



**Forest Carbon Partnership Facility (FCPF)
Carbon Fund**

Emission Reductions Program Idea Note (ER-PIN)

Country: PERU

**ER Program Name: EMISSION REDUCTIONS IN THE PERUVIAN
AMAZON**

Date of Submission or Revision: September 12, 2014

Disclaimer

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1. Entity responsible for the management of the proposed ER Program

1.1 Entity responsible for the management of the proposed ER Program
 Please provide the contact information for the institution and individual responsible for proposing and coordinating the proposed ER Program.

Name of managing entity	NATIONAL FOREST CONSERVATION AND CLIMATE CHANGE MITIGATION PROGRAM (PNCBMCC) – MINISTRY OF THE ENVIRONMENT (MINAM)
Type and description of organization	<p>The PNCBMCC was created by Supreme Decree No. 008-2010-MINAM on July 14, 2010. Its aim is to achieve the conservation of 54 million hectares of tropical forest as a contribution to the mitigation of climate change and sustainable development.</p> <p>The main action strategy of the PNCBMCC is to coordinate and link the efforts of the public, private and international cooperation sectors related to forest conservation and to strengthen the capacity for sustainable forest management at the national, local, and community levels.</p>
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1.2 List of existing partner agencies and organizations involved in the proposed ER Program
 Please list existing partner agencies and organizations involved in the development of the proposed ER Program or that have executive functions in financing, implementing, coordinating and controlling activities that are part of the proposed ER Program. Add rows as necessary.

Table 1: Organizations that are involved in the Emissions Reduction initiative.

Sector	Institution	Function	Role*
National Government Authorities			
Agriculture and Irrigation	Ministry of Agriculture and Irrigation (MINAGRI)	Governs National Agricultural Policy and the formalization of agrarian property, including lands held by indigenous communities and private rural holdings. The MINAGRI is currently modifying policies and mechanisms related to land titling.	R
	National Forest and Wildlife Service (SERFOR)	Governs the National Forest and Wildlife Management System (SINAFOR). As its national technical-regulatory authority, it is responsible for issuing regulations and establishing procedures within its area of jurisdiction. Its advisory body is the National Forest and Wildlife Commission (CONAFOR).	R
	National Institute for Agrarian	Responsible for innovation of	R/E

Sector	Institution	Function	Role*
	Innovation (INIA)	agricultural technology, aimed at increasing productivity and competitiveness, enhancing the value of genetic resources, and achieving sustainable agricultural and forest production.	
	National Water Authority (ANA)	Responsible for sustainable, multi-sector use of water resources and watersheds, within the framework of integrated natural resources management and national environmental quality management, through the establishment of strategic alliances with regional governments.	R
	Rural Agrarian Productive Development Program (AGRORURAL)	Specialized in fighting rural poverty, initially in the Andes, but now including the Amazon, via strategies, activities and mechanisms for increasing the income and improving the quality of life of rural families.	E
	Program of Compensation for Competitiveness (AGROIDEAS)	Operates at the national and regional levels through grants in support of the increased commercial competitiveness of organizations of small- and medium-sized agricultural, forestry, or livestock producers, via the formation and improved management of producer organizations and the adoption of improved technology.	E
	General Bureau of Environmentally-related Agrarian Matters – DGAAA	Approves Environmental Impact Studies for the agricultural sector and performs environmental audits of agricultural, agro-industrial, and renewable natural resources projects and activities. Approves the classification of lands by greatest use.	R
Culture	Vice-Minister for Intercultural Affairs	Governing body for indigenous affairs in charge of designing and formulating public policy on intercultural affairs; serves as the principal public authority on matters of prior consultation.	R
Economy and Finance	Ministry of Economy and Finance, Vice-Ministry of	Governing body responsible for designing and implementing	R

Sector	Institution	Function	Role*
	Economy	national economic and financial policy, with a view toward achieving economic well-being. The FIP focal point is the General Bureau of International Economic Matters, Competition and Productivity.	
Office of the Chairman of the Council of Ministers	Supervisory Body for Forest and Wildlife Resources (OSINFOR)	Body responsible for the supervision and oversight of the sustainable use and conservation of forest and wildlife resources, as well as for forest-generated environmental services.	C
Environment	Ministry of the Environment (MINAM)	Governing body of the environmental sector that promotes conservation and sustainable use of natural resources, biological diversity, and protected natural areas. It is the national environmental authority and Focal Point for international negotiations on Climate Change. The MINAM is also responsible for technical aspects related to REDD+ and for coordinating with pertinent public and private, national, and sub-national (regional) institutions.	R
	General Bureau of Climate Change, Desertification and Water Resources (DGCCDRH)	Responsible for formulating national policy and regulations on climate change management in coordination with pertinent entities. It is the designated national authority for compliance with the commitments assumed under the United Nations Framework Convention on Climate Change.	R
	General Bureau of Land Use Planning (DGOT)	Responsible for environmental mapping and zoning.	R
	General Bureau of Natural Heritage Assessment, Enhancement and Financing (DGEVFPN)	Formulates and promotes national policy, plans and instruments for the assessment and enhancement of the value of natural resources, biological diversity and environmental services.	R
	National Forest Conservation Program for Climate Change Mitigation (PNCBMCC)	Subordinate to the MINAM Vice-Ministry of Strategic Natural Resource Development, the PNCBMCC's goal is the conservation of 54 million hectares of tropical forest, as a contribution to climate change	E

Sector	Institution	Function	Role*
		mitigation and sustainable development. Responsible for the REDD+ Action Plan and co-responsible with SERFOR for the National Forests and Climate Change Strategy.	
	National Natural Protected Areas Service (SERNANP)	Specialized public agency under the Ministry of the Environment, whose primary function is to manage and operate the National System of the Natural Protected Areas (SINANPE). Promotes, grants, and regulates rights to environmental services within the sphere of natural protected areas at the national level.	R/E
	Office of Environmental Assessment and Control (OEFA)	Governing body of the National Environmental Assessment and Control System (SINEFA). It exercises environmental assessment, supervision, and control and applies incentives in that area, in accordance with the environmental regulations established in Law 29325, the National Environmental Assessment System Law.	C
Sub-national Authorities			
	Regional Governments, especially their Economic Development Programs and the Regional Environmental Authorities (see below)	<p>Regional governments are responsible for:</p> <ul style="list-style-type: none"> • Physical and legal titling of rural property, including farms and indigenous lands and land belonging to the state. • Preparation of land registry. • Administration of government-owned lands within its jurisdiction. • Land Use Planning (Economic and Ecological Zoning). • Regulation of forestry activities within its jurisdiction by granting forest licenses, authorizations, and concessions and carrying out control. These functions have been transferred to 6 regions: Loreto, Ucayali, Madre de Dios, San Martin, Amazonas, and La Libertad. • Processing and evaluation of 	R / E

Sector	Institution	Function	Role*
		<p>private investments in regional irrigation projects, in order to advance the agricultural frontier (DL 994).</p> <ul style="list-style-type: none"> • Surveillance and control to guarantee sustainable use of natural resources under its jurisdiction. 	
	<p>Forest and Wildlife Management Units (UGFFS)</p>	<p>Regional organization responsible for the management, administration, and public control of forest and wildlife resources. Operates under the aegis of each regional government. The UGFFS can establish community forest management units that include stakeholder participation in their administration.</p>	<p>E</p>
	<p>Regional Bureau of Agriculture (DRA)</p>	<p>Decentralized body subordinate to the Office of the Presidents of the regional governments. Promotes agricultural production and is the principal regional coordinating body of the Ministry of Agriculture. The regional governments' agricultural bureaus are also responsible for implementation of land titling and the formalization of rural agricultural property.</p>	<p>R /E</p>
	<p>Regional Environmental Authorities (ARA)</p>	<p>Regional government entities responsible for environmental affairs, protected areas, and land use planning. These bodies are governed by the Environmental Management Law and other provisions that regulate the Regional Environmental System.</p>	<p>R/E</p>

***R= Regulatory; E= Executor; C= Control**

2. Authorization by the National REDD+ focal point

Please provide the contact information for the institution and individual who serve as the national REDD+ Focal Point and endorses the proposed ER Program, or with whom discussions are underway

Name of entity	MINISTRY OF THE ENVIRONMENT (MINAM)
Main contact person	Gabriel Quijandria
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2.1 Endorsement of the proposed ER Program by the national government

Please provide the written approval for the proposed ER Program by the REDD Country Participant’s authorized representative (to be attached to this ER-PIN). Please explain if the national procedures for the endorsement of the Program by the national government REDD+ focal point and/or other relevant government agencies have been finalized or are still likely to change, and how this might affect the status of the attached written approval. ER Program) must be located in a REDD Country Participant that has signed a Readiness Preparation grant agreement (or the equivalent) with a Delivery Partner under the Readiness Fund, and that has prepared a reasonable and credible timeline to submit a Readiness Package to the Participants Committee

The UN Framework Convention’s REDD+ focal point in Peru is the National Forest Conservation and Climate Change Mitigation Program (PNCBMCC) of the Vice-Ministry for the Strategic Natural Resource Development within the Ministry of the Environment (MINAM). The Vice-Minister has prepared and endorses this Project Idea Note for the Emissions Reduction initiative which will be carried out as part of the process of drafting and implementing the National Forest and Climate Change Strategy (ENBCC) of which REDD+ forms a part. The ENBCC is presently being formulated under the joint supervision of the Vice-Ministry of Agrarian Policy of the Ministry of Agriculture and Irrigation (MINAGRI) and the Vice-Ministry for the Strategic Development of Natural Resources of MINAM. Technical leadership of the Strategy is jointly shared by the PNCBMCC and the National Forestry and Wildlife Service (SERFOR) of MINAGRI.

Peru’s proposal to the Emissions Reductions Initiative represents the continuation of a process begun in 2011 with the participatory formulation of the PI-FIP and REDD+ Readiness proposal (R-PP), a joint task assumed by the MINAM, MINAGRI, MEF, CIAM, the Ministry of Intercultural Affairs, AIDSEP, and CONAP, and involving wide stakeholder participation, including indigenous peoples.

2.2 Political commitment

Please describe the political commitment to the ER Program, including the level of support within the government and whether a cross- commitment exists to the ER Program and to REDD+ in general.

In various international meetings (Conferences of the Parties in Poznan and Copenhagen, and before the 65th UN General Assembly in 2010), the government of Peru (GOP) has established as a goal the conservation of 54 million ha of forests and the achievement of zero net emissions from LUCLUF by 2021, equivalent to a reduction of 41% of the national GHG emissions relative to 2011. This goal has been incorporated into the National Environmental Action Plan for 2011-2021 and Peru’s Bicentennial Plan for 2021 and provides clear direction for the ER Program and REDD+ in general.

As part of this commitment, the GOP has established the following goals:

- Cease authorizations of new conversion of forest land to agricultural use.
- Reduce the area of remaining forest land with unassigned rights.
- Transfer land rights to indigenous communities.
- Include 2 million hectares of indigenous lands in the National Conservation and Climate Change Program’s payments for conservation component.

The ER Program and REDD+ in general will build upon, as well as help attain, the achievement of these national ambition goals.

Since January 2010, Peru has made significant progress in establishing and strengthening the regulatory framework and institutions related to forests, REDD+ and climate change that will enable progress towards the goals mentioned above. Of particular importance are recent (August 2014) agreements between MINAM and MINAGRI, the two Ministries involved in forest management and climate change governance, regarding their joint leadership and responsibilities for the National Forest and Climate Change Strategy. As part of such agreements, the PNCBMCC, under MINAM, and SERFOR, under MINAGRI, have been designated as lead institutions for the development of the Strategy (which includes the REDD+ Action Plan); that process is expected to conclude in October, 2014. A high level of commitment also exists between the PNCBMCC, SERFOR, and the Amazon regional governments with regards to inter-institutional coordination related to forest regulation, governance, management, and monitoring. With the aid of the Green Commodities program of UNDP, MINAGRI and PNCBNCC will also develop four Nationally Appropriate Mitigation Activities (NAMAs) related to coffee, cacao, livestock, and biofuels.

These changes provide evidence and will assure a high level of political support for REDD+, the ERP, and climate change mitigation and adaptation in the LULUCF sector. They are directed at improving institutional performance, increasing coordination and linkage between institutions and their policies, and improving enabling conditions and governance (Tables 2 - 4).

Broader cross- support of REDD+ is evidenced by the composition of the REDD+ and ERP Executive Committee, which is in the process of being formed, based on the incorporation of experience from the FIP Executive Committee. The ER Program Executive Committee will include representatives of the Agricultural, Environment, Economy and Finance, and Intercultural Affairs Ministries, Amazon regional governments, and indigenous organizations.

Salient components of the legal and regulatory framework for REDD+ and climate change are shown in Table 2 and important milestones are shown in Tables 3 and 4 below.

Table 2: Regulatory framework linked to REDD+.

Regulatory Framework	Objective
National Agreement	Stipulates, as an environmental mandate, the integration of the national environmental policy with the economic, social, cultural, and land use planning policies in order to contribute to overcoming poverty and achieving sustainable development; and to institutionalize environmental, public and private management to protect biological diversity and foster agrarian and rural development in the country, including sustainable forest exploitation.
Bicentennial Plan	Emphasizes a State that is efficiently decentralized and coordinated for the conservation and sustainable use of natural resources, applying an integrated, ecosystemic focus that facilitates a good quality of life for the people.
Law 29763, Forest and Wildlife Law	Recognizes the multiple uses of the forests, including goods and services as well as its diverse users, namely, indigenous peoples and other traditional users of the forest and wildlife resources and the other economic stakeholders in the forest sector. The Law regulates zoning processes and forest land use planning, the assignment of rights to each stakeholder or forest use in the forests that are of public domain, the respect for the

	rights of the indigenous peoples and of the landholders of lands that include forests and the obligatory nature of management plans, the definition of the new forest institutional system, and the mechanisms of oversight and control.
National Forest and Wildlife Policy	Details the functions and responsibilities of all the government levels and public and private stakeholders. Defines forest and wildlife management in Peru for the long term and establishes the strands of public policy.
National Environment Policy	The objective of the policy is to improve the quality of life of the persons, ensuring the existence of healthy, viable and functional ecosystems for the long term and the sustainable development of the country, in accordance with the principle of respecting the fundamental rights of the people. This policy has four thematic strands: (i) conservation and sustainable use of natural resources and biological diversity; (ii) integrated management of environmental quality; (iii) environmental governance and (iv) international environmental commitments and opportunities.
Law 28611 General Environment Law	Establishes the basic principles and standards to ensure the effective exercise of the right to a healthy, balanced and adequate environment for the proper development of life, contributing to effective environmental management and protection.
Law 29325 Environmental Evaluation and Oversight System Law	The aim of this system is to ensure compliance with the environmental legislation by individuals and corporations and to supervise and ensure that the penalizing functions regarding environmental issues are carried out expeditiously and impartially, within the framework of the National Environment Policy.
Law 26821 Fundamental Law of Sustainable Use of Natural Resources	Regulates the system of use of natural resources, promoting and regulating the sustainable use of renewable and non-renewable natural resources, establishing a framework to foster investment and fostering economic equilibrium and conservation of the natural resources and the environment.
Law 26839 Law of Conservation and Sustainable Use of Biological Diversity	Regulates matters of biological diversity and sustainable use of its components, fosters the conservation of biodiversity in ecosystems, just and equitable distribution of benefits resulting from the use of biological diversity, and economic development in the country.
Law 26834 Law of Protected Areas	Regulates aspects related to protected natural areas and their conservation, in accordance with Article 66 of the Constitution. Covers the definition of categories, the national system, regional areas and private areas. Regulates public use, use of resources in protected areas, the process of establishment of protected areas, planning, participation and other aspects.
	The aim of this law is to establish an agrarian structure that contributes to integrated development in the

<p align="center">Law 22175 Law of Indigenous Communities and Agrarian Development of the Jungle and High Jungle</p>	<p>jungle and high jungle regions helping the population in these regions to reach a level of quality of life that is in line with the dignity of the human being, through rural projects for the integral and integrated use of natural renewable resources, according to development plans</p>
<p align="center">Law 29785 Law of Informed, Prior Consultation</p>	<p>Regulates the right to free, informed previous consultation of the indigenous nations and peoples and of the small farmers, intercultural communities and afro-Peruvian peoples in order to reach agreements or achieve consent through appropriate procedures, taking as the basis the Constitution, ILO Convention 169 and the Declaration of the United Nations on the Rights of Indigenous Peoples.</p>
<p align="center">Law 27658 Framework Law of Modernization of State Management</p>	<p>Regulates the process of modernizing State management with the final aim of reaching higher levels of efficiency within the state system in order to improve the services provided to the citizens, prioritizing and optimizing the use of public resources.</p>
<p align="center">Law 27867 Fundamental Law of Regional Governments</p>	<p>Regulates the structure and organization of the state in a decentralized and democratic system. Fulfills the objective of organizing the territory and the environment in a sustainable manner, managing appropriately the natural resources and improving the quality of the environment as well as coordinating and reaching inter-institutional consensus with the participation of all the levels of the National Environmental Management System. Likewise, grants competencies in forest control and the granting of access rights (enabling titles) to forest resources. These stipulations are included in the forest regulation as of 2011.</p>
<p align="center">Law 27972 Fundamental Law of Municipalities</p>	<p>Establishes the competencies for the rural municipalities. Among them are the promotion of sustainable management of human resources, soil, water, flora, fauna, and biodiversity in order to bring together the fight against environmental degradation and the fight against poverty, and to generate work in the framework of agreed upon development plans.</p>
<p align="center">National Environmental Action Plan</p>	<p>Establishes a series of environmental goals including reducing the deforestation rate on 54 million ha of primary forest to zero, incorporating 50%-100% of forests with undefined rights into the forestry classification system, and reducing the vulnerability to climate change.</p>
<p align="center">National Environmental Policy (MINAM)</p>	<p>An instrument designed to promote the development of the country based on the sustainable, rational, and ethical use of natural resources and the environment.</p>

Table 3: Progress in building an institutional framework for forests and climate change in Peru.

Level	Process
National	Design and approval of the R-PP through a participatory, consensual process involving stakeholders (February 2014).
National	Update of the National Climate Change Strategy (ENCC) (July 2014).
National	Preparation of the guidelines for the preparation of the National Forest and Climate

	Change Strategy (ENBCC) (on-going) and the designation of the PNCBMCC and SERFOR as the entities responsible for the ENBCC. Under the ENBCC, various institutions, especially MINAM, MINAGRI, and the regional governments, will coordinate to reduce deforestation and forest degradation, implement REDD+, and mitigate climate change related to the forest and to land use change sector (LULUCF).
National	Identification and analysis of mitigation measures (MM) and their associated costs for reducing greenhouse gas emissions by all national sectors, including the construction and analysis of abatement cost curves and assessment of their feasibility (PlanCC, on-going).
National	Reform of the forest sector, including the preparation of the regulations of the new Forest and Wildlife Law, the Forest Plan, the creation or reform of forest institutions, including the National Forest and Wildlife Management System (SINAFOR); the new national authority – the National Forest and Wildlife Service (SERFOR), launched in August, 2014; recognition of the regional forest and wildlife authorities; and the existence of Forest and Wildlife Management Units (UGFFS). SERFOR’s recently announced program will emphasize internal administrative reform, the contracting of new personnel, the reforestation of deforested areas, the reactivation of forestry concessions, and the simplification of administrative requirements and procedures. This institutional system includes venues for participation at the national level (National Forest and Wildlife Council – CONAFOR, as the consultative body of the SERFOR) and at the local level (Forest and Wildlife Management Committees – CGFFS). Additionally, it acknowledges the right of the national authority for protected areas (SERNANP) to exercise administration and control over the forests within areas of conservation.
National	MINAM designated as the focus point for the UNFCCC, PIF, FPCF, and UN REDD+.
National	Modification of the environmental regulations and standards (SENACE).
National	The Presidency of the Council of Ministers is preparing a pilot project on modernizing public administration of forestry in the Peruvian Amazon. The objective is to modernize the public institutions involved in granting legal access to forests as well as their sustainable management (on-going).
National	MINAM and MINAGRI agree to jointly develop the ENBCC based on technical leadership of PNCBMCC and SERFOR
Regional	The establishment and implementation of Regional Environmental and Natural Resource Authorities (ARAs) with a territorial focus (process on-going since 2012).

Table 4: Progress on REDD+ related processes and mechanisms.

Level	Progress
National/ Regional	The Forest Investment Plan (FIP) PIN designed, and the proposal for the Preparation of REDD+ Readiness (R-PP) updated via participatory processes with civil society stakeholders and indigenous organizations.
National/ Regional	Creation of the National Indigenous REDD+ Roundtable and the creation of five Regional Indigenous REDD+ Roundtables in San Martin, Madre de Dios, Loreto, Ucayali, and Atalaya regions.
National	Strengthening of capacities of indigenous peoples and other local stakeholders to participate in the REDD+ Mechanism (UN REDD+ /UNDP and other projects, on-going).
National	Identification of safeguards required for the implementation of REDD+ and definition of how these will be handled in accordance with international commitments and safeguard systems (on-going).
National/ Regional	Design of a national forest cover monitoring system and a system of Measuring, Reporting and Verification of REDD+ activities (MRV) (on-going).
National	The National Peruvian Forest Inventory and Sustainable Forest Management Project for Climate Change Project. (on-going)
National	National REDD+ Initiatives Information Platform REDD+ /PNCBMCC (on-going).
National	National Forests and Climate Change Strategy being formulated under joint MINAM-MINAGRI supervision
Regional	Nested Jurisdiction initiative, based on the VCS-JNRI standard, are being piloted in two

	Amazon regions (San Martín and Madre de Dios) (on-going)
National/ Regional	The “REDD+ Road Map” for the joint construction and application of a nested jurisdiction established and agreed upon by 5 Amazon regions and the MINAM.
Regional	8 early initiatives registered under voluntary standards.

The organizations that make up the regional REDD+ Roundtables also support the REDD+ Program and the ERP. These groups are shown in Table 5.

Table 5. Organizations participating in the Regional REDD+ Roundtables in San Martin and Ucayali.

San Martin	Ucayali
Natural Resources and Environment Area of the regional government	Economic Development and Natural Resources and Environment Areas of the regional government
Central Huallaga and Lower Mayo Rivers Special Project, regional government	Agricultural Sector Regional Office
ECOAN	National Service of Protected Natural Areas (SERNANP): El Sira Community Reserve Purús National Park, Sierra del Divisor
Conservation International	Coronel Portillo provincial government
Peruvian Society for Environmental Law - SPDA	COFOPRI
World Wildlife Fund	Peruvian Amazon Research Institute
EPS – Moyobamba	Ministry of Production - PRODUCE
AMPA	Regional Institute for the Development of Indigenous Communities – IRDECOM
CIMA	Institute for the Common Good – IBC
CEDISA	AIDSESEP Regional Organization, Ucayali - ORAU
CDI	Forestry Vigilance program
	Law, Environment, and Natural Resources – DAR
	PRONATURALEZA
	Amazonian Forests (BAM)
	Association for Research and Integrated Development - AIDER
	Association of Forestry Professionals of Ucayali - APROFORU
	Association of Forestry Producers of Ucayali - APROFU
	Alas Peruanas University
	ICRAF
	GIZ

3. STRATEGIC CONTEXT AND RATIONALE FOR THE ER PROGRAM

3.1 Brief summary of major achievements of readiness activities in country thus far

Please briefly provide an update on REDD+ readiness activities, using the component categories of the R-PP as a guide. If public information is available on this progress, please refer to this information and provide a link.

Summary of the R-PP Process to Date

At present, the National Forest Conservation and Climate Change Mitigation Program (PNCBMCC) of the Ministry of the Environment (MINAM) is responsible for governmental activities related to REDD+ and climate change within the Land Use, Land Use Change and Silviculture (LULUCF) sector, which in turn forms part of the National Forest and Climate Change (ENBCC) and National Climate Change (ENCC) Strategies. Accordingly, the PNCBMCC is charged with overseeing REDD+, including the REDD+ *Readiness* process, the REDD+ Action Plan, and the preparation of the present Emissions Reduction Program Idea Note (ER-PIN).

Peru is presently involved in various REDD+ processes at the international level. In 2008, the Peruvian government requested to be included in the Forest Carbon Partnership Facility (FCPF) process and submitted a Readiness Plan Idea Note (R-PIN) which was approved the same year. Between 2009 and 2011 Peru prepared and submitted a number of drafts to the FCPF; at the eighth Participants Committee (PC) meeting, held in March 2011, Peru was granted REDD+ Preparation Funds on the condition that the country include additional information and respond to various observations made by the Participants Committee. The new version of the R-PP was presented to the PC in December 2013, and on February 24th, 2014, Peru's compliance with the observations made previously was confirmed.

In 2010, Peru was also chosen as a pilot country in the Forestry Investment Program (FIP). Peru's Idea Note was presented to FIP in October, 2013 and approved in 2014; the terms of reference for the bidding process related to the design of the Program are under preparation.

Since 2011, Peru has also been an observer of the UN REDD+ Program as well as the REDD+ Partnership and has received targeted support for specific projects related to informed consultation and participation of indigenous peoples, identification of potential corruption issues, safeguard tracking at the indigenous community level, and the mapping of policies for benefit sharing.

Other REDD+ initiatives currently underway include: the REDD+ MINAM Project for establishing a national carbon fund; the follow-up of the R-PP and FIP; and pilot projects related to the design and implementation of components of REDD+, financed by the German KfW Development Bank, the Gordon and Betty Moore Foundation, the Japan International Cooperation Agency (JICA) and the Hatoyama Initiative, and UN REDD+ (see section 7.5 for funding levels). In addition, there are four REDD+ projects active in the two ER-PIN target regions: the Alto Mayo Forest Reserve, the Alto Huayabamba conservation concession, and the Martin Sagraida biocorredor in San Martin and the Cordillera Azul National Park shared by San Martin and Ucayali.

There are also a number of initiatives aimed at supporting the sustainable use of forest resources, such as the National Forest Inventory and Sustainable Forest Management for Climate Change in Peru project financed by FAO-Finland, the forest development support project (CAF-MINAGRI), as well as community forest management projects (JICA-MINAM, GIZ). Additionally, the ENBCC will be aligned with the National Forest and Wildlife Policy and Plan, the new national Forestry Development Plan, the plans and policies of the regional governments, the plans of other sectors, and international cooperation on forest and climate change issues.

It should be noted that the ER-PIN builds upon and complements Peru's participation in these processes, particularly that of Forest Investment Program (FIP), and that feedback among these projects is expected to be mutually beneficial. The FIP will invest in three pilot areas, two of which are found in the two jurisdictions (the San Martin and Ucayali "regions", which in Peru's political nomenclature correspond to "states" or "provinces") targeted by the ERP. In those pilot areas, FIP will focus on establishing the enabling environment and conditions (governance; land rights

and titling; monitoring, control, and oversight of land use; capacity strengthening; alignment of institutions and policies; and linking the private sector and producers with technical information, credit, and markets) that underlie and facilitate other activities directly responsible for reducing greenhouse gas (GHG) emissions, such as sustainable forest management and agriculture. In recognition that similar mechanisms will be applied by the ERP to other areas of the two regions outside the FIP pilot zones, care will be taken to separate on-the-ground activities undertaken by the two projects, as well as their financing. These details will be defined during the design of the FIP and ERP projects.

