landscape. Consolidation of carbon accounting methodologies to scale up from site-specific to landscape level interventions.	BioCF is considering methodologies and approaches for simple and robust carbon accounting in a more comprehensive landscape approach (bundling a variety of land-use and energy activities) to account for triple-win activities within a defined large scale landscape boundary (WB, 2013b). This potentially includes models for bundling or stacking carbon assets with premiums for biodiversity or other assets⁶⁰.
Access to finance and lack of up-front financing	
Carbon markets deliver cash-flow only once the carbon asset is developed leading to bottlenecks for projects to get up-front financing. Experience has shown that the first carbon payment may only come 4-5 years after project has been initiated.	Upfront financing that maintains an incentive structure for entities to be fully-committed to the success of the land-based activity (WB, 2012). Technical facility to fund the design and testing of innovative financing approaches including bond financing (e.g. with the Bank's Treasury department); partnerships with micro-finance institutions to assist early-movers; guarantees, price support, structured equity financing and insurance products; synergies sought across adaptation finance, grant resources (WB, 2012).
Limited public sector and donor financial resource flows are used to leverage larger private sector investments.	Funding sources could be linked to other financing mechanisms (e.g. fast start climate finance and green bonds) to achieve scale (WB, 2012). This could make funds available for the entity to use to leverage other funds. BioCF ISFL is explicitly structured to promote those activities that companies have long claimed will make it easier for them to remove deforestation from their supply chains. ISFL has a specific focus on the agricultural drivers of deforestation and emphasis on crowding in private companies that source commodities in countries with tropical forests in order to leverage private capital and capacity in a way other climate and forest initiatives have not yet managed (Baroudy, 2013). Results-based finance for emission reductions will reduce initial barriers for private sector investment, and attract further capital and expertise from the private sector.

TABLE 4. World Bank BioCarbon Fund - Initiative for Sustainable Forest Landscapes (Tranche 3) challenges and opportunities

59. See: <http://cdmrulebook.org/874>

60. BioCarbon Fund has already attempted to factor environmental benefits into the contract price for carbon. The proposed developments would build on previous approaches to further test whether the MRV approach to carbon accounting could be applied to the monetisation of other ecosystem services, or whether an independent system should be established (collaborating with stakeholders from UN Convention on Biological Diversity (CBD) and UN Convention to Combat Desertification (CCD), biodiversity and wildlife conservation entities (WB, 2012).

Broadening agricultural finance to account for landscape effects

Farmland itself is a comparatively new investment that remains relatively opaque (many deal take place 'off market') and poorly understood (Hopper, 2012). Most investors have shied away from farmland investment due to high capital requirements, long lock-up periods, required specialised knowledge and low liquidity in the secondary market. Yet in recent years, due to both interests in real assets amidst concerns over inflationary pressures, portfolio diversification and increasing land values as demands in food, fiber and fuel from limited land resources grow (Hopper, 2012; Or, 2012). Of the few funds dedicated specifically to agriculture, TIAA CREF has raised USD 2.5 billion for its agricultural investment company TIAA-CREF Global Agriculture LLC, NCH Capital raised USD 1.2 billion for its 2007 fund NCH Agribusiness Partners fund, and Teays River Investments LLC, raised USD 478 million for their Ag Real Value Fund in July 2010 (Or, 2012).

The even smaller niche sector that is organic and ecological farmland is an even more novel asset class where understanding of the ecological and financial benefits of taking a more integrated whole system approach is scarce, creating barriers to raising investment from the capital markets at scale (AgroEcological, 2011b). However, at the bottom of

the pyramid, small holders already face multiple barriers to accessing credit for investing in on- and off-farm activities, where land rights are often obscure, yet the majority of agricultural investment occurs directly through farmers themselves (Assunção et al., 2013). Furthermore, there is concern that changes to the regulatory scheme for remittance transfers in relation to Basle III will further constrict capital to small holders in developing countries (Kyte, 2013).

