Forest Carbon Partnership Facility (FCPF)
Carbon Fund

Emission Reductions Program Idea Note (ER-PIN)

Country: Cameroon

ER Program Name: Emission reduction program in southern Cameroon

Date of Submission or Revision: 1st June 2016

Guidelines:

1. The FCPF Carbon Fund will deliver Emission Reductions (ERs) from activities that reduce emissions from deforestation and forest degradation, conserve forests, promote the sustainable management of forests, and enhance forest carbon stocks in developing countries (REDD+) to the Carbon Fund Participants.
2. A REDD Country Participant interested in proposing an ER Program to the Carbon Fund should refer to the selection criteria included in the Carbon Fund Issues Note available on the FCPF website (www.forestcarbonpartnership.org) and to further guidance that may be communicated by the FCPF Facility Management Team (FMT) over time.
3. ER Programs shall come from FCPF REDD Country Participants that have signed their Readiness Preparation Grant Agreement, using this ER Program Idea Note ('ER-PIN') template.
4. The completed ER-PIN should ideally not exceed 40 pages in length (including maps, data tables, etc.). If additional information is required, the FCPF FMT will request it.
5. Please submit the completed ER-PIN to: 1) the World Bank Country Director for your country; and 2) the FCPF FMT (fcpfsecretariat@worldbank.org).
6. As per Resolution CFM/4/2012/1 the Carbon Fund Participants' decision whether to include the ER-PIN in the pipeline will be based on the following criteria:
    i. **Progress towards Readiness:** The Emission Reductions Program (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;
    ii. **Political commitment:** The REDD Country Participant demonstrates a high-level and cross-sectoral political commitment to the ER Program, and to implementing REDD+;
    iii. **Methodological Framework:** The ER Program must be consistent with the emerging Methodological Framework, including the PC's guiding principles on the methodological framework;
    iv. **Scale:** The ER Program will be implemented either at the national level or at a significant sub-national scale, and generate a large volume of Emission Reductions;
    v. **Technical soundness:** All the sections of the ER-PIN template are adequately addressed;
    vi. **Non-carbon benefits:** The ER Program will generate substantial non-carbon benefits; and
    vii. **Diversity and learning value:** The ER Program contains innovative features, such that its inclusion in the portfolio would add diversity and generate learning value for the Carbon Fund.

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 REDD+ Steering Committee on behalf of the Ministry of the Environment, Protection of Nature and Sustainable Development (MINEPDED)
Type and description of organization	The National REDD+ Steering Committee (SC) is the highest decision organ of the REDD+ process in Cameroon. Created by Prime Ministerial decree n° 103/CAB/PM of June 13th 2012, this multi-sectoral committee has been operational since then, provides guidance and orientation to the national REDD+ process. The SC is multi-stakeholder, ensuring a multi-sectoral and participatory approach in the design and implementation of REDD+. It comprises representatives from: the Presidency, the Prime Minister's Office, the National Assembly, Ministries managing natural resources (Environment, Protection of Nature and Sustainable Development; Forestry and Wildlife; Agriculture and Rural Development; Livestock, Fisheries and Animal Industry; Territorial Administration; Water and Energy), other sectoral Ministries (Social Welfare, Scientific Research, Finance, Public Investment) Civil Society Organizations; Indigenous People representatives; Trade Union of Industries; and Cities and Communities of Cameroon. MINEPDED, as the designated national authority of the climate change convention, is the president of the SC; and the Ministry of Forestry and Wildlife (MINFOF), which is responsible for the sustainable management of forest resources, is the vice president of the SC.
Main contact person	Amadou Wassouni
Title	National REDD+ Coordinator
Address	MINEPDED Cameroon
Telephone	+237 699 751 484
Email	wassouni.amadou@yahoo.fr
Website	www.minep.cm.gov

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.*

Name of partner	Contact name, telephone and email	Core capacity and role in the proposed ER Program
Technical Secretariat of the REDD+ Steering Committee	**Dr. Amadou WASSOUNI** REDD+ National Coordinator Tel: +237 699 751 484 Email: wassouni.amadou@yahoo.fr **Mr. Valentin WAGNOUN** UNFCCC Focal Point Tel: +237 695076100 Email: valiwa1@yahoo.fr **Mr. Bruno MFOUOU MFOUOU** Director of Forestry Tel: +237 6993 29729 Email: brunomfouou@yahoo.fr **Dr. René SIWE** REDD+ Technical Coordinator Tel: +237 696 84 40 68 Email: rene.siwe@gmail.com	The REDD+ Technical Secretariat (TS) is the operational organ of the REDD+ process and ensures the coordination of REDD+ activities. The TS has the mandate to elaborate the national REDD+ strategy, to represent the management structure in the different ministries and among other stakeholders, and to guarantee the integration of REDD+ policies in national and sectoral strategies as well as other development initiatives. The TS is comprised of experts specialized in key areas of the REDD+ process divided across four technical units (Information Education and Communication; MRV and REL; Projects and Programs; and Strategic Environmental and Social Assessment), and one fiduciary unit. The REDD+ TS coordinates the elaboration of the ER-PIN, and will support the national steering committee in coordinating and monitoring the implementation of the ER-Program. It will work closely with the ER Program Task Force (to be established) and the regional and divisional technical committees in the ER Program area.
National Climate Change Observatory (ONACC)	**Professor Joseph Armathé AMOUGOU** Director of ONACC Tel: +237 69990 3210 Email: joearmathe@yahoo.fr	The National Climate Change Observatory (ONACC) has as principal objective to evaluate the socio-economic impacts, as well as environmental measures of prevention, mitigation and adaptation to harmful effects and risks linked to climate change. It collects and analyses reference information on climate change for decision makers. ONACC will work closely with the TS to ensure that all ER-Program interventions

		are in line with the national climate change vision.
Ministry of Forestry and Wildlife (MINFOF)	**Mr. Joseph NYONGWEN** Secretary General Tel: +237 677 35 26 14 Email: nyongwenj@yahoo.fr	MINFOF is responsible for the conservation and sustainable management of forest resources and will thus play a key role in the ER Program.
Ministry of Agriculture and Rural Development (MINADER)	**Mr. YANKAM Rabelais** Inspector General Tel: +237 699 45 58 36 Email: rabbassy@yahoo.fr	MINADER designs and implements national agricultural policies and will support the ER Program in this regard.
Ministry of Economy, Planning and Regional Development (MINEPAT)	**Mr. Libam Dieudonne** Tel: +237 677 78 72 49 Email: christianlibam@yahoo.fr	MINEPAT's mission is to plan the different land use patterns in Cameroon through a zoning plan and to coordinate foreign aid. In this role, it signs all foreign aid accords/agreements.
Ministry of Livestock, Fisheries and Animal Industry (MINEPIA)	**Mme. Renée Degrâce WEULASSAGOU** Tel: +237 699 84 23 63 Email: weutiako@yahoo.fr	MINEPIA's mission is to provide technical guidance and oversee the implementation of activities related to livestock and fisheries.
Ministry of Mines, Industry and Technology Development (MINMIDT)	**Mr. Felix EBOA MPILE** Tel: +237 695 172 577 Email: mpileboa@yahoo.fr	MINMIDT is responsible for the coordination of mining and industrial activities, and technological developments and transfer.
Conservation Action Research Network (CARN), which includes the following organizations: ECOPARTNERS MOSAIC	**Dr. Thomas B SMITH** Tel: +1 310 206 4712 Email: tbsmith@g.ucla.edu	CARN will support the implementation of the ER Program through the Congo Basin Institute, Cameroon offices. The network will provide technical support on a broad range of subjects including among others: measuring and monitoring of carbon and non-carbon benefits; mobilizing Indigenous Peoples (IP), addressing safeguards at policy level, ensuring the maintenance of key ecological services, promoting biodiversity conservation and building capacity of IPs and civil society on REDD+ at ground level.
World Bank	**Serges Emeran MENANG** Tel: +237 699 989 748 Email: emenangevouna@worldbank.org	Technical and financial partner, supporting the mobilization of experts (national and international) for the elaboration of the ER Program. Also providing financial and material support

		to the REDD+ TS for the elaboration of the REDD+ strategy.
World Wide Fund for Nature (WWF)	**Bertin TCHIKWANGA** Tel: +237 6995 036 19 Email: btchikangwa@wwfcarpo.org	Technical partner supporting private sector engagement (including mining and agroindustry) through their Business and Industries program. WWF supports Protected Area conservation in numerous areas throughout the ER Program area, including through participatory management engaging local communities and indigenous people.
International Union for Conservation of Nature (IUCN)	**Dr. Leonard USONGO** Cameroon Country Director Tel: +237 222 216 496 Email: leonard.usongo@iucn.org	Technical, strategic and financial partner facilitating consultation and participation of different stakeholders; and bringing in decades of experience and ground work with the stakeholders in the ER Program area, including with MINEPDED on non-carbon benefits and environmental and social impacts of REDD+. IUCN will support ER Program implementation by mobilizing participation of civil society networks, IPs, gender & other minority groups, support capacity building, communication and partnerships among others. IUCN will also participate in the implementation of sustainable agricultural and livestock practices based on its pilot activities currently being implemented around the ER program area, including MRV-related activities based on on-going initiatives.
International Institute for Tropical Agriculture (IITA)	**Dr. Rachid Hanna** Tel: +237 670190066 Email: r.hanna@cgiar.org	Technical partner and host of the Congo Basin Institute of Cameroon. IITA will provide support for research on sustainable intensification of food crop production and in the development of cocoa culture to optimize the production and contribution to the reduction of emissions.
International Council for Research in Agroforestry (ICRAF)	**Dr. Zac TCHOUNDJEU** Tel: +237 +237 2221 5084 Email: Z.Tchoundjeu@cgiar.org	Technical and research partner supporting ER Program design especially in areas related to research on agroforestry and accompanying local

		population in setting up agroforestry systems.
Centre for International Forestry Research (CIFOR)	**Dr. Denis SONWA** Tel: +237 6771 348 81 Email: d.sonwa@cgiar.org	Technical partner supporting program design through evidence-based research on ER interventions and related barriers to implementation.
GIZ/Programme Forêt Environnement (PFE)	**Didier HUBERT** Tel: +237 679 54 58 99 Email: didier.hubert@eco-consult.com	Technical partner supporting forest management (concessions, council forests); sustainable agriculture, and wood energy.
Civil Society and Indigenous People Organizations	**Mrs Cecile NDJEBET** Civil Society Platform Tel: +237 6778 635 99 Email: cecilendjebet28@gmail.com **Mrs Hawe BOUBA** Representative of Indigenous People Groups Tel: +237 67778 7334 Email: hawebouba@yahoo.com	Facilitate the process of sensitization, information sharing, participation and consultation of the different stakeholders, especially civil society, women and indigenous people.

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, Nature Protection and Sustainable Development
Main contact person	Amadou Wassouni
Title	National REDD+ Coordinator
Address	MINEPDED Cameroon
Telephone	+237 699 751 484
Email	wassouni.amadou@yahoo.fr
Website	www.minep.cm.gov

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 development of this ER-Program Idea Note (ER-PIN) is managed under the oversight of the REDD+ Steering Committee (SC), which is the multi-stakeholder decisional organ providing strategic and policy guidance for the design and implementation of REDD+ in Cameroon. The Technical Secretariat of the SC is the operational organ of the REDD+ process and ensures the coordination of REDD+ activities. A letter of

endorsement of the ER-PIN has been signed by the Minister presiding MINEPDED and President of the SC (see Annex).

The Ministry of Environment, Sustainable Development and the Protection of Nature (MINEPDED) is the government focal point for climate change and all related processes, including REDD+. All national procedures for endorsement of the Program by the national government REDD+ focal point and/or other relevant government agencies have been finalized given that the ER Program is being developed and will be implemented by the REDD+ TS, which is a technical unit created within MINEPDED. The ER program shall be implemented in collaboration with decentralized regional and divisional REDD+ technical committees, the national climate change observatory (ONACC) and technical development, the REDD+&CC civil society national platform and research partners shortlisted in Section 1.2. The basic premise of and main interventions proposed by this ER Program have been presented to members of the SC and has the backing of all its members.

Moreover, the REDD+ Technical Secretariat has initiated the creation of an inter-ministerial working group comprising technical experts from various ministries responsible for the utilization and management of natural resources. The objective of the working group is to provide oversight and coordination of the various climate change and sustainable development programs with a strong cross-sectoral character viz REDD+ process, Central Africa Forest Initiative (CAFI) and Forest Investment Program (FIP). This group was actively involved in the elaboration of the ER-PIN. The functional modalities of the inter-ministerial working group has been drafted in an organic text that will be submitted to the REDD+ Steering Committee during its forthcoming meeting in June 2016 for approval.

Furthermore, a series of sensitization and consultation campaigns were carried out in the administrative divisions of the ER-PIN area. The concerns of the different stakeholders during the sensitization and consultation processes are documented in subsequent chapters of this document. Prior to these campaigns the Technical Secretariat organized various working sessions with key administrators in the ER-PIN area, Civil Society Organizations and Indigenous People's Platform to address shortcomings of the prior submission, improve on proposed program design plans and set the stage for the resubmission (see Section 6).

The CSO platform on Climate Change and REDD+ organized a workshop on the 27th and 28th of May 2016, to analyze the ER-PIN draft document. At the end of the workshop the CSO platform endorsed the ER-PIN document. A position paper was elaborated in this respect. The ER-PIN development process culminated in a final consultation workshop held on May, 30th and 31st 2016 whereby the feedback and recommendations from different stakeholders were addressed. At the end of the workshop the stakeholders voiced their approval and support for the ER Program.

Parallel to these developments a mid-term review of the FCPF grant was carried out in December 2015. A set of actions was agreed between the Government of Cameroon and the World Bank mission as precursor to a reasonable and credible timeline towards national REDD+ readiness. The progress in the realization of these actions is summarized in Table 1 below. The MTR will be submitted to FMT by the 24th of June 2016 and presented at the PC22.

Table 1: Progress in the realization of the action plan

Activities	Responsible institutions	Deadline	Status of Progress
Elaboration of an annual work plan 2016 showing all the sources of finance	ST-REDD+	31.12.2015	Elaborated and approved by SC, and Financial and Technical Partners
Finalizing the recruitment of all technical experts in the REDD+ Technical Secretariat (01 SESA senior expert and 05 junior experts)	MINEPDED/ MINMAP	31.01.2016	All technical experts of Technical Secretariat have been recruited and have assumed service
Elaboration of an action plan for CSO platform	CSO platform/ ST REDD+	31.01.2016	Plan elaborated by CSO and IPs
Launching simple communication actions	ST-REDD+	Continuos	Elaboration of leaflets and brochures (ongoing); Organization of regular meetings (with technical partners, CSOs, IPs and inter-sectoral ministries); Development of REDD+ website (ongoing).
Elaboration of Draft-1 of the national strategy	ST-REDD+	31.03.2016	Finalized and distributed to all stakeholders
Contracting all the strategic studies	MINMAP	30.04.2016	All studies have been contracted to consultancy firms after a competitive bidding process
Elaboration of the ER-PIN	ST-REDD+	30.04.2016	Submitted
Preparation of the mid-term report	ST-REDD+	30.04.2016	Elaboration process ongoing; document will be submitted on the 24th of June 2016; and presented during the next PC.
Preparation of a request of extension of the grant period	ST-REDD+/ MINEPDED/ MINEPAT	30.06.2016	Request letter and action plan has been elaborated and transmitted by MINEPDED to MINEPAT
Preparation of a request for additional FCPF grant	ST-REDD+/ MINEPDED/ MINEPAT	30.06.2016	Request prepared in accordance with the MTR
Strengthening the coordination with other REDD+ actors	ST REDD	Ongoing	Monthly meetings with financial and technical partners; Monthly meetings with CSOs and IPs Creation of inter-ministerial working group

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-sectoral commitment exists to the ER Program and to REDD+ in general.

The government of Cameroon has demonstrated consistent commitment in contributing to the stabilization of greenhouse gases (GHG) by combating the causes of deforestation and forest degradation as well as the conservation and enhancement of carbon stocks and the sustainable management of forests through its active engagement in implementing multilateral and bilateral conventions, including but not limited to the United Nations Framework Convention on Climate Change (UNFCCC), Convention on Biological Diversity (CBD), the Central African Forest Commission (COMIFAC) on conservation and sustainable management of forest ecosystems in Central Africa. Cameroon's Intended Nationally Determined Contributions (INDC), which was submitted prior to COP21 outlines the country's mitigation commitments, whereby land use and forestry is a central strategy. Current efforts are geared towards translating the INDC into NDC.