Principal Achievements and Processes of R-PP

The current situation of the *Readiness Package* is summarized below.

Participation and consultation

Peru has improved and continues to strengthen the participation and consultation of stakeholders, and the incorporation of their recommendations in the REDD+ process and in the socialization of the FIP and R-PP proposals. This process, which has included a broad spectrum of civil society, indigenous organizations and the public sector, has been carried out in a transparent manner and in accordance with the laws of Peru and the safeguards of the multilateral development banks.

A Stakeholders Engagement Plan (PIA), developed and used in both the FIP and R-PP participatory processes, has guided the stakeholder consultation process. The PIA and its guidelines for incorporating stakeholder participation are continuously adapted to the needs of the REDD+ program, for example by including actors not consulted during the FIP process, such as business actors not related directly to forestry activities, as well as migrants, farmers, and other agents of deforestation.

The R-PP and the FIP processes used three mechanisms for consulting and sharing information with stakeholders at both the regional and national levels, with special emphasis afforded to indigenous groups: 1) public workshops which included the participation of the Natural Resource and Environmental Management Office of the Regional Governments, representatives from the productive sectors, heads of Protected Natural Areas (ANPs), representatives of local governments, local and international NGOs, the private sector, and representatives of indigenous peoples; 2) REDD+ Roundtables, composed of around 70 public and private institutions, and 3) coordination with Inter-ethnic Association for the Development of the Peruvian Forest (AIDSESEP) and the Confederation of Amazonian Nationalities of Peru (CONAP) indigenous organizations and the Indigenous REDD+ Roundtable. In total, 40 events were held (23 for the R-PP and 17 for the FIP) and included the participation of more than 1,000 people.

Although the preparation of the R-PP and the FIP included a great variety of government and civil society stakeholders, special attention was given to indigenous peoples. The participation of the latter was conducted in accordance with both national (Law No. 29785) and international regulations (ILO Convention 169) and incorporated the principles of access to information and transparency, good faith between the participants, respect for the rights and cultural diversity of the stakeholders, and inclusion and representation. In addition, AIDSESEP and CONAP were named member of the FIP Executive Committee (EC), together with representatives from the MINAGRI, MINAM, MEF, the Ministry of Culture and the CIAM. This mechanism facilitated indigenous participation in the design of Peru's Forest Investment Plan and established a precedent for their participation in the design and implementation of the ERP projects. The FIP Executive Committee is being adapted and will play a similar role in the ERP.

During the design of the proposal for the ERP, further consultations will be held with the REDD+ and Indigenous REDD+ Roundtables in San Martin and Ucayali, local businesses, and local government regarding continual improvement of the participation and consultation mechanisms as well as specific themes related to the ERP process.

Analysis of Drivers, Causes, and Barriers Related to Deforestation

The process of preparing the R-PP and the FIP proposals aided in clarifying the drivers and causes of deforestation and identifying barriers to reducing deforestation:

- The rate of deforestation at the national level during the period 2000-2011 was 0.15%.
- The LULUCF sector is the primary source (41%) of greenhouse gas emissions nationwide. The great majority of the deforestation occurs on small areas of land (< 0.5 hectares) and on areas where rights are unallocated.
- The direct causes of deforestation are: migratory agriculture, industrial farming, logging, infrastructure roads and hydroelectric projects, and in some areas, illegal activities (informal mining and coca production).
- There are a number of underlying causes of deforestation including social (migration driven by poverty); economic (low value of forests compared to alternative land uses; increases in the prices of other commodities such as gold, biofuels, and other crops; and weak market linkages for forest goods and services); and institutional/governance causes (sector-based approaches; incoherent or contradictory regulations and policies; a lack of institutional coordination; incomplete land rights; and a weak capacity for land use planning, control, and enforcement).

National Forest and Climate Change (ENBCC) and REDD+ Action Plan

The PNCBMCC and SERFOR are in the process of preparing the National Forests and Climate Change Strategy (ENBCC), which should be completed by the end of 2014. The ENBCC forms part of the framework of the National Climate Change Strategy (ENCC) and also incorporates REDD+.

The ENBCC includes three strategic objectives corresponding to mitigation and adaptation to climate change and in increasing the value of forests and the goods and services that they produce: 1) Identify and propose GHG mitigation measures related to the forest landscape that improve livelihoods and are economically competitive. 2) Identify and propose measures of adaptation to climate change related to the forest landscape that efficiently improve the resilience and reduce the vulnerability of affected human populations. 3) Sustainably increase the value of goods and services originating in the forest via increases in markets, efficiency of use, and productivity.

The design of the ENBCC strategy and interventions responds to the following analysis of the drivers and causes of deforestation:

- The causes of deforestation and forest degradation are often external to the forests and are economic and social, not necessarily biological or technical.
- The conservation of forest ecosystems requires good governance and the application of well-designed public policy instruments.
- Dealing with the causes of deforestation requires, above all, policies and actions outside the scope of the forest authorities. The problem is systemic and structural, thus the solution must also be systemic and structural.
- The continued existence of the forests requires that they generate greater income and value derived from their diverse goods and services, through an increase in their productivity and payments for environmental services; if alternative use of the forest is more economically attractive, the forest will be converted to that use.

The design of the ENBCC interventions also takes into account the analyses performed by Climate Change Planning project (PlanCC) of the potential impact (amount of emissions reduced) and efficiency (cost/unit of emissions reduced) of mitigation measures for the LULUCF sector, subsequently used in the construction of GHG emission abatement curves. The LULUCF mitigation measures having the greatest impact, primarily due to the number of hectares potentially involved, are detailed below, in order from the most to the least important:

- Sustainable forest management (SFM) of permanent production forests,
- SFM of forestry concessions,
- Community forest management (CFM),
- Agroforestry systems (coffee and cacao combined with timber trees),
- Reforestation, and

- Consolidation of protected natural areas.

It is important to note that various mitigation measures (e.g. reforestation, agroforestry) have low net costs or generate positive returns, but that their adoption is limited due to factors such as the availability of capital, lacks of land rights, perceived risks, the low technical and management capacity of producers, weak governance, and the absence of other enabling conditions. Overcoming these limitations is a primary objective both of the FIP and the ERP as well as other programs and project supported by agencies of international cooperation.

As part of the ENBCC, the National REDD+ Strategy will contribute to the mitigation of climate change and increasing the value of forests via mechanisms aimed at avoiding deforestation and forest degradation, sustainable forest management, and conservation and enhancement of forest carbon stocks. Not all of the mitigation measures mentioned above fall into these categories.

Reference Level

Peru has developed and documented historical reference levels for forest cover and GHG emissions for the Amazon in general as well as in three regions (Cusco, Madre de Dios, and San Martín). The Amazon sub-national reference level is based on the multi-temporal analysis of changes in forest cover in satellite images for the period 2000 – 2011, and their conversion to aboveground biomass and carbon via the application of emission factors for different types of forests. The estimation of emissions factors is presently based on 1205 field plots nationwide established by the National Forest Inventory and other entities.

Additionally, efforts are being made to reconcile data from the Amazon and local REDD+ projects using a nested jurisdictional and stepwise approach. As a temporary option or first step, a nested jurisdictional approach has been adopted for measuring, accounting, and aligning the estimates of individual projects in the Amazon with the sub-national estimate of emissions resulting from Amazonian deforestation. After a suitable transition period during which project emissions reductions will be excluded from sub-national accounting, these projects will eventually adopt the sub-national reference level as well as carbon accounting methodology.

Reference levels for the Amazon will be updated to 2013; results are expected at the end of 2014. Sub-national reference levels for the Andean and coastal regions of the country will be produced in subsequent years. Emissions factors will also be improved via more intensive sampling and standardization of sampling protocols in the context of the National Forest Inventory. The estimation of carbon in other compartments, as well as carbon sequestration, the estimation of forest degradation, and the impacts of land use changes will also be incorporated in subsequent years using a stepwise approach. Reference levels from the three sub-national levels (Amazon, Andean, and coastal regions) will eventually be combined into a single national reference level; this summation will be aided by the consistent application of standardized protocols across the three regions.

Design of National Forest Cover Monitoring (SNMCB) and Measurement, Reporting, and Verification (MRV) Systems

Forest cover monitoring is presently based on various methods for the analysis of satellite imagery and ground-truthing for the Amazon, which accounts for 94% of Peru's forests. Current monitoring procedures will be incorporated into the National Forest Cover Monitoring System (SNMCB), which is in the final stage of design. The SNMCB will provide estimates of forest cover that are essential for the establishment of reference levels and the measurement component of the Measurement, Reporting, and Verification (MRV) process. It will also reconcile differences in methods and jurisdictional measurements, develop a national monitoring system, establish institutional arrangements and coordination (see section 9), an early warning system, capacity for local verification that includes local groups, especially indigenous populations, and a data repository. The need to develop methods for the monitoring of forest degradation has also been identified. Linkages between the regional governments and the national government, and the roles of actors involved in the SNMCB such as MINAM, MINAGRI, and the National Forest Inventory, are included in the Plan.

The measurement and reporting process of MRV is being developed in accordance with international REDD+ guidelines and commitments in order to provide consistent accounting of emissions at the national and sub-national levels.

In relation to the reporting of emission reductions, within the framework of the Second National Climate Change Communication, Peru has proposed that a National Network of Inventories of Greenhouse Gases be created, which would assign sectorial responsibilities for information gathering and reporting. The legal version of this proposal is being prepared and analyzed.

Internally consistent data on emission reductions will also form part of a REDD+ data base. As the first step in this process, MINAM is developing the National Information Platform for REDD+ Initiatives in order to enable the register and reporting of emissions related information from REDD+ projects. The Platform will eventually evolve into the National Registry of REDD+ Initiatives (NRRRI) which will provide information on carbon transactions to order to avoid double accounting and to contribute to transparent information related to REDD+ projects and activities, as well as environmental and social data that form part of the ESMF, and information on non-carbon benefits. Emissions-related information will also be reported by the NRRRI to the National Inventory of Greenhouse Gases, in a format consistent with that registry.

Safeguards and Non-carbon benefits

Activities related to the design and implementation of the Strategic Environmental and Social Assessment (SESA) are incipient. During the preparation of the R-PP and FIP-PIN, the institutional, social, and private sector stakeholders potentially impacted by REDD+ activities, and the nature of the most important social, environmental, and process-related impacts were identified, and stakeholders were trained and consulted. More in-depth analysis of the impacts of the principal REDD+ interventions has begun.

With regard to non-carbon benefits, a provisional list of institutional, environmental and social impacts has been identified (see section 16.1). In order to reduce costs, the tracking of non-carbon benefits will rely on existing information or the use of proxies. At the national level, this can include, for example, information from the National Statistics and Information Technology Institute (INEI), the National Agriculture Census (CENAGRO), and biodiversity monitoring systems; at the regional level, socio-economic data required for projects funded by the National Public Investment System (SNIP) is an important information source for non-carbon benefits.

Information and indicators for both the SESA and the ESMF, as well as non-carbon benefits, will eventually be included along with data from the MRV system as part of the National Registry of REDD+ Initiatives. However, further, more in-depth, development of the SESA and the ESMF as well as non-carbon benefit tracking is dependent on the full design of the ENBCC and the FIP/ERP projects, which are programmed for 2014 and 2015. This process should also contribute to the definition of the methods for conflict management and resolution. The REDD+ and Indigenous REDD+ Roundtables (and their SESA sub-groups) at the regional and national levels are ideal venues for developing these activities.

Design of the Framework for the Monitoring and Evaluation of Readiness

Since the achievement of Readiness is an important milestone of the REDD+ Action Plan, which in turn forms part of the ENBCC, the design of the monitoring and evaluation (M&E) framework of Readiness will form part of the overall development of the management structure the National Forest and Climate Change and National REDD+ Strategies. Important elements of the Readiness M&E framework will include identifying important tasks and activities pending (see section 3.2) assigning responsibilities, coordinating resources, formulating a chronogram, and monitoring progress towards those goals as well as their alignment with the FCFP Methodological Framework, UNFCCC guidelines, and the overall ENBCC. Overall responsibility for M&E of Readiness will lie with the ENBCC Executive Committee (the MINAM, MINAGRI, MEF, the Ministry of Intercultural Affairs, CIAM, and indigenous organizations such as AIDSEP and CONAP). Operative responsibility will lie with the PNBCMCC.

3.2 Current status of the Readiness Package and estimated date of submission to the FCPF Participants Committee (including the REL/FRL, REDD+ Strategy, national REDD+ monitoring system and ESMF).

Based on the above description, the main tasks pending for the completion of the Readiness Package consist of the following:

- Complete the formulation of the REDD+ Action Plan as well as the ENBCC (October, 2014).
- Establish the National REDD+ management structure, including the M&E framework, within the REDD+ Action Plan (2015).
- Continue adapting and implementing the Stakeholder Engagement Plan (PIA) and the stakeholder training component in order to ensure effective participation and the inclusion of civil society priorities in the final design and implementation of the ENBCC, FIP, and ERP (on-going).
- Complete the reference level for the Amazon (December 2014), continue to develop reference levels for the Andean and coastal regions (2015 - 2016), and combine them into a national reference level.
- Develop an estimate of forest degradation based on data from the National Forest Inventory (2016).
- Increase the accuracy and precision of emission factors via the stepwise additions of other carbon pools as well as sinks, and other land uses, based on data from the National Forest Inventory (2015 - 2016).
- Complete and implement the National Forest Cover Monitoring System (SNMCM), including the reconciliation of methodologies, institutional arrangements, and the plans for the involvement of local and indigenous groups (2015).
- Align individual REDD projects with sub-national reference levels and the SNMCM methodology (2015).
- Consolidate the National REDD+ Initiatives Information Platform and the National REDD+ Initiatives Registry in a manner that will avoid: a) double or triple accounting of the reductions of emissions; b) ambiguity regarding the ownership of the emissions reductions; c) inconsistencies between national greenhouse gas inventories and general REDD+ accounting, and d) nonfulfillment of the socio-environmental safeguards. Eventually, include data on social and environmental baselines and impacts as well as non-carbon benefits (2015).
- Continue with the analysis and priority setting of the social and environmental impacts of REDD+ interventions and include these within the design of the ESMF (2015-2016). The latter should also include the plan for measuring non-carbon benefits. These data should form part of the National REDD+ Initiatives Registry.
- Formulate the system for benefit distribution with stakeholders (2014-2015).
- Design and implement a grievance and conflict resolution mechanism (2015).

It is estimated that these tasks will require approximately 18 months. Therefore, it is estimated that the MINAM will submit the Readiness Package to the PC in mid-2016.

The expected chronology of specific tasks is show in the Table below.

Table 6. Expected chronology of pending tasks in order to achieve Readiness.

Process	Present Status	2014 – 2015	2015 +
Reference level	Forest cover analyzed for 2000-2011. Images from 2012 and 2013 are being analyzed.	Reference level completed for the Peruvian Amazon based on data from 2000-2013.	Reference levels completed for Andean and coastal forests.
Forest degradation	Data collection.	Estimate based on proxies.	Estimate of forest degradation based on field plots ready in 2016.
Emission factors	Aboveground biomass data de 1205 plots analyzed and emission factors determined for 6 ecozones defined by the National Forest Inventory.	Emission factors associated with other forest compartments estimated based on data from the National Forest Inventory.	Emissions factors developed for other land uses.
MRV	National Forest Monitoring system designed. National Forest Inventory on-going.	Institutional coordination for monitoring established and implemented. Transition plan for incorporating local REDD+ projects in national REDD+ system designed and implemented.	Reference levels completed. Plans for involving local actors in monitoring and verification implemented in 2016.
	List of REDD+ projects completed.	National REDD+ Initiatives Registry and methodologies designed and implemented (2015).	Incorporation of socioeconomic, environmental, and non-carbon benefit information incorporated in Registry
Safeguards	Analysis of impacts of interventions being analyzed. Safeguard road map formulated.	Specify baselines and methodologies. Consultation and feedback from stakeholders. Design ESMF data base, procedures, and policies including grievance redress mechanism.	Application of ESMF (2016).
Non-carbon benefits	Benefits identified.	Design data collection system including reference levels, methodologies, and data base (2015).	
Benefit-sharing	Identification of different scenarios for alignment of local projects with national system, including C accounting and benefit distribution.	Consultations leading to final design for local project alignment and benefit distribution (2015).	Achieve consensus on benefit sharing.

3.3 Consistency with national REDD+ strategy and other relevant policies

Please describe:

- a) How the planned and ongoing activities in the proposed ER Program relate to the variety of proposed interventions in the (emerging) national REDD+ strategy.*
- b) How the proposed ER Program is strategically relevant for the development and/or implementation of the (emerging) national REDD+ strategy (including policies, national management framework and legislation).*
- c) How the activities in the proposed ER Program are consistent with national laws and development priorities.*

a) & b) The proposed ERP exists in a close relationship with the REDD+ Action Plan which, in turns contributes to the mitigation component of the Forests and Climate Change Strategy. As such, the ERP represents an important mechanism for implementing the REDD+ Action plan and the National Forest and Climate Change Strategy over large areas of the Peruvian Amazon, specifically the regions of San Martin and Ucayali; the ERP also includes the majority of the interventions envisioned in the REDD+ Action Plan. Activities and results from the ERP will enable the REDD+ Action Plan and the National Forest and Climate Change Strategy to test hypotheses; refine management structures and intervention activities including those related to enabling conditions, policies, institutional coordination, capacity strengthening, improvements in productivity, and market development; identify unforeseen gaps and needs; and in general, improve strategy design and future interventions. This ongoing linkage and feedback will contribute to the strengthening of the process of building a REDD+ institutional infrastructure and architecture and an adaptive management system. Likewise, the experiences and lessons learned from the ERP intervention (institutions, policies, management techniques and enabling conditions such as land titling, land use planning, monitoring, control and oversight) and the payments which result from them will help to fine-tune and extend the REDD+ system to other zones of the country in the future as well as improve Peru’s ability to negotiate future sales of emission reductions.

c) The ERP is consistent with and contributes to the implementation of the following national policies and laws: the National Agreement, integrating environmental policy into planning for sustainable development; the Bicentennial Plan for the sustainable use and conservation of natural resources; the National Environment Policy, which links ecosystem conservation with livelihoods and sustainable development; the new Forestry and Wildlife law; the law of Sustainable Use of Natural Resources which promotes conservation of natural resources and the environment and their sustainable economic use; the law of Conservation and Sustainable Use of Biological Diversity which fosters the conservation of biodiversity and the just and equitable distribution of benefits resulting from its use; the National Environmental Action Plan, which aims at reducing the deforestation rate on 54 million ha of primary forest, incorporating forests with undefined rights into the forestry classification system, and reducing the vulnerability to climate change; and the Law of Informed Prior Consultation (Law 29785), based on ILO Convention 169, which establishes the rights of indigenous peoples to be consulted regarding activities that affect their lands or natural resources.

The ERP also represents an important contribution to national development priorities. It operationalizes the National Climate Change Strategy in the forest and land use change sector and is an important step in aligning Peru with the philosophy of green growth which contained in Peru’s proposal to join the OECD, as announced recently in July, 2014 by President Humala. Such a philosophy takes on particular importance in the Peruvian Amazon due to the high dependence of inhabitants of this region on goods and services produced by the forest. It is expected that the ERP will help establish the base for “green” development there which can contribute to regional and national competitiveness in emerging markets that incorporate and value elements of environmental sustainability. Additionally, the series of non-carbon benefits (improved institutions, policies, land titling, governance of forest lands and income) associated with the ERP will improve the well-being of the inhabitants of the participating regions and provide a model for other Amazon regions in the future.

At the national level, the ERP and the ENBCC will help the State to achieve consensus regarding the use of forests and climate change and their importance for development. They will also contribute significantly to national efforts to reduce emissions resulting from deforestation and forest degradation, promote forest conservation and the sustainable use of natural resources and ecosystem services, and increase competitiveness at the national level, within a framework of sustainable economic development and social inclusion. Furthermore, both will provide a

stimulus for the establishment of a system of payments for ecosystem services at the national level (the Peru Forest and Climate Fund) and will facilitate the participation of the country in similar system at the international level in the future.

4. ER Program location and lifetime

4.1 Scale and location of the proposed ER Program
Please present a description and map of the proposed ER Program location and surrounding areas, and its physiographic significance in relation to the country. Indicate location and boundaries of the proposed ER Program area, e.g., administrative jurisdiction(s).

Country Context

Peru has a total land area of 1,285,216 km², making it the third largest country in South America. Geographically, the country is divided into three large regions: a) the western coast, which is largely dry, except for the river valleys which descend from the Andes, b) the mountainous Andean region, which runs from north to south throughout the country, and c) the Amazon, which begins on the eastern slopes of the Andes and runs through the northeastern, eastern and southeastern regions of the country, and contains 61% of the total land area and 94% of the country’s forests.

Politically, the country is divided into regions or departments, which in turn are sub-divided into provinces, districts, and municipalities.

Peru has approximately 73 million ha of forests, the large majority (almost 69 million hectares or 94% of the total) of which are found in the Amazon (Figure 1). On a global scale, Peru’s extensive forests place the country in ninth place in terms of forest cover, fourth place in terms of tropical forests, second among the Amazonian countries in forest area, and contribute to its mega-biodiversity.

Although Peru has extensive forests, they contribute little to the national economy. Forest management is inadequate and scarce political attention has been paid to the forests, resulting in inadequate forestry budgets and the conversion of the forests into focal points of social conflict.

Population

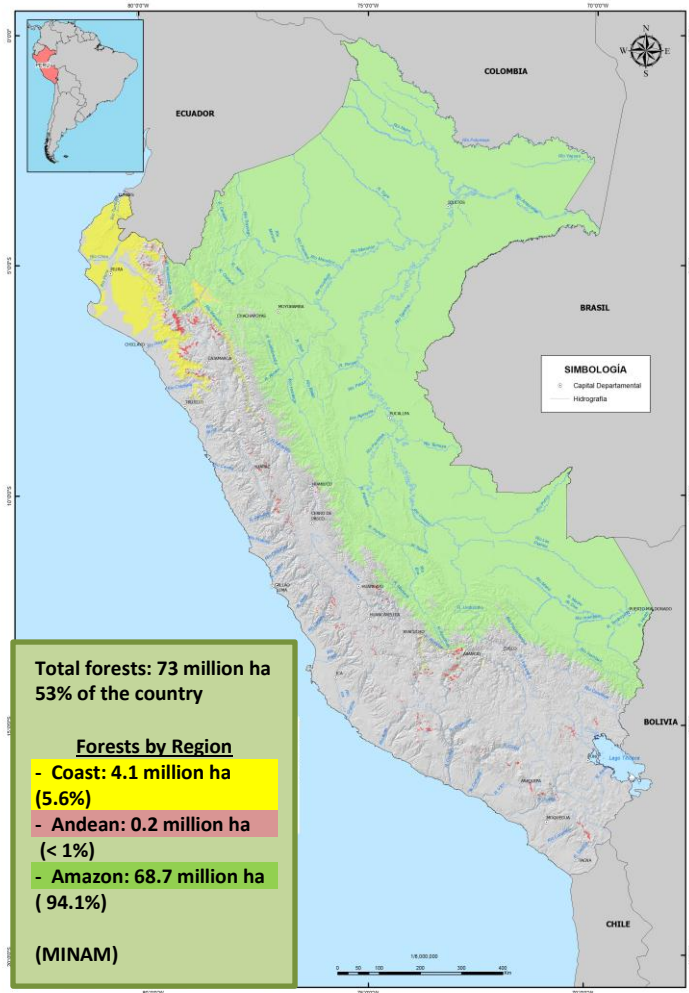
According to the 2007 census, 54.6% of Peru’s population live in the coastal areas, 32% live in the highlands or Andean region, and only 13.4% live in the Amazon (Table 7). The latter houses over 300,000 indigenous people who belong to approximately fifty different ethnic groups, including fifteen language families. The indigenous peoples are organized in over 90 ethnic or inter-ethnic federations, grouped into regional organizations, primarily associated with the national indigenous organizations, AIDSEP and CONAP.

Table 7. Peru’s population by geographic region.

Regions	Population (millions of inhabitants)	Area (km ²)	Population density (inhab. / Km ²)
Coast	16.1	96,391	167.03
Andean	9.5	391,991	24.24
Amazon	3.9	796,834	3.03
Peru	29.5	1 285,216	22.95

(INEI, 2007)

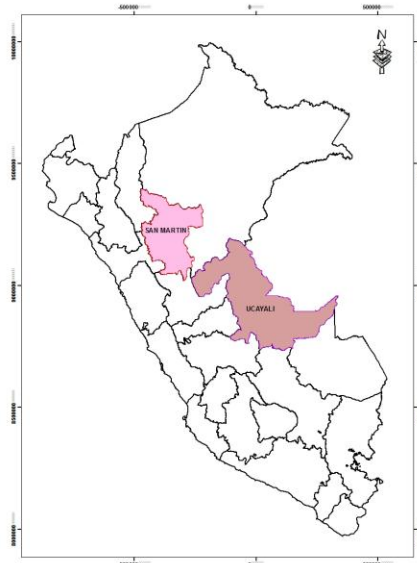
Figure 1. The forests of Peru



ER Program Location

The ERP will focus on two large political jurisdictions in the Peruvian Amazon: the regions (a region is equivalent to a state or province) of San Martín and Ucayali. San Martín is the north-central Peruvian Amazon and runs eastward from the foot hills of the Andes to the largest Amazonian region, Loreto. Ucayali is found south-east of San Martín in the central Peruvian Amazon; its eastern border abuts Brazil (Figure 2). Taken together, San Martín and Ucayali account for a total area of 15.6 million ha (5.1 million ha in San Martín and 10.5 in Ucayali). The total area of forests in both areas in 2011 was 13.1 million ha (3.5 million in San Martín and 9.6 million ha in Ucayali). In 2013, the population of San Martín was estimated at 818,061 (36% rural); the total population of Ucayali was 483,708 (22% rural). A summary of the characteristics of the regions is shown in Table 8.

Figure 2. Location of the San Martin and Ucayali Regions.



These regions were selected based on the criteria of (a) potential for the reduction of GHG emissions, estimated by the rate of deforestation and forest degradation and of forest carbon stocks in each region, (b) opportunities to produce social co-benefits, estimated by the index of human development, (c) a relatively high proportion of indigenous communities, especially in Ucayali, (d) environmental co-benefits, based on biodiversity (both regions have intermediate levels of endemism as well as intermediate numbers of endangered species), (e) cost-effectiveness, estimated from the opportunity cost of land, (f) relatively low levels of social conflict, and (g) significant institutional support that includes, in both regions, the backing of both regional governments and REDD+ and Indigenous REDD+ Roundtables; MINAGRI and SERFOR initiatives aimed at the diversification of production systems with an emphasis on forestry; activities of the FIP and land titling project of the IADB; and the agricultural innovation program of INIA supported by the World Bank and IADB. In addition, the regional government of San Martín has a strong territorial focus and both GIZ and ICRAF have prioritized activities in Ucayali. It is envisioned that these interventions, as well as the results-based payments provided by the Carbon Fund, will help increase additional investments from both the public and private sectors in the two regions.

Table 8. Characteristics of the two regions of intervention.