Given the pressures and incentives to invest in land from the top to the bottom of the pyramid, it is vital that large and small scale investors fully engage with the ILM agenda in order to avoid exacerbating tensions and challenges across different socio-economic activities and ecological systems that form part of resilient landscapes (Litovsky, 2013). The following case study describes a range of different entry points to specifically invest in farmland or lend to small-holder farmers in a manner that has landscape benefits or encourages and supports ILM approaches. It presents a broad insight into the challenges faced in agricultural and rural lending and opportunities provided by these different instruments as a means to promote more integrated and sustainable initiatives, as well as address barriers in financing ILM (from improving

access to finance for small-holders in emerging and frontier economies, to raising capital for integrative and innovative organic and whole system agricultural practices in developed and developing economies, to addressing sustainability challenges across the supply chain). The diversity in approaches also show the challenges of crossing from the agricultural productivity, farmland and food security financing siloes to financing windows for ecological and whole system approaches in a way that engages private capital and mobilises enterprise.

Agriculture and farmland lending and investment

Credit Policies: Brazilian Central Bank Resolutions for Rural Credit

Rural credit, distributed by banks or other financial intermediaries, is a vital source of funding for small to medium scale farmers, and in Brazil is subsidised by the government (Henderson et al., 2013). Rural credit is loaned according to rules and conditions established in the Brazilian Central Bank's Manual of Rural Credit (Manual de Crédito Rural, MCR). Recent research conducted by the Climate Policy Initiative (CPI) demonstrates the effective use of rural credit as a policy instrument to encourage more environmentally sustainable agricultural practices amongst rural borrowers in the Am-

azon biome⁶¹ and thus achieve forest conservation outcomes (Assunção et al., 2013). CPI suggests that the Brazilian Central Bank Resolution 3,545 (implemented in 2008), which conditioned the concession of rural credit in the Amazon Biome upon proof of compliance with legal and environmental regulations, was an effective policy instrument to condition rural credit, thereby tightening credit constraints,⁶² changing farmers' production decisions, and thus channelling finance into activities that had a beneficial effect for reducing deforestation (potentially up to 15% over the observation periods) (Assunção et al., 2013). The effectiveness of this policy is in part due to the large proportion of external finance that the federal government's rural credit portfolio represents to financing agricultural development, funding about a third of the annual financial needs of producers in the agricultural sector in Brazil.⁶³ However, more recently, the Brazilian government has confirmed a major increase in deforestation rates (28% between August 2012 and July 2013) after the previous years of decline, with uncertainty as to whether the increase should be assigned to changes in the forestry laws or higher global prices for agricultural commodities (Guardian, 2013).

61. In this region, rural credit is mainly distributed through government banks such as Banco do Brasil, Banco da Amazônia and Banco do Nordeste (Assunção et al., 2013).

62. An estimated BRL 2.9 billion (USD 1.4 billion) was not contracted between 2008-2011 because of restrictions relating to Resolution 3545 thus preventing 2,700km² in deforestation (15% reduction in deforestation over the observation period) (Assunção et al., 2013; Henderson et al., 2013).

63. With the other 70% coming from producer's own resources and other agents of agribusiness, e.g. trading companies, and other market mechanisms (Ministério da Agricultura, Pecuária e Abastecimento, MAPA, 2003)

Value chain financial services for 'unbankable' small-holders

Rabobank is not only a direct investor in farmland and other agricultural assets, but through its different initiatives, funds and partnerships is deeply involved in financing rural development and sustainable agricultural approaches (sustainability of food supply, inclusive food strategies, rural cooperatives) around the world.⁶⁴ Rabobank engages with ILM components and challenges at multiple interfaces beyond its own lending and investment programmes in commercial agriculture and national commercial agricultural banks. Different institutions within Rabobank Group focus on different ILM challenges relating to supply chain management, access to finance, and ESG integration. Rabobank Group has placed a value chain finance (VCF) approach for small-holder cooperatives at the heart of their inclusive food strategy, which aims to reduced obstacles to investing in enhancing the agricultural production of small-scale farms (and better linking them to markets and value chains) at the bottom of the pyramid (Rabobank, 2012). One of the fundamentals of this strategy is ensuring environment sustainability, by addressing impacts on biodiversity, GHG emissions, and addressing food losses and wastage from farmers to end consumers (Rabobank, 2012).