The National REDD+ Steering Committee (SC) is the highest decisional of the REDD+ process in Cameroon. The SC is multi-stakeholder, composed of representatives from the Presidency, the Prime Minister's Office, the National Assembly, Ministries in charge of natural resources and land-related sectors (MINEPDED, MINFOF, MINEPIA, MINADER, MINRESI and MINEPAT), civil society organizations, indigenous peoples and the private sector. Their different roles have been outlined in section 1.2. The ER program is being implemented under the supervision of the SC. The SC's expressed commitment and strong support of the ER Program exemplifies the high-level and multi-sectoral endorsement of the Program. By connecting carbon finance with specific programs and initiatives that deliver results, the Government of Cameroon expects that the development and implementation of the ER Program in Cameroon will enable the transition from *Readiness* to the *Demonstration* phase, laying the foundation for results-based programs. It is with this vision that the government of Cameroon has made significant efforts to completing the REDD+ readiness process these past months, demonstrated by concrete milestones such as carrying out thorough analysis of the drivers of deforestation and forest degradation in ER program area and the contracting consultants for major studies on national drivers of deforestation and forest degradation, reference emission levels and REDD+ options, including significant progress with MRV design and REDD+ information, education and communication.

The REDD+ Technical Secretariat has ensured the creation of an inter-ministerial working group for the elaboration of the National Investment Framework in the context of CAFI, the Forest Investment Program and the REDD+ process. This working group, and financial and technical partners and some members of CSOs and IPs supported the Technical Secretariat in the elaboration of the ER-PIN and are expected to continue supporting the development of the ER-Program.

The ER PIN is developed in line with the national REDD+ strategy and is considered a first step towards the implementation of Cameroon's future REDD+ strategy. The goal of the national REDD+ strategy is to contribute to the objectives defined in the INDC by proposing measures for a low carbon impact development which guarantees non-carbon benefits. The ER-Program will bring together key stakeholders in the natural resource utilization and management sectors, whilst demonstrating the feasibility of different strategic options to combat deforestation and forest degradation as outlined in the R-PP. The lessons learnt from the ER Program will be crucial in expanding REDD+ implementation in other agro-ecological zones in the country.

The government is committed to other initiatives geared at addressing the pressures within and outside the forest and correspondingly alleviating poverty and contributing to the reduction of greenhouse gas emissions from the forest sector. In this respect a revised proposal will be submitted to the CAFI executive board. Priority activities in the CAFI proposal target particularly the direct and indirect drivers of deforestation. Investment options address drivers in the agriculture, livestock farming, energy and forestry domains, while cross-cutting options address drivers in the land tenure, land use planning and governance domains.

Some of these activities constitute strategic interventions within the ER-PIN zone (See Section 5.3). Approval of the proposal by the CAFI executive board will lead to the elaboration of the National Investment Framework. Furthermore, the country is committed to the Forest Investment Program (FIP). A national investment framework will be elaborated in the scope of the Forest Investment Program (FIP). FIP will be built around the following activities:

- **Institutional capacity, forest governance and information:** monitoring, information management systems, support for institutional, legal and financial management, FLEGT, cadastral mapping and land tenure reforms, landscape planning, technology transfer, capacities for IPs/LCs.
- **Investment in forest mitigation measures:** forest conservation, SFM, restoration, afforestation/reforestation, PES, private sector restructuring, certification etc.
- **Investment outside the forest sector to reduce pressure on forests:** alternative livelihood and poverty reduction opportunities, alternative energy programs, agricultural investments in the context of rationalized land-use planning, agricultural intensification including agro-forestry, sustainable development of the non-timber forest product sector (promotion and commercialization).

The inter-ministerial working group is playing a crucial role in the elaboration of both proposals. These initiatives permit Cameroon to mobilize additional funds that will be aligned for the implementation of the ER-Program.

REDD+ is considered fundamental in achieving sustainable development goals, and provides the mechanism through which finance, technology transfer, capacity building and broad stakeholder participation can be achieved. In this line, a REDD+ Governance Matrix is on-going development, under the coordination of the MINEPAT. The economic governance matrix is a logical framework which will facilitate transparency and good governance of economic activities. This Matrix aims at improving transparency and governance in natural resource management and facilitates national and international fundraising. REDD+ is inscribed in the matrix to ensure that the activities carried out have an actual impact on development.

Furthermore, under the guidance of MINEPAT reflections are ongoing to elaborate a cross-sectoral zoning plan in the South, East and Centre regions. On a related note, the German Development Bank (KfW) has drafted a 10 million Euros program aimed at developing REDD+ pilot projects and elaborating regional land management schemes in the Southwest and North regions of Cameroon. In the scope of the KfW financing another 20 million Euros are earmarked for the next phase of the Forest and Environment Sectoral Program.

Finally, the French Development Agency through its support to the National Program for Participatory Development is supporting local councils to set up REDD+ pilot initiatives in the five agro-ecological regions of the country.

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.

Table 2 below summarizes the status of REDD+ readiness activities as per the component categories of the R-PP.

Table 2: Status of REDD+ readiness

Components	Achievements	Upcoming activities	Deadline
Sub-component 1a – National disposition for REDD+ management	REDD+ National Coordination and Technical Secretariat operational; Multi-sectoral, multi-stakeholder Steering Committee in place and functional; Civil society climate change and REDD+ platform established and functional; Decentralization of CSO platform at regional and divisional levels; Analysis of the strengths and weaknesses of the present institutional arrangement in view of proposing an institutional arrangement for the effective implementation of REDD+; Process of setting up decentralized structures currently ongoing; Proposition of priority actions for legal and institutional reforms.	Formalization the inter-ministerial working group;	July 2016
		Setting up of regional and divisional technical committee	November 2016
		Proposal of revision to current institutional arrangements; Discussion on policies, texts, laws and measures to review;	November 2016
		Development of the concept note of proposed legal and institutional reforms essential for the effective implementation of REDD+	February 2017
Sub-component 1b – Stakeholder consultation and participation	Development of FPIC guide for REDD+ and strengthening capacity on the use of the FPIC guide via training of trainers; Development of a national consultation plan; Civil society forum on REDD+ and climate change; Mapping of stakeholders;	Implementation of the communication strategy	Continuous
		Implementation of consultation plan;	Continuous

	Elaboration of a REDD+ communication strategy, its operational and media plans; Production of communication tools (REDD+ website, video on REDD+ in local languages, flyers, brochures etc.); Creation of a REDD+ Press-club (capacity building of the press-club members); Guide for information access being finalized by FODER with support from European Union.	Organisation of capacity building workshops of various parties on specific themes to facilitate their participation and implication in the process;	Continuous
Sub-component 2a: Assessment of land use, forest policy and governance	Elaboration and consolidation of a participatory approach for the analysis of drivers of deforestation and forest degradation; Data collection and analysis of drivers of deforestation and forest degradation in the center, south and east regions; Inventory and characterization of existing projects, programs and initiatives with the potential to contribute to REDD+; Study on REDD+ governance/corruption; Secured funding from KfW for regional planning schemes in Southwest and North regions; Preparatory meeting and consultation within the platform on the revision of the forest law and land tenure issues to prepare consensual messages and choose representatives; Workshops to explain complex issues and proposals of the civil society to reform the legislation taking into account community rights.	Analysis of the data on drivers of deforestation and degradation obtained in the three ER-PIN regions;	June 2016
		Continuation of data collection related to drivers of deforestation and degradation in the 07 other regions in the country;	Aug – Nov. 2016
		Finalisation of the national study of drivers of deforestation and degradation coupled with proposition of strategic options which could reduce deforestation and degradation	March 2017
		Organisation of sensitization workshops on the role of good governance in the REDD+	Continuous

Sub-component 2b: REDD+ strategic options	REDD+ strategic options are being tested in the five ecological regions by the *Programme National de Développement Participatif* (PNDP). Initiative financed by French Development Agency (AFD); Secured funding from KfW for REDD+ pilots in Southwest and North regions; Study on strategic options sequel to drivers study currently ongoing.	Finalisation of study on REDD+ strategic options Identification of potential ZOAs and ZOMOs REDD+	March 2016
		Proposal of other pilot REDD+ initiatives in Regions not covered by PNDP pilot projects;	March 2016
		Evaluation of cost-effectiveness of the proposed strategic options REDD+ Assessment of the feasibility of the proposed strategic options	June 2016
Sub-component 2c: REDD+ implementation framework	Provisional institutional arrangement for REDD+ readiness. Study on REDD+ governance/corruption carried out by Transparency International Preliminary consultations with stakeholders on the FGRM and BSM.	Study of legislation necessary for operationalization of REDD+; Progressive implementation of legislation in terms of progress made and time required for their adoption; Setting up of conflict resolution structures; Operationalization of conflict resolution structures; Establishing a centralised data system on conflicts; Review of national and international experience of revenue sharing mechanisms (not only financial), and management of funds (not limited to forestry sector experience); Construction of a REDD+ benefit sharing mechanism	April 2017
Sub-component 2d: Socio-environnemental impacts	National SESA development ongoing; Preliminary work on the analysis of the legal prospects for the application of strategic environmental and social assessment.	Collection of data required for the drafting of the SESA; Completion of the SESA study	April 2017

Component 3 – Reference scenario and reference level	Historic maps for forest cover change for three epochs 1990, 2000, 2010 for 8 administrative regions covering the entire forest area of the country; Scope and scale of the national REDD+ process defined; Studies on the prioritization of pools and gases in the 5 agro-ecological regions commissioned; Modelling future drivers of deforestation and forest degradation using the GLOBIOM economic model	Evaluation and adoption of emission factors for different forest strata; Setting the reference period; Evaluation of the quality of data; Validation of the data for the selected period of time; Evaluation of methodologies for the elaboration of the reference scenario Test the definition of forest in all agro-ecological zones Finalisation of the study	April 2017
Sub-component 4a: National Forest Monitoring System	Development of an action plan for a national system on forest carbon monitoring; Elaboration and validation of parameters required for forest carbon monitoring – forest definition, land representation etc.; Outlining key issues for the MRV national strategy; Conception of the MRV institutional arrangements; Operationalization of the National Climate Change Observatory (ONACC) Guaranteed financial and technical support from USFS for the realization of certain actions in the MRV action plan; Training of technical staff of MINFOF and MINEPDED on the application of remote sensing and GIS technologies; Setting up a satellite image processing laboratory with support from the French Development Agency (AFD) through the GEOFORAFRI project.	Consolidation of the scope the national MRV system; Collection and assessment of the utility of existing data; Continuation of consultations for the national validation of Cameroon's institutional MRV arrangements specifically to identify institutional roles and responsibilities; Development and consolidation of the MRV concept; Training and capacity building as identified in the National MRV Action Plan; Capacity building for CSOs and representatives of indigenous peoples on the understanding of MRV in Cameroon; Capacity building for structures intervening in the MRV system on the requirement of the MRV system Test the MRV system in current and upcoming REDD+ pilot projects and initiatives Adjustments to the monitoring system; Presentation and validation of national MRV system;	Feb 2018

Sub-component 4b: Information system on non-carbon benefits	IUCN has launched 2nd phase of its Pro-poor REDD+ Project in the ER-Program area, where demonstration activities provide insights to the type of non-carbon benefits generated by REDD+ Methodological guide for the development of principles, criteria and indicators of REDD+.	Data collection for the elaboration of a co-benefit/non-carbon benefit monitoring matrix; Introduction of co-benefit/non-carbon benefit matrix in the MRV Capacity building for local actors to undertake activity monitoring	June 2017

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).

The REDD+ Technical Secretariat has published and distributed the first draft of the national REDD+ strategy to all REDD+ stakeholders. The document builds on preliminary reflections and consultations with key experts in specific areas as well as studies carried out by partners. It clearly outlines the status of development of key components of the Readiness Package and stepwise approaches to the realization of the strategic options for the respective components.

Furthermore, all the strategic studies required to enhance the strategic reflections have been launched. These include an in-depth analysis of drivers of deforestation and forest degradation; development of benefit sharing mechanism; conflict and redress mechanism; strategic options for REDD+; SESA and ESMF. A draft 2 of the national REDD+ strategy which will take into consideration the outcome of the aforementioned strategic studies will be elaborated and submitted by the end of year 2016.

The mid-term report will be submitted to FMT by the 24th of June 2016 and will be presented during PC22.

Major milestones that have been achieved include the elaboration and validation of the communication strategy; the elaboration and validation of the REDD+ consultation plan; the launching of pilot projects addressing key strategic options proposed in the R-PP in the five agro-ecological regions; and setting up of decentralized REDD+ committees in the five agro-ecological regions.

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.*

The main objective of the national REDD+ strategy is to contribute to the stabilization of the climate by reducing GHG emissions from deforestation and forest degradation, conservation of forest carbon stocks, sustainable management of forests, and the enhancement of forest carbon stocks within a context of sustainable development. REDD+ is considered a tool for development and improvement of livelihoods.

Future rates of deforestation and forest degradation are projected to increase with the national goal of transforming the economy and making the country emergent by 2035. The national strategy aims to adopt a low carbon impact development pathway. The ER-Program is built on the premise to ensure green growth by applying low-carbon impact policies, measures, and technologies.

A review of literature on the drivers of deforestation and an analysis of development programs in the different natural resources sectors in the five agro-ecological regions indicate the existence of activities on removals and emissions in varying intensities. The national REDD+ strategy thus aim to address activities related to reducing emissions and enhancing removals. The planned ER-Program activities are in line with this strategic vision. Table 3 below summarizes the interventions in the national REDD+ strategy and how they are aligned with the proposed interventions of the ER-Program.

Table 3: National REDD+ Strategy and ER-Program interventions

Activities	National REDD+ Strategy interventions	ER-Program interventions
Addressing Deforestation	• Planning and management of rural areas for the development of agriculture and livestock; • Intensification of ecological animal and fish farming; • Promotion of practices to improve agricultural production capacity; • Promoting energy efficiency and renewable energy (including the promotion of rural resources). • Compensation measures – reforestation, and rehabilitation of degraded forest.	• Improved agriculture practices, • rehabilitation of abandoned plantations, • agroforestry, • land use planning to reduce impacts on forest from the establishment of agricultural plantations, from mining and infrastructure development • Promoting energy efficiency and renewable energy (including the promotion of rural resources).
Addressing Forest Degradation	• Improve management of the forest sector; • Enhancing the implementation of management practices within production forest; • Increase wood processing rate; • Strengthening the sustainable management of wood energy; • Restoration of degraded forests; • Improving the management and development of NTFP • Recycling waste from the forest industry.	• Reduced impact logging; • Enhance forest certification programs; • Improve wood energy efficiency; • Restoration of degraded forests; • Sustainable management of NTFP
Conservation	• Conservation, • Securing and sustainable managment of protected areas and forest areas with high conservation value.	• Awareness raising, • Biodiversity conservation • Improve law enforcement
Sustainable management	• Improve management of the forest sector; • Enhancing the implementation of management practices within production forest; • Improve implementation of the simple management plans for community forests; • Conserving, securing and sustainable management of protected areas and forest areas with high conservation value.	• Reduced Impact Logging (RIL) • Forest certification • Biodiversity conservation • Ensure the implementation of management plans
Strengthening carbon stocks	• Restoration of degraded forests • Adhering to the “Great Green Wall” and the “Bonn Challenge” Initiative; • Establishing plantation forests.	• Restoration of degraded forests • Establishment of plantation forests

The national REDD+ strategy is built on a set of principles that will ensure that safeguards are respected in the pursuit of the strategic goals. These principles are cross-cutting, focusing on comprehensiveness, coordination and complementarities with other sectors and among branches of government, and include:

- The implementation of REDD+ will be at a national level; nonetheless, projects will be encouraged at subnational level in order to better identify and take into consideration local circumstances without necessarily losing the national vision;
- The benefits of REDD+ will include at the same time emission reductions, removals and non-carbon benefits;
- Respect the rights of indigenous peoples and local communities including women, and gender integration;
- Recognize and integrate local practices and values in the conception and implementation of REDD+ activities;
- Operate on the basis of an understanding of nature and the extent of the dependence vis à vis forests, particularly among vulnerable groups;
- Ensure an equitable and transparent distribution of responsibilities and benefits; horizontally as well as vertically, paying particular attention to vulnerable groups;
- REDD+ funds have to finance actions and appropriate policies to reduce deforestation and forest degradation as well as promote the conservation and increase in the extent of forest areas;
- Guarantee the rights and access to information related to the REDD+ process; and also information on the positive and negative impacts on the environment and the means of existence of communities;
- Ensure the implication of all stakeholders (administration, civil society, private sector and indigenous people) at every step of the process;
- The national REDD+ strategy would not neglect the potential investment from the carbon market.
- Setting up an effective and permanent legal and political framework for the management of natural resources required to support REDD+ (forestry, mines, agriculture, energy etc.).

Activities in the ER Program will be consistent with these principles and therefore serve as a model for activities in the emerging national REDD+ strategy. The proposed ER Program will help to ensure continued political support for REDD+ in Cameroon by generating visible results beyond readiness processes, including planning and cross-sectoral integration and successfully attracting scaled-up finance to Cameroon to support ER activities. The timing of the proposed ER program is therefore important in order to maintain current interest and momentum in Cameroon. The ER program will pilot innovative policies and practices within forestry and related sectors that can potentially be expanded in other landscapes under the completed national REDD+ strategy.

Activities proposed in the ER program are well harmonized with the Government's development priorities as articulated in Vision 2035. For example, Vision 2035 outlines strategic guidance on land use planning to, amongst others, protect the environment and fight against the emerging consequences of climate change and to achieve locally autonomous regional development. Regional land use plans are expected to promote regional development and employment and serve as the framework for establishing partnership contracts between the state and the regions, state and municipalities (councils). Vision 2035 envisages putting in place a legal and regulatory framework for spatial planning (law, master planning, setting up a territorial development observatory), and the ER-Program will work to ensure REDD+ objectives are integrated into such laws and guidelines.