Zones	Characteristics	Similar regions
San Martin	<ul style="list-style-type: none"> • Geography: Transition from upland to Amazon lowlands. • Expansion: Area where agricultural frontier and forest degradation are expanding rapidly. Mixed land use including agriculture, agro-forestry and forest (agricultural plots interspersed with exploited forests). • Level of titling/tenure security: 28% of forested land does not have assigned property or concessionary rights. • Protected areas and concessions: The systems of forest concessions and protected areas are under pressure from invasion and overlapping rights. • Migration: There is much migration to the zone from the Andean regions, particularly from the Cajamarca region. • Indigenous communities: 33 titled indigenous communities and 47 where land rights are incomplete or absent. 	Transition regions from upland to lowland forest along the Andes range: Huánuco, Pasco, Cusco, Junín, Amazonas.
Ucayali	<ul style="list-style-type: none"> • Geography: Lowland forest. • Expansion: The zone includes area of both rapid expansion of the forest degradation frontier due to illegal logging and areas of expansion of the agricultural frontier, as well as a long-standing area of deforestation along the Federico Basadre highway. • Level of titling/tenure security: 10% of the forested areas does not have assigned property or concessionary rights. • Protected areas and concessions: Forest concessions are under pressure from illegal logging. • Migration: Migration mainly along the Federico Basadre highway and associated feeder roads as well as the Satipo-Atalaya road. • Indigenous communities: 226 indigenous communities are titled, and another 81 have rights that are incomplete or absent. 	Loreto and other lowland forest areas with a high concentration of indigenous communities and permanent production forests.

4.2 Expected lifetime of the proposed ER Program
 Please describe over how many months/years the proposed ER Program will be:
 a) prepared; and
 b) implemented (including expected start date of the proposed ER Program).

It is estimated that Peru will complete the Readiness Package (including MRV, the preparation of the SESA and ESMF, the design and implementation of the monitoring and reporting of safeguards and non-carbon benefits system, the design of benefits sharing arrangements, etc.) by the first semester of 2016 and that another year will be needed to define financial requirements, procedures, and negotiations to access results-based payments from the FCPF Carbon Fund and to assure financial sustainability. It is estimated that this preparatory process will be concluded by mid-2017. The implementation of the ERP will therefore cover the period 2017-2020 (three years). Nevertheless, the REDD+ activities contemplated are expected to continue in accordance with the time frame of the National Forests and Climate Change Strategy, which is based on a planning horizon of 2025.

5. Description of activities and interventions planned under the proposed ER Program

5.1 Analysis of drivers and underlying causes of deforestation and forest degradation, and conservation or enhancement trends

Please present an analysis of the drivers, underlying causes and agents of deforestation and forest degradation. Also describe any policies and trends that could contribute to conservation and enhancement of carbon stocks. Please distinguish between both the drivers and trends within the boundaries of the proposed ER Program, and any drivers or trends that occur outside the boundaries but are affecting land use, land cover and carbon stocks within the proposed ER Program area. Draw on the analysis produced for your country's Readiness Preparation Proposal (R-PP) and/or Readiness Package (R-Package).

Deforestation, degradation, and emissions

Given that 94% of the forests of Peru are in the Amazon, the analysis of deforestation focuses on that region. During 2000 - 2011, nearly 106,600 ha of Peru's Amazon forests were deforested annually, an annual deforestation rate of 0.15%¹. Peru has one of the lowest deforestation rates in South America, similar to Colombia, but greater than that of Surinam or Chile (in the latter country, forests have actually increased)².

The analysis of deforestation also shows that most of the accumulated deforestation is located on the eastern slopes of the Andes, which has historically been the zone with the highest level of migration. This pattern, however, is changing, since the 14 deforestation "hotspots" are now located in the Amazonian lowland forests where new roads connecting these regions to the rest of the country have been built (Figure 3).

Deforestation occurs mostly in small land areas used for agricultural activity – 75% of deforestation is associated with small, non-adjacent land areas approximately half a hectare in size that are likely shifting agriculture plots. Deforestation is primarily caused by migrants from other regions of the country or by recently resettled local populations and, for the most part, is related to the opening of roads in areas of weak governance. However, deforestation in indigenous regions is also on the rise as these groups become incorporated into the national economy.

Forest degradation often accompanies deforestation, but is much more difficult to monitor and measure. Degradation is apt to vary spatially depending on the proximity of a given area to markets, population centers, roads, population density, and road age. A recent study³ from the Brazilian Amazon suggests that the area affected by forest degradation is about 30% of the area deforested, but is unclear as to the impact of degradation on carbon stocks.

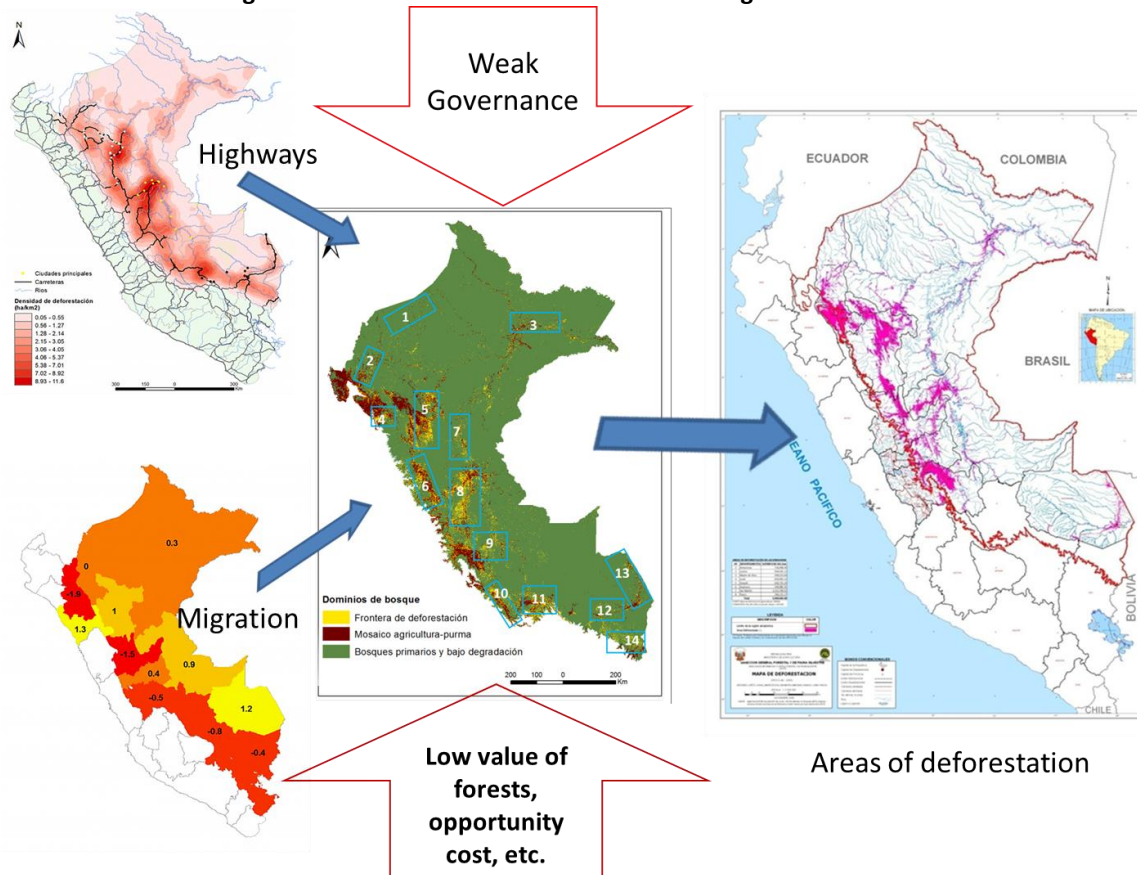
The relationship between deforestation and land titling and land use suggests that an important factor in deforestation is the lack of assigned rights to land. Approximately 47% (49,786 hectares) of the 106,600 ha deforested annually occurs on lands categorized as forests with unassigned rights and a further 12% of deforestation occurs on permanent production forests without concessions. Indigenous lands and farm categories contribute about 16% and 11% to total deforestation; most of the deforestation in these categories is likely associated with shifting agriculture plots (Table 9 and Figure 4). These data suggest that the lack of land rights and small-scale migrant agriculture, and selective logging are fundamental factors in deforestation and forest degradation.

¹ Proyecto REDD-MINAM

² FAO, Global Forest Assessment, 2010 (www.fao.org/forestry/fra/fra2010)

³ <http://www.imazon.org.br/publications/other-publications/deforestation-and-forest-degradation-in-the-amazon-biome-1>

Figure 3. Causes of deforestation and forest degradation in Peru.



Direct drivers of deforestation

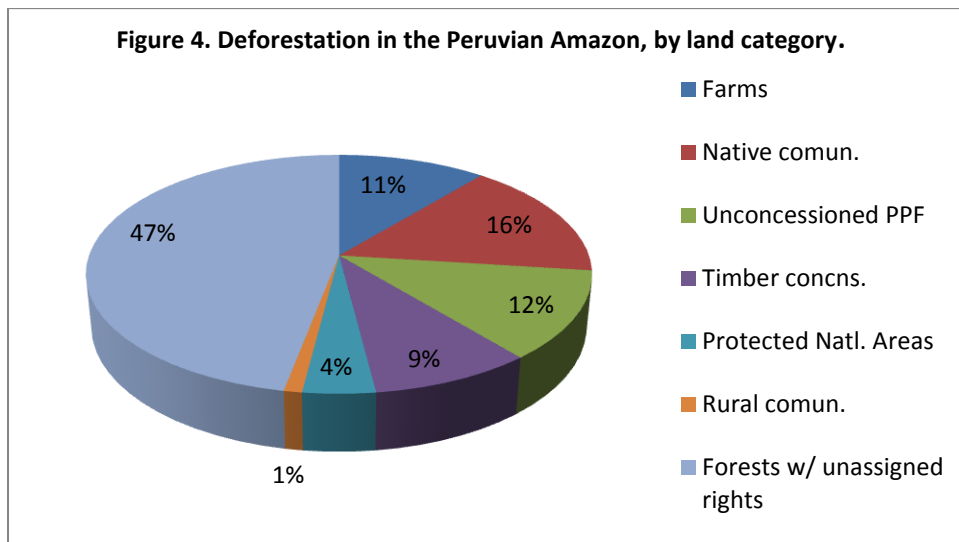
In the Peruvian Amazon, the following drivers are the main sources of deforestation and forest degradation (Table 10):

Traditional small-scale agriculture: This is the primary driver of deforestation in the Peruvian Amazon. This driver consists of traditional, extensive farms of 5-30 hectares, managed under a shifting agriculture system in which small areas (approximately half hectare in size) are cleared and used for a limited time (1-5 years) before being abandoned to secondary vegetation. This system has low profitability due to low productivity and weak market ties.

Table 9. Deforestation in the Peruvian Amazon by land use category and tenure of forest land.

Land Category	Forest in 2000 (ha)	Forest in 2011 (ha)	Loss 2000 - 2011 (ha)	Annual Average Deforestation Rate (%)
Indigenous lands	11,788,288	11,603,814	184,474	0.14
Territorial reserves	1,688,946	1,688,174	772	0
Rural communities	752,321	736,544	15,777	0.19
Protected natural areas	18,293,266	18,252,085	41,181	0.02
Forestry concessions	9,155,548	9,049,870	105,678	0.10
Permanent production forests without concessions	9,070,109	8,924,941	145,168	0.15
Farms	779,424	647,475	131,949	1.54
Forests with unassigned rights	19,256,297	18,708,648	547,649	0.26
Total	70,784,199	69,611,551	1,172,648	0.15

(Proyecto REDD+ MINAM, 2014)



Productivity, albeit low, is sustained by the use of a system of land rotation (from forests to agricultural plots and back to forest), since the lack of capital and limited access to credit limit agricultural intensification. Farms are diversified and include annual crops (rice, cassava, corn, etc.), perennial crops (coffee, cacao, and palms), livestock, and forestry (timber and non-timber products).

Medium and large-scale agriculture: This group includes farms larger than 30 hectares where agriculture is more intensive and more profitable due to higher levels of productivity and stronger market ties. Industrial agriculture (agro-exports, palm, and biofuel crops) is included in this category. Unlike Brazil in which industrial agriculture is strongly linked to international commodity markets, agro-industrial crops in the Peruvian Amazon are mainly consumed domestically (two notable exceptions, however, are coffee and cacao). The expansion of agricultural production in this category is based on two strategies: increasing the productivity of the land and labor, and increasing the area of production by converting forests to agricultural use. In contrast to the traditional, small-scale farmers, production tends more towards monocultures (such as oil palm plantations).

Loggers: Loggers, most of who operate illegally, are the main direct cause of forest degradation. This group includes small-scale loggers, indigenous communities, concessionaires of non-timber products, and, in some cases, lumber companies. In most cases, timber extraction forms part of a diversified subsistence strategy. The timber produced is mainly consumed in the domestic market, since Peru exports relatively little timber.

Illicit activities: Illicit activities mainly refer to coca cultivation and informal mining and occur in areas where rights and the presence of the State are weak. These activities can be locally important (e.g. gold mining in the region of Madre de Dios).

Table 10. Summary of direct causes of deforestation and forest degradation in the Peruvian Amazon.

Amazon deforestation and degradation		
<p>SMALL SCALE TRADITIONAL FARMING</p> <ul style="list-style-type: none"> - Main driver of deforestation - Areas between 5 and 30 ha - Low productivity - Weak linkages to market 	<p>MID AND LARGE SCALE AGRICULTURE</p> <ul style="list-style-type: none"> Units larger than 30 hectares Increasing productivity of land and labor Annual crops, agro-exports (oleaginous and bio-fuels). 	<p>EXTRACTION OF TIMBER AND NON-TIMBER PRODUCTS</p> <ul style="list-style-type: none"> Main sources of forest degradation, includes timber companies, small loggers, native communities, and non-timber products producers. Selective timber harvesting Low productivity 1 - 2 m3/ha

UNDERLYING CAUSES:

- Social factors mainly related to poverty
- Economic factors, such as low profitability of forests in comparison with other uses
- Institutional factors, such as sector and territorial approaches of public policies and resource management
- Amazon mega-projects factors, such as highways, hydroelectric plants, and hydrocarbons foster migration.

Indirect drivers of deforestation

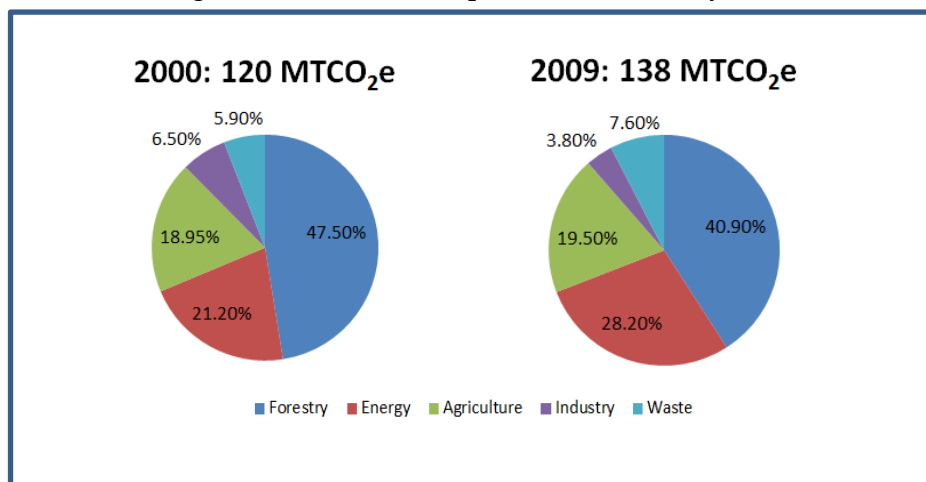
The broad array of underlying causes of deforestation can be classified into the following groups: (1) social factors, connected primarily with population growth, poverty and social exclusion both within the Amazon as well as in other regions that expel migrants to the Amazon; (2) economic factors, including the low profitability of forest activities compared to other land uses, little or no access to markets for forest goods and services, and the growing demand for products from land uses that compete with forest activities (like agro-fuels or industrial crops); (3) institutional factors, such as public policies and natural resource management based on uncoordinated and non-territorial sectorial approaches, contradictory or incoherent policies, the absence of land use planning, limited institutional capacity, the low level of monitoring, control, and sanctions of inappropriate land use, and the imperfect and incomplete allocation of rights to forest lands.

From a different perspective, the underlying causes can also be understood to be due to: failures in coordination attributable to, for example, the establishment of incoherent policies; failures of cooperation within the public sector and with the private sector; and market failures resulting in the low value and competitiveness of forests compared to other land uses.

Greenhouse Gas (GHG) Emissions

PlanCC estimates that net GHG emissions from Peru total 138 million tons of CO₂e. The National Inventory of Greenhouse Gas Emissions reports that the main source of GHG emissions at the national level is the conversion of forests, as a result of a change in land use, mainly in the Amazon, while the principal source contributing to the removal of GHG are increases in forest and other woody biomass associated with secondary forests and reforestation. Net emissions of 56,365 Gg of CO₂e are associated with land use, land-use change, and forestry, but do not include emission from forest degradation. Considering emissions only, without including removals, the LULUCF sector is responsible for 41% of total national GHG emissions. Agriculture is the second largest contributor, adding 26,948 Gg of CO₂e to the country’s total, while energy is third in importance, being responsible for 24,085 Gg of CO₂e (Figure 5).

Figure 5. Generation of CO₂ emissions in Peru, by sector



(PlanCC, 2013)

Positive Trends

In contrast to the drivers of deforestation, there is a potential supply of emissions reductions associated with a high interest in REDD+ projects. Additionally, there are nationwide processes underway that can support REDD+. At the national level, the institutional reforms related to forestry, a renewed emphasis on reactivating forest concessions and in promoting reforestation, and cooperation between SERFOR and PNCBMCC related to the formulation and implementation of the ENBCC are important measures for reducing deforestation. In addition, the modernization of the State, and the growing use of the “Results-Based Budgeting” budgeting procedure could have a positive influence on simplifying the administration and availability of public funds for broad-based, integrated initiatives involving forests. Within this context, the decision on the part of the President of the Council of Ministers to implement a pilot program to modernize forest management in the Amazon regions is a concrete step forward.

Furthermore, steps are being taken to reduce informal mining activity and modify the distribution of mining royalties. These changes can contribute to reducing deforestation in certain zones (for example, in the states of Madre de Dios and Amazonas, where, in contrast to Ucayali and San Martin, informal mining is important) and increase the funds for alternative forms of development which are less dependent on deforestation.

As to the availability of funds for investment in “green” economic activities including forestry, the Ministry of Economy and Finance (MEF) is working on capital reforms, one of which includes establishing an alternative securities market. The latter could provide a key opportunity for mid-sized forest management companies and reforestation companies to leverage funds at a low cost through the sale of bonds. Likewise, Agrobanco is in the process of changing their loan policies to reduce the availability of loans for activities that promote deforestation and increase loans for sustainable agroforestry and forestry systems.

In the context of capital markets, based on its enormous natural resource capital and solid country risk profile, Peru is initiating steps to implement a national forests and climate change fund (Peru Forest and Climate Fund). This fund would facilitate the development of an internal market for carbon and other ecosystem services and would provide the necessary leverage to obtain international funds for REDD+ or other nationally appropriate mitigation actions (NAMAS) focused on mitigating climate change. At present, however, there is no mechanism or official financial institution that can act as a catalyst for the forests and climate change fund, although there are regulated, state-run financial entities that are authorized to manage funds such as trusts with an investment grade risk profile similar to that of the Peruvian government (for example, Agrobanco, COFIDE, Banco de la Nación, FONAM, PROFONAMPE).

Finally, Peru’s hosting of COP 20 may help in garnering support for these and other initiatives.

Deforestation in the ER Program Areas

Although both regions have extensive areas of forest, San Martin is more deforested than Ucayali. Both suffer from the net immigration, mainly from the region of Cajamarca in the case of San Martin, and the region of Pasco in the case of Ucayali, facilitated by major highway axes that link the Andes with the Amazon. Between 2000 and 2014, the population of these regions has increased by about 15% in Ucayali and 10% in San Martin⁴. In San Martin, population pressure (an estimated 829,500 inhabitants in 2014) is greater than in Ucayali (an estimated 489,700 in 2014) and deforestation is driven more by migration, shifting agriculture, and agro-industries, which are facilitated by a greater road density, whereas forestry activities related to deforestation are relatively more important in Ucayali than San Martin. Between 2000 and 2011, the average annual rate of deforestation was 0.17% in Ucayali and 0.67% in San Martin; during that period, Ucayali lost 177,630 ha of forest and San Martin 277,333 ha (Tables 11 and 12). There are no data on forest degradation.

Table 11. Land use categories and annual deforestation rates in Ucayali

Land Category	Forest in 2000 (ha)	Forest in 2011 (ha)	Loss 2000 - 2011 (ha)	Annual Average Deforestation Rate (%)
Timber concessions	2,471,011	2,451,973	19,038	0.07
Non-concessioned production forests	1,141,720	1,119,918	21,802	0.17
Indigenous lands	2,202,191	2,171,607	30,584	0.13
Farms	54,535	36,649	17,886	2.98
Forests with undefined rights	1,014,255	932,986	81,269	0.73
Other	2,863,734	2,856,682	7,052	0.02
Total	9,747,446	9,569,815	177,630	0.17

(Proyecto REDD+ MINAM, 2014)

Table 12. Land use categories and annual deforestation rates in San Martin.

Land Category	Forest in 2000 (ha)	Forest in 2011 (ha)	Loss 2000 - 2011 (ha)	Annual Average Deforestation Rate (%)
Timber concessions	557,220	524,797	32,423	0.53
Non-concessioned production forests	421,510	367,153	54,357	1.17
Indigenous lands	235,597	203,048	32,549	1.26
Farms	41,806	32,305	9,501	2.07
Forests with undefined rights	1,119,641	986,347	133,294	1.08
Other	1,404,362	1,389,154	15,208	0.10
Total	3,780,136	3,502,804	277,333	0.67

(Proyecto REDD+ MINAM, 2014)

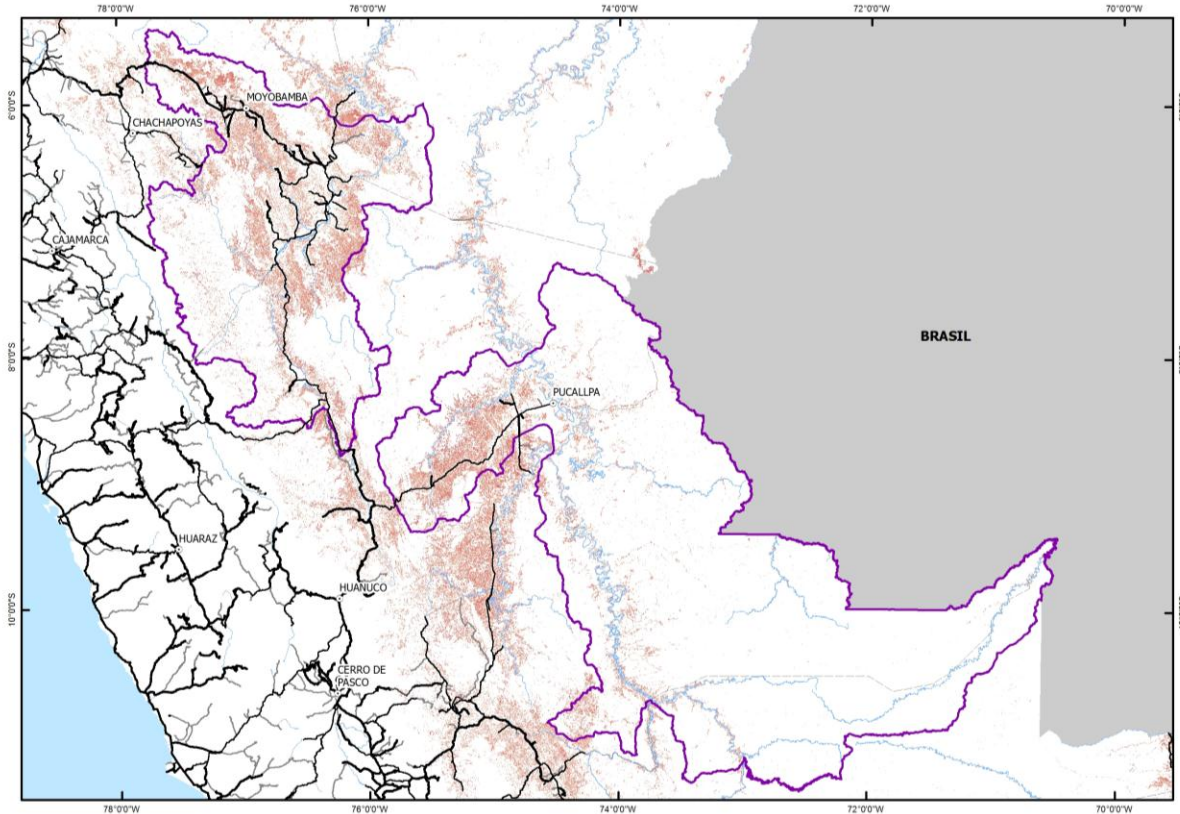
Taken together, San Martin and Ucayali exhibit the majority of the principal drivers (in neither region is informal mining a principal driver of deforestation) and underlying causes of deforestation in the Peruvian Amazon. However, each zone represents a different socio-environmental context: a mosaic of mostly settled agricultural areas interspersed with forest is more common in San Martin vs. the agricultural frontier and large areas of relatively intact forest in Ucayali. However, it should be noted that the latter has extensive areas of deforestation along the Federico Basadre highway and the southern border of Ucayali with the region of Huánuco (Table 7 and Figure 6). The inclusion in the Program of these different typologies of the dynamics of deforestation will enable the application of a range of interventions contemplated in the ENBCC/REDD+ Action Plan. At the same time, it facilitate the replication and extension of the results obtained to a wide range of other areas within the Peruvian Amazon and will contribute to the adaptive construction of a robust REDD+ Action Plan.

⁴ INEI, 2014 (www.inei.gov.pe/biblioteca-virtual/publicaciones-digitales/)

Table 13. Summary of drivers of deforestation in Ucayali and San Martin.

	Ucayali	San Martin
Direct drivers	Shifting agriculture Commercial crops (Cacao, coffee, oil palm in order of importance) Logging	Shifting agriculture Commercial crops (coffee, cacao, oil palm in order of importance)
Underlying causes	Migration Weak land use governance	Migration Weak land use governance Greater road density Greater market demand and articulation

Figure 6. Areas of deforestation (red color) in relation to roads (black lines), San Martin and Ucayali.



(Proyecto REDD+ MINAM)

Ucayali: For the last five decades, Ucayali has been the main logging region of Peru. Pucallpa is the capital city of Ucayali and is thus the center of the timber industry in Peru. The building of the Federico Basadre highway, seventy years ago, which runs from Lima to Pucallpa, the capital of Ucayali, provided access to the forests in the center and north of Ucayali and to neighboring regions such as Loreto and Huánuco, and led to the growth of agriculture in the areas along the highway. Currently, Ucayali is the fifth most deforested region of the country, with almost 1 million hectares of deforestation.

