

Financing Sustainable
Landscapes:

San Martin, Peru

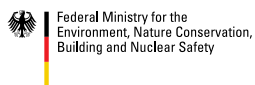
EXECUTIVE SUMMARY 2016



The Unlocking Forest Finance (UFF) Partnership includes NGOs, environmental and social sector safeguarding institutes, financial sector experts and strategic advisors including Credit Suisse, European Investment Bank and Althelia Ecosphere. UFF is managed by the Global Canopy Programme, a UK nonprofit with a strong track record of implementing international projects to address tropical deforestation. The project also relies on a number of global and local partners: Companhia de Desenvolvimento de Serviços Ambientais, Acre (CDSA), the Amazon Environmental Research Institute, Mato Grosso (IPAM), Centro de Desarrollo e Investigación de la Selva Alta, San Martín (CEDISA), National Agricultural University of La Molina (UNALM) in San Martín, World Wide Fund for Nature (WWF-UK, and other WWF offices), Climate Bonds Initiative (CBI), Vivid Economics, Helmholtz Centre for Environmental Research (UFZ), the International Institute for Sustainability (IIS), the International Institute for Applied Systems Analysis (IIASA), The National Institute for Space Research - Centre for Earth Systems Science (INPE-CCST).

This project is part of the International Climate Initiative (IKI). The Federal Ministry for the Environment, Nature Conservation, Building and Nuclear Safety (BMUB) supports this initiative on the basis of a decision adopted by the German Bundestag.

Supported by:



based on a decision of the German Bundestag

Executive Summary

Introduction: How it works

The Unlocking Forest Finance project aimed to design and implement 'sustainable landscape initiatives' in three regions: San Martín, in Peru, and Mato Grosso and Acre, both in Brazil. The UFF project takes a 'landscape approach.' This aims to increase agricultural production while protecting forests and reducing carbon emissions. Balancing these competing demands on the landscape is complex.

Making a transition to more sustainable land use is also costly. The UFF project aims to develop a pipeline of investable projects that have the capacity to attract finance. The project has worked closely with stakeholders in the region over the last three years to design investment plans and innovative financial mechanisms.

This approach means designing a set of interventions in agricultural sectors which are important for the regional economy but generate significant pressure on forested areas (coffee, cocoa, oil palm). It also worked on supply chains/products that are a priority for regional food security (rice, aquaculture) or part of the regional strategy to promote native products (sacha inchi, palm hearts). In parallel to the agricultural interventions, the UFF project also devised interventions to strengthen protected areas and support the livelihoods of indigenous and traditional peoples living in the region. For farmers and investors, greater productivity means increased profits. Moreover, if properly designed, these interventions can reduce the overall amount of land needed for agriculture, reducing pressure on the forest. Interventions in agriculture should be accompanied by environmental and social safeguards to address potential negative effects such as deforestation, pollution, land conflicts and other possible side-effects.

Context

The Amazon rainforest covers 53.9% of Peru¹, making the country the ninth largest forested landmass in the world and the second largest in South America. However, it is estimated that between 2001 and 2014 Peru lost an average of 118,000 hectares (ha) of forest each year. In 2015 alone, Peru lost 158,658 ha of forest, the highest annual rate of deforestation since 2000. If appropriate measures are not taken now, the Ministry of Environment estimates that Peru could lose a further 250,000 to 350,000 ha of forest per year up to 2030².

San Martín has the largest deforested area in Peru with 1,327,736 ha (18.51%) of the region already deforested. According to a study by the San Martín REDD+ Round Table, the region lost an average of 23,271 ha of forest per year between 2000 and 2010.

Peru's national government has made significant commitments to addressing deforestation, including a pledge to achieve zero net deforestation by 2020. Moreover, under the Paris climate agreement the government has committed to reducing emissions by 20% of business-as-usual projections by 2030, possibly increasing to 30%. The majority of these emissions are driven by land-use change such as deforestation. In this context, the regional government aims for San Martín to become a 'green' region, able to generate economic growth and support its population's prosperity while protecting the environment.

A significant proportion of deforestation in Peru is linked to small scale and migratory agriculture clearing relatively small areas. However, small-scale farms can play a crucial role in reducing deforestation by using sustainable agricultural methods and reforesting some areas. This will require significant financial resources to cover the upfront cost of the transition. This demands financial mechanisms which appeal to investors and producers.

¹ Ministerio del Ambiente - MINAM, 2016. Estrategia Nacional Sobre Bosques y Cambio Climático, Lima: MINAM

² Ibid.