The Growth and Employment Strategy Document is the framework for government action for the period 2010 - 2020, and indicates the government's intention to: (i) focus the strategy on wealth creation, (ii) to support job creation to ensure better distribution of the fruits of growth, (iii) implement a governance improvement strategy and, (iv) pursue the achievement of the Millennium Development Goals. The growth and employment strategies revolve around growth through infrastructure development, modernization of production facilities, human development, regional integration and diversification of trade, financing of the economy; and employment by increasing the supply of decent jobs, matching of labour demand, and improving the efficiency of the labour market. The strategy lays out Government ambitions to launch an extensive program of increasing and modernising agricultural production to meet not only the demand for food but also to supply agro-industries. Concrete actions include: improving the availability of factors of production including land, water and agricultural inputs; promoting access to technological innovations, in particular through strengthening the linkage between research and extension; and improving the competitiveness of production chains. The ER-Program is fully consistent with and supportive of these goals.

Finally, the ER-Program activities and interventions will benefit from an existing legal and policy framework, which even though requires harmonisation (as envisaged in the national strategy), presents a platform which facilitates the implementation of these activities. Table 4 below highlights the laws, policies and measures along with the corresponding ER-Program activity/intervention.

Table 4: ER Problem interventions and associated national policies and strategies

Activities	ER-Program interventions/activities	Existing sectoral laws, policies and strategies
Addressing Deforestation	• Improved agriculture practices, • Rehabilitation of abandoned plantations, • Agroforestry, • Land use planning to reduce impacts on forest from the establishment of agricultural plantations, from mining and infrastructure development • Promoting energy efficiency and renewable energy (including the promotion of rural resources); • Compensation measures – reforestation, and rehabilitation of degraded forest.	Forest policy and law, Legal framework for the environment; Legal framework for land planning; Mining code; Rural sector strategy; Action plan on land planning; Strategy and action plan for energy efficiency; 2020 strategy on forest and wildlife; National Investment Plan; Road and railway plan; Law n°00211/008 of 06th May 2011 on the guidance for sustainable management and development of the national territory.
Addressing Forest degradation	• Reduced impact logging; • Enhance forest certification programs; • Improve wood energy efficiency; • Restoration of degraded forests; • Sustainable management of NTFP	National action program to combat desertification; Laws n°94/01 of 20th January 1994 on forestry, wildlife and fisheries; 2020 strategy on forest and wildlife sub-sectors; Bill on the promotion and development of renewable energy in Cameroon; Document on sustainable land management in development plans and elaboration of sustainable land use and management plans.
Conservation	• Awareness raising, • Biodiversity conservation • Improve law enforcement	National biodiversity action plan and strategy Version 2 (2012); Forest law and policy, Environment framework law; Safeguards emergency action plan for protected areas (2013); Tourism law 1998; Mangrove management plan; RAMSAR Convention; COMIFAC convergence plan.
Sustainable management of forests	• Reduce impact logging • Forest certification • Biodiversity conservation	Forest law and policy, Environment framework law; Regional planning framework law; Mining code; Rural sector strategy ; FLEGT VPA; COMIFAC convergence plan; «Model forest» concept;

	• Ensure the implementation of management plans	Existing certification schemes.
Strengthening carbon stocks	• Restoration of degraded forests	Forest law and policy, Environment framework law; Safeguards emergency action plan for protected areas (2013); Operation Green Sahel I and II; National Program for the Development of Forest Plantations.

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).

The ER Program area covers seven administrative divisions within three administrative regions: *Dja et Lobo*, *Ocean*, *Vallée du Ntem*, *Mvila (South region); Nyong et So'o*, *Nyong et Mfoumou (Centre region)* and *Haut Nyong (East region)*. Figure 1 illustrates the location of the ER-Program area. Since the ER Program area occupies seven divisions within three regions, a Task Force will be established under the auspices of the REDD+ TS to coordinate and supervise project activities in collaboration with ONACC and the REDD+&CC civil society national platform. It will be composed of the different stakeholders drawn from the sub-divisional, divisional and regional technical REDD+ committees.

The total surface area of the ER-Program is 93,328km² (9,332,800 ha). It lies within bi-modal and mono-modal agro-ecological zones. Average annual precipitation in the mono-modal zone range from 2500-4000 mm; soils are predominantly volcanic with sediments of rocky origin. Main crops include: coffee, cocoa, plantains, palm, ginger etc. The bi-modal zone experiences 1500-2000 mm of rainfall annually spread across two rainy seasons. Soils are mainly acidic, ferralitic, clay with poor capacity to retain nutrients. Main crops include: cocoa, coffee, yams, plantains, maize, pineapples etc.

The ER Program area includes 9,267,606 ha of forest which accounts for 89% of the area. Total aboveground and belowground biomass in the program area is estimated at 1,725 Mt C/1.725 Gt of biomass, which is approximately 37% of the country's total carbon stocks. 63 % of the total area corresponding to 5,878,000 ha is classified as permanent forest.

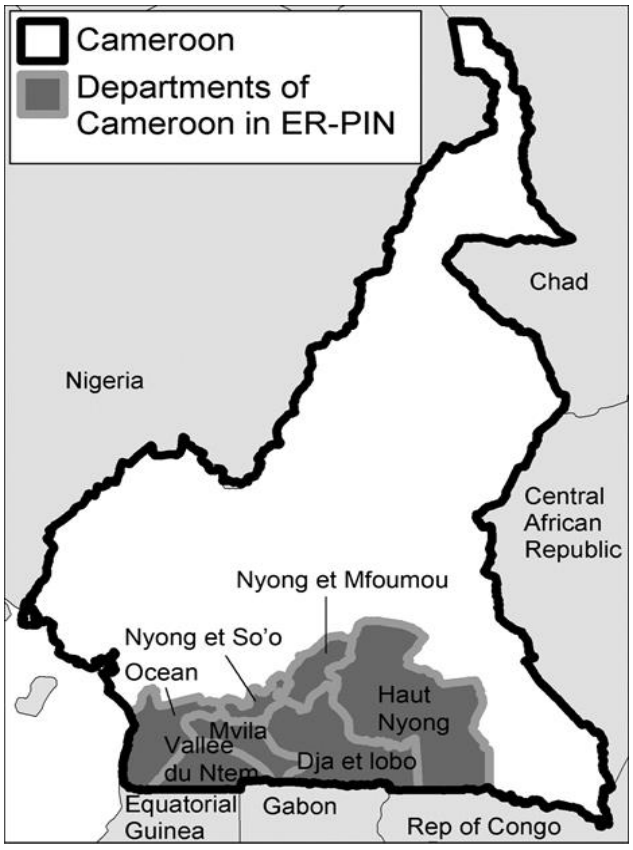

Figure 1: Divisions included in the 93,328 km² proposed ER-PIN activity area.

The area includes the Dja Biosphere Reserve (DBR), a UNESCO World Heritage Area; the Akom-II and Bipindi area, an area with very high biodiversity and plant endemism and high ecological value; the Mengame Gorilla Sanctuary and the Campo Ma'an National Park. The area also includes Cameroon sections of the transboundary landscapes TRIDOM (Dja-Odzala-Minkebe Tri-National) and TNS (Tri-National) which form part of the Congo Basin. The forests are mostly Congolian evergreen lowland forest in the east and in the coastal drainages; there are large areas of Atlantic and Biafran forest. In addition, significant forests in the ER Program area are designated for different forest management and land use types, as shown in Table 5 and Figure 2 below.

Table 5: ER Program forest uses

Forest use/designation	Area (ha)	Percentage
Permanent forest domain	**5 878 061**	**62,98**
Protected area	1 350 647	14,47
Concession (FMU)	3 158 993	33,84
Council forest	1 368 421	14,66
Non-permanent forest domain	**749 932**	**8,03**
Community forest	511 623	5,48
Sales of standing volume (SSV)	90 126	0,96
Agroindustrial zones	148 183	1,58
Mines exploration	4 710 949	50,47

Source: Cameroon Interactive Forest Atlas (WRI 2012)

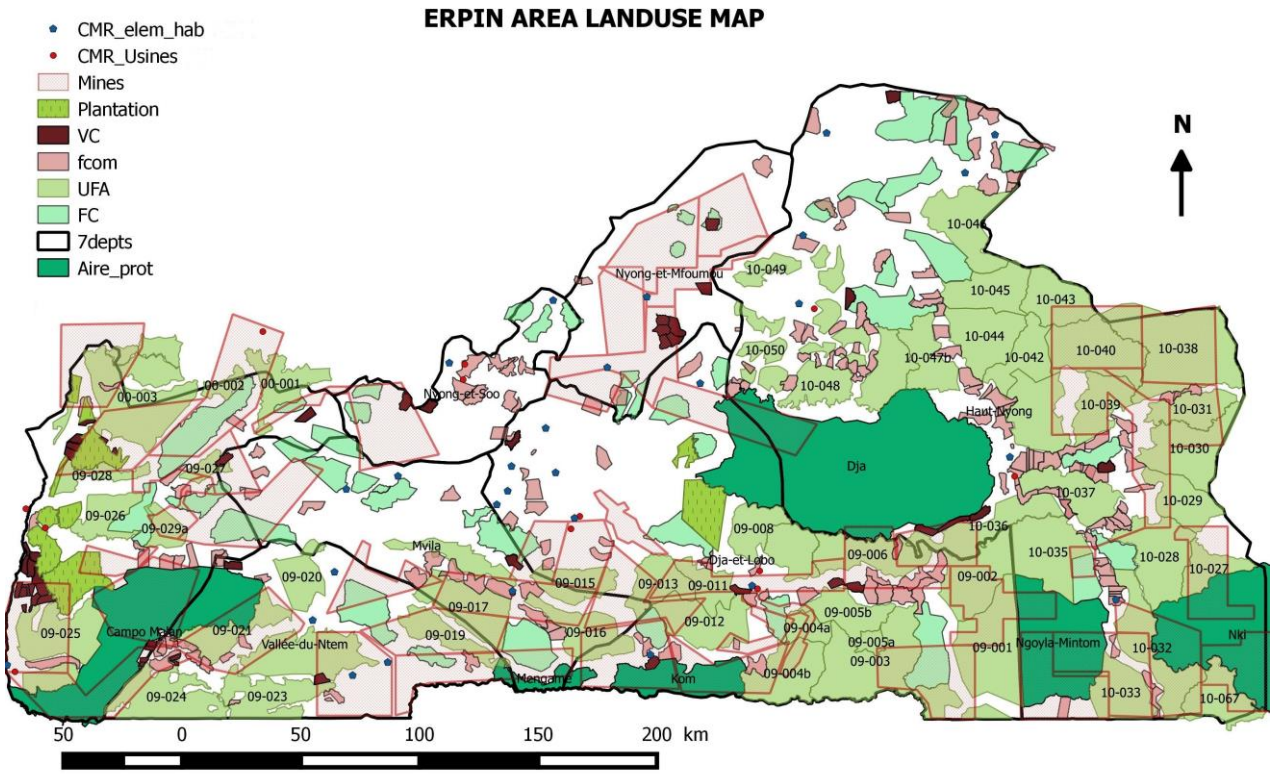

Figure 2: Landuse map (sourced from WRI Interactive Forest Atlas), note plantations refer to agroindustrial zones

The population resident in the area was estimated at 1,152,362 in 2005 including numerous ethnic groups. Indigenous peoples in the area include the Bakola, Bagyeli and Ba'ka. Table 6 presents the demographic distribution in the Program area. Many of the rural communities in this region obtain food staples from farming and others bring in income through selling of crops, bushmeat and other forest products. Other land uses include: small-holder agriculture, industrial agriculture, forestry operations, and mining exploration concessions.

Table 6: Population distribution in the administrative division [1]

Region	Department	Area (sq. km)	Pop. 1987	Pop. 2005	Growth rate (1987-2005)
Center	Nyong et Mfoumou	6,172	88,349	10,4507	84.54
	Nyong et So'o	3,581	96,038	11,5960	82.82
East	Haut Nyong	36,384	148,475	19,6519	75.55
South	Dja et lobo	19,911	121,059	196,951	61.47
	Mvila	8,697	116,996	179,429	65.20

[1] Population data was obtained from the Annuaire Statistique du Cameroun (2012).

	Ocean	11,280	92,994	179,093	51.92
	Vallee du Ntem	7,303	42,749	179,903	23.76

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).

The ER Program will be a) prepared over 24 months between July 2016 and June 2018 and b) implementation will be initiated in October 2018 and run for 10 years to September 2028.

Figure 3 summarizes key steps in the ER-Program development and REDD+ readiness. The ER-PIN approved in the pipeline during the next Carbon Fund meeting in June 2016. The Letter of Intent (LoI) will be signed a couple of months later. The Draft ER-PD will be ready by March 2017, and a final version by October 2017. The ER-PA will be signed by June 2018. With regards to REDD+ readiness; more than 50% of the preparation grant will have been consumed by June 2016. The mid-term review report will be submitted to FMT in June 2016 and presented at the PC22 in September. Evaluation of the Readiness Package is scheduled for May 2017.

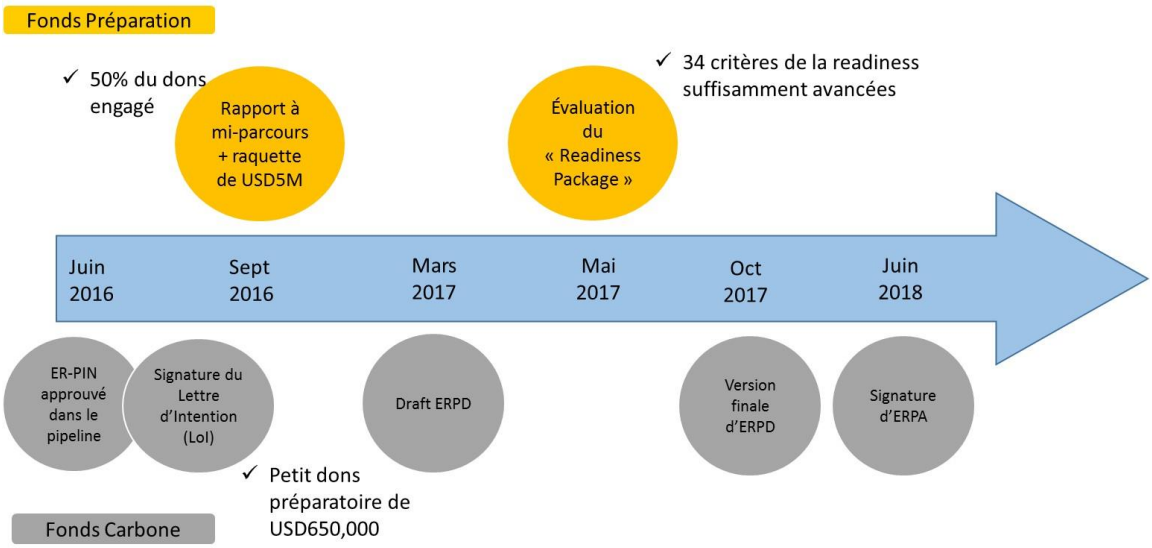

Figure 3: Main milestones in the ER-Program development

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).

In the scope of REDD+ readiness a study on the in-depth analysis of drivers of deforestation and forest degradation is envisioned at national level. The methodological approach for the study has been adopted by the REDD+ TS. The approach builds on the overview of drivers presented in the R-PP and other studies to analyze land use dynamics carried out in the ER-Program area. Specific objectives of the in-depth analysis on proximate and underlying drivers of deforestation in the ER-Program are:

- Spatially identify hotspots of deforestation in the ER-Program area;
- Review policies, programs and trends contributing to emissions and removals within the Program area and in neighboring administrative regions;
- Identify proximate and underlying drivers of deforestation and forest degradation within and in the proximity of the ER-Program area;
- Assess the intensity of each driver in the different divisions in the ER-Program area;
- Understand the inter-relationships between the proximate and underlying drivers of deforestation and forest degradation within and outside the Program area;
- Identify potentials of leakage and of external drivers on the ER-program area;
- Identify preliminary actions to reduce deforestation and forest degradation in the ER-Program area.

The methodological approach was based on the analysis of sectoral policies at national, regional and divisional levels impacting on the ER-Program area; determination of hotspots based on historic analysis of deforestation in the seven administrative departments; identification, characterization and establishment of inter-relations between proximate and underlying drivers of deforestation and forest degradation through semi-structured interviews with experts (conservationists, natural resource managers and administrators, etc.) and agents (small-holder farmers, agri-business holders, forest concessioners, artisanal miners, mining concessioners etc.).

Data collection and analysis has been completed within the administrative regions of the ER-Program area and a final report reflecting the ER-Program area is due in June 2016. The preliminary analysis of collected information is summarized in this section.