Since 2000, high rates of deforestation have been observed along both sides of the road starting about 60 km from Pucallpa going west (Figure 6). This area is undergoing conversion to cacao, oil palm, coffee, and cattle. Another emerging hotspot of deforestation is the Raymondi district in the province of Atalaya, Ucayali, which is located on the border between the Ucayali and Junín regions and is linked by a highway to Puerto Ocopa. In this zone, there are

approximately 1.2 million hectares of mostly forested land, including permanent production forests, forest concessions, and wide tracts of forest within indigenous community lands (there are 82 indigenous communities located partially or wholly within the district). Deforestation is relatively low, but the recent linkage to the national highway network via the highway from Atalaya, Ucayali to Puerto Ocopa, Junin provides access to lands for newly arrived immigrants as well as attracting legal or illegal forest extraction activities. The existence of a shorter and faster road to market and of large areas of relatively unexploited forests are the chief incentives for forest industries to move from Satipo to Atalaya, just as in the past the industries moved from the forests in the central part of the country to Pucallpa. The northeast and especially the southeast portions of Ucayali have large tracts of relatively intact forest which serve as the home of numerous indigenous communities.

The average annual rate of deforestation of 0.17% is above the Amazonian average of 0.15% reported by MINAM. Deforestation in Ucayali is chiefly associated with farms and areas with undefined legal rights. The average annual rate of deforestation on titled farms is 3.0% and 0.73% in forests with undefined legal status, both of which are much greater than the Amazonian annual average of 0.15%. Annual deforestation rates in titled indigenous communities (0.13%) and non-concessioned production forests (0.17%) are near the average for Ucayali and the Amazon in general (Table 11).

In general, deforestation is facilitated by the scarce presence of the State in the region and weak forest governance, due, in part, to low budgets and lack of available personnel to manage the natural resources; to illegal logging operations which have operated for many years and are well-established; and to the chronic lack of high quality information on which to base forest management. A pattern of deforestation similar to that near Pucallpa appears to be presently occurring in the province of Atalaya which was recently connected to the national road network by the highway to Puerto Ocopa that significantly reduces the travel time to the coast and permits the transport of lumber by land rather than river.

Additionally, sustainable forest management in Ucayali is uncompetitive due primarily to : i) unfair competition from illegal loggers in the concessions, communal territories and areas where rights have not been assigned, ii) slow bureaucratic processes and obligatory administrative payments to the State, iii) lack of financial mechanisms that are appropriate to the needs, seasonality, and time frames of the forest sector, iv) obsolete machinery and equipment which increase the costs of extraction and transportation, v) the lack of secondary wood processing that increases transport costs to Lima, vi) the extraction of very few commercial timber species (only five of the twenty-one existing species are used), resulting in low volume of timber extraction and high costs per hectare.

As a result, only 67 concessions out of total of 155 are operating formally in the region and they cover only a million of the 2.7 million hectares where concessions have been granted. This implies that most of the 500,000 m³ of timber that is commercialized from Ucayali comes from non-sustainable sources: the deforestation rate on private agricultural properties (3.3%) is almost twenty times greater than in the region in general (0.17%). Studies show Atalaya as one of the primary areas of forest degradation in the country.

San Martín: The region of San Martín tops the list of deforestation by region, having 1,361,179 ha deforested in 2011. The average annual deforestation rate of San Martín during 2000 – 2011 (0.67%) is approximately 4.5 times the average annual deforestation rate for the Amazon (0.15%) (Table 12). Although western and central San Martín suffered high rates of deforestation during the 1970s and 1980s, much of the deforestation in the 2000 -2011 period is found in the northwestern and northeastern sectors of the region, where the recently improved and extended Northern Interoceanic Highway (IRSA Norte) has facilitated a high influx of migrants from the Andean region. Another area of recent deforestation includes the central and east-central areas influenced by the Marginal highway which runs down the north-south axis of San Martín (Figure 6).

The direct causes of deforestation are primarily small-scale agriculture and livestock-raising, although there are a growing number of commercial crops, primarily coffee, cacao, oil palm, and hearts-of-palm. Seventy-five percent of the deforestation occurs on land areas of approximately half a hectare in size, consistent with small-scale and migratory agriculture. Agricultural colonization has caused a large quantity of degraded lands throughout San Martín.

High average annual rates of deforestation are associated with titled farms (2.07%), titled indigenous communities (1.26%), non-concessioned permanent production forests (1.17%), forests of undefined legal status (1.08%), and forestry concessions (0.53%) (Table 12). The data suggest that greater a population, migration, a greater road density, and better access to markets than in Ucayali are driving the expansion of the agricultural frontier into forests located on farms, logging and other concessions, as well as land with unassigned rights.

Despite recent progress in improving the governance of the forest and environment sector of San Martin, governance is still weak and is one of the principal causes for the illegal occupation and conversion of forest land of low agricultural potential. This land use conversion leads to the construction of illegal roads in these rural areas, followed by illegal logging, deforestation, social conflict, and more forest conversion. This situation is aggravated by the low budgets and insufficient personnel available for the management of natural resources, an incomplete process of decentralization that lacks a clear definition of functions and competencies, and the delay in the initiation of operations of the new environmental, forestry, and agrarian institutions.

The process of illegal occupation of forest land is facilitated by the lack of enforcement of forest land zoning/land use planning and a lack of planning with regard to road construction. Additionally, the purchase of land from small-farmers by businesses or more well-to-do farmers in order to obtain larger areas of land for agro-industrial purposes (mainly for the production of oil palm and hearts-of-palm) is creating a new source of pressure on the nearby forests by displacing the previous owners of the purchased land. The problems of governance (lack of investment in public institutions, slow decentralization processes, incomplete allocation of property rights) reduce the effectiveness of the range of instruments that presently exist for forest and environmental management.

5.2 Assessment of the major barriers to REDD+
Please describe the major barriers that are currently preventing the drivers from being addressed, and/or preventing conservation and carbon stock enhancement from occurring.

The principal barriers to reducing deforestation and greenhouse gas emissions are institutional and political, legal, financial, organizational, and related to the limited capacities of producers and communities, and difficulties in accessing resources that would enable them to improve their production systems.

The institutional and political barriers include the following:

- Public policy, including budgeting policy, for forest land management is, in many cases, rigid, inappropriate for the context, contradictory, or even detrimental.
- There is lack of coordination among, and weak management of, the institutions involved in forest and climate change management.
- The management of forest and agricultural land suffers from the limited allocation of rights and the incomplete application of systems for land use planning, monitoring, control, supervision, and law enforcement resulting in the absence of conditions that enable investments and sustainable land use.
- The contribution of the forests to the national economy is not quantified nor is their value accounted for in the design and implementation of mega-projects. As a result, the undervaluation of the forests promotes their conversion to other uses.
- Poverty, a weak government presence, lax law enforcement (particularly in Ucayali), and lack of land use planning, in zones of internal immigration as well as emigration, lead to disorderly and poorly controlled processes of migration and use of land.
- The participation of the population in developing public policies for the management of forests in zones of internal immigration and emigration is very limited, a situation which is maintained by the limited access to information by these populations.
- A lack of flexibility in the use of public resources for forest investment hinders the improvement of the sector.
- There is a lack of public policies designed to generate incentives for the participation of the private sector in activities related to sustainable forest use.

The barriers to improving the productivity and competitiveness of forestry and agriculture in forest lands are:

- Scarce development and implementation of competitive production models.

- Lack of land titling and rights.
- Low level of capitalization, lack of technical knowledge, inadequate equipment, and limited management capacity on the part of the producers.
- Low investment capacity due to lack of appropriate financial instruments, limited access to credit, high risk, and lack of appropriate incentives to increase the participation of the private sector in activities related to the sustainable use of forests.
- Limited and weak linkages to commodity markets, especially those for new timber products, carbon, and other ecosystem services.
- High demand and markets for products produced by illegal activities (illegal alluvial mining, illegal crops) and for products produced without the inclusion of environmental criteria (oil palm, cacao, coffee and other crops).

The barriers related to capacity and access to resources by institutions, organizations, and producers are the following:

- Limited technical and management knowledge of the producers.
- Models of producer organizations are inefficient and unaligned to markets or opportunities available for low emissions production systems.
- Institutional capacities are emerging or incipient (such as the Regional Environmental Authorities - ARAs) or are unaligned with existing international requirements and opportunities.
- Lack of information and research regarding forest degradation, the relationship between forests and climate change adaptation, production alternatives, and value chains and markets.
- Scarce flow of and little access to commercial, technical, and financial information at all levels and between the levels. Low levels of information dissemination.

5.3 Description and justification of planned and ongoing activities under the proposed ER Program

Please describe the proposed activities and policy interventions under the proposed ER Program, including those related to governance, and justify how these activities will address the drivers and underlying causes of deforestation and forest degradation and/or support carbon stock enhancement trends, to help overcome the barriers identified above (i.e., how will the ER Program contribute to reversing current less sustainable resource use and/or policy patterns?)

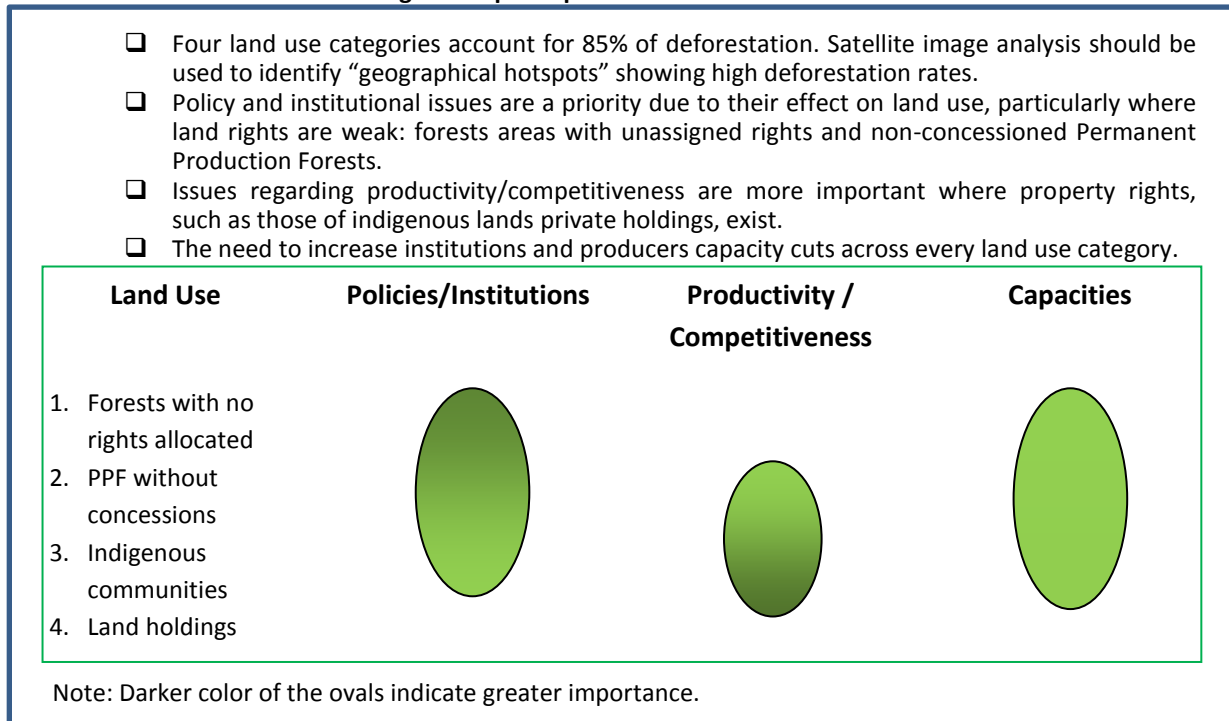
The interventions implemented in the two regions will be based on an integrated territorial and sustainable landscapes approach that is aimed at the direct drivers of deforestation (shifting agriculture, logging, and commercial agriculture) and associated degradation, while reconciling forest conservation and land-based economic activities such as agriculture and forestry. The interventions are grouped into: 1) the generation of enabling conditions that improve the control of forest land and facilitate private investment, 2) the development of innovative sustainable forestry management, agroforestry, and silvopastoral business models, value chains, and production systems, and 3) the strengthening of technical, operational, and management capacities (roles, responsibilities and resources) of the regional authorities, local governments, indigenous communities, producers, organized civil society and the business sector that affect the forestry and agro-forestry sector. Experience from Brazil and other countries suggest that a multiple approach that combines a command-and-control system for land use, access to public funds conditioned on deforestation rates, and incentives for the adoption of sustainable production systems can prove effective in combating deforestation.

The applicability of these interventions will vary according to the socio-environmental and land use characteristics (Figure 7). In general, policy and institutional issues are a priority due to their effect on land use, particularly where land rights are weak: forests areas with unassigned rights and non-concessioned Permanent Production Forests. In comparison, issues regarding productivity/competitiveness are more important where property rights, such as those of indigenous lands private holdings, exist. Finally, capacity development and strengthening cut across land use categories.

In established agricultural areas, the interventions should focus on promoting sustainable agricultural production systems such agroforestry or the enhancement of secondary forests, and the technological development, innovation, and strengthening of capacities to increase competitiveness, sustainability and inclusion. On the

agricultural frontier where there are significant forested areas, forestry and sustainable agricultural production systems should be promoted, with emphasis on granting rights to forest lands, increasing the competitiveness of productive activities, implementing an efficient system of land use monitoring and control, and developing enabling conditions related to public management. Finally, in relatively undisturbed forested areas, the protection and conservation of forest ecosystems, including their sustainable use and monitoring, should be a priority. In all three scenarios, an effective system of monitoring, control and supervision of land use is required.

Figure 7. Spatial priorities of interventions.



A large majority of the deforestation in the Peruvian Amazon is related to small-scale shifting agriculture driven by underlying causes of migration and the presence of land with undefined legal rights. The data and discussion in Section 5.1 suggest that population pressure, mainly caused by migration and facilitated by roads, and expanding markets, is causing the increased conversion of forests on farms or communal lands to agriculture or the invasion of areas with undefined rights, where forests are illegally logged and/or converted to agricultural use. This process is aided by road construction and weak governance related to land use planning, land titling, and monitoring and enforcement of land use.

The proposed interventions address these issues and include integrated activities at both the national and regional levels. It is expected that land use planning and zoning, the assignment of land use rights, and development of productive value chains, associated with financing of sustainable agriculture, agroforestry, or forestry activities and the strengthening of producers and their organizations, would be able to reduce deforestation. This assumption is based on positive experiences with multiple and complementary interventions in Acre and Mato Grosso in Brazil and is also based on comparisons of deforestation rates for lands with and without defined rights (Tables 11 and 12).

Improving enabling conditions and governance includes: land titling land, especially of indigenous communities; assigning timber or non-timber concessions or usufruct rights; and developing systems of land use monitoring and enforcement of land use. These territorial-based command-and-control types of interventions are mainly the responsibility of the regional governments, particularly the Regional Environmental Authorities (ARAs), but include local and national (e.g. the SNMCCB) actors in monitoring and MINAGRI in land titling and the granting of forest concessions. In order for these measures to be effective national policies need to be reviewed by the PNCBMCC and SERFOR to identify and eliminate those that favor deforestation and to formulate others that provide disincentives

to deforestations (e.g. conditioning the transfer of national funds to local municipalities on the latter's performance with regards to reducing deforestation). Vertical and horizontal coordination of policies and institutions also needs to be designed and agreed upon (PNCBMCC and SERFOR). Institutional needs also need to be identified and a capacity strengthening program designed.

With regards to forestry management and agricultural interventions, small-scale loggers, farmers and indigenous communities face a number of obstacles to establishing commercial transactions with companies, improving production, and participating in new value chains. In general, their activities produce very low returns to land and labor. Both forestry and agroforestry, which have relatively high potential productivity and profitability, also have high start-up costs and capital requirements, long payback periods, and in the case of agroforestry, are labor-intensive, all of which reduce the rate of adoption.

More sustainable forestry management can increase both timber harvested as well as rates of forest growth. Sustainable forest management interventions include the following: training of loggers in reduced impact logging techniques, developing the capacity of indigenous communities in community forest management (CFM), strengthening the business and administrative capacities of logging companies, reducing administrative and procedural bottlenecks associated with the granting of timber concession and the permitting process, designing credit instruments more aligned with needs of the forestry sector, training related to increased processing efficiency, measures aimed at expanding markets, mainly at the national level (e.g. purchases by State agencies), for lesser known timber species, improved timber tracking, and enforcement of illegal timber activities. A system of payments for ecosystem services (PES) also needs to be developed and potential buyers identified.

Principal activities include the following actors: forest planning, concession administration and enforcement (SERFOR at both the regional and national levels in coordination with the Regional Environmental authorities), forest monitoring and verification (SNMCB, ARAs, local populations and NGOs), training of loggers and timber processors (NGOs, such as the WWF), developing CFM capacities (NGOs such as WWF and AIDER), timber certification (NGOs such as the WWF), the design of credit instruments (Agrobanco), market expansion for forest products (Ministry of Production - PRODUCE, MINAGRI/SERFOR, NGOs), and PES (NGOs). A more detailed design of activities, accompanied by a deeper analysis of relevant actors, will be conducted during the coming year.

More productive farming systems can reduce the need for shifting agriculture and thus help alleviate pressure on forests. Interventions include: promoting the use of inputs and adoption of improved technologies via technical assistance and greater access to credit more aligned with, for example, the needs of agroforestry systems, and conditioned on forest conservation; the formation and strengthening of farmer organizations in order to increase their production and commercialization capacities, improving value chains and the formulation of new business models, identifying markets that reward low-carbon agriculture, and improving the ability of businesses to access those markets. These interventions would involve INIA (technological innovation), NGOs and the regional governments for technical assistance and the strengthening of producer organizations and business capacities, market prospection (Ministry of Production - PRODUCE, MINAGRI/SERFOR, NGOs), and Agrobanco for credit.

With regards to underlying causes of deforestation, illegal mining, which has garnered large amounts of publicity, explains only a small portion of the total deforestation in Peru, and in San Martin and Ucayali in particular. The Peruvian government has embarked upon a program to reduce illegal mining via formalization of informal operations, the control of illegal activities and the compliance of environmental norms.

With respect to new highway construction, land use zoning, monitoring, and control, and consolidation of land rights, especially the reduction of forested areas with unassigned rights, constitute key elements of governance for reducing the risk of deforestation caused directly or indirectly by road construction.

Addressing migration driven by poverty is problematic within the context of the ERP because areas that expel populations lie outside the zone of the intervention of the project and exist at a scale that needs to be tackled by the national government. Potential solutions include the use of Results-Based Budgeting instruments that aim at the development of integrated solutions to poverty, greater connectivity of these regions to coastal areas, the promotion of new business models and market linkages such as those promoted by the Sierra Produce, more efficient use of financial resources such as the mining royalties, and in general, better governance at the regional

level. In ERP areas affected by the influx of migrants, the governance and production interventions mentioned above are essential to reducing the impact of migration.

The occurrence and intensity of forest degradation, hence the design of potential related interventions, is not well understood at present. Degradation is apt to vary spatially depending on the proximity of a given area to markets, population centers, roads, population density, and road age. A recent study⁵ from the Brazilian Amazon suggests that the area affected by forest degradation is about 30% of the area deforested, but is unclear as to the impact of degradation on carbon stocks. In order to better understand forest degradation, data will be gathered through the National Forest Inventory; reference levels for forest degradation in the Amazon are expected in 2015. Furthermore, a deeper assessment of forest degradation will be carried out during the program preparation phase prior to contract signing in order to better quantify and understand this process (see Section 8.2).

Table 14. Summary of interventions in relation to causes of deforestation.

Drivers	Interventions
Weak land use governance and enabling conditions	Elimination of perverse policies favoring deforestation. Vertical and horizontal coordination of public institutions and policies for forest and land use monitoring, the management of forests, agriculture, and climate change. Inclusion of civil society actors in local land use monitoring. Conditioning of public funds based on deforestation performance. Strengthening of institutional capacities and budgets.
Lands with unassigned rights	Land zoning and titling, especially of indigenous territories. Assignment of timber concessions.
Low forest productivity and profitability and agricultural productivity and competitiveness	Sustainable forest management via technical and business training. Development of financial instruments aligned with sector needs. Market expansion of lesser known timber species. Development of PSAs. Simplification/reduction of administrative procedures related to forestry concessions. Improved timber tracking and enforcement of illegal timber.
Shifting agriculture characterized by low productivity and competitiveness	Technical assistance and dissemination of more sustainable and productive technologies partially conditioned on deforestation performance. Credit instruments aligned with agroforestry needs. Improved farmer organizations. Identification of markets that reward low-carbon agricultural products. Development of new business models focused on those markets. Training of businesses to access emerging opportunities of green markets.
Migration facilitated by roads	National poverty reduction programs in the Andean region including the use of instruments such as the Results-Based Budget Program aimed at integrated development solutions. Road impact can be reduced by land use zoning, monitoring, and enforcement, and assignment of land rights.

Within the global scope of the interventions, the differences between Ucayali and San Martin is one of degree. Due to its forestry character and high indigenous population, interventions in Ucayali will tend to place greater emphasis than San Martin on a) developing a participatory planning model for forest land use planning and community forest management; b) strengthen the land titling and property rights systems for forests belonging to indigenous peoples; and c) strengthen the technical and internal governance capacities of the indigenous communities for community forestry and agricultural management. Additionally, the project will work to reduce the gaps in the organization and

⁵ <http://www.imazon.org.br/publications/other-publications/deforestation-and-forest-degradation-in-the-amazon-biome-1>

productivity of community forest management and in linking indigenous communities to high added-value markets and suitable business partners in order to increase the competitiveness of sustainable forest use.

In comparison to Ucayali, in San Martin the ERP is more focused on: a) reducing the agricultural conversion of forest through the implementation of an integrated land management model in the region; b) promoting more sustainable and carbon friendly agriculture through agroforestry and silvopastoral systems, and c) creating more effective systems of land use zoning and planning, monitoring, and control and increasing the capacity of the regional government in these areas.

Within both San Martin and Ucayali, specific areas of intervention need to be identified. Since four land use categories account for 85% of deforestation, satellite image analysis should be used within these categories to identify “geographical hotspots” showing high deforestation rates. In addition, the REDD+ MINAM Program has carried out an analysis at the district level of priority areas for REDD+ projects based on the opportunities to reduce emissions and increase social and environmental non-carbon benefits (Table 15). This analysis needs to be deepened and applied in the selection of intervention areas within each region.

Finally, an analysis of potential costs of interventions will be carried out during the next semester. PlanCC will estimate the costs, feasibility, and priorities of mitigation measures (including enabling conditions); and the design of the FIP projects are also expected to provide useful information. Further discussion of the proposal will also be carried out within the REDD+ and Indigenous REDD+ Roundtable systems, as well as with businesses and the Economic Development and Environmental (ARAs) programs of the regional governments.

Table 15. Tentative priority districts for REDD+ projects based on emissions reductions and non-carbon benefits.

San Martin		Ucayali	
District	Province	District	Province
San Roque de Cumbaza	Lamas	Tahuania	Atalaya
Pinto Recodo		Raimondi	
Chazuta	San Martin	Sepahua	
Awajun	Rioja	Manantay	Coronel Portillo
Elias Soplin Vargas		Calleria	
Pardo Miguel		Curimana	Padre Abad
Huicungo	Mariscal Cáceres		
Alto Biavo	Bellavista		

(Proyecto REDD+ MINAM, 2014)

Expected Results

The direct results expected from the implementation of the ERP include:

- The reduction of approximately 13 MT of CO₂e emissions (see Section 12.1).
- The improvement of forest and environmental governance in the areas of intervention of the program.
- Clarification of land use tenure and increased titling and the establishment of land rights of forest-dependent individuals and communities in the zones of intervention of the program.
- Increased competitiveness of forest-dependent economic activities in the zone of intervention of the program
- Technological innovation and market development
- An increase in the availability of loans and funding for sustainable forest and agricultural production
- Improved technical, organizational, and administrative capacities of institutions, businesses, and producers

5.4 Risk/benefit analysis of the planned actions and interventions under the ER Program
 Please explain the choice and prioritization of the planned actions and interventions under the ER Program identified in 5.3 taking into account the implementation risks of the activities and their potential benefits, both in terms of emission reductions and other non-carbon benefits.

The actions and interventions proposed in the ERP are innovative and require a high level of coordination and management, both external to the Program (for example, among the various levels of Government programs) and internally (with stakeholders and within the implementation team). The activities are focused on fostering and coordinating political and institutional change that will generate the enabling conditions needed to add value and increase the sustainable use of the forests, and on generating the capacities and linkages between communities, indigenous groups, producers, financial institutions and markets in order to increase the competitiveness of the productive activities. These two types of activities will operate hand in hand and will mutually reinforce each other.

There are three types of risks that could affect the implementation of the program and the results-based payments: (i) political/institutional, (ii) social, and (iii) operational. A brief description of the risks in each category and how they might be mitigated follows.

Political/Institutional Risks

- Existence of political will and follow-up necessary to ensure the implementation of the government reforms, decentralization, and law enforcement.
- The environment and agriculture sectors have transferred competencies to newly empowered institutions (for example, regional governments) for the implementation of activities in the forestry sector, however, the latter may face difficulties in fulfilling their mandate due to the lack of capacity or changes in regional policies.
- Although the MINAGRI is working to standardize the criteria and procedures for titling land in the country (which includes the three regions where the projects are being implemented), the process may take longer than currently estimated.

Social

- Social conflicts (such as informal miners or protests by indigenous groups) negatively affect the implementation of the projects.
- The megaprojects and Andean migration may result in negative impacts which could exceed the implementation capacity of the ERP projects. For example, the construction of roads that reduce transportation costs may favor increased migration resulting in increased deforestation and forest degradation.

Operational risks (technological, managerial, environmental, and social)

- Local organizations do not have enough resources (e.g. indigenous organizations have identified needs for specific and ongoing technical assistance, logistical capacity and other types of assistance) to participate effectively in the program. Additionally, migrants may be excluded from the projects as they may be unorganized.
- Land use zoning and land tenure interventions may impact land user relationships, especially those of indigenous peoples and other forest-dependent groups.
- During project implementation, it is possible that women could be marginalized with regards to decision-making, training, land titling, resource management, and forest use.
- The implementation capacity of the Program may not adequately respond to the complexity and conceptual, technical, and institutional requirements of the FCPF.
- At present, there are insufficient baseline studies (social, economic and environmental), which hinder adaptive monitoring and management of the project and the evaluation of the results.
- During project implementation leakage of emissions and/or the displacement of the agents of deforestation and degradation agents may occur.
- The implementation of the Registry of emissions reductions may present defects or omissions that result in the double accounting of the reductions.

The evaluation of the likelihood and the level of control over such risks suggests that operational risks are of less magnitude than the political and social risks, since the former are within the control of the project. Political risk is an

intermediate level risk: although the institutional and regulatory complexity pose a great challenge, there is a formal commitment of the Government to the proposed changes; moreover, key government entities (for example, the PNCBMCC, the MINAGRI, the MEF, Regional Environmental Authorities and the Inter-regional Amazon Council – CIAM) are fully included in the management and implementation of the project. Also, PNCBMCC and SERFOR will assign a high priority to inter-sectorial coordination and in strengthening the territorial management capacity of regional governments. In addition, the risk related to land titling is reduced by assigning a high priority to land titling in the ERP regions, especially that of indigenous lands.