Addressing the major challenges of access to finance for much of the developing world's small holders, Rabo

Development provides technical assistance to banks doing business in rural areas in regions where there is food production potential, establishing and enabling financial services for currently 'unbankable' smallholder farmers.⁶⁵ Interventions include value chain mapping and facilitation of value chain financing, facilitation of farm business investments, establishment of affordable farm financial services, investing in and shaping of the enabling environment (institutional and physical infrastructure).⁶⁶ The Rabobank Foundation supports a number of initiatives and funds that tackle both sustainability in the commodity supply chains (e.g. partnering with WWF to support sustainable palm oil supply chains in Indonesia,⁶⁷ and partnering with FAO on pilot projects in Ethiopia, Kenya and Tanzania to better support small-holder farmers to combat food insecurity⁶⁸) as well as supporting growth and development of the agricultural sector in poor countries by providing larger farmers' cooperatives and agribusinesses with short-term loans and stand-by letters of credit (guarantees) through the Rabo Rural Fund.

Portfolio diversification through farmland investments in an institutional investor

TIAA CREF (a pension fund with USD 487 billion in assets under management) engages in specific landscapes through its agricultural investment company, TIAA-CREF

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- 64. See: https://www.rabobank.com/en/group/sustainability/sustainable_food_supply.html; <https://www.rabobank.com/en/images/framework-for-an-inclusive-food-strategy.pdf>; <https://www.rabobank.com/en/images/Cooperativeandrural-finance-20121101.pdf>; https://www.rabobank.com/en/group/fandab/rabo_farm.html
 - 65. See: <http://www.donorplatform.org/private-sector-cooperation/latest/869-study-cooperatives-crucial-for-smallholders-to-tackle-food-insecurity.html>
 - 66. See: <http://www.donorplatform.org/private-sector-cooperation/latest/869-study-cooperatives-crucial-for-smallholders-to-tackle-food-insecurity.html>
 - 67. See: https://www.rabobank.com/en/group/sustainability/Ethics_and_Dialogue/partnership_wnf/Index.html
 - 68. Projects will improve the income of small-holder farmers through support to small rural businesses, as well as through the identification of productive, competitive and sustainable agri-businesses along the whole value (https://www.rabobank.com/en/rabofoundation/story/News/FAO_and_Rabobank_Foundation_support_African_small-holder_farmers.html).

Global Agriculture LLC, performs direct investments in land used for agricultural production. Over time it has built sustainability and environmental criteria into consideration in its direct investments in land for agriculture production and large scale farms. TIAA-CREF is one of the largest institutional owners of farmland in the world; with approximately USD 2.5 billion of investments⁶⁹ across the United States, Australia, South America and Europe as of December 31, 2011 (investments in farmland and agriculture-related assets began in 2007). TIAA-CREF partners with local farmers and operators to manage and farm the properties, typically by leasing the land to farmers (Or, 2012). Farmland investments are seen as a potential source of stable investment returns due to the reduced fluctuation of the underlying value to market forces in comparison to stocks and bonds, and with recognised attractive total returns,⁷⁰ are a valuable opportunity for portfolio diversification (Hopper, 2012).

Investing directly in farmland, as opposed to investor exposure to farmland as an asset through the commodities futures market, is both less liquid and less volatile, instead performing on the value of the land and associated crops rather than market speculation. As such value drivers relate to major global trends, including increasing population together with demographic and consumer trends, changing dietary

habits and a shrinking supply of viable arable land, fuelling farmland appreciation and income (Hopper, 2012). Given the exposure of farmland investments to risks relating to extreme weather, weather variability and resource availability (fuel inputs, water, soil, other ecosystem services), as part of its focus on sustainability, TIAA CREF is integrating environmental stewardship into its investment approach to ensure sustainability and shield investments from negative environmental and social impacts (Hopper, 2012).

Engagement in a landscape as a pathway to outperformance in asset management

Agro-Ecological, a specialist asset management firm, invests in farmland and agriculture as an asset class (investing in a portfolio of farms), seeking financial, ecological and social returns through the ecological and organic management of a portfolio of farms. Growing populations, increasingly affluent populations and increasingly constrained and degraded farmland (soil productivity losses) is driving demand for agricultural land to be managed through a whole system approach that can also offer investors high-value and better returns (AgroEcological, 2011b). The Agro-Ecological approach provides investors the opportunity to allocate capital into agriculture/farmland investment from an impact and SRI perspective. Superior returns are generated for investors by acquir-

69. Investors include: Second Swedish National Pension Fund (AP2), the British Columbia Investment Management Corp., Caisse de Depot et Placement du Quebec (Or, 2012).