Deforestation hotspots in the ER-Program area

The analysis and identification of historic trends of deforestation and hotspots in the different administrative divisions were carried out based on existing cartographic data on forest cover dynamics. The EU funded FP7 REDDAF and the OSFT projects used satellite-based technology to map forest cover dynamics between 1990-2000-2010 in 8 administrative regions of Cameroon including those harboring the ER-Program. These datasets have been harmonized and were used to calculate historic trends of

deforestation and identify hotspots. The results on the historic trends of deforestation are presented in Table 7.

Table 7: Historic trends of deforestation from 1990-2000 and 2000-2010

Division	Surface area (km^2)	Forest area 1990 (km^2)	Percentage forested (%)	Annual gross deforestation 1990 to 2000 (%)	Annual gross deforestation 2000 to 2010 (%)
Dja et Lobo	20 205.40	19 946.21	98.72	2.04	1.05
Nyong et So'o	3 608.00	2 482.00	68.79	0.79	0.97
Nyong et Mfoumou	6 172.00	4 694.00	76.05	1.06	0.44
Haut Nyong	36 321.25	35 301.83	97.19	0.05	0.39
Mvila	8 697.00	7 756.67	89.19	0.82	0.71
Ocean	11 280.00	10 880.00	96.45	0.99	0.58
Vallee du Ntem	7 303.00	7 172.25	98.21	1.13	1.59

Proximate and underlying drivers of deforestation and forest degradation

The ER Program area has high remaining forest cover. However, there is likely to be an increase in deforestation and forest degradation in the coming years due to increasing international and national pressure for mineral extraction, biofuel crops; infrastructural development (roads and deep water sea port); agricultural expansion (biofuel crops, agribusiness and subsistence agriculture). These are described in more detail below.

UNPLANNED DRIVERS; AGENTS AND UNDERLYING CAUSES

Small-scale subsistence and cash crop agriculture: Research in Cameroon's southern rainforests has shown that the livelihood strategies of forest communities relate to forestry, energy, fishing, and agriculture, with shifting cultivation and slash and burn the main farming method for small-scale farmers. These livelihoods are sensitive and exposed to climate variability and change, with farm sizes expanding yearly to respond to the declining productivity of shifting cultivation.[2]

Small-scale farmers in the ER Program area include native and migrant groups, with migrant populations generally entering farming by buying or gaining user rights to land from local chiefs or traditional leaders. The newly occupied land is then converted to agriculture, most often at the forest frontier. Many farmers are involved in both subsistence and commercial farming, with cocoa as the main cash crop. Although cocoa farmers traditionally maintain a mix of multi-purpose shade trees on their farms, the establishment of new cocoa agroforestry systems is increasingly associated with continuous degradation of dense forest ecosystem.

[2] Chia, Olufunso A. Somorin, Denis J. Sonwa, Youssoufa M. Bele & M.A. Tiani (2015): Forest–climate nexus: linking adaptation and mitigation in Cameroon's climate policy process, Climate and Development, 7, 85-96

Banana, maize, plantains and cassava are becoming more important in terms of production and surface area under cultivation mainly because of the high demand from big cities (Yaoundé and Douala) and neighboring countries (Equatorial Guinea, Gabon and Central African Republic). The high demand has equally transformed these food crops into cash crops with the consequence being the attraction of medium to large-scale investors, with a growing group of national investors, often elites, purchasing 5-100 ha of land for plantain and cassava plantations at the detriment of the forest cover year after year.

In addition, family oil palm and rubber plantation are developed around agro industrial plantation such as SUDCAM, SOCAPALM, HEVECAM, GEAFEC, DOMAYO-farming, PHP etc.

Informal logging and mining: Research has shown that informal logging mainly destined for national and regional timber markets roughly equals the volume of industrial timber produced for export.[3] Local demand for timber and wood products is expected to increase in line with population growth, construction and infrastructure development.

In addition to the above drivers, recent analysis[4] suggests artisanal mining and unsustainable fuelwood extraction are also major drivers of deforestation and forest degradation in the program area.

PLANNED DRIVERS; AGENTS AND UNDERLYING CAUSES

Government agricultural projects/programmes and agro-industry: The government vision of boosting and diversifying national production through programs as PIDMA, ACEFA, PACA etc. as well as the development of agro industrial plantation of rubber, palm oil etc. from private investor will increasingly lead to deforestation according to production objectives.

Infrastructure: Planned infrastructure developments for the region include railways connecting mining areas to deep sea ports, hydrodams and related electricity networks as well as the creation of new villages for relocation of affected population. State planners currently have limited understanding of the environmental and social impacts of infrastructure development. The underlying causes include population growth and demands for energy, as well as sub-regional integration objectives to be achieved through the building of trans-national road networks across the region. These drivers will be addressed through land use planning that incorporates REDD+ priorities.

Mining: Numerous mining exploration permits exist in the ER Program area (Cam Iron SA, GeoCam/GeoVIc, CMC….), some overlapping with others or other land uses such as forestry and even conservation areas. However, mining has not yet been initiated there. This mine would use a strip mining approach or open-cut mines.

Logging: The logging carried out in the ER Program area is comprised of a diversity of forestry operators ranging from international forestry companies certified for sustainable forest management (forest management Unit) to small and medium scale operating loggers (community forest, council forest, sale of standing volume….).

Table 8 summarizes the causes of deforestation and associated mitigation measures.

[3] Cerutti, Paolo Omar, and Guillaume Lescuyer. *The domestic market for small-scale chainsaw milling in Cameroon: Present situation, opportunities and challenges*. Vol. 61. CIFOR, 2011.
[4] IUCN, 2014. " Les Factuers de Déforestation et de Degradation des Forêts : Résultats d'une analyse participative dans les Paysages TNS et TRIDOM.

Table 8: Summary of the main drivers of deforestation and forest degradation in the program area

Source of GHG emission	Causes	Mitigation measures
Permanent forest		
Deforestation in protected areas • Poaching • Illegal exploitation of wood • Fraudulent mining	• Weak enforcement of law • Non-compliance of management plans (Protected area boundaries) • Protected areas have negative impact on the development of the locals • Absence of poaching alternative • Low potential ecotourism value • Weak administrative governance • Low husbandry techniques • Closeness of the buffer zones • Lack of finance for alternative activities • Weak application of sanctions for offenders • Anarchic exploitation and no regulation of NTFP	• Sensitization • Promotion of ecotourism • Monitoring of the implementation of management plans • Improvement of the application of law • Develop alternative income generating activities based on the needs of the local population • Alternative animal protein • Transparency of protected areas economy • Improve living conditions of the population
Unplanned deforestation • Mixed farming shifting cultivation • Artisanal mining exploitation	• Outdated land use planning (Territorial Administration) • Low stakeholder engagement in the zoning process (classification of forest and agroforestry zone) • Population growth and poverty • No respect of regulations • Incivility • Low recovery of waste and scrap wood • Ignorance of modern techniques • Uncontrolled bush fires	• Improve zoning plan (considering the population size in the demarcation of the agroforestry areas) • Improve agroforestry and agricultural practices • Protection and creation of forests • Monitoring and evaluation of artisanal mining exploitation activities • Sensitization • Assist the municipalities in the use and management of land • Promotion of the use of NTFP • Improvement of transformation processes
Unplanned degradation • Illegal wood exploitation **Planned degradation** • Wood exploitation • Mining exploration • Agricultural expansion	• Weak enforcement of the law • Lack of incentives for improved forest management • Weak forestry governance	• Promotion of exploitation with low negative impact • Certification of improved processes should be encouraged • Monitoring and respect of regulations • Management of community forest • Improvement of forestry governance • Improvement of planning of forestry exploitation • Recovery of secondary and tertiary wood
Non-permanent Forest		
Planned Deforestation • Mining (industrial and artisanal) • Development of infrastructure and agro-industry	• Low respect of regulations • High demand of land by elites and industrial enterprises • Weak governance • Market demands and prices of goods • 2035 Development vision • Non respect of urbanization/development plan	• Development of urban municipality plans • Implementing environmental and social evaluation strategies • Improvement of zoning plan • Rehabilitation of abandoned plantations • Protection and creation of forests

Source of GHG emission	Causes	Mitigation measures
• Large and small urban elite exploitation • Urban growth • Urban development (houses, electrification, and construction of social infrastructure)	• Improvement of policies on the production of cocoa • Lack of knowledge on the effective use of agricultural land • Construction of dams (energy development)	• Monitoring and control of industrial and artisanal mining activities • Promotion of community forestry • Implementation of local units to follow up the ESMF, for the restoration of sites • Training locals on production on limited areas
Unplanned Deforestation • Mixed farming Shifting agriculture • Illegal artisanal mining **Unplanned Degradation** • Fuel wood collection • Unsustainable NTFP Exploitation	• Outdated land use planning (Territorial administration) • Land insecurity • Population growth and poverty • Non respect of simple management plan by the communities • Complicated procedures in acquiring land titles • Limited technical capacity of actors • Cultural specificities (particularly on agricultural techniques) • Non respect of law	• Improve agricultural practices • Protection and creation of forests • Planning for the sustainable management of wood energy. • Monitoring and control of artisanal mining • Development of conservation techniques, transformation post-harvest processing • Promote the value of scrap woods to industries • Promotion of valuing wood waste • Facilitate the issuing of land titles

The REDD+ mechanism is emerging in a context where the sectoral development policies and programs where already in place, it is obvious that the implementation of these sectoral policies will lead to deforestation and forest degradation. The ER-P is a practical learning opportunity to integrate REDD+ in the ongoing implementation of development programs. Thus, REDD+ is an opportunity to attain development objectives and to reconciled REDD+ and development objectives in general.

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.

As explained in the R-PP, the ER-Program will combine cross-cutting policy measures to improve the enabling environment with sector interventions that generate emission reductions using an integrated landscape approach. This means that the Program aims to improve land productivity while reducing emissions from the main relevant land uses based on a coordinated land use planning process that involves multi-stakeholder participation and multi-sector coordination.

Barriers to REDD+ are exemplified by the difficulty to develop financially viable and competitive alternatives to deforestation and forest degradation for all stakeholders, including the government, the private sector and local communities. The main barriers to reducing emissions while contributing to regional development objectives include the following:

Insufficient awareness and understanding of climate change and REDD+: The insufficient transparent communication and access to information in Cameroon often means that communities and other important stakeholders are unable to effectively contribute to sustainable natural resource management.

Outdated land use planning frameworks and government sectoral development planning: Land use planning is an acute issue as Cameroon's growing population is in need of significant infrastructure development to provide the necessary electricity, water, transport and other resources through development of new hydroelectric plants, electricity distribution networks, ports and road networks etc. Insecurity of land tenure also encourages rapid exploitation of resources and discourages investment and sustainable land use practices, particularly in the absence of a land use planning instrument. The right to land ownership and access for women, youths and indigenous people is a problem experienced in the traditional land tenure system which is predominant in many rural areas in Cameroon.

Inefficient cross-sectoral coordination for program development: Inter-ministerial collaboration remains a major challenge in implementing integrated landscape management in Cameroon. The Government agencies with mandates affecting forests include the Ministry of Forest and Wildlife (MINFOF), Ministry of Environment Nature Protection and Sustainable Development (MINEPDED), Ministry of Agriculture and Rural Development (MINADER), Ministry of Industry, Mines and Technological Development (MINMITD), Ministry of the Economy, Planning and Regional Development (MINEPAT), Ministry Water Resources and Energy (MINEE), Ministry of Scientific Research and Innovation and its specialized agencies, e.g. Institute for Agriculture Research and Development (IRAD), National Forest Development Agency (ANAFOR). Horizontal and vertical information dissemination is also an important barrier to inter-sectoral collaboration and effective multi-stakeholder engagement.

Low dissemination of research outcome on improving agricultural productivity: There is often limited technical know-how for land users, including communities and businesses, to implement, monitor and improve sustainable land use practices. The success of many of the proposed ER activities are sensitive to climate variability and changing biophysical factors, thus requiring timely inputs from researchers with regards to weather and local climatic variations.

Weak compliance and enforcement of law: Weak governance and lack of resources for adequate law enforcement can prevent the effective implementation of forest and mining laws and environmental legislation. There is also a lack of technical capacity in terms of new legislation and monitoring techniques.

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 overall goal of the ER Program is to achieve regional green growth through zero net deforestation and forest degradation, sustainable natural resource management and biodiversity conservation which provides alternative income sources, reduces poverty and addresses the challenge of climate change. The ER Program aims to support the achievement of Cameroon's Vision 2035 development ambitions along a low carbon pathway. As the first large scale REDD+ and green development program in Cameroon, the Emission Reduction Program in southern Cameroon seeks to i) reduce emissions through an integrated landscape approach; ii) enable natural resource conservation and management around protected areas within the program area; iii) reduce agricultural emissions while enhancing long-term livelihood, security and well-being; iv) build capacity and support technology transfer. The Program is designed to bring all relevant actors together within a sub-national strategy for local development and climate change mitigation in line with the National REDD+ strategic framework.

To achieve these objectives and contribute to the long term vision of the proposed ER Program's goal, a combination of enabling environment (non-carbon activities) and sector interventions (ER activities) are proposed which will address the causes of deforestation and forest degradation. The enabling environment interventions are shown in Table 9.

Table 9: Cross-cutting and enabling environment interventions proposed

Enabling environment intervention	Description	Institution responsible for implementation
Awareness and understanding of climate change and REDD+	Implementation of the communication strategy Implementation of national REDD+ consultation plan	MINEPDED
Land use planning	Implementation of national ambitions related to land use planning in a manner that supports decentralized natural resource management and improved land tenure	MINEPAT and Regional and decentralized administrations
Promotion of scientific research and education	Conservation research promotion and grants through the Congo Basin Institute Resourcing and animating the Bouamir Research Centre in Dja Reserve and field research station in Campo Mann National park South-south and North-south research promotion Technology transfer	Government at national and decentralized level (i.e. MINRESI and regional and local extension services) Technical partners such as CIFOR, IITA and CARN
Biodiversity conservation	Strengthen monitoring patrols Support local forest administration Full involvement of local communities and indigenous people on National Steering Committee, Regional and Divisional committees. Equitable sharing of benefits Promoting long-term biodiversity research Promote Eco-tourism	MINFOF and MINEPDED and technical partners such as WWF, CIFOR and IUCN
Compliance and law enforcement	Improved enforcement of environmental and social standards for business; anti-poaching strategy for protected area management	State agencies, including MINEPDED, MINFOF, in collaboration with law enforcement agencies as appropriate

The cross-cutting interventions will focus on strengthening the sustainable management of natural resources, with the aim to induce political commitment at the regional and local level including the private sector, indigenous peoples and local communities including women.

Awareness and understanding of climate change and REDD+: Awareness raising activities will be fully aligned with the national REDD+ communication strategy and consultation plan. This component is essential in order to ensure free prior informed consent of all stakeholders and to enable effective engagement in ER Program activities. This will ensure effective participation, representation, ownership and transparency in the implementation of the program.

Land use planning and implementation: Land use planning is an enabling environment intervention that has the potential to produce significant ERs in and of itself, if successfully implemented. Significant infrastructure development is planned for the ER Program area to connect the Ngoyla-Mintom mining area with the deep sea port. Proper planning that reduces avoidable impacts on forests could thus generate emission reductions as compared to the business as usual scenario. Land use planning will be undertaken with active participation of ministries of planning, environment and forestry and wildlife, civil society organizations, and support local government empowerment and governance. Participative cartography and zoning will be undertaken in priority zones to define areas for limitation of deforestation and degradation and to determine practical actions to achieve these goals. This process will enhance broader

commitment and engagement of stakeholders towards the program objectives. This action has the additional benefit of clarifying use and tenure rights over forests and forest resources and is an initial step towards recognition of these rights by the National and Regional administrations.

Scientific research and education: Two field research stations will be established. A research station will be re-established in the center of the Dja Biosphere Reserve. The UCLA Center for Tropical Research ran a research station with a 25km^2 study area at the Bouamir site near the center of the reserve for nearly 10 years. New support and resources for this station, will have multiple positive benefits, including acting as a hub for scientific research and conservation, enhancing protection of forests from poaching and illegal timber harvesting, bringing in financial resources to the local communities through the hiring and training of local workers including people from indigenous Baka communities (e.g. as camp staff, camp managers, scientific assistants and as researchers), increasing the value of intact forest to the local communities, and ensuring traditional forest knowledge is retained and valued. The efficacy of this approach was demonstrated during the 10 years the research station was in operation. Furthermore, the research station will provide a hub for ecoguards, *comités-paysans-forêts and comité de vigilance environnementale* conducting surveillance and for the recently established Congo Basin Institute in Yaoundé, which would use it to provide training and field research opportunities for students and researchers. A second field station will be established in Campo Mann national park, to both spearhead research activities within and outside of the park. The Conservation Action Research Network (CARN), working with the Congo Basin Institute will provide research grants to students from the area to undertake Masters and PhD level research projects related to biodiversity conservation and management in the program area and help connect students with and researchers to the local and international universities.

Biodiversity conservation: The biodiversity of the region is one of the richest in central Africa. It is also unique because many areas are well preserved and extensive forests mean many species exist in sufficient numbers for viable breeding populations. However, this biodiversity is at great risk, currently from degradation and unsustainable bushmeat hunting, which is reducing the population of large vertebrates to the extent that even forest seed dispersal will be negatively affected, reducing the long-term prospects for the roughly 90% of tree species that rely on such animals for dispersal. The vast majority of the wildlife species in this area are understudied, and there are many which are unknown to science. Their potential uses for assisting crop and fruit production, providing unique new chemicals for medicines, or increasing our understanding of nature, are unknown but their potential is great. By preserving this biodiversity Cameroon is safeguarding one of its most precious resources.