Social risks are also moderate. Illegal mining is less important in San Martin and Ucayali than in other areas such as Madre de Dios. Also, it is expected that assigning a high priority to indigenous groups during the process of land titling and the involvement of local groups, such as the REDD+ Roundtables and indigenous groups, in the REDD+ and ER Program design, implementation processes, and management structure (e.g. Executive Committee, TCGs, and LECs) will reduce the probability of significant social risk related to indigenous groups. The establishment of land zoning and monitoring and enforcement of land use plans and the conditioning of transfer of national funds to local governments based on deforestation will aid in reducing the risk of deforestation associated with large infrastructure projects such as highway construction.

In relation to operational risks, the interventions that focus on improving the enabling conditions and governance pose a greater risk than those that improve production and competitiveness, due to the complexity and inertia of the institutions and of Peruvian regulations. As a response, it is important that the Program strives to simplify its response to this complexity, focusing its interventions on the most important stakeholders (for example, MINAGRI, MINAM, MEF and the regional governments) as well as on critical points (for example, the public budgeting process and regional governments) where the Program can exercise a greater degree of influence, or where the payoffs to its efforts are greater. In any case, a focus on the enabling conditions that facilitate the achievement of the results and on governance is essential, despite the risks involved, due to their importance as the basis of the other interventions and the value that the success of such efforts would have for other regions of the country.

Other operational risks can be reduced by the implementation of an effective program of capacity building at multiple levels (institutions, indigenous communities, producers, businesses, or organizations), assuring the participation and consultation of stakeholders, using a gender equality approach, and the design and implementation of an effective program monitoring system that would enable the identification of problems and their mid-course correction. With regards to risks related to land use and land rights, during the program preparation phase, regional socio-environmental assessments focusing on each area of intervention and its sphere of influence (direct and indirect) will be carried out in order to identify: direct, indirect and cumulative risks posed by the interventions to rights of forest-dependent communities, including indigenous and riverine communities; the measures required to align activities or mitigate the socio-economic impacts identified; and how these solutions might be codified.

6. Stakeholder Information Sharing, Consultation, and Participation

6.1 Stakeholder engagement to date on the proposed ER Program

Please describe how key stakeholder groups have been involved in designing the proposed ER Program, and summarize issues raised by stakeholders, how these issues have been addressed in the ER Program to date, and potential next steps to address them.

During the design of the R-PP and ER Program, the Stakeholder Engagement Plan (PIA) methodology, developed during the FIP-PIN process, was used to orient the ample participation of a diverse group of stakeholders, including: the Natural Resource and Environmental Management Offices of the Regional Governments, representatives of the productive sectors, heads of Protected Natural Areas, representatives of local governments, local and international NGOs, REDD+ and Indigenous REDD+ Roundtables, the indigenous organizations AIDESP and CONAP, and the private sector. The PIA takes into account a diagnosis of the actors, interventions, and safeguards. The PIA is being continuously adapted to the needs of the REDD+ program, for example by including actors not consulted during the

FIP process, such as business actors not related directly to forestry activities, as well as migrants, farmers, and other agents of deforestation.

Three mechanisms have been and will continue to be used to incorporate the participation of stakeholders at both the regional and national levels, with special emphasis afforded to indigenous groups: 1) public workshops which included the participation of the Natural Resource and Environmental Management Office of the Regional Governments, representatives from the productive sectors, heads of Protected Natural Areas (ANPs), representatives of local governments, local and international NGOs, the private sector, and representatives of indigenous communities; 2) REDD+ Roundtables, composed of around 70 public and private institutions, and 3) coordination with the Inter-ethnic Association for the Development of the Peruvian Forest (AIDSEP) and the Confederation of Amazonian Nationalities of Peru (CONAP) indigenous organizations and the Indigenous REDD+ Roundtable. The participation of the latter was conducted in accordance with both national (Law No. 29785) and international regulations (ILO Convention 169) and incorporated the principles of access to information and transparency, good faith between the participants, respect for the rights and cultural diversity of the stakeholders, and inclusion and representation.

The design of the ERP included four meetings and two workshops with civil society and indigenous organizations to socialize the proposal and Participant Committee comments and to elicit comments and inputs. The meetings focused on explaining the ERP process and its relationship to the FIP and the R-PP, REDD+, and the presentation of the preliminary and modified proposals. The workshops focused on incorporating the contributions of the participating groups in the ERP proposal.

The most important issues raised in these meetings were the following:

- The importance of a clear direction and political decisions regarding the REDD+ processes.
- The complexity of simultaneously implementing the R-PP, FIP, ENBCC and ERP programs.
- The reluctance of the indigenous groups to trade the emissions reductions generated from their lands as off-sets in international carbon markets.
- The importance for the indigenous groups of land titling and rights and compliance of social and environmental safeguards.
- The potential threat of invasion of the protected areas and the current impact of hydrocarbons and agro-industrial crops on indigenous territories.
- The issue of just compensation for forest conservation, especially in indigenous territories.
- The importance of leveraging the results of the ERP to benefit other zones.

The issues of complexity, political leadership, protection of the rights of the indigenous peoples and the corresponding safeguards, the drivers of deforestation, and the Indigenous REDD Roundtable proposal on the pricing of emissions reductions have influenced the ER-PIN proposal.

6.2 Planned outreach and consultation process

Please describe how relevant stakeholder groups will participate in further design and implementation of the proposed ER Program and how free, prior and informed consultation leading to broad community support for the ER Program and key associated features, including the benefit-sharing arrangement, will be ensured. Please describe how this process will respect the knowledge and rights of Indigenous Peoples and local communities, by taking into account relevant international obligations, national circumstances and laws.

In general, the participation of diverse stakeholders is mandated under the new Forestry Law via the National Forestry and Wildlife Council (CONAFOR) at the national level, and the Committees for Forest and Wildlife Management (CGFFS) at the local level; these mechanisms are oriented towards all citizen participants, under the principles of good government. In the case of indigenous peoples, the Law of Prior Consultation provides additional guarantees specifically focused on these groups. Finally, stakeholder participation is also envisioned in the framework of the National Climate Change Commission where a forest and climate change working group will be formed.

With regards to the ER Program, stakeholder participation during the design and implementation of the two specific projects will build upon progress achieved to date by the application of the Stakeholders Engagement Plan (PIA). The ERP will continue consultation with the REDD+ and Indigenous REDD+ Roundtables in San Martin and Ucayali, but will expand the group of stakeholders to include formal inclusion of representatives of local businesses and local governments in consultations regarding how the PIA can be improved as well as in the design of specific elements related to the ERP process. Indigenous and other stakeholder participation in project decision making is also facilitated by their inclusion in the ERP Executive Committee and Technical Consulting Group at the national level, as well as the Local Environmental Commissions at the local level (see this Section, below). The grievance and conflict resolution office is another mechanism for addressing stakeholder concerns (see Section 13.3).

In order to assure the participation of remote indigenous groups directly affected by the ERP in the design and implementation process, methodologies adapted from the FIP process will be used. These include holding meetings, convoked by the regional organizations of AIDSESEP and CONAP and attended by ERP personnel, in centralized locations accessible to remote indigenous groups and the use of local interpreters and materials produced in local languages.

The PNCBMCC will coordinate the implementation and application of the PIA. The tools used in the PIA will be adapted to each area of action, the type of stakeholder and their interests, and the opportunities present. As part of this process, indigenous organizations are specifically targeted in the PIA. This instrument contemplates the participation of all forest stakeholders, particularly indigenous groups, whose collective rights to participation and prior consultation are recognized under both international and Peruvian law. This participation will occur during the various phases of the ER Program including Project formulation and design, implementation, and monitoring and evaluation.

In addition, at the regional level the PIA will seek to activate and strengthen synergies and interactions between the decentralized entities of the MINAM, the MINAGRI, the CIAM, regional (especially the Economic Development and Environmental Programs) and local governments, indigenous organizations, and private institutions that are directly and indirectly involved in forest management, especially during the definition of the Strategic Social and Environmental Assessment (SESA), reference levels, forest monitoring system, MRV, the management of risks and impacts, the distribution of benefits, and the feedback of results and information to the public in general.

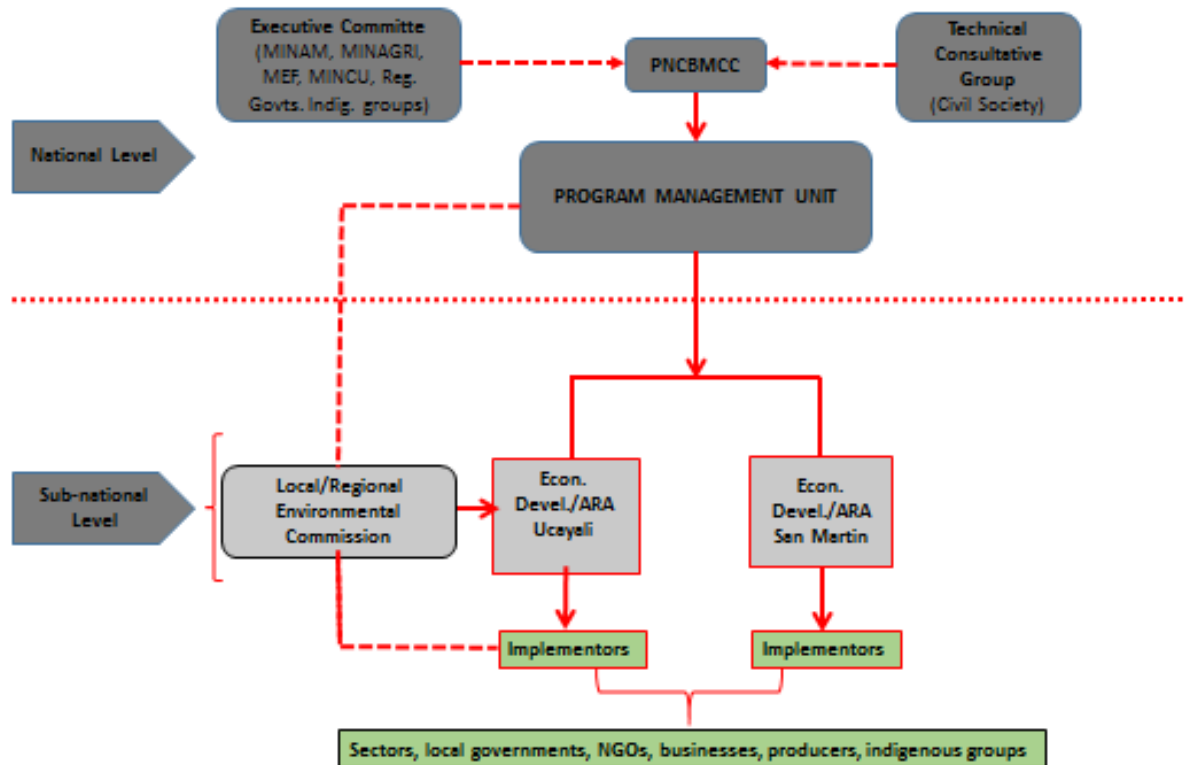
During ERP implementation, three entities will provide direction, coordination, follow up, and technical advice to the Program and serve as channels for consultation and communication with stakeholders. The existing Executive Committee of the FIP Program, made up of representatives from the state institutions MINAGRI, MINAM, MEF and the Ministry of Culture, participating regional governments, and AIDSESEP and CONAP, will be adapted as the Executive Committee of the ERP and will be responsible for the Program's overall strategic direction and policies as well as those of the R-PP/FCPF, and UN REDD+.

The Technical Consultative Group (TCG), made up of representatives from civil society, will provide technical advice and monitor Program implementation and will represent the interests of the various stakeholders of civil society at the national level. Both the TCG and ERP Executive Committee will provide input to the Program Management Unit (PMU) within the PNCBMCC.

At the regional or local level, Local Environmental Commissions (LECs), made up of representatives of relevant governmental institutions, indigenous organizations (including representatives of AIDSESEP and CONAP), the private sector, NGOs, and other civil society actors, will play a role similar to that of the TCG at the national level. The LECs will also provide information and feedback to the PMU at the national level in order to ensure the flow of information between the hierarchical levels and ensure broad-based support for the program (Figure 8). The TCG and LECs will be formed in 2015.

The legitimacy of stakeholder participation will be assured by including representatives of the principal indigenous organizations at the national and regional levels as well as the participation of diverse civil society actors or groups such as the REDD+ Roundtables, the Indigenous REDD+ Roundtables, and the Peru REDD+ Group in the consultation process via the TCG at the national level and the LECs at the regional level. The PIA process also provides a formal mechanism for participatory design and prior consultation.

Figure 8. ERP management structure including the participation of stakeholders.



7. Operational and financial planning

7.1 Institutional arrangements

Please describe the governance arrangements anticipated or in place to manage the proposed ER Program (committee, task force), and the institutional arrangements among ER Program stakeholders (i.e., who participates in this ER Program, and how, including the roles of civil society organizations and forest dependent communities).

At present, Peru is in the final stage of the design of the overall ENBCC and the National REDD+ Action Plan which is nested within the former. The design of a management structure is an important process for both and precludes the final design of the ER Program governance arrangements.

At this time, it is envisioned that ERP global management will be the responsibility of the Project Management Unit (PMU) overseen by PNCBMCC. Local coordination and supervision of implementation will be the responsibility of the participating regional governments, via their Economic Development and Environmental management (ARA) units.

As explained in section 6.2, the ERP Executive Committee at the national level will be responsible for decisions related to the overall ER Program strategy and implementation. The Executive Committee will be made up of representatives of the PNCBMCC/MINAM, the Ministry of Agriculture and Irrigation (particularly the SERFOR), the

Ministry of Economy and Finance, the Ministry of Culture (Vice Ministry of Intercultural Affairs), the regional governments of San Martín and Ucayali, and AIDSEP and CONAP. As such, the Committee will be a venue for coordination that will ensure the alignment of the sectorial policies and the objectives of the program. The TCG will complement the Executive Committee at the national level by providing input from civil society such as NGOs or business or producer federations; it will also monitor Program progress.

Many of the Program interventions will occur at the regional level (e.g. land titling, zoning, monitoring and enforcement of land use, technology transfer, strengthening of producer organizations and businesses). The regional coordinating institutions will be the Economic Development Program and Regional Environmental Authorities (ARAs) of the regional governments, and their Territorial Management Units (TMUs). Depending on the type of intervention, implementation will be carried out by these regional government entities (e.g. land titling), other national institutions (e.g. Agrobanco in the design of credit instruments), private sector organizations (e.g. cacao cooperatives), or NGOs (e.g. capacity building, community forestry management). Consultation with regards to local program design and implementation, local decision making, and the monitoring of project activities and achievements will be done through the local environmental commissions (LECs) in each region (Figure 8). Additionally, the LECs will provide feedback to the PMU in order to assure the flow and integration of information to the national levels and assure widespread support of the Program.

The main potential governmental allies of the ER Program at both the national and regional levels include: AGROIDEAS, the Land Titling and Registering Program of the MINAGRI, the MINAGRI-CAF Forestry Program, and the National Agricultural Innovation Program of the INIA.

Within civil society, the organization and actions of the project will be linked to the participants in the REDD+ Roundtables (Table 5 in Section 2.2) as well as the following potential stakeholders:

- The indigenous federations Shawi, Kichwa, and Awajun in San Martin; ORAU, FECONAPA and CORPIAA in Ucayali;
- Representatives of the forest business sector and the agroforestry sector such as the National Coffee Council, Romero Group, ACOPAGRO, and Oro Verde in San Martin, and Reforestadora Amazónica;
- Active REDD+ projects include the Alto Mayo Forest Reserve administered by Conservation International, the Alto Huayabamba/AMPA conservation concession, and the Martin Sagrada biocorredor/Amazonia Viva in San Martin and the Cordillera Azul national park, shared between San Martin and Ucayali and managed by CIMA. The nested jurisdictional treatment of these REDD+ projects is considered a temporary phase leading to their incorporation into the national REDD+ program and their corresponding alignment with the national methodological framework.

Additionally, efforts will be made to align the ERP with various sectorial measures being enacted by the State to deal with environmental problems and the sustainability of natural resources, and with CIAM's efforts to build a shared environmental strategy and vision among the Amazonian regional governments. In this regard, the MEF is working on cross-cutting reforms which are being implemented by the "Program for the Modernization of Public Administration" and the "Results-Based Budgeting Program"; the latter aims at strengthening the territorial focus of the State and integrating actions of the three levels of government as well as the sectors in pursuit of defined results.

7.2 Linking institutional arrangements to national REDD+ implementation framework

Please describe how the institutional arrangements for the proposed ER Program fit within the national REDD+ implementation framework.

The national REDD+ implementation framework is currently being formulated by the PNCBMCC as part of the overall ENBCC. As such, the National REDD+ Action Plan and its ER Program component will be aligned with the ENBCC's overall objectives and strategy, which include REDD+.

A key component of the ENBCC is the vertical and horizontal coordination of institutions and policies. The proposed design of the institutional arrangements of the ER Program mentioned in section 7.1 and the coordination between

the PNCBMCC and SERFOR are concrete examples of how such arrangements can be structured. Within this structure, the Executive Committee, formed by sectorial representatives of the government as well as indigenous groups, provide the link between the proposed ER Program and the national REDD+ and Forests and Climate Change framework, including the FIP program, R-PP/FCPF, and UN REDD+. At the regional level, the ENBCC and REDD+, including the ER Program, will be incorporated in the Regional Development Plans, the main planning tool of the regional governments.

It is envisioned that the ERP will aid the ENBCC and the PNCBMCC/SERFOR in achieving greater horizontal linkage and coordination among institutions and policies at the national level, and vertical coordination with the regional and local governments. Likewise, the important role of the regional governments, the national TCG, the LECs, the REDD+ and the Indigenous REDD+ Roundtables within the management, consultation and implementation structures of the ERP will all provide concrete experience for improving the alignment and participation of the stakeholders within the ENBCC.

7.3 Capacity of the agencies and organizations involved in implementing the proposed ER Program

Please discuss how the partner agencies and organizations identified in section 3.1 have the capacity (both technical and financial) to implement the proposed ER Program

The ERP will be implemented via its Project Management Unit (PMU). The PNCBMCC will have general, administrative, and financial responsibility for the Program.

The PNCBMCC has the following technical, financial and administrative capacity related to the management of projects and international cooperation:

Technical

Forest Mapping and Conservation Monitoring Unit
Sustainable Production Systems Promotion Unit
Capacity Strengthening Unit
Forest Conservation Formulation Unit
REDD+

Financial and Administrative

Finance and Administration Unit
Planning, Monitoring and Evaluation Unit
Legal Unit

These units include specialists in various forestry related themes (monitoring of deforestation, sustainable management projects and initiatives, strengthening and improving forest governance, REDD+, safeguards, and public investment projects) and in administration and financial management components such as logistics, hiring, accounting, financial management, budgeting, planning and public sector regulations.

It should be noted that the naming of new leadership of the PNCBMCC in August, 2013 has strengthened the overall vision, direction, and management capacity of the Program. Recently initiated or completed initiatives include: the design of the ENBCC and the National REDD+ Action Plan, due to be completed in October, 2014; the design of a national Forests and Climate Fund; an increase of activities with UN REDD and other actors; the achievement of consensus with the MINAGRI with regards to the overall management of forests and climate change; and the reorganization of the REDD+ Program within the PNCBMCC. To date, the PNCBMCC has demonstrated the capacity to technically and financially manage a portfolio of projects that total approximately \$212 million (Table 16). However, it recognizes the need to strengthen the administrative and technical capacities of the multiple national and sub-national entities that are responsible for aspects of the implementation of the ERP, especially those of the regional governments and the indigenous organizations. The strengthening of institutional capacity of these actors will include:

- a. Improving organizational capacity

- b. Improving inter-institutional planning capacity
- c. Improving the capacity for managing shared financial resources

The Governors’ Climate and Forest Task Force (GCFTF) can play an important role in strengthening the regional governments through the exchange of experiences among the sub-national government members of the Task Force regarding the implementation of REDD+. The San Martin and Ucayali regional governments are members of the GCFTF.

7.4 Next steps to finalize the proposed ER Program implementation design (REL/FRL, ER Program monitoring system, financing, governance, etc.). Provide a rough timeline for these steps.

The next steps necessary to finalize the design of the ERP and complete the Readiness Package include the following:

- Continue adapting and implementing the Stakeholder Engagement Plan (PIA) and the training component, in order to ensure effective participation and the inclusion of civil society in the final design and implementation of the ERP, especially in regions of intervention. The Plan should include modules for intercultural dialogue, conflict resolution, and for principle-based negotiation, which will help the stakeholders achieve agreements based on trust and cooperation.
- Finalize the creation of the ERP Executive Committee and the TCG at the national level and design a work plan for institutional and policy linkage and coordination among their members.
- Define in greater detail together with the national institutions, regional governments, the national and regional REDD+ and Indigenous REDD+ Roundtables, business sector, and civil society the composition of the LECs and begin to jointly design the interventions and implementation plans for each zone.
- Formulate involvement of local and indigenous groups in forest cover monitoring and verification as part of the National Forest Cover Monitoring System.
- Consolidate the implementation of the nested jurisdiction system for measuring forest cover and the reduction in emissions and the transition to a system based on a national jurisdiction.
- Consolidate the National REDD+ Initiatives Information Platform and the National REDD+ Initiatives Registry in a manner that will avoid: a) double or triple accounting of emission reduction; b) relative ambiguity regarding the ownership of reduced emissions; c) inconsistencies between the national GHG inventories and the general REDD+ accounting and d) non-fulfillment of the socio-environmental safeguards.
- Complete the design of the SESA and adapt it to the ER Program interventions, including the plan for tracking the indicators of both the safeguards and the non-carbon benefits and the plan for including and managing of these data in the National REDD+ Initiatives Registry.
- Align and coordinate the financing of the activities that will result in results-based payments from the Carbon Fund.
- Define the benefits distribution system.

These steps will require approximately 18 -24 months to complete (generally, second semester of 2014 - first semester of 2016) (Figure 9).

Figure 9. Estimated chronogram for finalization of ERP design.

Activity	2014	2015		2016
	2nd Semester	1 st Semester	2nd Semester	1 st Semester
Adaptation of PIA				
Define nested jurisdictional system for local REDD projects				
Define ERP Executive Committee and TCG, their responsibilities, and mechanisms for coordination				

Define local management structure, including LECs				
Identify priority zones and interventions with stakeholder				
Design ERP monitoring system				
Update and improve RL and monitoring system				
Study of road impact on deforestation and degradation				
Design local participation in forest monitoring and verification				
Consolidate the National REDD Initiatives Information Platform				
Design and implement National REDD Initiatives Registry				
Complete SESA and include concrete impacts of ERP				
Design ESMF				
Define indicators and methodologies for non-carbon benefits				
Design and achieve consensus on benefit distribution arrangements, including Forest and Climate Fund				
Gap analysis of financial needs and sources				
Identify and negotiate funding				

7.5 Financing plan (in US\$ million)
Please describe the financial arrangements of the proposed ER program including potential sources of funding. This should include both near-term start-up cost and long-term financing. If the proposed ER program builds on existing projects or programs that are financed through donors or multilateral development banks, provide details of these projects or programs, including their financing timeframe. Use the table in Annex I to provide a summary of the preliminary financial plan

Estimated costs and revenues associated with the ERP are shown in Annex 1. These estimates will be further analyzed and improved during the next semester in the context of the FIP project design, the analysis of LULUCF mitigation priorities by PlanCC, and the analysis of financial gaps of the National REDD+ Program. Based on this information, existing funds can be better programmed and existing gaps and future needs identified.

Based on the preliminary information in Annex 1, the activities related to the ERP preparation and implementation show a net positive return for 2015-2020 of \$132.8 million, although cash flow is reduced during 2015 and 2016. These results will be confirmed by the study of REDD+ funding presently underway.

Total estimated costs are \$304 million; annual costs during ERP implementation are \$61.7 million. Total funds available are \$436.7 million and include \$71 million provided by various projects financed by donors or multilateral development banks (Table 16), \$115 million provided by the Peruvian government via PNCBMCC and SERFOR, \$158 million in revenues for REDD+-associated productive activities (cacao agroforestry, MFS and community forestry), and almost \$92 million from the sale of emission reductions, approximately \$32 million from the FCPF and \$60 million from other buyers.

Among donor provided funds, the FIP program will contribute approximately \$15.87 million in grants and \$13.2 in loans to 2020. FIP funds will be used in the FIP pilot areas to develop innovative business models, increase community, business, and producer management capacity, the development of financial instruments and new production technologies, and enabling conditions. FIP has earmarked \$14.5 million for indigenous priorities in the

three FIP pilot areas, including the titling of community land, governance, and community forest management. The portion of these funds that may apply to the two pilot zones in the ERP target regions is unknown.

Finally, the third phase of an IADB loan program for land titling is presently being negotiated. Tentative goals of the latter include surveying, titling, and registering 536,000 of 1.6 million properties outstanding, 270 of 735 untitled rural communities (of a universe of 6,025 communities), and 100 of 237 untitled or unregistered indigenous communities of a total of 1535 indigenous communities. These funds are not included in the calculations due to uncertainty related with this program.

The sustainability of REDD+ financing is a key issue, since the Carbon Fund purchases of emission reduction end in 2020 and net revenues in that year greatly decrease. At present, there are trends in Peru that may positively impact the availability of funds for REDD+ interventions after 2020. These include: the accumulation of capital in Peruvian pension funds (AFP) and the scarcity of investment instruments, changes in MEF policies that will permit the expansion of available financial instruments, and a changes in the policies of the Peruvian banks (for example, Agrobanco) in favor of the financing “green” production systems. The ERP will support these initiatives through activities at the national level (see section 5.3).

There are also a number of potential mechanisms to ensure the sustainability of compensation for emissions reductions generated:

- a. The purchase of emissions reductions by international cooperation agencies (results-based payments),
- b. Bilateral transactions with Peruvian private sector entities interested in neutralizing their carbon footprint,
- c. Compensations for reductions of environmental impacts related to the extraction of non-renewable resources and infrastructure development in the country, and
- d. Pension fund (AFP) investments.

These exchanges can be facilitated by the creation of a regulated venue for such transactions. At present, the country, through the project UN REDD/UNDP project, is taking the first steps to design a trust fund (the Peru Forest and Climate Fund) that will help facilitate emission reductions or other certified ecosystem services transactions.

Within this system, the production, verification and registration or certification of the emissions reductions by schemes aligned with the methodological framework of the FCPF or the VCS, will facilitate transactions both within the country and at the international level. In turn, the certified reductions can provide a competitive advantage, both at the level of the participating producers as well as national sector levels (through NAMAs), in global markets that include such criteria in their value chains.

Table 16. Financing for REDD+/forest development activities.