70. Between 1970 and 2009, agricultural land values, as measured by the USDA's ERS database, have outperformed both domestic stocks and bonds on an annualized basis, returning an annual average of 10.25% vs. 6.24% for the S&P 500 and 7.3% for 10-year Treasuries (Hopper, 2012).

ing, transforming and improving farmland profitability by enhancing the resilience and ecological robustness of the production systems and reduced reliance on volatile and expensive inputs (fossil fuels, energy costs, synthetic nitrogen) especially at times of supply disruptions, i.e. when commodity prices tend to be higher, as climate legislation (as well as legislation on direct pollutants⁷¹) develops, and carbon prices increase (AgroEcological, 2011a).

Financial and ecological benefits from the whole-system ecological agriculture approach are derived from reduced production costs and multiple productivity improvements (e.g. increased crop and biodiversity, sustainable yields) as well as on and off-farm benefits (e.g. increased soil health, soil carbon sequestration, decreased nutrient loss, superior soil moisture retention and more effective drainage). Further financial benefits may emerge as the potential of ecosystem markets grow (carbon, water quality, biodiversity). As a novel approach in a comparatively new asset class, a major challenge has been to raise capital from mainstream investors for a relatively unknown business model. While other novel blended funds have often received initial commitments from large development finance organisations, as part of their support for global public policy objectives in key developing countries, the localised New Zealand operation is limited in its ability to raise capital from these

sources, signifying a gap in vital risk capital for innovative integrated approaches in non-developing contexts.

A CSR Approach: Nestlé's Rural Development Framework

As a major purchaser of agricultural commodities and water user, Nestlé is deeply involved across the world in the challenges of sustainable production, climate resilient agriculture and sustainable water resources use and management. In addition to its core topics relating to sustainable sourcing in its 'Creating Shared Value' approach (on nutrition, water, and rural development), Nestlé's Rural Development Framework is a monitoring tool to quantify the impacts of many of Nestlé's sustainable sourcing and social impact programmes⁷² at the landscape level, a key issue for Nestlé as a significant proportion of their produce is purchased directly from farmers as opposed to through intermediaries (Goldberg and Fries, 2012). It aims to measure the delivery of economic, environmental and societal value to stakeholders by focusing upon key gaps and the alignment of objectives along the supply chain.

The Framework focuses beyond the factory and farm level to monitoring the economic and social progression of communities and stakeholders within its 'sourcing districts', utilising metrics consistent with the Millenni-

71. For example see: EU the Nitrates Directive; EU wide review of all synthetic chemicals; United States the President's Cancer Panel has recently called for systematic and wide ranging reduction of agrichemicals putting further pressure on the use of such inputs.

72. Inter alia: Cocoa plan, Nescafé Plan, Nespresso AAA, Dairy Platform, Local Sourcing Plans, Responsible Sourcing Audit Plan, Trade partners programmes, CARE & Tier 1 supplier audits.

um Development Goals on poverty, nutrition, education, gender equality, and environmental sustainability (Nestlé, 2012). Interventions in these sourcing districts should be community led and lead to the improvement of health, access to water, education, the status of women, food security, nutrition, and reducing indebtedness. Specific projects relate to the improved stewardship of natural resources at the landscape level, ensuring access to basic ecosystem services by stakeholders, implementation of climate adaptation measures, and improved land tenure (Nestlé, 2012).

Development Aid

Integrating climate into IFAD programmes

The International Fund for Agricultural Development (IFAD) is a specialised agency (multi-year, multi-donor programme) of the United Nations that provides finance (combination of grants and low-interest loans managed through a performance-based system) for agricultural development and food security projects in remote and rural areas of developing countries, extending its reach to 8 million smallholder farmers.⁷³ IFAD focusses on a number of themes relevant to components of ILM, including climate change and desertification; food security and nutrition; land and livestock management; market access; microfinance; natural resource

management; off-farm employment and enterprise development in rural areas; trade liberalization; and water management.