Biodiversity monitoring programs to assist species management and conservation will be integrated into the ER program. Two main forest blocks with different biodiversity characteristics are found in the area, the coastal Atlantic Forests in the west with very high endemism, and the Congolian Forest block in the east whose biodiversity remains poorly known to science. The aim will be to maintain connectivity within the two blocks and aim to reduce overhunting to sustainable levels, especially in terms of large mammals. As all members of the community have an important role to play, this issue will be tackled with a long-term perspective:

- Local governance empowerment for natural resources management;
- Agricultural intensification programs to increase community availability of meat sources in rural Cameroon;

- Anti-poaching and surveillance support for communities focusing firstly on protected species and protected areas and eventually on sustainable offtake models for partially protected and unprotected species;
- Promote biodiversity research and monitoring;
- Promotion of eco-tourism.

Compliance and law enforcement: The program will support the local authority to ensure awareness of and compliance with laws and regulations regarding exploitation of natural resources. Options for community rangers, ecoguards, *comités-paysans-forêts and comité de vigilance environnementale* to be trained and equipped will be examined as well as joint enforcement teams made up of the military, ecoguard *comités-paysans-forêts and comité de vigilance environnementale* that have been successfully employed in other parts of Cameroon to control poaching.

Sector interventions

In addition to the above measures to improve the Program's enabling environment to reduce emissions, sector interventions will be introduced that result in **direct and attributable emission reductions**. To provide focus for proposed activities carried out within the Program's 93,328 km^2, a spatially explicit prioritization process will be undertaken during the design phase to identify priority intervention areas. These areas may be "hotspots" at highest risk of future deforestation and forest degradation, or areas considered most promising for forest carbon stock enhancement activities, participatory forest protection measures, etc. Identified hotspot locations will be assessed for their compatibility with project objectives and goals, especially focused on: 1) the potential to reduce deforestation of threatened forests around protected areas, 2) ability to generate non-carbon benefits such as green job creation or sustainable income streams for communities, and 3) biodiversity conservation priorities. On a landscape scale, areas already receiving support will be identified to analyze how the ER Program can improve the effectiveness of existing interventions, expand those where appropriate or create new locations following a participatory rural appraisal process.

The majority of the sector interventions proposed have been tried and tested for their effectiveness in the numerous project and research activities that have been initiated within the ER Program area (such as the Ngoila-Mintom REDD+ project, IITA/SNV Cocoa Eco Project, the GIZ ProCISA's project with IITA, SNV and IRAD, IITA's USDA Food for Progress and Humid tropics projects, MINADER's PIDMA project (with IITA and IRAD) on intensification of cassava, maize and sorghum production, WWF protected areas in Campo Ma'an, UCLA research station in Dja, IUCN's conservation and natural resources management project in the Dja reserve), Projet B-ADAPT des Forêts Modèles Campo Ma'an-Dja and Mpomo financed by the government of Canada. ER Program partners hold a significant amount of knowledge regarding which potential REDD+ interventions is the most promising for generating ER while ensuring non-carbon benefits. All proposed activities not only generate ERs but also non-carbon benefits, as this ensures the ER Program activities are sustainable and easily adopted, as local communities and other agents may often be more motivated by non-carbon benefits as opposed to ERs.

The activities will be supported directly or indirectly by the enabling environment interventions listed above. Further planning will be done during the design phase in order to identify complementary activities that maximize results and ensure the ER Program is developed through close consultation with implementing agencies such as communities and private sector. Emission-reducing activities that directly generate ERs will be planned with communities, private sector (both large-scale, i.e. agroindustry and small

scale, i.e. cooperatives) and other stakeholders, including potentially through a payment for environmental services program focused initially on carbon. The entire program will be organized following the principle of results-based performance payments. The overall activity performance will be measured in terms of carbon abatement, along with social and environmental indicators following the objectives of the ER Program. The most promising activities preliminarily identified are summarized in Table 10:

Table 10: Sector interventions to generate net ERs and non-carbon benefits

Sector	Drivers of Deforestation and Degradation target	Emission Reductions Activity	Justification of Emission reduction activities	Agency responsible for implementation	Associated non-carbon benefits	Implementation risks
Agriculture	Shifting cultivation Mixed Farming Large and small urban elite exploitation Agricultural expansion	Intensification through crop mixtures, new varieties, green manure, biofertizer, improved tillage and propagation, post harvest transformation.	Reduce the shifting cultivation practices, to modernize the agriculture practice and improve yield of crop production	MINADER, IRAD (MINRESI), IITA, IUCN, state and non-state extension service providers, communities, development partners, research community	Support local and durable development through establishment and capacity building for cooperatives; food security	Weak uptake due to ineffective extension services; lack of research dissemination due to unorganized and dispersed nature of farmers
		Improved cocoa production via improved drying and storing techniques, improved agronomic practices, introducing high yield and disease resistant varieties	Reduce the expansion of cacao farm in the forest area, and it will contribute to improve yield, and income	MINADER, IRAD (MINRESI), IITA, ICRAF, IUCN state and non-state extension service providers, communities, development partners, research community	Adaptation to climate change, diversify and increase local income	State unable to enforce land use planning, resulting in continued farm expansion
		Improve agroforestry through fruit trees, nitrogen fixers, community nurseries for citrus and forest trees	Contribute to improve carbon stock and communities livelihood	MINADER, IRAD (MINRESI), IITA, ICRAF, IUCN, state and non-state extension service providers, communities, development partners, research community	Improved soil quality and adaptive capacity of communities by increasing productivity of land	Weak uptake due to ineffective extension services; lack of research dissemination due to lacking farmer engagement in ER Program
Forestry	Illegal logging Fuel Wood Timber exploitation NTFP exploitation	Forest protection through forest reserve zoning, patrolling and monitoring	Contribute to decreasing the loss of carbon stock due to illegal logging	MINFOF in combination with law enforcement agencies and supported through BIR	Biodiversity conservation, improved resilience to increased climate variability	Institutional conflicts result in lacking uptake of decentralized administration at local level
		Sustainable forest management of timber	Reduce carbon stock loss due to timber exploitation, maintain	MINFOF and forestry companies	Biodiversity conservation, social license to operate for forestry companies as SFM standards require	Lacking incentives for forestry companies to engage in ER Program

		concessions, introduction of reduced impact logging	forest covert under forest management Unit.		improved social engagement	
		Planting trees in degraded land and enrichment in forest concession	Improve forest covert and carbon stock	MINFOF, ANAFOR, IUCN, local population	Increased resilience against climate change, diversified and increased local income strategies	Communities lack incentives to engage, weak extension services translating research to practice
		Sustainable exploitation of NTFP, including beekeeping, mushroom growing and improved NTFP value chain	Reduction of forest degradation due to unsustainable NTFP technique	MINFOF, IUCN, development partners, communities and local population	Food and income security, strengthen local community organizations	Interventions prove not sustainable, if not based on viable business planning
Mining	Illegal and legal artisanal mining Industrial mining	Professionalization of artisanal miners through outreach programs	Professionalization of miners will help to follow up the activities, promote low impact technique, and rehabilitation of degraded land.	MINMIDT, technical partners	Reduce adverse environmental impacts, improve job security for miners	Interventions not viable due to lack of aggregation structures of artisanal miners
		Promote compliance with REDD+ objectives by industrial mining companies	Reduce carbon stock loss due to unjustified (inutile) deforestation and promote reforestation and restoration of degraded mining area	MINMIDT, technical partners, mining companies	Reduce adverse environmental and social impacts, create green jobs	Companies unwilling to engage in ER Program due to lack of incentives
Infrastructure development	Urban Growth and infrastructural development (houses, electrification, construction of social infrastructures, dams, Road...)	Application/utilization of low-carbon impact methods and techniques	Reduce carbon stock loss due to unjustified (inutile) deforestation and promote land use planning	MINMIDT	Creation of green jobs and reduction of adverse environmental and social impacts	Cost effectiveness of the alternative technologies
		Support compensation programs like reforestation, afforestation and restoration of degraded vegetation	Improve carbon stock and increase forest covert.	MINMIDT, MINFOF, MINEPDED, local communities	Compensate for adverse ecological impacts.	Increase in investment costs might demotivate companies

Agriculture: The agriculture interventions will engage both small and large-scale actors. With regards to small-scale farmers, the program will build upon existing organizational structures that aggregate farmers, such as the cocoa producer cooperatives established through farmer field schools and SNV/IITA Cocoa Eco and GIZ ProCISA projects in Ayos and Ngomedzap. Agroforestry will be promoted throughout the region as a sustainable and profitable alternative to slash-and-burn agriculture and poaching. These agroforestry systems will combine food crops, tree crops, timber trees, leguminous trees and cocoa: this will increase the ecological value and sustainability of agriculture, as well as increase carbon stocks. This component will be achieved through working with the International Institute of Tropical Agriculture (IITA) and the World Agroforestry Center (ICRAF) and together have wide experience in making agroforestry systems work in this region. The Congo Basin Institute will in addition work with IITA and ICRAF partners to enhance their effectiveness by engaging academic experts to address and find solutions using science based approaches.

Large-scale actors include both commodity buyers (cocoa) and producers (oil palm). This component will build on existing programs such as the WWF Business and Industries initiative (where WWF supports companies to conduct sound environmental and social impact assessments and thereafter implement the environmental and social management strategies resulting from the impact assessments) and IUCN's intervention in encouraging intensification of agriculture and livestock through the subvention to local households in selected fallow zones of the project area. Zero deforestation commodity chains will be promoted through investments in intensification combined with land use planning to reduce agriculture expansion.

Forestry: The capacity for communities to participate and adhere to forest protection is driven by how they are motivated and incentivized. A number of conservation and business actors have tried and tested strategies for joint forest management in the ER Program area, including WWF and IUCN and forestry enterprises operating in the region. In addition, some of Cameroon's first REDD+-type projects exist in the ER- Program area, including the Payment for Environmental Services (PES) project implemented by Center for Environment and Development, CED (see Infobox below). Such community engagement experience demonstrates that agriculture and forestry interventions are intrinsically linked at the local level, as the main pressure on forest ecosystems stems from agriculture expansion.

Infobox: REDD+ implementation through Community Forests in Cameroon

In 1994, Cameroon was the first country in Central Africa to introduce community forests into its Forest Law, granting rural communities access and management rights for up to 5,000 hectares of forest resources in or around their villages. Community forestry has since been emulated by neighboring countries, but Cameroon remains the only country in Central Africa with legislative decrees to implement community forests. The stated goal of community forests in Cameroon is sustainable participatory forest management and poverty reduction in rural areas.

Community forests can be created in Cameroon's non-permanent forest estate by legal agreement between the State of Cameroon (represented by the Senior Divisional officer) and the village communities. The forest areas are managed by communities with technical assistance from the Forestry Administration (MINFOF). Communities receive management rights for the forest upon approval of the Simple Management Plan. Integrating REDD+ activities into the Community Forest Simple Management Plans has already been tested in a number of communities in the ER-Program area, including through a number of Payments for Environmental Services project in the East and South Regions. This experience

demonstrates that the legally recognized entity created through a community forest can operate as a channel for REDD+ funds at the community level. CED with support from BioClimate Research and Development (BR&D), developed two PES projects in Nkolenyeng in the Djoum Sub-Division of Dja and Lobo in the Southern Region and Nomedjoh, which is part of the Lomié Sub-Division of Upper Nyong Division in the East Region. The latter is predominantly a Baka community, with a strong tradition of hunter-gathering combined with a growing emphasis on agriculture. The Plan Vivo standard was used to develop an avoided deforestation project, whereby the forest area boundary was demarcated by the Community Forest and communities were encouraged to alter practices to alleviate some of the pressure from agricultural expansion on the forests. This approach is being replicated by WWF in Ngoyla-Mintom through the project titled «*Réduction de la déforestation et de la dégradation dans le Massif Forestier de Ngoyla-Mintom (N-M) par la mise en œuvre d'une gestion durable intégrée dans le cadre du paysage tri-national Dja- Odzala - Minkébé (TRIDOM)»,* financed by EU. Lessons learned from these projects will be sought during ER Program design.

Reforestation is planned for some protected area buffer zones around the Dja Biosphere Reserve and Campo-Ma'an National Park, using agroforestry systems involving high value native timber species and cocoa, spices, traditional medicinal plants, and high value non-timber forest products. These activities will restore the ecological value of degraded areas in the program area, provide a sustainable income source for the local populations, increase carbon stocks and provide buffer areas for priority conservation zones such as national parks and reserves. Over time the aim is for this component to expand to enable the production of sustainable agroforestry.

The creation of conservation concessions/community forest conservation is planned in some logging concessions. These could be places under the management of the logging companies or other entities. Efforts could also be made to promote NTFP production and to support legal artisanal logging in community forests.

Efforts will be made to promote and enhance natural forest regeneration processes. With roughly 90% of all rainforest trees dispersed by vertebrate there is a premium on leveling vertebrates to disperse seeds and promote regeneration. This can take many forms such as constructing nest box for large avian dispersers such as hornbills to increase densities and seed rain or controlling poaching to allow populations of frugivorous species such as primates and elephant to recover. The Congo Basin Institute will work with partners to innovate and enhance these approaches.

With regards to industrial forestry, the sector is very active throughout the project zone with multiple forestry companies present in the area. Forestry operations in Cameroon are highly selective with limited marketable species harvested. Forestry companies are required by law to develop and implement forest management plans, however adherence to these often remain lacking, exemplified by Cameroon's current efforts to implement the Forest Law Enforcement, Governance and Trade (FLEGT) Voluntary Partnership Agreement (VPA) whereby all timber circulating in the country will be tracked in a legality verification system. The ER Program will be designed to support VPA compliance and wherever possible, reduced impact logging, amongst the range of forestry actors, including industrial and semi-industrial forestry companies, informal timber producers and community and council forests.

Furthermore, a study carried out by MINEPDED, MINFOF and FAN Bolivia in the scope of REDD+ South-South cooperation REDD+ initiative compared the collateral damage due to the selective exploitation of wood in a certified concession and in an uncertified concession. The results demonstrate that a substantial

amount of emissions can be reduced by adhering to reduced impact logging practices. The study showed that 1.34 t C are damaged for every t C extracted in a certified concession, while in an uncertified concession 1,99 t C are damaged for every t C extracted.

Mining

The concrete interventions to address mining drivers and agents of deforestation and forest degradation will be further explored during ER Program design. In parallel, the situation with regards to industrial mining will be newly assessed as many mining companies in the program area have not yet secured investments required to transition from exploration to exploitation.

Measures to tackle illegal logging

There is a catalogue of measures operating both at national and regional levels to address illegal logging. Table 11 below summarizes these measures and highlights further steps to be taken to enhance their efficacy on the ground.

Table 11: National and regional measures to combat illegal exploitation of timber

Measure	Objective	Scale/Operationalization		Stakeholder	Indicators/measures to be taken
		National	Regional		
Forest and Wildlife Control Strategy	• Ensure the sustainability of forest production • Preserving biodiversity and ecosystems • Guarantee the respect of rights of local communities	• National Control Brigade: Responsible for surveillance of the national forest domain, they carry out routine controls and unexpected controls. These missions permit the tracking down of illegal exploiters of forest resources e.g. fines, legal issues • Publication of control and monitoring guidelines for brigade controllers, adapted to the national forest and wildlife control strategy and the national FLEGTVPA strategy • Improvement of human resources through the recruitment of eco-guards with appropriate military training	Regional control Brigade: Idem as the national level	National and regional controller MINFOF	• Capacity building of human resources • Improvement of material technical and logistics, resources • Ensure the respect of exploitation limit as stipulated in the management plan • The ER-PIN is a tool which offers the opportunity to enhance the control of illegal exploitation of timber
2011 adaption of FLEGT VPA	• To improve legality • Improve forest governance • Promote the production of domestic timber for construction • Improve the competitiveness of Cameroon timber in the international market	• Decide on the modalities and implementation of the APV-FLEGT framework based on inputs from the regional level	Monitoring and evaluation of activities of logging companies in the APV-FLEGT framework, for onward transmission to the national level decision body on APV-FLEGT	Collaboration with different partners	• Operationalization of SIGIF • In the APV-FLEGT framework MINFOF will deliver certificates and FLEGT authorisation to logging companies to permit their logs to enter the EU market • Promotion of certification in terms of carbon impact
SIGIF (in process)	• APV-FLEGT implementing mechanism	• Development of 18 modules for forest monitoring and control	Computerized/Digital management system to register, monitor and manage forest resources	MINFOF, MINEPDED, MINFI, MINADER, MINTRANS, MINEFOP, MINAS, MINTRAVAIL, CSOs, Peasants-forest Committees Environmental monitoring committee for large scale projects	• SIGIF will be developed full scale to permit monitoring and tax recovery system • Promotion of certification in terms f carbon impact

The implementation of the Domestic Market Control system	• This is to ensure that only legal timber should be sold in the market	• Coordination of the Domestic market Control System	At the regional level there are regional focal points for domestic wood control Control of domestic wood depots through organised council depots to control illegal wood	MINFOF, Councils, MINCOMMERCE, Peasants-forest Committees Environmental monitoring committee for large scale projects	• Creation of wood depots at the council level
Improvement of governance	Improve transparency in the forest sector	• Delivery of secured documents to logging companies on the exploitation, transformation and transportation of forest resources • Implementation of the anti-corruption project through the Rapid Result Initiative, supervise by CONAC • In allocating titles Cameroon has introduced a tender-based adjudication system through an inter-ministerial committee supported by a technical committee and an independent observer to ensure transparency of the process is in place. • The procedures for legalizing and exploiting timber have been simplified in all management regimes • MINEPAT integrated climate change and REDD issues in governance • ONACC is operational and will strengthen the REDD + by adaptation and mitigation issues related to climate change	Monitoring and evaluation of the proposed rules and regulations of the delivery system	MINFOF, MINEPDED, MINFI, MINADER, MINTRANSPORT,MINEFOP, MINAS,MINTRAVAIL,CSOs …	• Improve monitoring and evaluation • Independent Observation by civil society platform • Permanent collaboration between Government and CSOs • Sensitization of different stakeholders on field

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 implementation risks specific to the proposed ER interventions are detailed in Table 5.3a. General risks to timely and effective program implementation are described below:

As the actions and interventions proposed in the ER-PIN are inclusive and also multi-sectoral, they require a high level of coordination and management, both external to the Program (for example, among the various levels of technical administration and structures) and internally (with stakeholders and within the implementation team). Various administrations will be involved in coordinating, implementing and monitoring activities in the field. While there is an ongoing process to establish Regional, Divisional, Sub-divisional and local REDD+ focal points and committees and to strengthen local organizations within the agricultural sector, these structures and individuals may face difficulties in fulfilling their mandate due to the lack of capacity and experience.