Cooperation Agency	Amount (US\$)	Description	Dates
KfW and Moore Foundation	7,564,410 (KfW) + 2,137,468 (Moore)	<ol style="list-style-type: none"> 1. Estimate the reference level for forest cover and forest carbon, 2000-2011. 2. REDD+ training for specialists from regional governments, MINAGRI, MINAM, and the civil society. 3. Develop a national road map for the implementation of the nested jurisdiction approach for REDD+, with the Inter-regional Amazon Council (CIAM), the regions and other stakeholders. 4. Preparation of the conceptual framework, MRV working document, and reference levels. 	<p>KFW: 2012 – 2015</p> <p>Moore Foundation: 2012 - 2014</p>

Cooperation Agency	Amount (US\$)	Description	Dates
		<ol style="list-style-type: none"> 5. Definition of principles, criteria and indicators for the preparation of the Map of Priority Areas with REDD+ Potential. 6. Diagnosis of REDD+ safeguards and the corresponding road map for their development and implementation. 7. Design and implementation of the National REDD+ Initiatives Registry. 	
Conditional direct transfers by the Government of Peru	25,472,788	Economic incentives channeled as direct support to indigenous communities for the conservation of forests through the implementation of actions and projects that maintain forest cover	2011 – 2018
FIP/IADB/WB	81,400,000	Consolidate forest conservation and the recovery of degraded areas via investments that increase the competitiveness of activities that are compatible with the sustainable use of the forests and the establishment of enabling conditions related to governance, land use planning, land titling, innovation, credit and market development	Dates undefined, presumably starts in 2015 or 2016 for a duration of 5 years
R-PP FPCF/World Bank	3,800,000	<ol style="list-style-type: none"> 1. Institutional organization for REDD+ 2. National reference scenarios for GHG emissions from forests. 3. Implementation of the national forest monitoring system. 	2014 – 2016
UN REDD/UNDP (finalized)	295,150	<ol style="list-style-type: none"> 1. Participatory strategy 2. Benefits distribution model. 3. Evaluation of risks of corruption. 4. Design of multi-sectorial monitoring mechanism for REDD+ initiatives. 	2012 – 2013
UN REDD/UDDP	760,000	Contribute to the design of a national fund for REDD+ and the implementation of the Cancun Agreements: the preparation of a National REDD+ Strategy and the Safeguard Information System (SIS)	2014 - 2015
CAF	20,000,000	Recuperation and conservation of Amazon forests through the strengthening of public forestry institutions and by increasing the	Presumably starts in 2015 for a period of 5 years

Cooperation Agency	Amount (US\$)	Description	Dates
		competitiveness of the forestry sector	
GIZ	6,895,026.00	Consolidate a sustainable policy of economic compensation for the conservation of community forests, within the framework of the PNCBMCC.	2014 – 2018
JICA	58,934,152	Provide support to the PNCBMCC for forest conservation in the departments of Amazonas, Lambayeque, Loreto, Piura and San Martín, avoiding deforestation and degradation and fostering the sustainable use of the forests, thus contributing to mitigating climate change.	Presumably starts in 2015 for a period of 5 years
FAO/Finland	6,500,000	Implementation of the national forest inventory.	2013- 2018
Hatoyama Initiative (now known as the JICA Forest Conservation Program)	10,600,000	Equipment and materials for forest monitoring and control (e.g. computers, satellite images, vehicles, etc.).	2011 – 2014
Various		The IADB is preparing a loan for the titling of rural properties in the Amazon, and the IADB and World Bank are preparing a loan for the National Program for Agricultural Innovation which will include support for forest management and agroforestry. The World Bank is also presently supporting the Fund for the Promotion of Natural Protected Areas of Peru (PROFONANPE) and the project for the Strengthening of Biodiversity Conservation through the National Protected Natural Areas Program (PRONANP).	Undefined.
TOTAL	212,762,090		

8. Reference Level and Expected Emission Reductions

8.1 Approach for establishing the Reference Emission Level (REL) and/or Forest Reference Level (FRL)

Please briefly describe how the REL/FRL for the proposed ER Program has been or will be established. Describe how the approach for establishing the REL/FRL is consistent with UNFCCC guidance available to date and with the emerging Methodological Framework of the FCPF Carbon Fund, and with the (emerging) national REL/FRL (or with the national approach for establishing the REL/FRL).

Reference emission reference levels are being developed for the Amazon, Andean, and coastal sub-national levels in a step-wise process consistent with Decision 1/CP.16, Decision 12/CP.17, and Decision 19/CP.19. This process incorporates IPCC Approach 3 and Tier 2 methods, as recommended in the FCPF Methodological Framework. The reference level for the Amazon and future reference levels for the other ecozones will be based on multi-temporal

(2000 – 2011) analyses of changes in forest cover and emission factors developed by the SNM CB and National Forest Inventory for six different types of forests (Decision 4/CP. 15 and Decisions 11 and 14/CP. 19)⁶ (Figure 10). The Amazon reference level is presently being up-dated using satellite images of forest cover from 2012 and 2013; results should be available at the end of 2014.

Emissions estimates are based on changes in forest cover. Changes in cover are multiplied by an emissions factor of 116 tons C/ha⁷. This factor is based on estimates of aboveground biomass from 1165 plots in the Amazon; biomass estimate were converted to carbon using a factor of 0.49⁸. The accuracy of the analyses of changes in forest cover in the Amazon is 97%; the between-plot variability in the emission factors for lowland Amazon forest is 2.6%.

Additionally, efforts are being made to reconcile data from the Amazon and local REDD+ projects using a nested jurisdictional and stepwise approach. As a temporary option or first step, a nested jurisdictional approach has been adopted for measuring, accounting, and aligning the estimates of individual projects in the Amazon with the sub-national estimate of emissions resulting from Amazonian deforestation. After a suitable transition period during which project emissions reductions will be excluded from sub-national emissions accounting, these projects will eventually adopt the sub-national reference level as well as carbon accounting methodology, in agreement with Decision 12/CP.17.

Reference levels for the coastal forests will be produced 2015 and that for the Andean forests in 2016. Estimates of forest degradation will be based on data from the National Forest Inventory and will be produced in 2015 for the Amazon, 2016 for the coastal forests, and 2017 for Andean forests (Table 17). Emissions factors will also be improved via more intensive sampling and standardization of sampling protocols in the context of the National Forest Inventory (see Figure 13). The estimation of carbon in other compartments, as well as carbon sequestration, the estimation of forest degradation, and the impacts of land use changes will also be incorporated in subsequent years using a stepwise approach. Reference levels from the three sub-national levels (Amazon, Andean, and coastal regions) will eventually be combined into a single national reference level; this summation will be aided by the consistent application of standardized protocols across the three regions, consistent with Decision 1/CP.16.

Table 17. Timetable for developing deforestation and degradation reference scenarios for the Amazon, dry and Andean forests.

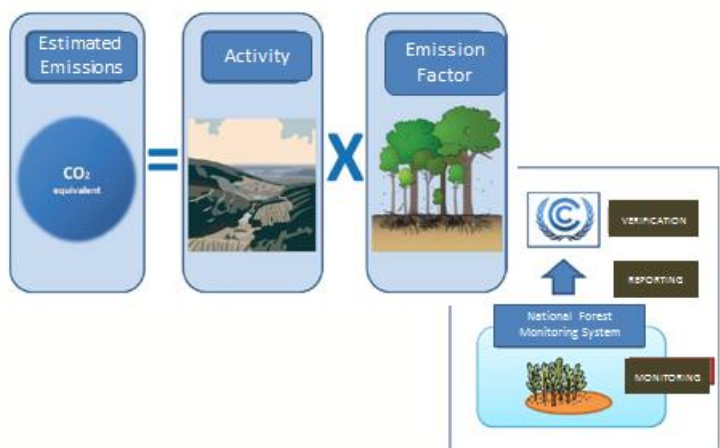
Year Expected	Reference Scenario
2014	Deforestation of Amazon forests based on historical trends
2015	Deforestation of dry forests based on historical trends
2015	Degradation of Amazon forests
2016	Deforestation of Andean forests, based on historical trends
2016	Degradation of dry forests
2017	Degradation of Andean forests

⁶ Forest is defined based on the University of Maryland algorithm. The mapping unit is 0.09 ha, based on Landsat images. In order for the mapping unit to be considered forest, a 100% cover must be present.

⁷ Malaga Duran, N et al., 2014. Estimación de los contenidos de carbono de la biomasa aérea en los bosques de Perú. MINAM, Peru.

⁸ IPCC (Intergovernmental Panel On Climate Change). 2006. Directrices del IPCC de 2006 para los Inventarios Nacionales de Gases de Efecto Invernadero, Volumen 4 (Agricultura, silvicultura y otros usos de la tierra). Eds. S Eggleston; L Buendía; K Miwa; T Ngara; K Tanabe. IGES, Hayama, JP. 679 p.

Figure 10. Procedure for calculating estimated emissions.



8.2 Expected REL/FRL for the ER Program
 Please provide an estimate of the REL/FRL for the proposed ER Program area. Even a very preliminary estimate would be helpful.

Estimated emissions for each of the two regions, were calculated based on the annual average deforestation rate (the difference in area of forest cover between the years 2000 and 2011, divided by the number of years in the sampling period and the forest area in 2000) multiplied by the area of forest in any given year. In order to convert hectares deforested to emissions, the number of hectares deforested in any year during the period 2016-2020 was multiplied by an emissions factor corresponding to the emissions factor for lowland forest in the Peruvian Amazon (116 tons C/ha), developed by the National Forest Inventory and MINAM, and a conversion factor of 3.67 to convert C to CO₂ equivalents (Figure 9). These emissions were then summed over the regions to provide an estimate of total annual emissions in the Program area.

Total annual emissions in the areas of intervention were then multiplied by the number of years in which emissions reductions occurred (3 years: 2017-2020). The result suggests that an unadjusted total of approximately 52 million tons CO₂e will be produced in the two regions during the three year implementation period, 20 million tons CO₂e in Ucayali and 32 million tons CO₂e in San Martin (Table 18).

Table 18. Historical (2000 – 2011) reference emission levels for the areas of intervention.

Area of Intervention	Average annual loss of forest cover (ha)	Emissions Factor (t C/ha)	Annual CO ₂ e Emissions (Mt CO ₂ e/yr)	Total CO ₂ e Emissions, 2017-2020 (Mt CO ₂ e)
Ucayali	16,149	116	6.87	20.61
San Martin	25,212	116	10.73	32.19
Total	41,361	116	17.60	52.80

It should be noted that forest degradation was not estimated due to the lack of data. Reference levels for forest degradation in the Amazon will be based on data from the National Forest Inventory and are expected in 2015. Degradation is apt to vary spatially depending on the proximity of a given area to markets, population centers, roads, population density, and road age. A recent study⁹ from the Brazilian Amazon suggests that the area affected by forest degradation is about 30% of the area deforested, but is unclear as to the impact of degradation on carbon

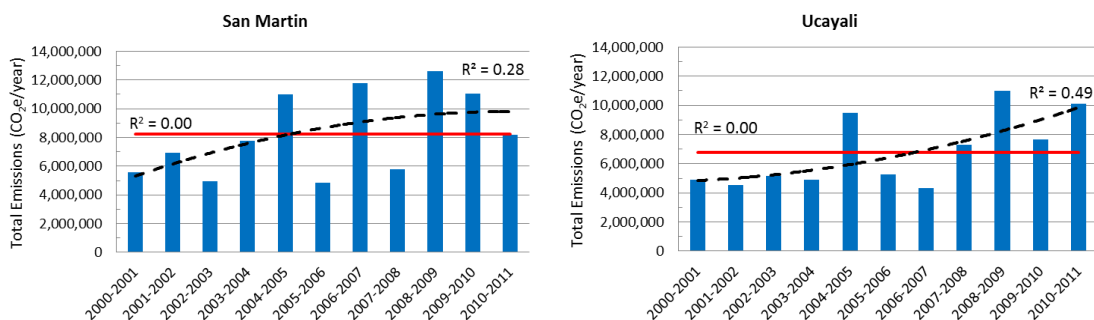
⁹ <http://www.imazon.org.br/publications/other-publications/deforestation-and-forest-degradation-in-the-amazon-biome-1>

stocks. A deeper assessment of deforestation and forest degradation will be carried out during the coming year in order to better quantify and understand these processes and to guide the targeting of mitigation measures.

Various factors suggest that an upward adjustment in the historical reference level in the target regions is justified:

1. Peru is a high forest-low deforestation country. It has one of the lowest average annual rates of deforestation (0.15%) in the tropics (see footnote 2) and high forest cover (73 million ha, equivalent to 53% of the country, but an even greater percentage of the potentially forested area if arid and naturally treeless regions are excluded).
2. Data from San Martin and Ucayali suggest that deforestation in recent years, especially in Ucayali, exceeds the 2000-2011 historical averages for those regions (Figure 11). Deforestation in recent years is apt to be under-estimated due to uncertainty regarding forest degradation, as noted above.
3. Furthermore, 382 km of new paved roads are projected for San Martin and another 281 km in Ucayali between 2014 and 2017 (personal communication, Ministry of Transportation and Communication). Data¹⁰ from a CIAT study of the Tarapoto – Tingo Maria section of the IRSA Norte road network that bisects San Martin, suggests that an average of 13.6 ha/yr can be expected to be deforested in a 50 km wide buffer along each km of road, equivalent to an average annual deforestation rate of 0.27%, which is almost double the national historical average. The projected increment in deforestation due to these projected roads is therefore 5195 ha/yr (382 km road x 13.6 ha deforested/km road-yr) in San Martin and 3821 ha (281 km x 13.6 ha/km road-yr) in Ucayali. These increments represent about 20% of the annual average loss of forest cover in San Martin, and 23% in Ucayali based on the data in Table 18. Confirmation of whether planned road construction will actually occur and validation of these estimates, via the aforementioned study, are needed before an adjustment can be justified.

Figure 11. Estimated emissions and reference levels for San Martin and Ucayali.



The annual increments in emissions due to new road construction are estimated to be 1.63 Mt CO₂e/yr for Ucayali and 2.21 Mt CO₂e/yr for San Martin (Table 19). The adjustment for Ucayali is less than the upper adjustment permitted (4.07 Mt CO₂e/yr, based on 0.1% of forest carbon stocks in 2011); in contrast, the emissions adjustment San Martin exceeds the maximum level permitted (1.49 Mt CO₂e/yr). Based on these criteria, the adjustment for Ucayali is 1.63 Mt CO₂e/yr and that for San Martin is 1.49 Mt CO₂e/yr, a total of 3.12 Mt CO₂e/yr, equivalent to 9.36 Mt CO₂e during the life span of the ERP. With the adjustment, the total emissions are 62.16 Mt CO₂e.

¹⁰ <http://es.slideshare.net/ciadtapa/impact-of-roads-on-deforestation-levels-across-latin-america>

Table 19. Emissions level adjustment.

Area of Intervention	Projected additional average annual loss of forest cover due to new roads (ha)	Additional annual CO ₂ e emissions due to roads (Mt CO ₂ e/yr)	Maximum adjustment permitted (0.1% of C stocks) (Mt CO ₂ e/yr)	Annual adjustment (Mt CO ₂ e/yr)	Adjusted Annual CO ₂ e Emissions (Mt CO ₂ e/yr)	Adjusted Total CO ₂ e Emissions, 2017-2020 (Mt CO ₂ e)
Ucayali	3821	1.63	4.07	1.63	8.50	25.5
San Martin	5195	2.21	1.49	1.49	12.22	36.66
Total	11,981			3.12	20.72	62.16

Further study is needed in order to verify and better quantify these preliminary conclusions. This study should be carried out in the program preparation phase, prior to signing of the contract. Based on the combined analysis of satellite imagery and field measurements, it should quantify the temporal and spatial relationships between roads and deforestation and forest degradation in different contexts (e.g. relationship to population centers). The study will not only clarify the case for an adjustment and its magnitude; it will also provide a better understanding of the geospatial dynamics of deforestation and degradation as well as a basis for the targeting and planning of mitigation actions, including the implications of roads for leakage.

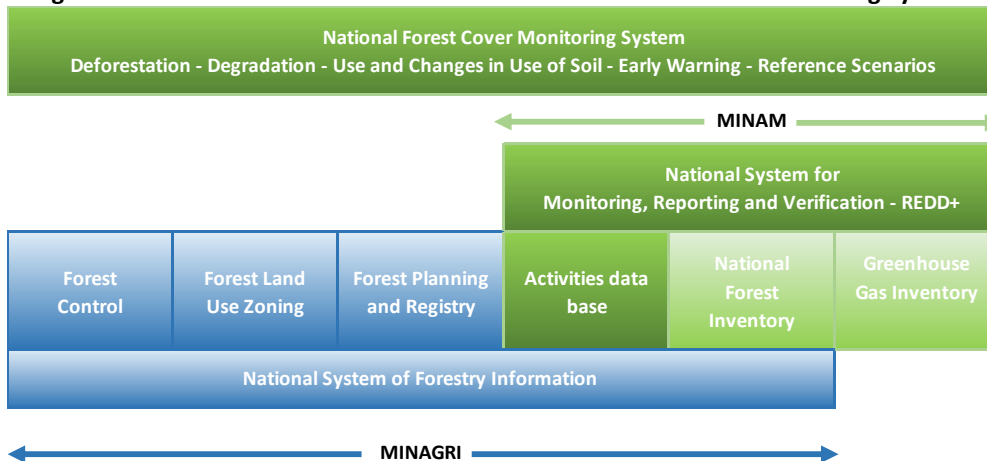
9. Forest Monitoring System

9.1 Description of approach and capacity for measurement and reporting on ERs

Please describe the proposed approach for monitoring and reporting the emission reductions attributable to the proposed ER Program, including the capacity of the proposed ER Program entities to implement this approach.

The design of the National Forest Cover Monitoring System (SNMFCB) is nearing completion. The SNMFCB is the entity in charge of monitoring forest cover in the country and is being developed jointly by the Ministry of Agriculture and Irrigation, the Ministry of the Environment, and the Amazon Cooperation Treaty Organization (OTCA), in alignment with the framework of the National Climate Change Strategy, the National Forest and Wildlife Plan and the National Environmental Action Plan. Additionally, it is linked to the National Forest Inventory and other national initiatives. The SNMFCB is being developed according to the established protocols (see Section 9.2), which are consistent with UNFCCC guidelines and the use of Tier 2 methods within IPCC Approach 3. The SNMFCB will contribute to forest measurement within the MRV process and will be managed jointly by MINAM and MINAGRI (Figure 12).

Figure 12. Institutional coordination of the National Forest Cover Monitoring System.



A step-wise implementation strategy for the SNMCC has been proposed through the year 2021, which includes the following phases:

- Initial Phase (2013): The National Forest Cover Technical Monitoring Team (MINAM, MINAGRI, OTCA) investigates and generates information. At present, the technical team of the PNCBMCC, along with MINAGRI and the team from the Monitoring Deforestation in the Amazon Project of OTCA/ITTO/Fondo Amazonía, are using the University of Maryland methodology and have completed a series of maps of changes in forest cover in the Amazon for the period 2000 – 2011 and are processing data from 2012 and 2013.
- Transition Phase (2014 – 2017): The joint Forest Cover Monitoring Unit is implemented and is generating information through protocols that are consistent with the IPCC and other institutional arrangements.
- Final Phase (2018 – 2021): The agency or organization specialized in monitoring forest cover is operating and generating information in an ongoing manner.

At present, forest monitoring includes the following activities and information relevant to the ERP:

- a. There are a variety of tele-detection methods for changes in forest cover based on satellite imagery that are being applied at the national and regional levels to estimate deforestation (CLASlite, Maryland, SEES, Random Forests, etc.).
- b. The baseline of historical deforestation for the Amazon, which represents 94% of the country's forests, for the period 2000 – 2011 was prepared by the MINAM - MINAGRI. Results for the Amazon will be updated to 2013 by the end of 2014. Similar estimates will be prepared for coastal forests in 2015 and Andean forests in 2016.
- c. Changes in forest cover are converted to carbon based on emissions factors developed for the Amazon from data from 1165 plots established by the National Forest Inventory and other entities. The emissions factor for aboveground biomass of lowland tropical forest is 116 t C/ha. Emissions factors will be improved with time via more intensive sampling and standardization of sampling protocols in the context of the National Forest Inventory (Figure 13). The estimation of carbon in other compartments, as well as carbon sequestration, the estimation of forest degradation, and the impacts of land use changes will also be incorporated in subsequent years using a stepwise approach.

Figure 13. National Forestry Inventory sampling plots will increase in the future. Dots represent sampling plots.



Minam, 2014

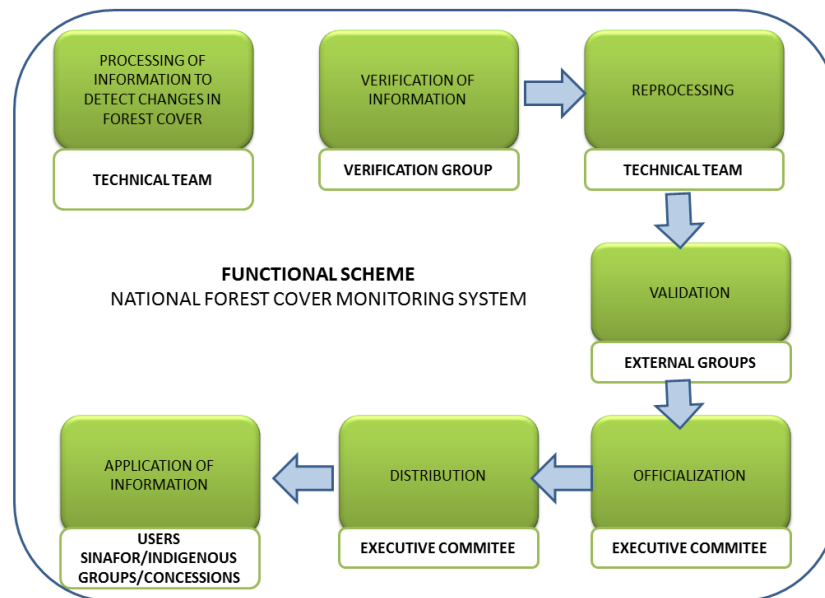
Outputs of the SNMCB include: estimates of forest cover that are essential for the establishment of reference levels and the measurement component of the Measurement, Reporting, and Verification (MRV) process; the development of a national monitoring system, the establishment and coordination of institutional arrangements, the reconciliation of differences in methods and jurisdictional measurements, an early warning system, the development of capacity for early warning and local verification that includes local groups, especially indigenous peoples, and a data repository. The need to develop methods for the monitoring of forest degradation has also been identified. Linkages between the regional governments and the national government, and the roles of actors involved in the SNMCB such as MINAM, MINAGRI, and the National Forest Inventory, are included in the Plan.

The process of reporting within the MRV is being developed to provide consistent accounting and reporting of emissions at the national and sub-national levels. Within the framework of the Second National Climate Change Communication, Peru has proposed that a National Inventory of Greenhouse Gases be created, which would assign sectorial responsibilities for information gathering and reporting. The legal version of this proposal is being prepared and analyzed. Emissions-related information based on forest monitoring and measurement will be reported to the National Inventory of Greenhouse Gases, in a format consistent with that registry, consistent with Decision 12/CP.17.

Internally consistent emission reductions data will also form part of a REDD+ data base. As the first step in this process, MINAM is developing the National Information Platform for REDD+ Initiatives in order to enable the register and reporting of emissions related information from REDD+ projects. The Platform will eventually evolve into the National REDD+ Initiatives Registry (NRIR). It will contain information regarding reference scenarios, emission reductions achieved and the rights to the emission reductions in order to avoid: a) double or triple accounting of emission reductions; b) ambiguity with regard to the ownership of emission reductions; c) inconsistencies between national GHG inventories and the general REDD+ accounting and d) non-fulfillment of socio-environmental safeguards. Eventually, the NRIR may also include information on social, environmental and institutional impacts and non-carbon benefits and may be linked to the National Registry.

The procedure for monitoring and reporting changes in forest cover is shown in the Figure 14 below.

Figure 14. Functional scheme of the National Forest Cover Monitoring System.

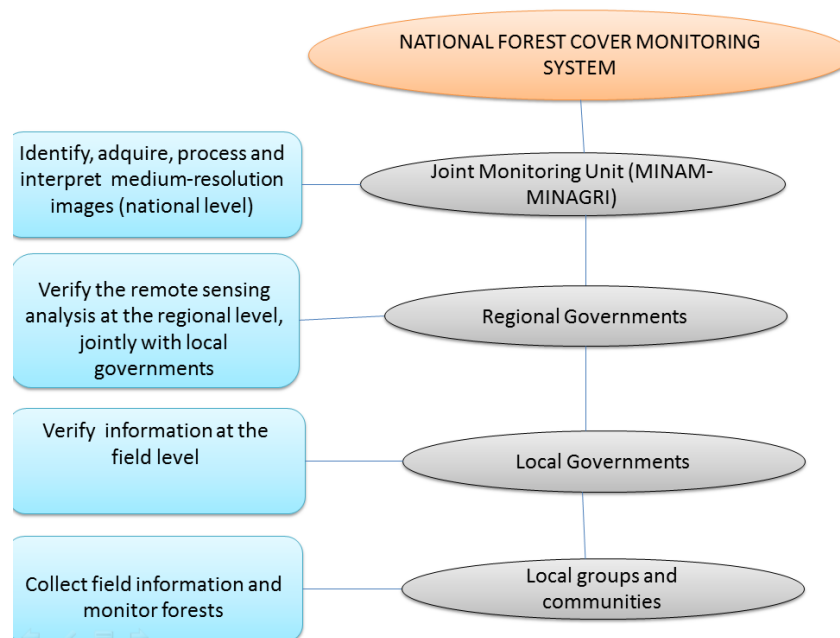


- **Technical Team : MINAM – MINAGRI**
- **External: Consultants**
- **Verification Group: GORES – IIAP – SERNANP, local groups**
- **Executive Committee: MINAM – MINAGRI**
- **Advisory Group: Multi-disciplinary experts**
- **Users: SINAFOR/Native communities/Prosecutor’s office/Concessionaires/MINCUL/others**

In relation to the management and reporting of forest cover and emissions information, MINAM and MINAGRI are in the process of identifying the best institutional option for the System. This will probably consist of the formation of an inter-sectorial working group based on existing and complementary technical capacities. This work will be overseen by an inter-sectorial panel, a technical advisor group, and a national verification group.

Figure 15 further details the linkages between the national and sub-national levels of the monitoring systems. National monitoring is based on the analysis of satellite images. Regional and local monitoring, which includes the participation of local groups, will verify the analysis produced at the national level.

Figure 15. Linkage between national and sub-national ER monitoring processes.



9.2 Describe how the proposed ER Program monitoring system is consistent with the (emerging) national REDD+ monitoring system.

Forest cover monitoring within the two regions will be based on the SNMCB and will use the analysis of satellite imagery at the national level combined with verification by the regional governments and local stakeholders at the sub-national levels (Figure 15). These data originating from the ERP will be incorporated in the NRIR as well as the National Registry of Greenhouse Gases.

9.3 Describe how the proposed ER Program monitoring system is consistent with UNFCCC guidance available to date and with the emerging Methodological Framework of the FCPF Carbon Fund.

The ERP monitoring system, based on the SNMCB, was designed to serve the needs of a broad range of demands in the country with regard to monitoring and managing forest resources. The monitoring and measurement system is initially applied at the sub-national level, consistent with Decision 2/CP.13, Decision 1/CP.16, and Decision 11/CP.19, and take into account existing national capacities (Decision 11/CP.19), but will eventually evolve into a national monitoring system (Decision 1/CP.16). The ERP monitoring system nested within the SNMCB applies Tier 2 methods from the IPCC Approach 3, as recommended in the FCPF Methodological Framework in determining reference levels and subsequent changes in forest cover and emissions; it also incorporate the principles of transparency, exhaustiveness, coherence, comparability, and accuracy.

The information produced by the monitoring system will be consistent with national mitigation measures (Decisions 13 and 14/CP.19) and with the reference levels (Decision 14/CP.19). Emissions-related information based on forest monitoring and measurement will be reported to the National Inventory of Greenhouse Gases, in a format consistent with that registry, consistent with Decision 12/CP.17. The UNFCCC will be responsible for verification of this information.