Realising that agriculture is where climate change, food security and poverty reduction intersect, IFAD have developed a new climate change strategy that aims to systematically integrate climate change into core programmes, policies and activities.⁷⁴ As part of this mandate, it channels climate and environmental finance to smallholder farmers and aims to drive a major scaling-up of successful 'multiple-benefit' approaches to increase agricultural output while simultaneously reducing vulnerability to climate-related risks and diversifying livelihoods. Its participation in GEF administered funds, the World Bank BioCarbon Fund, and its own 'Adaptation for Smallholder Agriculture Programme' (ASAP) are all mechanisms through which this agenda is implemented. Out of the USD 330 million committed to IFAD, 12 new ASAP investments with a total financial volume of US\$ 120 million are in advanced stages of design (Bangladesh, Bolivia, Djibouti, Ghana, Kyrgyzstan, Lesotho, Mali, Nicaragua, Nigeria, Rwanda, Viet Nam and Yemen), with 9 additional projects (total value of USD 88 million) are aiming for approval by the IFAD Executive Board in December 2013.⁷⁵

73. It receives substantial financial support from the Governments of Belgium, Canada, Netherlands, Sweden and the United Kingdom.

74. See: http://www.ifad.org/operations/c_strategy/index.htm

75. See: <http://www.ifad.org/climate/asap/>

USAID enabling access to credit and leveraging private sector investment in developing and frontier economies

USAID, the federal government body in charge with the provision of financial assistance for development, has a number of different programmes that intersect with different ILM components (i.e. inter alia Global Climate Change Initiative, Tropical Forest Alliance 2020, Feed the Future, New Alliance for Food Security and Nutrition), in which investments in sustainable agriculture are often a key component.⁷⁶ The Feed the Future initiative pledged USD 3.5 billion for agricultural development and food security for a three year period from its launch in 2009 that sought to support sustainable and inclusive agricultural growth in 19 focus countries (addressing multiple themes such as climate-smart strategies, private sector engagement, and local capacity building).⁷⁷

In order to enhance credit access for a range of stakeholders in developing countries, USAID has been running a loan guarantee programme through its Development Credit Authority (DCA) in order to encourage risk-averse financial institutions to lend to credit worthy but underserved borrowers (covering up to 50% of potential loss to which a local bank or investor could be exposed) (Henderson et al., 2013). The guarantees have served to leverage considerable private sector investment (on average USD 28 of private sector

funds for every USD of ODI) in order to stimulate broad development objectives (Henderson et al., 2013).

More specifically in the context of agriculture, USAID recognised the major impediment to developing agricultural value chains in high risk contexts due to the lack of access to agricultural credit (with commercial banks showing little interest in engaging the agricultural sector leading to a credit gap), USAID established the Agriculture Credit Enhancement (ACE).⁷⁸ The ACE is a four year programme to establish the Agricultural Development Fund (ADF) in Afghanistan that will act as a second-tier wholesale lending institution (capitalized by a USD 100 million grant) for lending to intermediaries in the agricultural value chain (i.e. financial institutions and non-financial organisations like associations, farm stores, agricultural depots and food processors) who in turn on-lend to small commercial farmers (farmers with 1-30 hectares).⁷⁹ In 2014, the ADF will transition to the Government of Afghanistan.

76. Refer to <http://www.usaid.gov/what-we-do/agriculture-and-food-security>; <http://www.usaid.gov/what-we-do/environment-and-global-climate-change>.