Understanding financial, social and environmental benefits

The project aimed to define priority interventions to make up an investment portfolio. To this end, the project evaluated the benefits of different interventions in a sustainable ecosystem management scenario (SEM), where the interventions had been implemented. This was compared to a business-as-usual (BAU) scenario, where no interventions were implemented.

Product	Intervention	Hectares	Average Yield BAU (Kg/ha/year)	Average Yield SEM (Kg/ha/year)	Families
Cocoa	Productivity	24,730	750	2,200	7,517
	Expansion	8,059			5,133
Coffee	Productivity	6,493	840	2,240	1,283
	Renewal	9,739			1,925
Oil Palm	Productivity	14,382	13,000	22,000	1,298
Palm hearts	Productivity	709	4,200*	7,000*	121
Rice	Productivity	39,587	13,000	20,000	3,269
Sacha Inchi	Productivity	352	700	2,000	355
	Expansion	317			314
Tilapia	Productivity	153	4,500	21,850	96
		104,521			21,311

Table 1. Targets for the transition period (10 years)

(*): stems/ha/year

To estimate the financial returns of implementing the transition to sustainable agricultural production, the project projected cash flows for each supply chain intervention. The internal rates of return (IRR) vary across supply chain interventions, from 18% for cocoa expansion to over 40% for rice, fish and palm oil³.

³ These internal rates of return are based on a central scenario, where prices, costs, productivity remain constant. These numbers do not include risk analysis derived from changes in prices and other variables.

Productive sector	Expected IRR (transition time)
Aquaculture	>40%
Cocoa	18% in new area/36% in currently farmed area
Coffee	27% in renewed area/28% in currently farmed area
Palm Hearts	29%
Palm Oil	>40%
Rice	>40%
Sacha Inchi	23%

Table 2. Expected internal rates of return for the interventions on a 30 year horizon

Potential social and environmental benefits of the transition were also estimated. For example, implementing the sustainable agriculture element of the transition has the potential to generate over 57,234 jobs, improve the technical and sustainable management capacity of 21,311 farmers and avoid emissions equivalent to 2 million tonnes of CO₂⁴.

This analysis also helped to understand risks, such as the continued expansion of palm oil into forested areas or areas where farmers may be unable to use more sustainable practices. Furthermore, considering these risks highlighted potential mitigation strategies. Specific interventions representing high risks and low probability of mitigating these risks were excluded from the investment portfolio, for example interventions to expand the agricultural area of palm oil and palm hearts. However, if it was judged possible to mitigate risks, these actions have been specified in the safeguarding framework.

Finally, the project analysed the basic practical conditions for the adequate implementation of each intervention. These conditions include the presence of institutions with experience and interest in channelling financial resources, the availability of technical assistance providers to train farmers, and potential market access (local, regional or international) for the agricultural products.

Sustainable agricultural production

The proposed transition will involve 21,311 small farmers, covering a total area of 104,521 ha.

Agricultural interventions are expected to require a total of PEN 308.4 million (USD 94.2 million)⁵. This includes loans to increase productivity and the planted area⁶, and also grants to fund elements of technical assistance and capacity building for farmers and their organisations.

The amount of finance required for loans is around PEN 287 million (USD 88 million), including PEN 6 million (USD1.78 million) for technical assistance. Funds for technical assistance should be reimbursable, in order to make it financially sustainable in San Martin and other areas hoping to replicate the project. However, many of these aspects are still to be defined, including the percentage of this to be channelled through loans and who will pay this cost (cooperatives, producers, government, companies).

The three interventions requiring the most resources are rice, cocoa and coffee. These are also the interventions affecting the highest number of families. Technical assistance (TA) costs vary significantly across supply chains due to the number of producers a TA provider can cover. This is influenced by the geographical dispersal of the particular supply

⁴ According to our Ecosystem Service Assessment. See complete report for more information

⁵ This amount estimates undiscounted requirements of resources for implementation during a 10 year period. By using a 5% discount rate, the present value of the resource requirement is PEN 251.4 million (US\$ 75.4 million).

⁶ According to the regional economic and ecologic zoning plans.

chain and the way it operates. For instance, for cocoa the project estimates that one TA provider can support 60 farmers, while for palm hearts a TA provider can support 100 farmers.