The information produced will be consistent, transparent, accurate, exhaustive, and will reduce uncertainty as much as possible under present technical and technological national capacities. These conditions will be satisfied through the use of standardized and publicly available protocols (eventually evolving into national protocols) and

information, the continual improvement of methodologies (based on Tier 2 methods and IPCC Approach 3) and sampling intensity, the application of IPCC guidelines, and the storage of information in data bases or registries (National inventory of Greenhouse Gases, and the National REDD+ Initiatives Registry) that will permit the reconstruction of results.

9.4 Describe any potential role of Indigenous Peoples or local communities in the design or implementation of the proposed ER Program monitoring system.

As shown in Figures 13 and 14 in Section 9.1, local groups and indigenous communities will participate in the verification of SNMCB analyses and in local monitoring of forest plots and data collection. The design of these activities will be aligned with the Amazon Indigenous REDD+ proposal, backed by AIDESEP and CONAP, which will serve as the basis to ensure the participation of the indigenous groups in the monitoring processes. The proposal is an initiative that seeks to value the integral nature of the ecosystem services provided by the indigenous forests and territories, and proposes the adoption of an integrated, broadly focused vision that takes into account other goods and services provided by the forest.

The proposal underscores the participation of indigenous communities in decision-making bodies and in the monitoring of existing forests and conservation of ecosystem services. A \$4 million budget provided by the FIP will be assigned to community forest management and includes two important elements for the monitoring process:

- 1) Forest oversight groups
- 2) Fostering a scheme of indigenous promoters

The first element is based on experience from Ucayali and is an excellent means for developing the field monitoring capacities of indigenous organizations. Likewise, the promotion of the indigenous promoters has been shown to be an effective mechanism for monitoring forest activities within indigenous communities. Examples include the indigenous communities of Puerto Esperanza in Ucayali and Bélgica in Madre de Dios. These experiences will be included in the design and implementation of the ERP monitoring system.

9.5 Describe if and how the proposed ER Program monitoring system would include information on multiple benefits like biodiversity conservation or enhanced rural livelihoods, governance indicators, etc.

Past consultation processes have identified a series of potential indicators for tracking non-carbon benefits such as biodiversity as well as socio-economic, governance, and institutional capacity strengthening (see Sections 13.1 and 16.1 and Table 23 in section 16.1), which will complement the forest cover and emission reductions indicators included in MRV. During the design of the ERP, these indicators will be further defined and a baseline and tracking methodology will be developed. Indicator tracking is a technical task that will be managed by the MINAM with the participation of the indigenous communities and the REDD+ and Indigenous REDD+ Roundtables. Other institutions, such as environmental rights NGOs, universities, international organizations, indigenous organizations that can contribute information will also be included.

Data on non-carbon benefits and indicators will be incorporated in the National REDD+ Initiatives Registry.

10. Reversal

10.1 Activities to address risks of reversal of greenhouse gas benefits
Please describe major risks of anthropogenic and non-anthropogenic reversals of greenhouse gas benefits (from e.g., fire, agriculture expansion into forest, changes in commodity prices). Also describe any activities or design features in the proposed ER Program that are incorporated to minimize and/or mitigate the anthropogenic risks or reversals, and how these activities are consistent with the design features of the (emerging) national REDD+ strategy to address risks of reversal.

The greatest risk of reversal, as well as displacement, is related to migration to the project zones, driven by road construction, and increases in the opportunity costs of activities that compete with forest conservation. The risks in each region the actions to minimize them are summarized in Table 20.

As mentioned in Section 5.3, addressing migration driven by poverty is problematic within the context of the ERP because areas that expel populations lie outside the zone of the intervention of the project and exist at a scale that needs to be tackled by the national government. Potential solutions include the use of Results-Based Budgeting instruments that aim at the development of integrated solutions to poverty, greater connectivity of these regions to coastal areas, the promotion of new business models and market linkages such as those promoted by Sierra Produce, more efficient use of financial resources such as the mining canon, and in general, better governance at the regional level.

In ERP areas, the design and implementation of better governance of land use is a critical measure for avoiding reversal of the reductions in emissions or maintaining it at a minimum. These measures may include the elimination of perverse policies that foster deforestation and the establishment of a command-and-control system for monitoring, controlling, and sanctioning violations related to land use; the conditioning of public funds for regional and municipal governments based on deforestation, and the use of incentives to favor the adoption of more sustainable and profitable land use.

Should reversal occur, there are various mechanisms, such as the use of insurance policies, the establishment of a national buffer fund, and the use of interest accruing from investments of the trust fund (Peru Forest Fund) financed by payments for emissions reductions or environmental services, to compensate these losses.

Table 20. Displacement risks in the project zone.

Zone	Risk	Measures
Ucayali	Increased migration facilitated by highway improvements, such as the Satipo-Atalaya highway, will create pressure on the forests due to increased access to lands and increased value of agricultural and livestock products. These factors, coupled with the development of industrial forestry could increase the intensity of illegal lumber extraction and the reversal of sustainable forest management.	<p>Oversight and control of land use should focus on the zones directly influenced by the highway.</p> <p>Development of more efficient silvicultural systems that increase timber extraction per hectare.</p> <p>Promotion of forest clusters in the region, based on the application of successful prior experiences.</p> <p>Application of the monitoring system with an emphasis on early warning protocols.</p> <p>Focus efforts on the zones most at risk to deforestation.</p> <p>Improve enabling conditions needed to make coffee, cacao, oil palm, and livestock more sustainable and profitable.</p>
San Martin	Increased migration from the Andean region and an increasing influence of agricultural megaprojects, such as oil palm production, are the main risks related to reversal.	Implement zoning, land use planning, land titling, and control and oversight in the areas of direct intervention as well as in surrounding areas.

11. Displacements

11.1 Description of the potential risks of both domestic and international displacement of emissions (leakage)

Please describe the potential risks of both domestic and international displacement of emissions from the proposed ER Program activities. Then also describe how the proposed ER Program activities will minimize the risk of domestic displacement and international displacement (if applicable), via the design of the proposed ER Program and the ER Program activities and the selection of locations. For sub-national programs, pay special attention to identifying domestic risks of displacement of emissions, the proposed ER Program activities to mitigate these risks, which otherwise would contribute to fewer net emission reductions generated by the proposed ER Program, and how these activities are consistent with the design features of the (emerging) national REDD+ strategy to address risks of displacement.

Areas most at risk to displacement include lands with unassigned rights or where lands are titled, but productivity and income are low. Therefore, the risk of displacement can be reduced through elements of project design such as interventions aimed at reducing migration from areas outside of the Program zones, as well as increasing agricultural and forest productivity in the two regions or the use of national, regional, and international cooperation budgets in bordering “leakage belts” in order to implement zoning activities, territorial land use planning, titling, control and oversight there. Displacement will be monitored via the forest cover monitoring system in these belts as well as the intervention areas, and its occurrence will be reported in the MRV and National REDD+ Initiative Registry.

In the case of Ucayali, international displacement to Brazil may be an issue but is unlikely due to controls on deforestation in the states bordering the Peruvian Amazon.

Should displacement occur, it can be compensated by reductions in the payments for emission reductions or payments from insurance policies, a buffer fund, or the interest earned on capital contained in the Peru Forest and Climate Fund.

12. Expected emission reductions

12.1 Expected Emission Reductions (ERs)

Please provide an estimate of the expected impact of the proposed ER Program on the REL/FRL (as percentage of emissions to be reduced). Based on this percentage, also estimate the volume of ERs, as expressed in tonnes of CO₂e, that would be generated by the ER Program:

- a) up to December 31, 2020 (currently the end date of the FCPF)*
- b) for a period of 10 years; and*
- c) the lifetime of the proposed ER Program, if it is proposed to continue longer than 10 years.*

Estimation of an emissions reduction factor was based on two analyses:

- The impact of establishing legal rights to land on deforestation can be estimated by comparing the rates of deforestation on land without legal rights (forests with undefined legal rights and non-concessioned permanent production forests categories) with timber concessions. In Ucayali and San Martin, rates in the former are two to three times greater than in timber concessions. Given the fact that the assignment of rights will require time, we estimate that reductions of 20-25% can be achieved in the timeframe of the ERP
- In the case of agricultural-related deforestation associated with farms and titled indigenous lands, we estimated that a proxy for estimating the reduction of deforestation through more sustainable and profitable production systems is the rate of adoption of improved production practices by farmers in the short-term. Data from the technical assistance program for coffee and cacao carried out by the Alternative Development Program in San Martin and Ucayali suggest that adoption rates range between 20-25%.

After applying the emission reduction factors mentioned above to their respective land use categories, the weighted average of emissions reductions was 21% in San Martin and a 20% reduction in Ucayali. These rates are about half those obtained in Brazil with the integrated application of command-and-control measures and incentives, albeit under different governance and commercial conditions.

Multiplication of expected emissions during 2017-2020 by the expected percentage reduction in emissions resulted in an expected unadjusted reduction of approximately 11 Mt CO₂e during the accounting period (Table 21). The adjustments to the emissions reductions and the portion assigned to the Emissions Reduction Program are shown in Table 22. As a result of the adjustment, emission reductions are increased by approximately 2 Mt CO₂e. It should be noted that emissions reductions achieved by existing REDD projects in San Martin and Ucayali will be excluded from these emission accounting procedures.

Table 21. Emission reductions (Mt CO₂e) generated and their partial assignment to the Emissions Reduction Program.

Region	Remaining forest (ha), 2017	Deforestation rate 2000-2011	Emissions (2017-2020) (Mt CO ₂ e)	Reduction in emissions %, (Mt CO ₂ e)	Reductions assigned to C Fund (Mt CO ₂ e) and (% of emissions reductions)
Ucayali	9,472,618	0.17%	20.61	20% (4.12)	2.06 (50%)
San Martin	3,364,327	0.67%	32.19	21% (6.76)	3.38 (50%)
Total	12,836,945		52.80	10.88	5.44 (50%)

Table 22. Adjusted emissions reductions and the partial assignment to the Emissions Reduction Program.

Region	Adjusted Emissions (2017-2020) (Mt CO ₂ e)	Reduction in emissions %, (Mt CO ₂ e)	Reductions assigned to C Fund (Mt CO ₂ e) and (% of emissions reductions)
Ucayali	25.5	20% (5.1)	2.55 (50%)
San Martin	36.66	21% (7.70)	3.85 (50%)
Total	62.16	12.80	6.4 (50%)

12.2 Volume proposed for the FCPF Carbon Fund

Please explain the portion of the expected ERs that would be offered to the Carbon Fund, and if other carbon finance providers or buyers have been identified to date, the portions of the expected ERs that would be offered to them.

Approximately 5.4 (6.4, based on the adjustment) MtCO₂e, equivalent to 50% of the emission reductions generated, will be offered to the Carbon Fund (Table 20) due to the expectations of the Peruvian government that other buyers can be found or that the reductions can be used domestically to offset national emissions.

Although buyers have not yet been identified for the surplus reductions (5.4 unadjusted or 6.4 adjusted MtCO₂e) that the Program could generate, the intention is that the implementation of the ERP will stimulate a system of environmental compensations at the national or international level, potentially involving the Peru Forest and Climate Fund (which is presently being designed), domestic emissions compensations, the country's participation in international markets for low-carbon products, or international carbon markets.

The verification and certification of emissions by systems similar to that of the FCPF Carbon Fund or the VCS will facilitate these transactions both within the country and at the international level, regardless of the type of buyer. It should be noted that reported and verified emissions reductions will be registered with the National REDD+ Initiatives Registry in order to avoid: a) double or triple accounting of the reduction of emissions; b) relative

ambiguity regarding the ownership of the reduction of emissions and c) inconsistencies between national GHG inventories and the general REDD+ accounting.

13. Preliminary assessment of the proposed ER Program in the context of the national Strategic Environmental and Social Assessment (SESA) and the Environmental and Social Management Framework (ESMF)¹¹

13.1 Progress on SESA/ESMF

Please describe the country's progress in the implementation of SESA and the development of the ESMF, and their contribution or relationship to the proposed ER Program.

The SESA is based on the social and environmental standards of Peruvian law (Law of Prior Consultation, No. 29785 and the corresponding regulation, established through Supreme Decree No. 001-2012-MC), as well as the National System for Environmental Impact Evaluation (SINEA), which takes into account on the UNFCCC safeguards approved in Cancun, the safeguards of the ILO Convention No. 169 which protects the rights of indigenous peoples, and other relevant policies of the World Bank¹² and the IADB¹³. SESA also complies with the World Bank safeguards for Indigenous Peoples (OP/BP 4.10), Forests (BP 4.36), Physical and Cultural Heritage (OP/BP 4.11), and Natural Habitats (OP 4.04).

At present, a general SESA/ESMF framework, based on general types of potential impacts and strategic lines of action, is being incorporated into the overall Forest and Climate Change National Strategy. However, the subsequent detailing of SESA and its incorporation into the ESMF will be dependent on the future progress outlined below as well as the consideration of concrete impacts of REDD+ projects identified during their design. These inputs will also help to enrich the process of converting the ENBCC into an action plan.

To date, activities related to SESA have included communication, technical assistance and training of stakeholders related to the assessment, and the alignment of the Cancun, IADB, and World Bank safeguard standards. Strategic areas considered in the SESA framework include the following:

Social Area

- Prior participation and consultation, in accordance with national law
- Consideration of vulnerable groups
- Support land tenure and rights
- Improve living conditions and labor rights
- Representation.

Environmental Area

- Mitigation of environmental impacts
- Conservation of biodiversity and other ecosystem services
- Avoidance of the reversal and displacement of emissions

Processes:

- Inclusion of safeguards in policies, law and regulations

¹¹ The SESA is the assessment process to be used in FCPF REDD+ countries during R-PP implementation and REDD+ readiness preparation. The ESMF is an output of SESA that provides a framework to examine the issues and impacts associated with projects, activities, and/or policies/regulations that may occur in the future in connection with the implementation of the national REDD+ strategy but that are not known at the present time.

¹² Safeguards on Indigenous Peoples OP/BP 4.10, Involuntary Resettlement OP/BP 4.12, Forests BP 4.36, Physical Cultural Resources OP/BP 4.11 and Natural Habitats OP 4.04.

¹³ Environment and Safeguards Compliance Policy (OP 703), the Policy on Disaster Risk Management (OP 704), the Forestry Development Policy (OP 723), the Operational Policy on Indigenous Peoples and Strategy for Indigenous Development (OP 765), the Operational Policy on Gender Equality in Development OP 761), The Involuntary Resettlement Policy (OP 710), and the Policy on Access to Information (OP 102), as well as sector policies on Rural Development (OP 752), and on Forest Development (OP 723).

- Obligatory transparency mechanisms
- Participation of stakeholders
- Monitoring and reporting system (safeguards information system)
- Grievance and conflict resolution mechanisms
- Monitoring and evaluation of safeguard compliance
- Application of the Voluntary Guidelines and those of the Indigenous Forum on Biodiversity within the framework of the Convention on Diversity and the Cancun safeguards.

Other progress includes:

- The participatory identification and analysis of the principal social and environmental impacts and their causes related to interventions to reduce deforestation and forest degradation; the agents involved; the institutional, social, and private sector stakeholders potentially affected; and issues related to the applicability of the safeguards. Topics analyzed included: potential risks and conflicts related to land tenure, titling, and zoning; the distribution of benefits; access to land and financial resources; and capacity strengthening.
- The diagnosis of political, legal and institutional aspects related to the preparation of the safeguards system for the ENBCC and REDD+.
- The development of frameworks and policies to mitigate and manage social and environmental risks identified and to ensure safeguards (in progress).

Further development of the SESA will be undertaken during the design of the ER Program during 2014 and 2015 (Figure 16); the latter will implement World Bank criteria and operational policies. These activities include the evaluation of existing capacities and gaps to deal with social and environmental issues, and the further development of dissemination, information, communication and consultation mechanisms with relevant stakeholders including:

- The enrichment and detailing of the safeguard organizational framework (by including, for example, specific groups within the REDD+ Roundtables, feedback from the REDD+ Technical Group, and the role of the Executive Committee and the Local Environmental Commissions);
- The preparation of a safeguards procedure manual that includes the tracking of results and impacts of interventions;
- The definition of grievance procedures and conflict resolution mechanisms; and
- The design of linkage with the SNMCB, MRV, the National REDD+ Initiatives Registry, and with the PMU and the regional government management entities.

The results from the SESA will serve as the basis for the development of the Social and Environmental Management Framework (ESMF). The ESMF will define the linkage among actions, institutional arrangements, policies, competencies and the procedures necessary to implement and track the application of REDD+ safeguards. The ESMF includes a tracking system that will enable the social and environmental evaluation, with respect to the baseline, of the impacts and risks of REDD+ activities, including the cumulative and indirect impacts and non-carbon benefits.

The ESMF will specify the procedures and policies related to the following topics:

- The social and environmental framework for the indigenous peoples.
- Analysis of the use and access rights to land and other natural resources.
- Impact of legal and institutional decisions on indigenous rights.
- Tenure of community land and other resources, keeping in mind aspects of gender and biodiversity.
- The involuntary displacement or loss of access to natural resources including the designation of protected areas and parks.
- Identification of measures to align activities or mitigate socio-environmental impact of activities of non-forest sectors, especially transportation infrastructure, among others.
- Plans to overcome institutional gaps and strengthen stakeholder capacities.
- Plans to promote the participation of affected groups.
- Mechanisms for the engagement of stakeholders, and for the resolution of conflicts and grievances.

- Mechanisms to protect areas of high biodiversity and cultural value.

The ESMF will be closely linked to the MRV system via the National REDD+ Initiative Registry, since the latter, in addition to its emphasis on forest cover and carbon emissions, should include data on social and environmental impacts (for example, biodiversity, water, local income, sources of work) as well as non-carbon benefits that are important at the local, regional and national levels. Thus, it is essential that the stakeholders at these levels participate in the ESMF. The REDD+ and Indigenous REDD+ Roundtables (and their safeguard subgroups) and the meetings of indigenous communities and organizations are ideal venues for these activities.

13.2 Incorporation of SESA outputs and/or outcomes into the proposed ER Program

Based on the progress outlined in 7.1, please describe how the proposed ER Program is expected to make use of the outputs and/or outcomes of the SESA process. Provide an analysis of the ways in which activities planned under the proposed ER Program will rely on the measures and procedures included or to be included in the ESMF. Are there likely to be any gaps or issues regarding the compliance of the proposed ER Program activities with applicable safeguard standards, including the UNFCCC safeguards?

During the design phase of the ERP interventions, SESA will help guide the identification of potential impacts, actors affected by the interventions, and potential indicators for their tracking. Likewise, it will channel recommendations from these actors into the ERP design process.

During the implementation of the ERP, there will be constant feedback between the Program and the ESMF via the tracking of environmental and social indicators. This feedback will ensure that the activities of the ERP are in line with the safeguards specified in the ESMF. Additionally, the ESMF will serve as an adaptive management tool that will facilitate the identification of potential problems and areas for improvement within the ERP and will measure the effectiveness of the responses to those problems. In a complementary manner, the policies and procedures specified in the ESMF should guide the formulation of responses to those problems and serve as instruments for the implementation of corrective measures, especially those related to the criteria mentioned in Section 13.1.

13.3 Feedback and grievance redress mechanisms

Please describe the mechanism(s) that are or will be put in place to resolve any disputes regarding the proposed ER Program.

The design and implementation of REDD+ and its safeguards requires ongoing feedback from stakeholders and procedures should allow for diverse forms of communication, to allow for oral methods of reporting grievances. The inclusion of a feedback and grievance mechanism will help in resolving disputes as well as ensuring transparency.

The design of the mechanism to resolve conflicts and grievances will take into account existing regulations and mechanisms, as well as existing institutional mandates. These include:

- The existing standard for access to public information.
- The Office of the Ombudsman and its mechanisms for filing complaints or reporting issues for subsequent investigation.
- INDECOPI and its specialized tribunals for the resolution of complaints regarding issues that restrict free competition.
- The Office of Social and Environmental Affairs of MINAM, and the National Dialogue and Sustainability Office of the PCM, are other entities that should be aligned in order to monitor, channel and support the resolution of conflicts and complaints in the process of REDD+ implementation.
- The Strategic Environmental Evaluation (EAE) specified in the National Environmental Management System.
- The agreement between the MINAM and the Office of the Ombudsman to jointly prevent and resolve socio-environmental conflicts.

Clearly, these norms and mechanisms need to be aligned and coordinated.

The grievance redress mechanism should be based on existing operational capacity in order to maintain costs low. A potential candidate for operationalizing the grievance redress mechanism is the Office of the Ombudsman (Defensoría del Pueblo), since it is thematically aligned with the grievance redress mechanism and manages offices for public consultation throughout the country, not just in Lima. However, it will be necessary to strengthen the capacities of the Office in the themes related to the ERP.

14. Land and resource tenure

14.1 Rights to territories and land, and mitigation benefits

Please describe the land use and land tenure context of the proposed ER Program, and if and how rights to territories and land and mitigation benefits from REDD+ are reflected in traditional practices and codified in legal and/or regulatory frameworks.

Recent studies show that in the Peruvian Amazon, there are 25 million hectares of forestlands to which no legal rights have been allocated and that 50% of deforestation in the Amazon occurs on forests with unassigned rights. Today, these areas are being deforested at an annual deforestation rate (0.26%) about twice that of the average rate (0.15%) for the Amazon (Table 9 in Section 5.1). A large part of this area has been settled from time immemorial by indigenous peoples who claim title to these lands.

Currently, there are approximately 1,300 titled indigenous communities, but not all have geo-referenced survey information, nor are all registered in the Public Registry. In the opinion of the indigenous organizations, the number of untitled indigenous communities is greater than the 237 mentioned above. They have identified 988 communities that have yet to be recognized or titled (many due to the spontaneous creation of community “annexes”), and the establishment of 8 communal reserves and 5 territorial reserves is pending.

A number of laws and institutions provide the legal and institutional framework for recognizing and assigning indigenous rights to land. Chief among them, the new Forestry Law (29763) recognizes traditional indigenous rights related to the use of forest land, including lands assigned to indigenous forest communities (11.6 million ha) and territorial reserves for indigenous peoples in voluntary isolation (1.7 million ha) (Table 9, Section 5.1). The Forestry Law recognizes the rights to: participation in decision making related to forest land use; prior consultation of indigenous peoples regarding use of their land (in line with Law of Informed, Prior Consultation); equity of access (including gender considerations), opportunities for development, and the distribution of benefits from forest resources; and the recognition, respect, and valuation of forest cultures, especially traditional knowledge in the management and use of forest resources and biodiversity.

The Forestry Law also provides a basis for the distribution of benefits from REDD+. The Law recognizes the rights of rural or indigenous communities to the exclusive use of the ecosystem goods and services associated with titled land or to which they have title or usufruct rights. As part of these rights, indigenous communities can possess, access, and use production and protection forests to assure traditional uses and lifestyles. They can manage forests within their communal lands according to their cosmovision, cultural and spiritual values, and traditional uses, and are responsible for determining the internal use, management, and control of their communal lands according to traditional uses, norms, and organizational structures. Within this framework, the State has the obligation to strengthen communities’ capacities for forest management and commercialization and to incorporate traditional knowledge in technical norms that regulate community forestry management. In a complementary fashion, the Law of Indigenous Communities and Agrarian Development of the Jungle (Law 22175) is aimed at fostering agricultural development of indigenous lands via projects for the integral and integrated use of natural renewable resources.

The absence of land title or usufruct rights jeopardizes the reception of local benefits (but less so for benefits applied at higher jurisdictional levels) and can also result in an increase in social conflicts arising from the invasion of lands or overlapping rights among indigenous communities, rural populations, and forest concessions, among others. The risk of such conflict is highest where land-use rights or tenure are absent, such as shifting agriculture plots, indigenous territories in the process of being recognized by the State, or indigenous territories with undefined tenure.

Since the allocation of property rights, especially in forested land with unallocated forest rights, is an essential enabling condition for reducing emissions via sustainable forest use, distributing benefits, and avoiding conflict, the ER Program will:

1. Carry out, during the program preparation phase, regional socio-environmental assessments in each area of intervention and its sphere of influence (direct and indirect) in order to: identify direct, indirect and cumulative risks posed by the interventions to rights of forest-dependent communities, including indigenous and riverine communities; the identification of measures required to align activities or mitigate the socio-economic impacts identified; and how these solutions might be codified.
2. Put a high priority on defining the legal status of land with unassigned rights.
3. Prioritize the assigning of titles and forestry and agricultural land use rights and tenure, especially to indigenous peoples, including requests for community expansion as well as those from new communities. There are 80 indigenous communities titled in San Martin and 307 in Ucayali, but the current legal status of 81 communities in Ucayali and 47 in San Martin are incomplete or undefined (Table 8 in Section 4.1).

In this process, the PNCBMCC and SERFOR will coordinate with MINAGRI, the regional governments, FIP, and the IADB. The MINAGRI has overall responsibility for policies and norms related to land titling; within the Ministry, the General Bureau of Land Use Planning (DGOT) has responsibility for environmental mapping, land use planning, and land use zoning. However, the regional governments (equivalent to “states” or “provinces”) carry out the processes of land use planning, zoning, and titling, using regional government or special project finances. For forestry zoning, the national forestry authority is the rector, even though responsibility is shared with the regional governments. The Vice Ministry of intercultural Affairs within the Ministry of Culture has overall responsibility for indigenous affairs and serves as the principal public authority on matters of prior consent of indigenous peoples.

At present, the land surveying, titling, and registration process is being restructured under MINAGRI in concert with the regional governments. Past loans from the IADB under the Land Titling and Registration Program (PTRT) have helped to title 2 million and survey 2.5 million of 3.6 million rural properties. The third phase of this program is presently under negotiation; tentative goals include surveying, titling, and registering 536,000 of 1.6 million properties outstanding, 270 of 735 outstanding untitled rural communities (of a universe of 6,025 communities), and 100 of 237 untitled or unregistered indigenous communities of a total of 1535 indigenous communities. In addition, the FIP has allocated \$14.5 million to the titling of community lands, governance, and community forest management within the FIP’s pilot areas and a part of the \$5.5 million of the Specific Donations Mechanism will be allocated to the same purpose outside those zones of intervention. Plans for the latter will be designed by AIDSEP and CONAP. PNCBMCC and MINAGRI will seek to coordinate these plans with ERP objectives in San Martin and Ucayali.

As part of the construction of a favorable institutional framework for forest conservation, the PNCBMCC and SERFOR consider the strengthening of regional and indigenous community capacities and the provision of information and methodologies for the formulation of forestry plans and forest zoning at the regional level as high priorities.

15. Benefit Sharing

15.1 Description of envisioned benefit-sharing arrangement for the proposed ER Program. *Please describe the benefit-sharing arrangements that are envisioned to be used for this proposed ER Program.*

The proposal for the distribution of benefits is at an early stage of preparation. It should be noted that the use of “benefits” better refers to revenues, due to uncertainty whether “benefits” in the sense of “revenues – costs” will, in fact, occur. This determination is pending the estimation of ERP costs, which will be carried out during the coming semester.

The evolving vision is that benefits (*sensu* revenues) will enter into a national fund (the Peru Forest and Climate Fund), which will subsequently distribute them at the national, regional, and local levels. This distribution will take into account transaction costs at the three hierarchical or jurisdictional levels as well as the need for the improvement of livelihoods of local communities and peoples.