77. See: <http://www.feedthefuture.gov/approach/Inclusive-Agriculture-Sector-Growth>

78. See: <http://www.usaid.gov/news-information/fact-sheets/agricultural-credit-enhancement>

79. See: <http://mail.gov.af/en/page/5050>

References

Althelia

- Althelia, 2012. Althelia Climate Fund - Sustainable land use investment fund: Aligning the Economy with the Ecology Althelia Ecosphere, Available at: <http://www.nyenrode.nl/FacultyResearch/LSE/CS/International%20Sustainable%20Business/conferences/2012conferenceBoostingInvestments/Documents/Althelia%20Climate%20Fund%20-%20Sylvain%20Coupille.pdf>. [Accessed on: 02.11.2013].
- CI, 2011. CONSERVATION INTERNATIONAL ENTERS INTO GROUNDBREAKING PARTNERSHIP WITH ALTHELIA CLIMATE FUND ON REDD+ INVESTMENTS. Conservation International, Available online: <http://www.conservation.org/newsroom/pressreleases/Pages/Conservation-International-Enters-into-Ground-breaking-Partnership.aspx>. [Accessed on: 02.11.2013].
- CI, 2013. REDD+ Market: Sending out an SOS. Near-term REDD Credit Supply/Demand Imbalance Threatens to Undermine the Future of Avoided Deforestation Projects. Conservation International, Arlington, U.S.A.
- EIB, 2013. EIB supports Althelia Climate Fund to save tropical forests. European Investment Bank, Available online: http://europa.eu/rapid/press-release_BEI-13-86_en.htm. [Accessed on 01.11.2013].
- FMO, 2013. ALTHELIA ECOSPHERE COMPLETES FIRST CLOSING FOR ALTHELIA CLIMATE FUND WITH OVER EUR 60 MILLION RAISED. Financierings-Maatschappij voor Ontwikkelingslanden, Available online: <http://www.fmo.nl/k/news/view/10674/179/althelia-ecosphere-completes-first-closing-for-althelia-climate-fund-with-over-eur-60-million-raised.html>. [Accessed on: 01.11.2013].
- Zwick, S., 2013. Althelia Raises \$80 Million For REDD And Ecosystem Services. Ecosystem Marketplace, Available online: http://www.ecosystemmarketplace.com/pages/dynamic/article.page.php?page_id=9774. [Accessed on: 01.11.2013].

EcoEnterprises Fund

- EF, 2012. EcoEnterprises Fund: Investment Criteria.
- EF, 2013. EcoEnterprises Fund: Facts and Figures. Information provided by Tammy Newmark at EcoEnterprises Fund.
- TNC, UNDP, 2010. EcoEnterprises Fund Case Study: Investing in SEM Success. The Nature Conservancy and United Nations Development Programme
- Weil, D., 2013. EcoEnterprises Fund Grows its Sustainable VC Investments in Lat Am: Interview with Tammy Newmark. Venture Equity Latin America, WorldTrade Executive Newsletter VE-LA. Available online: http://www.ecoenterprisesfund.com/PDFs/VELA_2013.pdf [Accessed on 25.10.2013].

GEF

- Bakarr, M.I., da Fonseca, G.A.B., Akhatova, A., Hume, A., Severin, C.H., Shrestha, J., 2013. Two decades of experience : Investing in Ecosystem Services and Adaptation for Food Security. Global Environmental Facility, Washington, DC.
- ClimateFunds, 2013. GEF Trust Fund Climate Change focal area. Climate Funds Update.

- GEF, 2010a. SYSTEM FOR TRANSPARENT ALLOCATION OF RESOURCES (STAR). GEF/P.3. Global Environmental Facility, Available online: <http://www.thegef.org/gef/sites/thegef.org/files/documents/document/GEF.P.3.2010-1.pdf>. [Accessed: 25.10.2013].
- GEF, 2010b. System for Transparent Allocation of Resources (STAR): Overview. Global Environment Facility, Available online: <http://www.thegef.org/gef/pubs/STAR>. [Accessed on 09.10.2013].
- GEF, 2011a. Climate Change Adaptation to Reduce Land Degradation in Fragile Micro-Watersheds Located in the Municipalities of Texistepeque and Candelaria de la Frontera. . Project Identification Form. Global Environmental Facility, Available online: [http://www.thegef.org/gef/sites/thegef.org/files/gef_prj_docs/GEFProjectDocuments/Multi%20Focal%20Area/El%20Salvador%20-%20\(4616\)%20-%20Climate%20Change%20Adaptation%20to%20Reduce%20Land%20Degradati%209-26-2011%20%20ID4616%20%20El%20Salvador%20PIF%20resubmission%2026%20Sept%202011.pdf](http://www.thegef.org/gef/sites/thegef.org/files/gef_prj_docs/GEFProjectDocuments/Multi%20Focal%20Area/El%20Salvador%20-%20(4616)%20-%20Climate%20Change%20Adaptation%20to%20Reduce%20Land%20Degradati%209-26-2011%20%20ID4616%20%20El%20Salvador%20PIF%20resubmission%2026%20Sept%202011.pdf). [Accessed 03.11.2013].
- GEF, 2011b. GEF 5: Focal Area Strategies. Global Environment Facility, Available online: <http://www.thegef.org/gef/sites/thegef.org/files/publication/English%20-%20Strategies-may2012-optimized.pdf>. [Accessed: 25.10.2013].
- GEF, 2013. Behind the Numbers: A Closer Look at the GEF Achievements. Global Environment Facility, Available online: <http://www.thegef.org/gef/sites/thegef.org/files/publication/Behind%20the%20Numbers%20low%20resolution.pdf>. [Accessed on 11.10.2013].