Social conflicts due to unclear land tenure, informal mining or protests by indigenous groups and local communities may negatively affect the implementation of the projects if community consultation and effective participation is not ensured. The nationally validated FPIC process should help to reduce this risk.

The increase in numbers of migrants (drawn by several big projects in the ER-PIN area such as dams, deep sea port, mining, rail construction and industrial plantations) may result in negative impacts which could exceed the implementation capacity of the ERP projects.

Some local organizations as well as civil society platform decentralized units may not have enough resources to participate effectively in the program. Local administrations, communities and indigenous organizations have identified needs for specific and ongoing technical, logistical and other types of assistance. In addition, migrants may be excluded from the projects as they may not fall under formal organizational structures.

Land use zoning and land tenure interventions may negatively affect vulnerable population groups such as indigenous peoples and local communities. An increase in conservation activities limiting access to fertile forests land may further increase the vulnerability of local communities, especially women if not properly design and implemented. Due to predominant cultural norms, it is possible that women could be marginalized with regards to decision-making, training, land titling, resource management, and forest use.

The increase population of neighboring countries (Congo, Gabon, Equatorial Guinea, CAR) and instability in some countries (CAR) may maintain pressure on agricultural resources and therefore lead to increase deforestation for agriculture.

The embedded slash and burn practices in the mind of local farmers could constitute a real barrier to the promotion of intensive agriculture with low adherence of local population to the proposed approach.

Inadequate documentation on social, economic and environmental issues will hinder adaptive monitoring and management of the project and the evaluation of the results. The coming baseline studies and the initial program phase will be crucial in terms of process planning.

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.

The TS which is responsible for designing and elaborating the ER-PIN organized a series of meetings with key stakeholder groups prior to the resubmission process. The objective of the meetings was to understand the shortcomings of the initial submission and outline a series of actions to be carried out prior to the final resubmission. The following stakeholder groups were consulted: financial and technical partners; CSOs and IPs representatives, local administrators in the ER-Program area (regional and divisional delegates of MINEPDED and MINFOF). Key issues that were raised include: the choice of the ER-PIN area; sensitization and consultation of local stakeholders in the ER-Program area; the institutional arrangement for the implementation of the ER-Program; the overall status of the REDD+ readiness process; an in-depth analysis of drivers of deforestation and forest degradation; lack of implication of different stakeholders in the design of the ER-PIN. Table 12 presents the key points and measures taken or answers to address them.

Table 12: Key concerns from stakeholders prior to resubmission

Issues raised	Response
Choice of ER-PIN area	Choice was technically and scientifically motivated due to the presence of activities addressing emission reduction and removals in the zone. Moreover, due to the many planned development projects, the area is an ideal test bed for a low emission development strategy. (See Section 5.1)
Implication of different stakeholders in the design of the ER-PIN	Working groups were created based on the expertise of all interested stakeholders. Regular formal and informal meetings were organized
Sensitization and consultations	With support from IUCN and WWF, the TS carried out sensitization and consultation campaigns targeting all relevant stakeholders in the seven divisions of the ER-Program area
Institutional arrangements for the ER-Program implementation	After consultations with different stakeholders in the ER-Program area and with local administrators, the institutional arrangement described in Section 7.2 was adopted.
In-depth analysis of deforestation and forest degradation	This was carried out in the ER-Program area as prelude to the national study that has been contracted
Status of REDD+ readiness	Elaborated in Section 3.1

A wide range of stakeholders are active in the ER Program area. These include public sector actors, private sector actors (mining industries, agri-business, etc.); local councils, civil society and indigenous people organizations. Sensitization and consultation campaigns were carried out at divisional level targeting relevant stakeholders. 6 sensitization workshops addressing main concepts of the ER-PIN were organized at divisional level before and during the elaboration of the ER-PIN. The sensitization workshops were organized in Ebolowa (Mvila) from the 14th to the 15th of March 2016; Mbalmayo (Nyong et So'o) from the 16th to the 17th of March 2016; Sangmelima (Dja et Lobo) from the 22nd to the 23rd of March 2016; Abong

Mbang (Haut Nyong) from the 29th to the 30th of March 2016; Akonolinga (Nyong et Mfoumou) from the 04th to the 05th of April 2016; and Ambam (Valle du Ntem) from the 13th to the 14th of April 2016.

Furthermore 5 consultation campaigns were organized in the ER-Program area: Ambam (Valle du Ntem and Mvila) from the 09th to the 15th of May 2016; Akonolinga (Nyong et Mfoumou and Nyong et So'o) from the 09th to the 15th of May 2016; Abong Mbang (Haut Nyong) from the 02nd to the 08th of May 2016; and Sangmelima (Dja et Lobo) from the 09th to the 15th of May 2016. The consultations focus on the drivers of deforestation and forest degradation, the inter-relationships between proximate and underlying drivers, actions and interventions to address the drivers of deforestation and forest degradation within and outside the ER-Program area, barriers to implementing policies and measures to reduce emissions and enhance removals, and potential co-benefits.

Finally, a workshop to validate the ER-PIN document was organized in Kribi (Ocean) on the 30th and 31st of May 2016.

Key issues that were raised during the sensitization and consultation campaigns include:

Social and economic considerations:

- Proposed interventions to address the identified drivers of deforestation and forest degradation should take into consideration the socio-economic and cultural circumstances of the inhabitants in each administrative division;
- Compensation from the ER Program should target deforesters; and should at least meet the level of the opportunity cost;
- Involve communities not only in the implementation of program activities but also, during decision making;
- Make communities the primary actors and beneficiaries of the Emission Reduction Program in terms of finance, benefits of the program etc.;
- Sufficient resources (technical and financial) should be made available to peasant farmers to enable them grasp and implement the knowledge of sustainable farming practices;
- The ER Program should clearly identify activities to be implemented by local communities;
- Implementing Reduced Impact Logging (RIL) will increase operation costs that might be difficult for forest concessioners to bear if customers are not willing to pay;
- Ensure equitable and effective right of access to land and forest resources by indigenous peoples and local communities;
- Development of local skills and knowledge;
- Acknowledge the sacred value of the forest through the protection of natural forests;
- Promotion and enhancement of cultural heritage;
- The intensification of agriculture might be detrimental to small-scale subsistence farmers;
- Improvement of living conditions of forest-dependent communities;
- Promote local knowledge in some of the proposed technical interventions;
- Ensure continuous strengthening of the capacities of local actors and communities on key aspects of the program;
- Increased awareness, consultation and access to information in relation to the Emission Reduction program;
- Equitable sharing of benefits arising from protection and forest management;
- Promotion of large scale processing of non-timber forest products by the program;

- Activities related to the training of local communities on sustainable forest management at the base should be introduced.

Environmental considerations:

- The ER Program strategies related to sustainable agriculture may require up to a decade of implementation before they result in measureable emission reductions;
- Leakage: restoration of organic soils in the ER Program area may lead to degradation of soils in other areas;
- Permanence: carbon soil enhancing measures face future risk of disturbances;
- Agriculture should be considered as an independent sector within the ER-PIN document;
- Promote ecosystem services;
- Protection of the environment beyond the forest (soil, air, water);
- The valuation of non-timber forest products (NTFPs) and other non- carbon benefits;
- Development ecotourism potential.

Table 13 presents an exhaustive list of sectoral strategic options proposed by various stakeholders during the consultations.

Table 13: Summary list of strategic options for the ER-Program proposed by stakeholders

Sectors	Proposed interventions
Agriculture	• Support to the rehabilitation of old farms • Control and monitoring of activities within the medium to large plantation and agro-industries • Promotion of stationary or fixed agriculture • Intensification of agriculture • Promotion and vulgarization of improved seeds • Promotion of financial support to agricultural micro-projects • Structuration agricultural sectors • Promotion of land use zoning and accessibility to agricultural lands • Development and vulgarization of good agricultural practices • Vulgarization of new and improved agricultural technics and practices • Capacity building of actors through education, sensitization, trainings (bio-fertilization, stationary or fixed agriculture, improved agricultural practices, agroforestry, transformation and conservation of agricultural products as well as NTFP etc….) • Lobbying for synchronized agricultural sanitary campaigns with neighboring countries (Cameroon-Equatorial Guinea-Gabon-Congo) • Design and implementation of financial support programs for agriculture • Development and promotion of value chains of agricultural products (*djanseng, moabi, andok, Mbalaka,* etc.) • Domestication of high demanded NTFP
Livestock	• Improvement of livestock from traditional to modernized models • Promotion of alternative sources of animal proteins • Promotion of fish rearing • Promote livestock wastes (biogas, Bio fertilizers, etc….) • Promotion and development agro-pastoral systems • Improve access of farmers in remote areas to livestock entrants

Wood-Energy	• Promotion of timber waste by industries and government • Sensitization campaigns for conservation of species with high potential for firewood and traditional medicine • Promotion of new and renewable energy sources (Solar energy...) • Development of an information system on wood offer, • Develop a value chain for timber waste with a traceability system • Monitor the implementation of environmental Management plans from environmental and social impact assessments of forest industries • Organization and structuration of wood energy and charcoal sectors • Promotion of improved stoves • Capacity building of charcoal producers on improved technics for carbonization • Setting up of a platform of collaboration between charcoal producers and timber industries as to facilitate their access to timber wastes
Forest exploitation	• Reinforcement of monitoring of forest exploitation • Promote forest exploitation with low environmental impact • Provide administration services in charge of forest protection with material, human and finacial means as to help them fulfill their duties with efficiency • Promote the effective implementation of APV/FLEGT initiative • Promote reforestation • Sensitization and vulgarization of Forest Law • Facilitate de access of local population to legal timbers • Promotion of ecotourism • Reinforce good governance in the management of forest resources and protected areas • Promote local transformation of timbers as to add value to forest products • Promotion of forest certification to forest industries
Mines	• Organization of a artisanal mining sector • Improve monitoring and control of artisanal and industrial mining activities and the impact on forest resources • Monitoring of the implementation of environmental management plan by mining companies
Infrastructures	• Promoting rehabilitation of natural conditions of affected areas or creation of new-forested areas as compensation to perturbations generated by infrastructures. • Promotion of terrestrial transport of electricity • Installation of affected population in areas were potential impacts on forest resources could be easily controlled and managed or minimized • Good land planning; • Promotion and improvement of existing infrastructures (roads) against creating new ones.
Land tenure	• Regulation of access to lands in rural areas • Master plan and land zoning in rural areas • Facilitate access of indigenous population to land title • Limitation of access of rich people and elites to lands by setting up per individual
Cross-cutting	• Development of alternatives based on the real needs of local populations • Develop a national land zoning plan and urbanization plans for councils taking into consideration demography, Cameroon development needs and engagement for REDD+ etc. • Support to councils for the elaboration of their land use and land management plans; • Improve access of local populations as well as indigenous population to land titles • Strengthening synergy and collaboration between government, NGO, councils, traditional authorities, religious communities, local populations, minorities, women, donors; • Scale up at country level rules and policies for REDD+ as well as sensitization • Promote incentives to local populations

The program envisages institutional mechanisms at regional, divisional and council levels. In the decision-making and facilitation processes, the program will ensure the representativeness of the target groups. In the course of developing the program, the REDD+ TS in collaboration with REDD+&CC civil society platform will:

- Facilitate consultation of stakeholders, notably specific groups at different levels of decision-making;
- Ensure that the conclusions are supported and effectively defended by legitimate representatives of the target groups in the decision-making bodies;
- Accompany each stakeholder group (including vulnerable groups) to follow-up the feedback from the consideration of their suggestions

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.

The outreach and consultation process for the ER Program design will build on existing outreach and consultation processes, including the structures put in place by the REDD+ Technical Secretariat for national REDD+ strategy development.

The consultation process will fully align with the national communication strategy and the consultation plan. The consultative and participatory process mentioned in 6.1 above will be strengthened with forthcoming readiness process consultations on REDD+ institutional arrangements, legal and policy framework, benefit sharing and conflict management, SESA, reference emission levels and MRV.

The National FPIC guidelines earlier developed will be an opportunity to ensure that the mechanism of obtaining free, prior and informed consent from local community to protect the rights of stakeholders is guaranteed. In collaboration with FODER these tools will be tested during further consultations in the ER Program area. The lessons learnt from the application of the FPIC tools will serve as basis of future consultations in the elaboration of the ER-PD.

The REDD+ Technical Secretariat has strengthened the partnership with the REDD+ CSO and IP organization network; providing them with technical and financial support to further build their capacity, strengthen the organizational set up, and provide technical assistance when needed. Existing networks and decentralized structures of civil society and indigenous people organizations will be used to enhance participation, communication and outreach. Through the support of IUCN, national strategies for the involvement of women and indigenous people for the REDD+ process have been developed, to ensure effective involvement of these group of stakeholders in the REDD+ process.

To guarantee the participation of all the stakeholders, further consultations will build on national and internal principles. Many national and international laws and principles have outlined participation and consultation of stakeholders a sine quo non for the successful implementation of policies, measures and laws in the framework of projects/programs.

At national level, forest and environmental laws and policies highlight the necessity to consult the local population for the sustainable management of natural resources. The following policies and laws can be cited in this respect:

- The forestry law of 1994 which guarantees the participation of indigenous and local communities in the management of natural resources. Article 26 stipulates that indigenous peoples and local communities should be consulted on all processes linked to the management and utilization of forests;
- Article 17 of the 1996 Framework Law of the Environment states that project promoters or coordinators have to carry out Environmental Impact Assessment (EIA) studies. This envisages consultations with all stakeholders;
- The FLEGT VPA action plan signed between Cameroon and the European Union on the 6th of May 2010, ''ensure a large participation of stakeholders'';
- The decree on access to information (pending signature by the Prime Minister) and the guide to access information elaborated by FODER and the European Union.

At the international level the following texts/principles can be cited:

- The Operational Policy 4.10 (PO 410) of the World Bank stipulates that indigenous people affected by the project should participate in decision making concerning the project, and that the project should benefit from support from the community;
- The Cancun Agreement outlined a series of REDD+ safeguards one of which is "the effective and integral participation of stakeholders, particularly indigenous peoples and local communities".

To ensure transparency and guarantee the participation of stakeholders, tools developed in the FPIC guidelines will be used during further consultations with the local population.

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).

The National REDD+ Steering Committee is the main organ overseeing the implementation of REDD+ in the country. It is supported in its duty by a REDD+ Technical Secretariat comprising four technical units (SESA, MRV, Program/Projects and Information Education and Communication). Current institutional arrangements for the implementation of REDD+ also envisages the creation of decentralized structures – regional, divisional and council REDD+ Technical Committees. The setting up and operationalization of the regional, divisional and council REDD+ technical committees is currently ongoing with a focus on municipalities with REDD+ pilot activities. It should be noted that the Divisional Technical Committees are essential organs in the national REDD+ institutional arrangement – ensuring decentralization of the REDD+ mechanism. These Council Technical Committees will monitor the daily operations of the ER Program. They will be supported in their respective duties by the technical units of the REDD+ technical secretariat and decentralized civil society platforms.

Given the ER Program area covers seven administrative divisions in three administrative regions (East, Centre and South), an **ER Program Task Force** will be created to oversee and coordinate the implementation of the ER Program activities. The Task Force will be under the auspices of the REDD+ Technical Secretariat and will comprise members of the administration, civil society, indigenous and forest dependent people, private sector, technical and financial partners/promoters of the ER Program. Management practices and decision-making will be conducted in a transparent and inclusive manner according to a clear governance framework.