This benefit-sharing arrangement will be based on the regulatory framework provided by the new Forestry Law which recognizes the rights of interested citizens to participate in decision making related to the definition, application, and monitoring of policies and measures related to forest use and management, and equitable access to development opportunities and the distribution of benefits. The Law also recognizes the benefits derived from the economic use of ecosystem services as a usufruct right awarded by the State to individuals, rural or indigenous communities, or concessionaires. In order to ensure a basis for these benefits, priority will be placed on assigning land titles or usufruct rights to forest-dependent people, including indigenous communities.

The system's final form will be influenced by considerations related to the types and costs of the benefits produced and the form and distribution of the benefits. With regards to costs, the establishment of enabling conditions (e.g. policies, improved governance, monitoring systems, inventories, capacity improvement, and land titling) entails significant indirect costs at the national and sub-national levels that are difficult to quantify, but are essential to achieving emissions reductions. These costs will be estimated in the near future. If necessary, potential sources of financing of the gaps need to be identified. On the other hand, direct costs or investments to improve management systems that produce the desired benefits are more easily estimated. Although complete cost recovery via compensation for emissions reductions is unlikely, it is important that stakeholders recognize that indirect and direct costs exist at various jurisdictional levels.

Besides costs, a system of benefit-sharing should also account for carbon and non-carbon benefits. The reduction of deforestation reduces GHG emissions, but can also have positive effects on biodiversity, the maintenance of critical areas for the provision of ecosystem services, the well-being of forest dwellers, and improved local governance. These additional non-carbon benefits can be factored into the prices of emission reductions. For example, "gourmet" carbon reductions produced in association with assorted non-carbon benefits of biodiversity, protection of critical areas, and livelihoods, could be expected to command a higher price than conventional carbon (for example, from sustainable forest management or agroforestry systems) that has little impact on other non-carbon benefits. These non-carbon benefits would have to be geographically referenced in the field as well as within the data base used to track them.

The form of compensation for emissions reductions may be monetary or non-monetary. Non-monetary compensation can include infrastructure, technical assistance, or other services provided to local communities. Hence, the form of compensation may vary with the type and interests of the stakeholders involved.

Finally, attention must be paid to the distribution of the benefits. Achieving consensus with regards to the distribution of benefits among jurisdictional levels and stakeholders, including the magnitude and the form of the benefits, may be a lengthy process due to the complexity of the issue itself as well as the number and diversity of stakeholder interests involved. Clearly, a participatory approach is needed in order to achieve broad support among the Program's diverse stakeholders. Experience from Acre, Brazil, suggests that a simple system for benefit distribution, whereby the majority of the payments are received by those directly responsible for emissions reductions, may be one option. Investments of benefits in mechanisms that increase wealth (e.g. a system of micro-credit), well-being, or the sustainability of REDD+ (e.g. a local system of forest monitoring) may result in more beneficial and longer term effects, but these need to be clearly explained and agreed upon by stakeholders via the PIA process as well as the consultation mechanisms represented by the Executive Committee, the TCGs, and LECs.

The issue of the alignment of the few existing REDD+ projects also needs to be addressed, from the viewpoints of both carbon accounting as well as benefit-sharing. With regards to carbon accounting, these projects will eventually transition towards the use of sub-national or national reference levels as a basis of calculating emissions reductions, but until that point is reached, their emissions reductions will be excluded from sub-national or national accounting. Benefits negotiated by projects with buyers and accruing to these projects will pass through the National Forest and Climate Fund; the benefits entitled to these projects under their contracts are likely to be reduced to some degree in order to cover some of the costs of REDD+ at the national or regional jurisdictional levels.

Clearly, these issues require more in-depth discussion with the stakeholders before consensus is reached. Key participants in this process include representatives of the Ministries of Environment, Agriculture and Irrigation, Economy and Finances, and Intercultural Affairs, CIAM, the regional governments, indigenous organizations such as AIDSESP and CONAP, members of the REDD+ and Indigenous REDD+ Roundtables, active REDD+ projects, and other civil society organizations. It is envisioned that this process will occur during the next 18 months.

15.2 Link between the envisioned benefit-sharing arrangement and the activities in the proposed ER Program.

Please explain how these benefit-sharing arrangements would support the activities identified in section 5.3 to address the drivers of deforestation and forest degradation. Identify, if possible at this stage, potential issues or constraints that may emerge in development of the ER Program that could need additional progress in order to effectively implement the benefit-sharing mechanisms.

The benefit-sharing arrangement should partially compensate efforts resulting in reductions of emissions and, at the same time, encourage future implementation of REDD+ mechanisms. As indicated in the Section 15.1 above, the benefit-sharing arrangement can partially cover the costs of improvement in enabling conditions or REDD+ implementation at the national or sub-national levels (e.g. monitoring costs), help reward or cover direct costs of those who participate directly in the Program (e.g. via micro-credit or technical assistance), or stimulate adoption of more sustainable production systems by new stakeholders.

It is anticipated that benefits will be used to partially offset costs related to establishing enabling conditions related to governance, land titling and the monitoring, control, and enforcement of land use at both the national and regional levels. Discussions with the NGOs involved in the active REDD+ projects indicate a willingness of the projects to consider contributions to REDD+ costs at the national or regional levels.

Other issues that merit discussion are the pricing of emissions reductions in the absence of formal markets and the reluctance of indigenous communities to “commoditize” their emission reductions and permit their resale to other buyers (see Section 15.3, below).

A key question related to benefit distribution is the magnitude of the benefits required by stakeholders involved in sustainable forest management, agroforestry system, and conservation in order to induce a virtuous cycle whereby compensations for the reduction of emissions result in greater income and competitiveness in “green” markets, which in turn stimulate further efforts to reduce emissions. Clearly, the determination of the magnitude of payments required to produce a system with positive feedback is an essential aspect of the design of the benefit sharing arrangement that will be discussed in the coming months. Additional studies may be needed.

15.3 Progress on benefit-sharing arrangements

Describe the progress made thus far in the discussion and preparation of the benefit-sharing arrangements, and who has been participating in this process.

As indicated in Sections 15.1 and 15.2, there are various proposals and issues raised by stakeholders related to benefit-sharing arrangements. These include: the magnitude and form of compensation and the structure of benefit distribution. With regards to compensation, the Indigenous REDD+ Roundtable argues that emission reductions can be categorized into different types, having different prices, depending on their origin (e.g. the State, private sector, or indigenous communities) and related co-benefits: conventional (resulting from sustainable forest management, agro-forestry, or protected areas); “gourmet” (e.g. from indigenous communities, combining carbon, biodiversity, and livelihoods); and “extra gourmet” (e.g. indigenous communities in critical zones such as headwaters of watersheds or buffer zones adjacent to high biodiversity protected areas).

This proposal is being discussed in the context of Peru’s evolving benefit-pricing strategy. Decisions regarding a differentiated emissions pricing system will be defined during the design of the ER and FIP projects, but is made more difficult by the paucity of formal markets. The most recent purchase by the Disney Corporation of emissions from the Alto Mayo protected area in San Martin was associated with a price of approximately \$7/ton CO₂e. These emissions can be categorized as “gourmet”, due to the existence of multiple non-carbon benefits.

Another important process related to benefit sharing arrangements concerns the alignment of local REDD+ projects in the ER Program intervention areas with the emerging national REDD+ strategy and benefit sharing arrangement, as mentioned in section 15.2. The current jurisdictional REDD+ initiatives are considered as a temporary phase as Peru moves towards a national REDD+ strategy and methodological framework. It is envisioned that these projects will be granted a defined transition period (e.g. 10 years) to prepare them for their integration into a single national methodology for determining emissions and to integrate their benefit distribution system into the national system under which payments for emissions reductions will be mediated by a National Forest and Climate fund. During the transition, emissions reductions achieved by these projects will be excluded from subnational ERP accounting; it is likely that a portion of the benefits received by these projects from their contracts with buyers will be used to offset REDD+ costs incurred at the national or sub-national levels.

Finally, indigenous organizations are reluctant to sell their emissions reduction in commercial markets because this opens the door to potential conflicts regarding their territories. Indigenous policy is that emission reductions originating from their lands should be directed to multilateral funds or other mechanisms that permanently remove the reductions after the first sale, thus avoiding the possibility of their resale in secondary carbon off-set markets. Potential solutions include the permanent removal of emission reductions through their purchase and retirement by the international cooperation, the use of bilateral agreements with private sector stakeholders interested in the voluntary reduction of their annual carbon footprint, the use of indigenous emission reductions to mitigate the environmental impact of Peruvian companies within the framework of the Peru Forest and Climate Fund that is presently being designed, or other buyers willing to sign contracts with non-transference clauses for the reductions sold. In these cases, emission reductions sales contracts could include clauses specifying the permanent retirement of indigenous emissions reductions after the first sale

Resolution of these issues requires further discussion among the main participants in this process: PNCBMCC, MINAM, MINAGRI, MEF, the Vice Ministry of Intercultural Affairs, CIAM, regional governments, AIDSESP and CONAP representatives, individual projects, and the civil society. Although the progress made to date is incipient, the goal is to have the design for the distribution of benefits completed by the end of the first semester of 2015.

16. Non Carbon Benefits

16.1 Expected social and environmental benefits

Please describe the environmental and social benefits, other than emission reductions, that the proposed ER Program is planning to achieve; and any other ways in which the ER Program would contribute to broader sustainable development.

During the RPP, ER- PIN, and FIP-PIN consultations, a number of institutional, environmental and social non-carbon benefits were identified (see Table 23 below); of these, criteria related to biodiversity and indigenous peoples, and poverty alleviation were explicitly incorporated in the process of prioritizing the intervention areas. Non-carbon benefits include: land rights and titling, the improvement of enabling conditions and governance, biodiversity conservation, income, sustainable livelihoods of indigenous groups, the competitiveness of agriculture and forestry, and the development of new markets. Biodiversity, especially, deserves emphasis due to earlier UNFCCC COP decisions regarding the need for consistency of REDD+ actions with biodiversity conservation and the fact that biodiversity may be a factor important in distinguishing differential prices of carbon. Further analysis is needed as to how considerations of biodiversity could be incorporated in interventions (e.g. biodiversity analysis and prioritizations; zoning to ensure protection of large intact areas of forest; establishment of protected areas; application of environmental standards within certified sustainable production areas).

These potential co-benefits should be identified and prioritized according to:

- Existing baselines at national, regional or local levels
- Existing technical monitoring capacity
- Funding availability for monitoring

- Relevance of these benefits in the local and regional context.

During the design of the ERP, these benefits will be discussed with local stakeholders in order to specify the indicators and baselines, their priority, the monitoring and measurement methodologies and the participation of local groups in their application. Additionally, further discussion of the plan for the inclusion on non-carbon benefits in the National REDD+ Initiatives Registry is needed.

Additionally, as mentioned in section 15.2, the implementation of the ERP may produce non-carbon benefits on a large scale, such as increased producer competitiveness and increased national competitiveness in “green” value chains and markets. Methodologies for measuring these benefits need to be developed.

Table 23. Non-carbon socio-economic, environmental, institutional, and governance benefits identified and their importance in each of the zones of intervention.

Benefit	Indicator	SM	UCU
Poverty reduction among indigenous peoples	i) Men and women’s income, assets and/or access to natural resources. ii) Changes in access to basic services.	I	H
Reduction of the loss of biodiversity and maintenance of forest ecosystem services.	i) Variation in forest fragmentation (rate and area) and/or conservation rate based on demonstration plots. ii) Reduction in the rate of native forest loss in the area of intervention.	L	I
Enabling conditions consolidated through use of instruments, policy and institutions for sustainable forest landscape management.	i) Approved instruments for facilitating land use planning processes. ii) Agreements between the MINAM, MINAGRI and regional governments on REDD+ matters. iii) National Monitoring, Reporting and Verification System (MRV) established.	H	H
Empowerment of indigenous peoples and other local actors in forest management.	i) # of community forest management plans with Assembly approval. ii) # of communities participating in added-value chains. iii) Development of national legislation for community forest management. iv) Operating community forest management instruments (regulation and application). v) Percentage of indigenous women participating in the activities and decision-making of their organizations. vi) Percentage of rural women participating in the activities and decision-making of their organizations.	L-I	H
Investment in forest governance (improvement of forest and environmental governance).	i) Forest planning agreements. ii) Operating conflict resolution mechanisms. iii) Number of conflicts handled and pending. iv) Operating forest oversight bodies. v) Community early warning anticorruption mechanisms.	H	H
Improved land titling and assignment of land rights	i) Number of titles or other rights of use or access to land and natural resources granted to men and/or women. ii) Number of titles or other rights of use or access to land and natural resources granted to indigenous peoples. iii) Number of ha of legally titled land.	H	H

Greater competitiveness of sustainable use of forest lands.	i) Venture capital earnings invested in forests. ii) Productivity increase per hectare of forest or area of agriculture production. iii) Economic profitability of activities supported by the project.	H	I
Innovation and impact on markets (business model and technological improvement).	i) Number of people or communities adopting innovative management technologies and models. ii) Participation in new markets and opening of new niches. iii) Credit for sustainable agricultural or forestry management.	H	I

Note: H = High, I = Intermediate, L = Low;

16.2 Diversity and learning value
Please describe the innovative features of the proposed ER Program and what learning value the proposed ER Program would bring to the FCPF Carbon Fund.

The ERP has a number of innovative characteristics that could contribute to the diversity and development of the Carbon Fund: 1) the large size of the jurisdictional areas of intervention; 2) the efforts to include the indigenous communities in decision-making related to the design, management and implementation of the interventions via their participation in the PIA, Executive Committee and Local Environmental Commissions, with specific funding mechanisms earmarked for indigenous land titling and productive activities; 3) the emphasis on establishing enabling conditions for land use and productive activities; 4) the attempt to conciliate and coordinate the IADB and World Bank procedures and policies in a common approach; 5) the alignment of the ERP with a broader strategies related to forests and climate change and green growth; and 6) the effort to link the payments for emissions reductions by the ERP with a broader national system of payments for ecosystem services (the Peru Forest and Climate Fund), and 7) the emerging steps in using the ERP as a step to improve the country’s competitiveness in low emissions global markets.

On the other hand, it is envisioned that the ERP will contribute to finding solutions to various problems that affect deforestation and emission in the LULUCF sector in Peru:

- The lack of effective coordination, both vertical and horizontal, between the institutions and policies.
- The strengthening of new local institutions (such as the ARAs and the REDD+ Roundtables) so that they can assume greater responsibility for implementing REDD+ interventions.
- The inclusion and strengthening of diverse stakeholders, especially indigenous peoples, which have been historically marginalized from such processes and are inadequately prepared to handle the challenges involved.
- The emphasis on improving enabling conditions and local governance as a key to reducing deforestation and improving productivity in production systems within forest lands.

It is expected that these processes will prepare the way for green development in the Peruvian Amazon and at the national scale. Payments for emission reductions to producers will help to improve their competitiveness in markets based on sustainable or “green” supply chains. The reduction of carbon emissions from the Amazon forests also represents a reservoir of relatively cheap carbon that can help neutralize the carbon footprint of other domestic sectors that emit carbon, thus providing an impetus to the development of a national market for emissions reductions, payments for environmental services, and environmental compensations, which will help give greater value to the forests, reducing deforestation, and helping to improve the country’s competitiveness in low emissions global markets.

17. Progress on registries

17.1 National registry

Please include a short description of the relationship of the proposed ER Program to national REDD+ activity management arrangements, and if the proposed ER Program will be part of any system to track REDD+ or other emissions reduction activities (e.g., a REDD+ registry).

Currently, the MINAM is developing a National Information Platform for REDD+ Initiatives as the first phase in the National REDD+ Initiatives Registry, which will contribute to the transparency of information related to REDD+. The Platform consists of a list of REDD+ projects oriented to voluntary markets, but eventually it will be expanded into a National REDD+ Initiatives Registry. The Registry will contain more detailed information generated by the ERP and by other projects regarding reference scenarios, emission reductions achieved, safeguards, non-carbon benefits, and emissions property rights and thus will help avoid: a) double or triple accounting of emission reductions; b) ambiguity with regard to the ownership of emission reductions; c) inconsistencies between national GHG inventories and the general REDD+ accounting and d) non-fulfillment of socio-environmental safeguards. The emissions information will be consistent with the requirements of the National Inventory of Greenhouse Gases. In the case of the reductions of emissions from indigenous communities, the Registry should include annotations related to the permanent removal of the emission reductions after the first sale.

The Registry will be aligned with the National Inventory of GHG, proposed by Peru within the framework of the Second National Communication on Climate Change. A legal version of the proposal has been prepared and is being analyzed in order to put it into effect. Eventually, the NRIR should analyze the possibility of merging with the National Public Registry.

18. List of acronyms used in the ER-PIN

Please include an explanation of any institutional or other acronyms used. Add rows as necessary.

Acronym	Meaning
AFP	Pension Fund Administrators
AGROIDEAS	Compensation for Competitiveness Program
AGRORURAL	Program for Agrarian Rural Productive Development
AIDSESP	Interethnic Association for the Development of the Peruvian Amazon Forests
ANA	National Water Authority
ANP	Protected Natural Area
APROFU	Association of Forest Producers of Ucayali
ARA	Regional Environmental Authority
BAU	Business-as-usual
CAF	Andean Community for Development
CCNN	Indigenous communities
CENAGRO	National Agriculture and Livestock Census
CFM	Community forestry management
CGFFS	Forest and Wildlife Management Committee
CI	Conservation International
CIAM	Amazon Interregional Council
CIAT	International Center for Tropical Agriculture
COFIDE	Development Finance Corporation
CONAFOR	National Forest and Wildlife Council
CONAP	Peruvian Confederation of Amazonian Nations
COP	Conference of the Parts
CORPIAA	Regional Coordinator of Indigenous Peoples, AIDESP, Atalaya
CO ₂ e	Equivalent carbon dioxide
DGAAA	General Bureau of Agrarian Environmental Affairs
DGCCDRH	General Bureau for Climate Change, Desertification and Water Resources
DGEVFPN	General Bureau of Natural Heritage Assessment, Valuation, and Financing

DGFFS	General Forestry and Wildlife Bureau
DGOT	General Bureau for Land Use Zoning
DRA	Regional Agrarian Bureau
EAE	Strategic Environmental Evaluation
EC	Executive Committee
ENBCC	National Forests and Climate Change Strategy
ENCC	National Climate Change Strategy
ER	Emissions Reductions
ERP	Emissions Reduction Program
ERPEC	Emissions Reduction Program Executive Committee
ER-PIN	Emissions Reduction Project Idea Note
ESMF	Environmental and Social Management Framework
FAO	Food and Agriculture Organization of the United Nations
FCPF	Forest Carbon Partnership Facility
FECONAPA	Federation of Native Communities of the Province of Atalaya
FENAMAD	
FIP	Forest Investment Program
FMT	Facility Management Team of the Forest Carbon Partnership Facility
FONAM	National Environment Fund
GCFTF	Governors' Climate and Forest Task Force
GEF	Global Environmental Facility
GHG	Greenhouse Gas Emissions
GIZ	German Society for International Cooperation
Gg	Gigagrams
GL	Local governments
GOREs	Regional governments
GR	Regional governments
IADB	Inter-American Development Bank
ICRAF	World Agroforestry Center
IIAP	Peruvian Amazon Research Institute
IIRSA	Initiative for the Integration of the Regional Infrastructure of South America
ILO	International Labor Organization
INDECOPI	National Institute for the Defense of Competition and the Protection of Intellectual Property
INEI	National Institute of Statistics and Information
INIA	National Institute for Agrarian Innovation
IPCC	Intergovernmental Panel on Climate Change
JICA	Japanese International Cooperation Agency
KfW	German Development Bank
LEC	Local Environmental Commission
LULUCF	Land use and land-use change and forestry
MEF	Ministry of Economy and Finances
MINAGRI	Ministry of Agriculture and Irrigation
MINAM	Ministry of the Environment
MINCETUR	Ministry of Foreign Commerce and Tourism
MINCUL	Ministry of Culture
MRV	Monitoring, Reporting, and Verification System
MTCO _{2e}	Million Tons of Carbon Dioxide equivalents
NAMA	Nationally Approved Mitigation Action
NGO	Non-governmental organization
NRIR	National REDD+ Initiatives Registry
ODA	Overseas Development Assistance
OEFA	Office of Environmental Evaluation and Control
ORAU	AIDESP Regional Organization, Ucayali
OSINFOR	Supervisory Body for Forest and Wildlife Resources

OTCA	Organization of the Treaty for Amazonian Cooperation
PC	Participants Committee of the FCFP
PCM	Presidency of the Council of Ministers
PIN	Program Idea Note
PlanCC	Climate Change Planning Project
PMU	Program Management Unit
PNCBMCC	National Program for Forest Conservation and Climate Change Mitigation
PPF	Permanent Production Forests
PROFONAMPE	Fund for the Promotion of Natural Protected Areas of Peru
PRONANP	National Program of Protected Natural Areas
REDD+	Reducing emissions from deforestation and forest degradation
R-PIN	Readiness Program Idea Note
R-PP	Readiness Preparation Proposal
SENACE	National Service for Environmental Certification
SEP	Stakeholders Engagement Plan
SERFOR	National Forest and Wildlife Service
SERNANP	National Natural Protected Areas Service
SESA	Strategic Environmental and Social Assessment
SFM	Sustainable forest management
SINAFOR	National System for Forest and Wildlife Management
SINEFA	National Environmental Assessment and Control System
SNIP	National Public Investment System
SNMCB	Nation System for Forest Cover Monitoring
TCG	Technical Consultative Group
TMU	Territorial Management Unit
UGFFS	Forest and Wildlife Management Units
UNDP	United Nations Development Program
UNFCCC	United Nations Framework Convention on Climate Change
UN REDD	United Nations Collaborative Program on Reducing Emissions from Deforestation and Forest Degradation in Developing Countries
VCS	Voluntary Carbon Standard
VCS-JNRI	Voluntary Carbon Standard- REDD+ Nested Jurisdiction Initiative
WB	World Bank
WWF	World Wildlife Fund

Annex I: Financing plan summary table

Expected uses of funds	Description	\$ (Million)						Total	Source
		2015	2016	2017	2018	2019	2020		
ER Program development	REDD Readiness	4.89	0	0	0	0	0	4.89	1
	SNMCB	2.677	2.677	2.677	2.677	2.677	2.677	16.062	2
	Planning	0.358	0.358	0.358	0.358	0.358	0.358	2.148	3
	National Forest Inventory	3.543	3.543	3.543	3.543	3.543	3.543	21.258	3
	PES market develop/Forest and Carbon Fund	0.88	0.5	0.3	0.3	0.3	0.3	2.58	1,4
	Sub-total	12.348	7.078	6.878	6.878	6.878	6.878	46.938	
Operational and implementation costs	Land titling (a)		3.71	3.71	3.71	3.71	3.71	18.55	
	Zoning/forest rights	5.275	5.275	5.275	5.275	5.275	5.275	31.65	3
	Monitoring and local control	11.727	11.727	11.727	11.727	11.727	11.727	70.362	3
	Market promotion and development			1.526	1.526	1.526	1.526	6.104	3
	Technical assistance/training (b)			5.979	5.979	5.979	5.979	23.916	3,5
	Incentives (ag, forestry, community forestry) ©			24	24	24	24	96	3,5,6
	Studies/research			2.597	2.597	2.597	2.597	10.388	3
Financing costs (e.g., interest payments on loans)	None								
Other costs									
Sub-total		17.002	20.712	54.814	54.814	54.814	54.814	256.97	
Total uses		29.35	27.79	61.692	61.692	61.692	61.692	303.908	
Expected sources of funds	Description (d)	2015	2016	2017	2018	2019	2020	Total	
Grants	FIP/IABD + counterpart (SM + UC)	1.18	1.18	3.4	3.4	3.4	3.4	15.96	1,7
	REDD Readiness (RPP/World Bank, KfW)	3.79						3.79	1
	GIZ (Community forestry compensation)	1.38	1.38	1.38	1.38			5.52	1
	CAF (forestry strengthening & competitiveness)	4	4	4	4	4		20	1
	FAO/Finland (National Forest Inventory)	1.3	1.3	1.3	0.65			4.55	1
	JICA (SFM and conservation)	2.36	2.36	2.36	2.36	2.36		11.8	1
	Sub-Total		14.01	10.22	12.44	11.79	9.76		58.22
Loans	FIP/IABD	0		3.3	3.3	3.3	3.3	13.2	
Public Funds	PNCBMCC- CDTs	2.07	2.68	4.75	9.5			19	8
	SERFOR	16	16	16	16	16	16	96	3
	Sub-total	18.07	18.68	20.75	25.5	16	16	115	
Revenue from REDD+ activities (e.g., sale of agricultural products)	Cacao (f)	0		28.58	28.58	28.58	28.58	114.32	9
	CFM (g)	0	0	3.125	3.125	3.125	3.125	12.5	9
	SFM (h)	0	0	7.94	7.94	7.94	7.94	31.76	9
	Total	0	0	39.645	39.645	39.645	39.645	158.58	
Revenue from sale of Emission Reductions (contracted)	Based on \$5/TCO _{2e} , accordint to FCPF	0	0	10.67	10.67	10.67	0	32.01	10
Revenue from sale of additional Emission Reductions (not yet contracted)	Due to the absence of formal markets, prices for carbon vary widely. We use an estimate of \$7/TCO _{2e} .	0	0	14.93	14.93	14.93	14.93	59.72	11
Total sources (before taxes)	Total sources	32.08	28.9	101.735	105.835	94.305	73.875	436.73	
	Net revenue	2.73	1.11	40.043	44.143	32.613	12.183	132.822	

Sources										
(1) Table 16, this document										
(2) Forest monitoring budget, PNCBMCC										
(3) Anexo 2, Contenidos Mínimos del Programa Presupuestal										
"Manejo Sostenible y Competitivo de los Recursos Forestales y de Fauna Silvestre" 2015, SERFOR, MINAGRI, 2014.										
(4) Estimation of Santiago Carbon Fund										
(5) USAID/Chemonics Alternative Development Program, Peru										
(6) PROCOMPITE										
(7) FIP Program, Annex 2, this document										
(8) Conditional Direct Transfers Program, PNCBMCC										
(9) PlanCC										
(10) FCPF										
(11) Conservation International										
Notes										
(a) \$20,000/indigenous community (N = 128) +titling costs of S/ 358 per farm in San Martin (N = 101,900 farms) and S/1434/farm in Ucayali (N = 4437 farms);										
INTERVENCIÓN PÚBLICA EVALUADA: SISTEMA DE FORMALIZACIÓN DE LA PROPIEDAD INFORMAL, MEF, 2011										
(b) Includes organizational strengthening (\$0.5 million), agricultural technical assistance /\$20,000 farmers x \$90/farmer/yr, and forestry TA and training (\$3.679 million)										
© Includes agricultural incentives of \$300/farmer/yr + \$6 million/yr in forestry competitiveness funds +\$6 million/region in agricultural competitiveness funds										
(d) Total amounts in Table 16 were prorated by the number of years of each grant remaining for the period 2015-2020,										
(f) Revenues are the average annual profit/ha during the life of the plantation x 20,000 ha										
(g) Revenues are based on a 412,000 ha x average profit/ha/yr										
(h) Revenues are based on 750,000 ha of concessions and 372,000 ha of permanente production forest x the average annual profit of each.										