Moringa

- Moringa, 2012a. Moringa - A Sustainable Agroforestry Fund: Sustainable, Profitable Large Scale Agro Forestry Projects Working Conference 'Boosting Investments in Sustainable Forestry, Forest Carbon and Renewable Energy', Accra, Ghana.
- Moringa, 2012b. Moringa: About Us. Moringa, Available online: <http://www.moringapartnership.com/web.php/16/en/about-us/organisation>. [Accessed on: 29.10.2013].
- Moringa, 2013. Moringa achieves first closing of EUR51.4m. Moringa, Available online: http://www.moringapartnership.com/jt_files/jt_files_file-name_0067_575111840.pdf. [Accessed on 25.10.2013].

Norwegian Agency for Development Cooperation & Norway's International Climate and Forest Initiative

- Norad, 2010. Real-Time Evaluation of Norway's International Climate and Forest Initiative. Norwegian Agency for Development Cooperation Evaluation Department, Oslo, Norway. Available online: <http://www.norad.no/en/tools-and-publications/publications/evaluations/publication?key=394477>. [Accessed on: 07.11.2013].
- Norad, 2011. Norad's Strategy towards 2015: Results in the Fight against Poverty. Norwegian Agency for Development Cooperation Oslo, Norway. Available online: <http://www.norad.no/en/tools-and-publications/publications/publication?key=383567>. [Accessed on: 07.11.2013].

Norad, 2012a. The Government of Norway's International Climate and Forest Initiative. Norwegian Agency for Development Cooperation, Oslo, Norway. Available online: http://www.regjeringen.no/upload/MD/2011/vedlegg/klima/klima_skog-prosjektet/Infohefte_kos_nov2012.pdf. [Accessed on: 07.11.2013].

Norad, 2012b. Norad/Climate and Forest Initiative funding scheme for civil society 2013-2015: Guide to the thematic priority areas. Norwegian Agency for Development and Cooperation, Oslo, Norway. Available online: <http://www.norad.no/en/support/climate-and-forest-initiative-support-scheme/the-norwegian-climate-and-forest-initiative-funding-scheme-for-civil-society>. [Accessed on: 07.11.2013].

Norad, 2012c. Rules for the Climate and Forest Funding to Civil Society – Chapter 166.73. Norwegian Agency for Development Cooperation, Oslo, Norway. Available online: <http://www.norad.no/en/support/climate-and-forest-initiative-support-scheme/results-the-norwegian-climate-and-forest-initiative-funding-scheme-for-civil-society>. [Accessed on: 07.11.2013].

World Bank BioCarbon Fund - Initiative for Sustainable Forest Landscapes (Tranche 3)

Baroudy, E., 2013. Committed to Healthier Forests and Landscapes. World Bank, World Bank Blog. Available at: <http://blogs.worldbank.org/climatechange/committed-healthier-forests-and-landscapes>. [Accessed 26.11.2013].

WB, 2012. BioCarbon Fund - Next Generation: Executive Summary World Bank Carbon Finance Unit, Washington, DC. Available at: https://wbcarbonfinance.org/docs/BioCF_Trache_Three_Concept_Note_04.12.12.pdf. [Accessed on 23.10.2013].

WB, 2013a. BioCarbon Fund Factsheet. World Bank Carbon Finance Unit, Washington, DC. Available online: <https://wbcarbonfinance.org/docs/BioCarbon-Fund-Brochure-WebReady.pdf>. [Accessed on: 15.10.2013].

WB, 2013b. BioCarbon Fund Initiative for Sustainable Forest Landscapes: Fact Sheet. World Bank, Available online: http://www.worldbank.org/content/dam/Worldbank/document/SDN/BioCF_ISFL_FAQ.pdf. [Accessed on: 27.11.2013].