The members of the Task Force will be drawn from the regional, divisional and council Technical Committees, decentralized organs of ONACC, society as well as other key stakeholder representatives.

This Task Force will play an important role in allowing for the ER Program to exercise its jurisdictional mandate, and will serve as the entity that allows for achieving ER based on enabling environment interventions such as land use planning and multi-sectoral coordination. The Task Force will ensure uniform implementation arrangements over the large program area. As a jurisdiction is by definition an area administered by a government entity, the ER Program will be able to make the policy and governance adjustments required to achieve net ERs across the program area, such as structuring the incentives affecting DD agents and land-user decisions, clarifying and strengthening land and forest tenure rights, creating an enabling environment for the private sector, and coordinating participatory land-use planning. The spirit of the ER-Program Task Force is to leverage the skills and competencies of the private sector partners, civil society and indigenous people and local communities including women who possess substantial experience in the management of forest and other natural resources in the area. The operationalization of the ER Program Task Force will benefit from lessons learned from similar natural resource management institutions operating at the landscape level in Cameroon, such as the Technical Operation Units.

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.

To ensure coherence and coordination of all program activities, an ER Program Task Force will be created and embedded within the existing national REDD+ institutional arrangement as explained in Section 7.1. Figure 4 shows the relationship between the ER Program Task Force with the Technical Secretariat and the Regional, Divisional, Council Technical Committees.

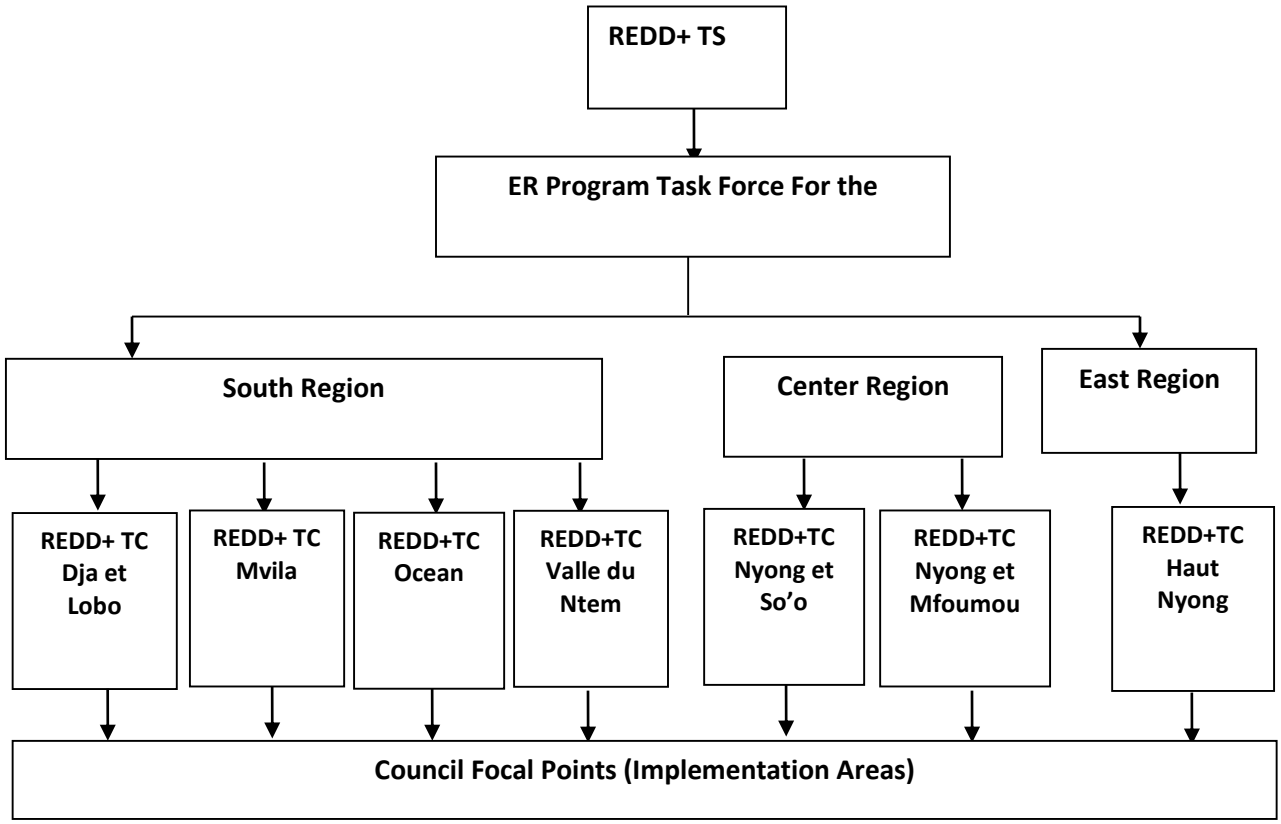

Figure 4: ER Program Decentralized Institutional Arrangements

The technical committees will be in charge of managing the ER Program activities at the local level. Under the coordination of the Senior Divisional Officer, the technical committees will be composed of divisional representatives of MINEPDED, MINADER, MINFOF and other sectoral ministries, civil society, indigenous peoples as well as the private sector.

The attributions of the technical committees will include:

- monitoring the implementation of the ER Program activities at the local level;
- collecting and providing information at the local level during discussions, exchanges and reflection with all the stakeholders to support the construction of the national strategy;
- facilitating consultations to identify the local ER activities.

The activities to be carried out at the level of these technical committees will involve all the stakeholders in their areas of intervention. The following groups will be mobilized by the technical committee according to their relevance in a determined area: the municipality (or association of municipalities), the elected representatives of the people and the local elected officials, the local communities, the indigenous peoples, the decentralized branches of the Civil Society National REDD+ & CC Platform, the private sector, the

traditional chiefs (or the representatives of the association of traditional chiefs), the religious leaders, the representatives of the CIGs and farmers' organizations, etc.

These structures will be the guarantors of a participatory and inclusive "bottom-up" process that takes into account the aspirations of the local communities and of all the other stakeholders, but also "top-down" for the necessary transfers of information, knowledge and resources. In order to enhance their functionality, they will be anchored in the decentralized institutions already in place.

Within this institutional arrangement, all activities implemented at the communal level have communal focal points working hand-in-hand with the technical committee of each area. The technical committee in each program implementation area has representatives in the ER-Program task force with whom they consult on a regular basis to ensure relay of information on the program implementation. In so doing, outcome of activities implemented and requests for decisions on precise issues are tabled to the REDD+ National Steering Committee by the REDD+ TS working in close collaboration with the ER Program task force. In like manner, decisions taken by the REDD+ national steering committee follow the same route to the communal level for action.

It should be further acknowledged that the design of the REDD+ implementation framework will be further refined during ER Program design and will be informed by the on-going consultations being carried out for the REDD+ strategy. The opportunity to undertake the ER-Program concurrently will allow specific on the ground learning activities to be able to feed into the REDD+ readiness process. It will be in the spirit of "learning by doing" at a phase of REDD+ preparation activities feeding into the national REDD+ national implementation framework.

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

Ministry of Environment, Nature Protection and Sustainable Development (MINEPDED) Cameroon: Provide policy guidance for REDD+ implementation. In charge of directing the operation of a National REDD+ framework to meet national sustainable development goals as well as advise and approve implementation of project level REDD+. The REDD+ Technical Secretariat has the required expertise to develop the national REDD+ strategy and monitor the implementation of REDD+ in the country.

Ministry of Forestry and Wildlife (MINFOF) Cameroon: Provide policy guidance throughout the project and help address legal implications for successful project implementation. Also provide documentation and support in the process of cutting illegal logging, and ensuring that companies involved in logging concessions adhere to submitted management plans. MINFOF will continue to provide conservation services to the reserves in the area through its technical staff.

National Climate Change Observatory (ONACC): ONACC has as principal objective to evaluate the socio-economic impacts, as well as environmental measures of prevention, mitigation and adaptation to harmful effects and risks linked to climate change. As one of its missions, ONACC collects and analyses reference information on climate change. In order to create a reliable national network to collect and transmit data and information ONACC will reinforce the capacity of institutions and organizations handling and dealing with climate change information. ONACC will put at the disposition of decision makers in the public and private sectors as well as different national and international organizations, reference information on the activities of the ER Program. ONACC will therefore work closely with the Technical Secretariat to evaluate and monitor the impacts of the programme on climate change issues.

Other public administrations like the Ministries of Agriculture and Rural Development (MINADER); Mines, Industry and Technology Development (MINMIDT); Economy, Planning and Territorial Administration (MINEPAT); Livestock, Fisheries and Animal Industry (MINEPIA); Water Resources and Energy (MINEE) will play a key role in the implementation of the ER Program. These ministries are equipped with technical experts and field staff capable of intervening at different levels during Program implementation.

International Institute of Tropical Agriculture (IITA): IITA is a member of the CGIAR Consortium. IITA has established a research center in Yaoundé to support its research for development activities in Cameroon and neighboring countries. IITA works on various important staple crops such as banana/plantain, yam, cassava and maize, grain legumes, as well as other high value crops such as cocoa and vegetables to address food security and poverty alleviation in Africa. lITA works with partners to enhance crop quality and productivity, reduce producer and consumer risks, and generate wealth from agriculture. IITA has an excellent track record in R&D on food crop intensification and cocoa production and commercialization and would put fully its collective technical capacity and expertise to contribute to the success of the program.

Conservation Action Research Network (CARN): is a non-profit research organization focused on advancing conservation efforts that conserve biodiversity and ecosystem health, protect threatened wildlife species and habitats, and promote environmental sustainability. CARN is comprised of leaders in the fields of tropical research and evolutionary biology, conservation science and awareness, public health, and international development with a history of working in Central Africa for over 30 years. Based in California, United States, CARN works closely with other international organizations to conduct and support evidence-

based research activities that complement their respective missions regarding environmental and wildlife conservation.

IITA and the University of California created the Congo Basin Institute to address pressing issues of higher education, human health, environment, Climate Change and development in Central Africa. The CBI, based in Yaoundé, is a center for research with a focus on forest carbon issues. Its partners have many years of experience working on biodiversity and sustainability issues in the region and will support the project by providing technical expertise and advice, managing research stations and research area, through scientific monitoring and helping to promote various efforts such as the ecotourism component of the project.

The **International Union for Conservation of Nature (IUCN):** has been working in Cameroon to cover a wide range of activities including protection of forests and vulnerable ecosystems, protected area management and climate change mitigation and adaptation and is a strategic partner to Cameroon government (an IUCN member) agencies especially in the domain of climate change. Within the framework of REDD+, IUCN has been supporting the country since it engaged in the REDD+ readiness process and working with vulnerable groups and various climate change stakeholders to ensure climate change adaptation and mitigation. The work strategy goes from field-based operation to informing policy. IUCN's niche has been ensuring stakeholder participation in the REDD+ process with particular attention to local communities and indigenous people. IUCN supported the establishment of the REDD+ national civil society platform, accompanied the country during its R-PP elaboration process and is currently supporting the government in its national REDD+ strategy elaboration process through studies related to (i) REDD+ benefit sharing, (ii) governance within the REDD+ perspective, (iii) the strategy for the involvement of women in the REDD+ process, (iv) the strategy for the involvement of indigenous people in the REDD+ process, (v) the analysis of drivers of deforestation and forest degradation.

IUCN is mobilizing its technical expertise and financial contribution from existing projects within the ER program ranging from ecosystem-based adaptation activities, to livelihood enhancing options to reduce deforestation and forest degradation such as agricultural intensification, enhancement of degraded lands and support to sustainable cocoa production.

Conservators of Dja Biosphere Reserve, Mengame Gorilla Reserve and Campo-ma'an National Park: The conservation of Dja, Mengame and Campo-Ma'an are the representatives of MINFOF on the ground and are leading administrative and bio-monitoring aspects of these protected areas. They are committed to assisting the project through the full process, and will be heavily involved in most aspects of the project's implementation.

Local communities including women: The community leaders will coordinate community participation and ensure success of activities undertaken within and with their respective communities. They will also guide the project on issues of benefit sharing and ensure it takes place efficiently and equitably. Representatives of the councils will be represented on the project management board. It should be noted that all the municipal councils in the ER Program area have been sensitized on REDD+ and have benefitted from capacity building and training through the *Programme National de Développement Participatif* (PNDP). The communities are working closely with Environmental NGOs in their region and are thus equipped to support the ER Program.

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.

Table 14 illustrates the next steps for the finalization of the ER Program design

Table 14: Priority actions for the finalization of the ER-Program

Next steps for the conception of the ER Program	2016				2017				2018			
	T1	T2	T3	T4	T1	T2	T3	T4	T1	T2	T3	T4
1. Setting up the institutional arrangement for project management and coordination												
2. Addressing legal and policy framework												
3. Sensitization and consultation												
4. Establishing conflict management mechanism												
5. Establishing a benefit sharing mechanism												
6. Outlining policies and measures to address drivers of deforestation and forest degradation and measures to enhance and conservation forest carbon stocks and sustainable management of forests												
7. Testing the feasibility of different strategic options												
8. Setting up the MRV system												
9. Developing the Forest Reference Level												
10. Draft ER PD												
11. R-Package												
12. Final version of ER PD												

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 II to provide a summary of the preliminary financial plan

The ER program will have funds to support the development of the program from grants (FCPF, IUCN, FIP, CAFI). The funds for the implementing and operational phase of the program shows that Cameroon will likely seek to request for pre-financing to be able to support implementation of the program. Overall, the program will generate significant amount of carbon revenue after 10 years of implementation. The Table in Annex provides a preliminary financial plan subject to amendments during the elaboration of the ER Program.

The possible gaps in the financial plan for the ER program are: finance is only accessible during the latter part of the ER program; lack of finance for investments to achieve ER program targets; available finance

e.g. FIP and CAFI only meets partial investment needs of the ER program; inadequate finance for implementation of the ER Program;

To address these gaps, Cameroon will

- Develop a Financial Tracking Initiative to follow up finances from donors to in-country recipients and ultimately ER Program activities to determine: commitments and disbursements of finances; timelines between when funds are committed and actually disbursed; types of activities supported by the current financial commitments;
- Get a loan guarantee from World Bank so as to provide certainty for sustainable production activities in ER program. This will attract investors;
- Initiate discussions with private sector actors.

This financial tracking Initiative will seek to improve transparency around the ER program financing mechanism in particular and REDD+ financing mechanism in general. And it will also provide information that will help the Cameroonian government and other REDD+ stakeholders better assess gaps and needs in the REDD+ strategy.

Cameroon has requested recently for a multilateral partnership, CAFI (USD 1 400,000) to support Cameroon effectively design a comprehensive National Investment Framework to address drivers of deforestation and forest degradation, and a financing mechanism. The Forest Investment Program also has a similar objective. The FIP and CAFI will provide financial support to Cameroon ER program.

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).

Concept of the Reference Emissions Level

Scope and scale

The establishment of the ER Program FRL will encompass all five REDD+ activities – that is activities which reduce emissions and increase removals – in line with the Draft 1 of the National REDD+ strategy. Pending an assessment of the importance of the different carbon pools in the different agro-ecological regions, the FRL established for the ER-PIN encompasses two carbon pools: above ground biomass (ABG) and below ground biomass (BGB), where BGB will be estimated as a factor of ABG. This is a conservative approach towards estimating the FRL, given the high volatility and uncertainty linked to the assessment of other carbon pools.

According to the National REDD+ strategy, CO_2, N_2O and CH_4 will be considered in conformity with national GHG reporting. Nonetheless, the FRL of the ER-PIN considers only CO_2. CH_4 and N_2O are considered insignificant in the ER-Program area.

Under the framework of REDD+, Cameroon formulated a new definition of forest which states that: “Are considered as forests, vegetated lands with a minimum surface area of 0.5ha, made up of trees and/or shrubs which cover at least 10% of the total area with a potential to reach at maturity a minimum height of 3m. Exception is made up of mono-species agro-industrial plantations established for economic purposes and managed following essentially agricultural technics. It will still be considered as forests, former forest areas, affected by natural catastrophes which reduced their cover below 10% but subject to regain their former status (earthquakes, volcano, wildfires, tornado etc.)”.

With this new forest definition, more than 70% of Cameroon is therefore considered as forest. Estimates of deforestation are 0,08% in 2000 (EdF, 2010) and 1% in 2010 (FAO et OIBT, 2011), thus reinforcing the High Forest Low Deforestation status of Cameroon.

Methods per activity

- Methodological approach to determine forest deforestation activity data

The REDDAF and the OSFT land cover change maps as presented in Section 9 are used to calculate activity data during the 2000-2010 reference period. This activity data, consistent with IPCC approach 3 is then combined with spatially explicit biomass maps, following the IPCC gain-loss method.

- Methodological approach to determine forest degradation activity data

Emissions from forest degradation are calculated as removals of wood from forests located inside Forest Management Units (FMU’s) plus a damage ratio, the latter being subject to the certification status of a given FMU. In the absence of robust estimates of other forms of degradation the FRL considers only estimates of forest degradation within forest concessions.