Product	Reimbursable (PEN Millions)		Non reimbursable (PEN Millions)	Reimbursable (USD Millions ⁸)		Non reimbursable (USD Millions)
	Production credit	Technical assistance*	Organisational strengthening and part technical assistance	Production credit	Technical assistance*	Organisational strengthening and part technical assistance
Cocoa	59.48	3.08	10.66	18.19	0.94	3.25
Coffee	40.58	1.21	4.12	12.41	0.37	1.26
Oil Palm	14.08	0.26	1.05	4.31	0.08	0.32
Palm Hearts	1.05	0.05	0.41	0.32	0.01	0.13
Rice	147.44	0.80	3.41	45.08	0.24	1.04
Sacha Inchi	7.29	0.42	0.96	2.23	0.13	0.29
Tilapia	11.56	0.14	0.39	3.53	0.04	0.12
Total per component	281.48	5.96	21.00	86.07	1.81	6.41
Capital requirement	287.44		21.00	87.88		6.41

(*) Part of the technical assistance is expected to be reimbursed by loan repayments, while a larger part is non-reimbursable.

Table 3. Undiscounted capital requirements for Sustainable Agricultural Production

Conservation

For conservation, the priority is to strengthen natural protected areas including the Alto Mayo Protection Forest (BPAM), National Park Cordillera Azul (PNCAZ), National Park Abiseo River (PNRA) and the Regional Conservation Area of the Cordillera Escalera (ACR CE). Together they cover 1,092,306 ha of forest ecosystems.

The interventions aim to increase these areas' capacity for management, planning and control to enable them to implement adequate protection measures that ensure the continued flow of the significant ecosystem services they provide, such as water, biodiversity and climate regulation. These interventions were jointly developed with stakeholders managing protected areas in San Martin.

This is estimated to cost PEN 174 million (USD 53 million) undiscounted. As these activities do not generate revenue, these costs will need to be financed by grants or an increase in public funding beyond existing government budget commitments. These four areas currently receive a total of PEN 117.4 million (USD 35.8 million) in government funds.

Sustainable livelihoods

The sustainable livelihood interventions focus on three indigenous ethnic groups in San Martin. Indigenous populations are normally rural groups with high poverty and exclusion levels, whose security and livelihoods are very dependent on the forests and the ecosystem services these provide. However, indigenous populations' forests are threatened by illegal loggers and other trespassers. To meet these challenges, the interventions aim provide financial support for designing and implementing 'sustainable livelihood development plans', land titling, and forest monitoring. For those communities with land titles, the project also includes interventions to improve food security and organisational capacity.

In this area, the project prioritises seven interventions requiring funding, targeting communities both with and without formal land titles. These interventions require resources totalling PEN 28.90 million (USD8.8 million) undiscounted over a five-year period.

The investment required for sustainable livelihood interventions is significantly smaller than that for the agricultural interventions. However, these are non-revenue generating activities and as such would need to be funded either by government resources, grants or a combination of the two.

The cost of transition

Implementing the interventions above has significant costs.

- Total capital requirement for the proposed transition in San Martin is PEN 599.3 million undiscounted (US USD183 million).
- Of this total, PEN 287.4 million (USD87.8 million) investment is needed in revenue-generating interventions in sustainable agriculture. These funds are reimbursable, in that they are expected to be repaid.

- In addition, PEN 311.9 million (USD 95.2 million) is required for interventions supporting conservation and sustainable livelihoods, as well as some parts of the transition to sustainable agriculture, such as elements of technical assistance and capacity building. These funds are non-reimbursable, i.e. they are not expected to be repaid.

Financing the transition in San Martin

One of the benefits of the landscape approach is that it considers different demands on the landscape together, for example conservation and different types of farming. However, funding may be another matter as different elements will need different types of funding.

A financial mechanism has been developed to finance the transition in San Martin. This was a result of engaging different international and multilateral financial institutions, and tailored to the particular context in Peru and San Martin (see Figure 1).

The proposed model combines finance from multilateral organisations, climate funds and donor governments to provide concessional credits, credit guarantees and weather insurance. These elements can reduce the risk for investors and, at the same time, reduce the interest rate offered to farmers. These institutional support mechanisms can also come in the form of result-based payments, which would be directly related to the impact of implementation on the ground.

The credit element of the framework will be tested through a pilot financed by Peruvian state bank Agrobanco. The bank will disburse credit directly to selected producers. The specific terms of the credit product are still being defined.