WB, 2013c. BioCarbon Fund Launches \$280 Million Initiative for Sustainable Forest Landscapes. World Bank Carbon Finance Unit, Available at: <http://www.worldbank.org/en/news/feature/2013/11/20/biocarbon-fund-initiative-promote-sustainable-forest-landscapes>. [Accessed on: 20.11.2013].

WB, 2013d. Results-based finance for REDD-plus: Lessons learned from the Forest Carbon Partnership Facility and the BioCarbon Fund. World Bank Carbon Finance Unit, Washington DC. Available online: <https://www.forestcarbonpartnership.org/sites/fcp/files/2013/August2013/Results-based-finance-for-REDD-Plus.pdf>. [Accessed on: 20.10.2013].

Broadening agricultural finance to account for landscape effects

AgroEcological, 2011a. Climate Change and Investment in Ecological Agriculture: Outperformance and Opportunity. An Asset Management Understanding. Agro-Ecological Investment Management, Available online: <http://www.agro-ecological.com/research-papers/climate-change-and-investment-in-ecological-agriculture.pdf>. [Accessed on: 02.10.2013].

- AgroEcological, 2011b. The Investment Advantages of Organic Agriculture. AgroEcological, Available online: <http://www.agro-ecological.com/research-papers/the-investment-advantages-of-organic-agriculture.pdf>. [Accessed 01.10.2013].
- Assunção, J., Gandour, C., Rocha, R., Rocha, R., 2013. Does Credit Affect Deforestation? Evidence from a Rural Credit Policy in the Brazilian Amazon. Climate Policy Initiative, Available online: <http://climatepolicyinitiative.org/wp-content/uploads/2013/01/Does-Credit-Affect-Deforestation-Evidence-from-a-Rural-Credit-Policy-in-the-Brazilian-Amazon-Technical-Paper-English.pdf>. [Accessed 22.11.2013].
- Goldberg, R.A., Fries, L.A., 2012. Nestlé: Agricultural Material Sourcing Within the Concept of Creating Shared Value (CSV), Har. Harvard Business School, Boston, USA.
- Guardian, 2013. Deforestation in Amazon jungle increases by nearly a third in one year: Data confirms a feared reversal of steady progress over past decade against destruction of the world's largest rainforest, The Guardian, Available at: <http://www.theguardian.com/environment/2013/nov/15/deforestation-amazon-jungle-rising-again>.
- Henderson, I., Coello, J., Fischer, R., Mulder, I., Christopherson, T., 2013. The Role of the Private Sector in REDD+: the Case for Engagement and Options for Intervention. UN-REDD Programme, Available at: <http://www.un-redd.org/PrivateSectorPolicyBriefLaunched/tabid/106428/Default.aspx>. [Accessed on 20.11.2013].
- Hopper, T., 2012. Farmland Investing: Cultivating a Diversification Opportunity. TIAA CREF, Available online at: https://www.tiaa-cref.org/public/advice-planning/market-commentary/market-commentary/investment-insight-articles/comm_063.html. [Accessed:30.08.2013].
- Kyte, R., 2013. Investing in sustainable landscapes in forests and on farms, Global Landscapes Forum, Warsaw, Poland.
- Litovsky, A., 2013. Land in investment: Navigating the risks and opportunities of a challenging agenda. Earth Security Initiative and CDC Group plc, London, United Kingdom. Available online: <http://earthsecurity.org/reports/land-re-source-security-collaboration-uk-governments-cdc-group-plc/>. [Accessed: 11.10.2013].
- Nestlé, 2012. Nestlé Commitment on Rural Development. Nestlé, Vevey, Switzerland.
- Or, A., 2012. TIAA-CREF Raises \$2 Billion for Agriculture Investments, The Wall Street Journal, Available online: <http://online.wsj.com/news/articles/SB10001424052702304192704577404453866115604>. [Accessed 10.11.2013], p. online.
- Rabobank, 2012. Framework for an Inclusive Food Strategy. Co-operatives - a key for Smallholder Inclusion into Value Chains. Economic Research Department and Directorate Co-operative and Sustainable Business of Rabobank Nederland. Rabobank Group, Available online: http://www.nowastennetwork.nl/wp-content/uploads/SP1209asj_Framework_for_an_Inclusive_Food_Strategy-1.pdf. [Accessed on: 20.10.2013].

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