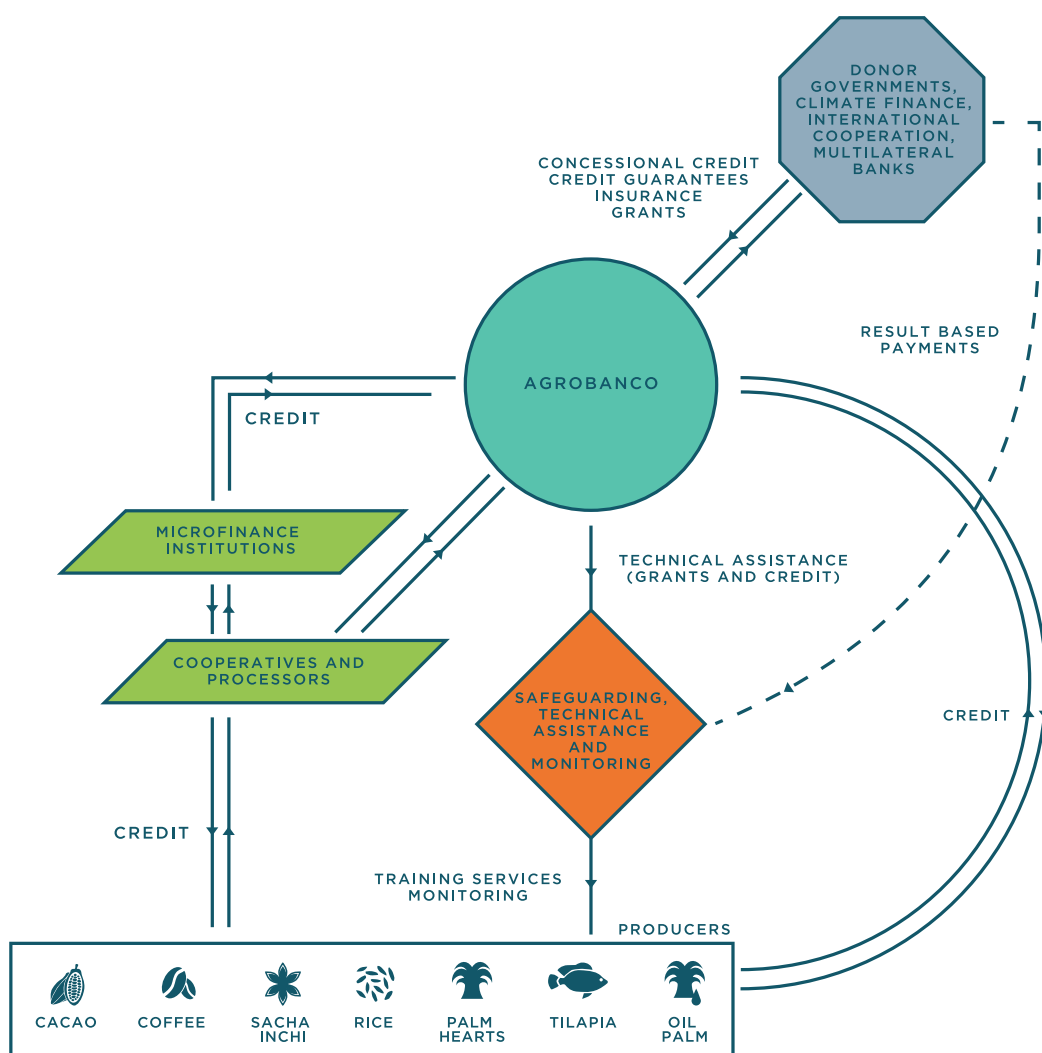


Figure 1. Financial mechanism proposed for San Martín

Safeguards, technical assistance and monitoring

The proposed technical assistance model aims to help farmers meet the Codes of Conduct. These are based on several factors:

- Specific interventions to increase productivity.
- Mitigation of environmental and social risks posed by interventions if not implemented correctly.
- Existing sustainable certification schemes already used in the area.

The project has designed a detailed safeguarding system including the steps to ensure implementation of sustainable practices on the ground and the link between this implementation and the disbursement of credit and ongoing access to the program.

The project is currently defining the criteria to select the producers that will engage in the programme. Other areas of ongoing work include finalising the Codes of Conduct for producers and corresponding indicators of social and environmental performance. Work is also continuing to design the specific monitoring strategy to be applied to the pilot scheme.

⁷ The Codes of Conduct are based on existing certification schemes that are currently being used in Peru and consultations with key local stakeholders in the region.