- Methodological approach for the adjustment of emissions in the future

In order to explore the consequence of future changes in the ER-Program area a forward-looking land use modeling approach to estimate emissions related to unplanned deforestation has been adopted. The peer-reviewed GLOBIOM model[5] (GLOBal BIosphere Management Model) has been adapted to the context of Cameroon ("GLOBIOM-CMR")[6] and consequently to the ER-Program area.

The GLOBIOM-CMR model is a spatially explicit economic model which represents the competition for land use between agriculture, forestry, and bio-energy sectors, allowing for an approach which is consistent with both UNFCCC guidance on FREL setting[7] and the emerging concept for the national FREL[8]. The described GLOBIOM-based methodology for the upwards adjustment of agricultural expansion will also be applied to establish a concept for a national FRL, thus ensuring for full consistency between the FRL's elaborated at sub-national and national level, respectively. The model computes future land use and land use change in 239 simulation units in Cameroon, 31 of which cover the ER-Program area. In the model, Cameroon is linked to the other countries of the Congo Basin region by a representation of international trade of agriculture and forestry products. The total simulation period covers the years 2000-2030, where in the year 2000 a calibration is performed, i.e. the model is forced to reproduce all outputs (e.g. agricultural area and production) as per the observed statistics for the same year. Subsequently, the model "freely" performs the first simulation period 2000-2010 ("validation period"). This validation allows testing the capacity of the model to reproduce the deforestation trends observed in this period.

Deforestation is projected based on changes in production and consumption for all Congo Basin countries at the same time. In this way, it is easy to check the validity and consistency of the estimates and avoid over-estimating future deforestation in the reference levels, without any relationship to change in demand for products. The spatially explicit nature of the results ensures the consistency of the deforestation calculated at the sub-national level with the total deforestation at the national level and can take into account the heterogeneity of carbon and biodiversity across the landscape.

Further, the direct link of drivers of unplanned deforestation and resulting emissions allows for consistent drivers' analysis and the FREL establishment. Growth of population and GDP, resulting in changing patterns of both the local and global populations are the explicit underlying causes of land use change.

The required area for the expansion of cropland and pasture depends on the evolution of local and external demand for crops and livestock commodities. Assumptions on the evolution of population and income level (GDP per capita) influence future consumption level and patterns (diets).

Population

- For total population projection, the projections from the SSP2 scenario, which has been developed in the AR5 IPCC framework, are used: the average annual growth rate of the total population is 2.1% between 2010 and 2020 and 1.8% between 2020 and 2030. Using these estimates, the total population of Cameroon will reach 24 million in 2020 and 28.7 million inhabitants in 2030.
- For the share of rural area, the projections of the United Nations Department of Economic and Social Affairs Population Division (2015) are applied: the share of rural population will decrease

5 See http://globiom.org/
6 See http://redd-pac.org/new_page.php?contents=papers.csv for a detailed documentation of the land use model.
7 UNFCCC, Decision 12/CP.17, paragraph 9
8 A concept for national FREL setting will be prepared in the course of the year 2016.

from 49% in 2010, to 43% in 2020 to 38% in 2030. Using these estimates, the total rural population of Cameroon will reach 10.3 million in 2020 and 10.9 million inhabitants in 2030.

- Since ER-PIN area is mostly rural, interest is in the average annual growth rate of rural population. At the national level, using the two projections described above, an annual growth rate of rural population of 0.8% between 2010 and 2020 and 0.6% between 2020 and 2030 is obtained. Applying this rate to the population in the ER-PIN area of 2005, the ER-PIN area will encompass a population of 1.22 million in 2010, 1.32 million in 2020 and 1.40 million in 2030.

Food consumption

In the East, Center and South regions of Cameroon, more than two-thirds of the calorie intake comes from vegetal origin (World Food Program 2011, Figure 5 below). In particular, diet is dominated by tubers, which represent between 25% and 33% of the total intake. Using the national average daily calorie consumption per capita of 2260 kcal, the average quantity of cassava which is consumed per year per capita is derived. The same is done for groundnut and maize that are associated with the food groups "other cereals" and "pulses" respectively. Average consumed quantity per capita in 2010 for rural population in the three regions covered by the ER-PIN area is presented in Table 15.

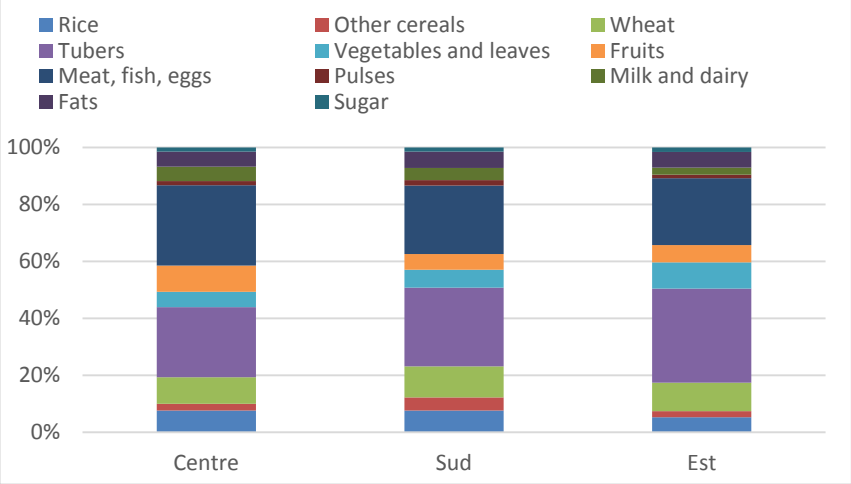

Figure 5: Share of different food groups to diets in Center, East and South regions of Cameroon in 2010 (Source: "Situation de la sécurité alimentaire au Cameroun 2011 », World Food Program)

Table 15: Average consumption per crop per capita per year in 2010 (in kg/capita/year)

	Maize (*Other cereals*)	**Cassava (*Tubers*)**	**Groundnut/niébé (*Pulses*)**
Center	5	187	2
South	11	210	3
East	5	250	2

National diet

The evolution of the demand in the other regions, and especially in the urban centers of the country can influence the land use in the ER-PIN area since farmers can decide to sell their production surplus on the market. Projections from the FAO are used to derive food demand for each crop. The average consumption per capita of cassava remains almost stable with 116 kg per capita per year but the average consumption per capita of other products like groundnuts, sugar, palm oil, or chicken meat increases by more than 50% between 2010 and 2030 because of urbanization and higher incomes.

Food Production

Assuming that the average consumption will stay the same in the future and that cassava, maize and groundnuts are locally produced, the additional production which will be necessary to feed the local population of the ER-PIN area by 2020 and 2030 can be calculated (Table 16 below).

Table 16: Required production of maize, cassava and groundnut to meet current per capita consumption level with a higher population in the ER-PIN area (in tons)

	Maize			Cassava + taro			Groundnut + niébé		
	2010	**2020**	**2030**	**2010**	**2020**	**2030**	**2010**	**2020**	**2030**
Center	1281	1387	1472	43528	47139	50044	508	550	584
South	8187	8866	9413	162825	176330	187200	2147	2325	2468
East	1046	1133	1203	51838	56138	59598	393	425	451
ER-PIN	10514	11386	12088	258191	279606	296842	3048	3301	3504

The production level of many crops is already higher than the local needs i.e. a significant share of the agricultural production is sold to satisfy demand in other parts of the country or even in other countries. The proximity of the ER-PIN region to Yaoundé in the North and to Gabon in the South will further increase the pressure on forests in the future. For instance, using the statistics from the Ministry of Agriculture the average annual production per capita in the departments included in the ER-PIN was 605 kg for cassava and 25 kg for groundnut which is above the consumption level. From the results of the GLOBIOM model, farmers in the ER-PIN region will increase their production especially for sales: from 60% of the cassava production which is sold to the market in 2010, to 80% of the cassava production which is projected to be sold by 2030 (Table 17).

Table 17: Evolution of production for the main food crops in the ER-PIN area as estimated by GLOBIOM and average yield

	Production (tons)			Yield (ton/ha)
	2010	**2020**	**2030**	
Beans	628	925	1319	0.7
Cassava	630182	1103216	1705029	9.4
Maize	39032	56605	82276	2.0
Groundnut	34489	51138	73722	0.8
Oil palm fruit	345994	188459	458246	20.2
Sugarcane	128960	213590	248894	10.0
Sweet Potato	278	402	518	4.8

This additional production translates into additional cropland area in the absence of per hectare productivity increase. Total cropland in the ER-PIN area also includes coffee and cocoa area as of 2008

(Ministry of Agriculture), fallows which are used for soil fertility restoration and pest control which are proportional to the cultivated area of annual food crops, and other crops not explicitly taken into account in GLOBIOM for which proportional area growth to local population growth is assumed.

Description of activity data

-Emissions from historical deforestation

Gross deforestation in the ER program area over the reference period was estimated to be 67,435 hectares, with about 30% (20,119 ha) of it occurring in the Dja-et-Lobo division and another 20% (13,531 ha) in the Haut-Nyong division (Figure 6).

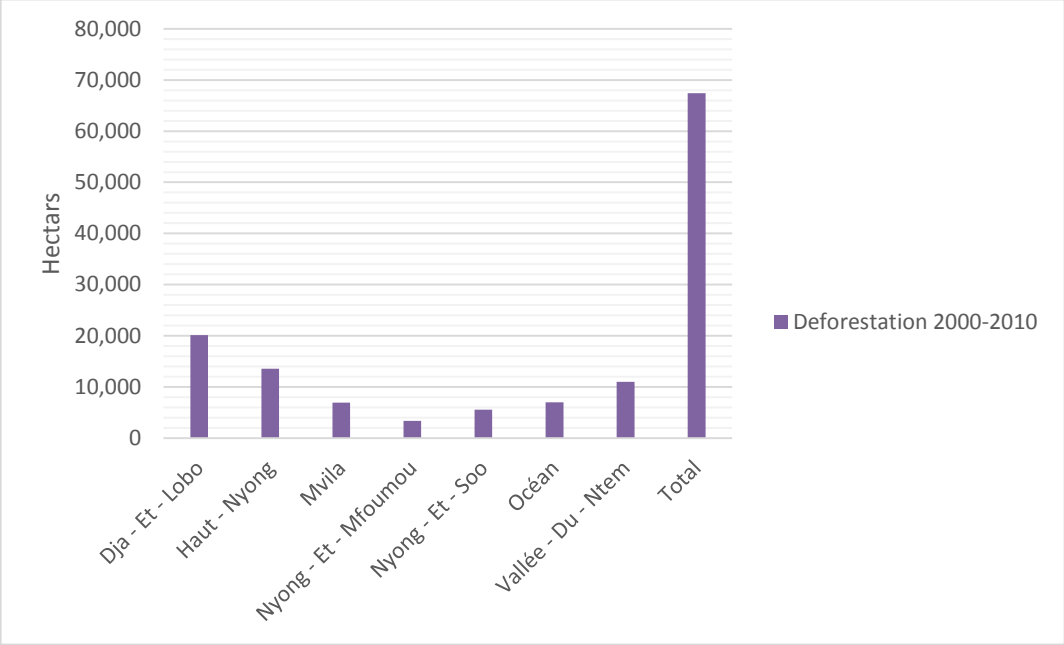

Figure 6: Deforestation observed in the different divisions pertaining to the ER program area during the reference period.

-Degradation

Emissions from forest degradation inside Forest Management Units (FMU's) are calculated following the IPCC gain-loss proxy method. Of the project area, 3.16 Mha were under forest concession[9] during the reference period, approximately 13% of which is permanently taken out of exploitation for purposes of social welfare and biodiversity protection, leaving 2.75 Mha of exploitable forest. The average extraction rate is 6.82tC/ha over all concession types. Approximately 34% of this area is currently certified and reduced impact logging (RIL) is applied, yielding an average damage factor of 1.34 tC per tC extracted; the remainder is still in conventional forest exploitation schemes with substantially higher damage factors of 1.99 tC per t/C extracted. Furthermore, approximately 67% of the carbon extracted is expected to grow back within the timeframe of the ER program.

Hence, the calculation of the degradation portion of the FREL is based on the biomass extracted in the managed parts of the concessions plus a damage factor for each unit of biomass extracted, the latter being

[9] Data from http://www.globalforestwatch.org/country/CMR/10

subject to the certification status of a given concession. Details about the assumptions made to calculate the degradation portion of the FREL is presented in Table 18 below.

$$Emissions_{Degr} = Area_{FMUs} x ExploitShare_{FMUs} x ((Wood_{Harvested} x DamageFactor_{ij}) x RegrowthRate_{PostHarvest}) x Conv_{C-CO2}$$

Where

$Emissions_{Degr}$ are emissions from forest degradation (in tCO_2)

$Area_{FMUs}$ is the total area of allocated FMU's (in ha)

$ExploitShare_{FMUs}$ is the share of FMU's which is actually exploited, i.e. 87%

$Wood_{Harvested}$ is the average extraction rate of wood (tC/ha)

$DamageFactor_{ij}$ is the damage factor of associated to each unit of $Wood_{Harvested}$, subject to the certification status of a FMU

$RegrowthRate_{PostHarvest}$ the biomass regrowth rate which is assumed to be 67% of

$Wood_{Harvested}$+$DamageFactor_{ij}$

$Conv_{C-CO2}$ is the Carbon to CO2 conversion factor, i.e. 3.67

Table 18: Overview of parameters used to establish the planned degradation portion of the FREL.

Description	Number (Unit)	Source	Remark
Concession area	3,158,993 ha	WRI (2012)	
Share of total concession area which is actually exploited	87%	Durrieu de Madron et al., 2011, p. 82[10]	The remainder of 13% is composed of the unproductive "Serie agricole" and "Serie de protection"
Share of certified concessions among all concessions	34%	OFAC (2015), tab 1.2[11]	Number available at the national level only
Extracted carbon	6.82 tC/ha per rotation	Brown et al. (2005), tab 1[12]	Study in a concession in Northern Congo
Damage factor in conventional concessions	1.99 tC per tC extracted	REDD Cameroon Pilot Project (Final Project Report)	
Damage factor in certified concessions	1.34 tC per tC extracted		
Post-harvest regrowth rate at the end of the rotation period	67%	Durrieu de Madron et al., 2011, p. 82	

10 Durrieu de Madron, L., Bauwens, S., Giraud, A., Hubert, D., & Billand, A. (2011). Estimation de l'impact de differents modes d'exploitation forestiere sur les stocks de carbone en Afrique centrale. Bois et Forets Des Tropiques, (308), 75–86.

11 de Wasseige, C., Tadoum, M., Eba'a Atyi, R., & Doumenge, C. (2015). Etat des forêts 2015 - Forêts et changement climatique en ligne. (C. de Wasseige, M. Tadoum, R. Eba'a Atyi, & C. Doumenge, Eds.). WEYRICH EDITION : Neufchateau, Belgique. Retrieved from http://pfbc-cbfp.org/bassincongo.html

12 Brown, S., Pearson, T., Moore, N., Parveen, A., Ambagis, S., Shoch, D., 2005. Impact of selective logging on the carbon stocks of tropical forests: Republic of Congo as a case study. Arlington, USA.

Emission Factors

-Deforestation

Carbon maps are the preferred means of assessing carbon dynamics as these allow capturing the spatial and temporal dynamics of deforestation. In the absence of one national reference biomass map a comparison of five maps available for the ER-Program area was performed: Baccini[13], Saatchi[14], FRA2010[15], Avitabile[16] and Mermoz[17]. Four of the five biomass maps considered yield a relatively wide range of estimated forest carbon stocks in the ER project area, ranging from 128 to 443 tC/ha. The calculation of average carbon content in forest using the IPCC gain-loss method with the formula

$$\frac{ForestArea_{2000}\ x\ (AGC+BGC)}{ForestArea_{2000}}$$

yields an average value of 295.49 tC/ha (Table 19). This is in line with the MF of the CF which suggests to average measurement data to develop representative emission factors. The shortcoming of this approach lies in the available biomass maps which a) generally represent the biomass stock at some point in the period 2000 to 2010 but are not fully consistent with the 2000-2010 reference period or the 2018-2028 project period and b) show large differences in terms of carbon stock in the ER program area.

Table 19: Average carbon stock per division including AGB and BGB of forest in the year 2000.

		Saatchi	*Baccini*	*FRA2010*	*Mermoz*	*Avitabile*	Average	SD	Min	Max
tCO2/ha	Nyong_et_Mfoumou	1204	1095	456	1041	1632	1085.60	421.62	456.00	1632.00
	Nyong_et_So	1091	927	439	909	1308	934.80	320.24	439.00	1308.00
	Haut_Nyong	1350	1332	487	1119	1957	1249.00	528.18	487.00	1957.00
	Dja_Et_Lobo	1348	1090	522	1055	1760	1155.00	452.27	522.00	1760.00
	Mvila	1249	987	480	1065	1600	1076.20	408.58	480.00	1600.00
	Ocean	1253	818	428	1098	1455	1010.40	400.13	428.00	1455.00
	Vallee_du_Ntem	1271	933	482	1057	1662	1081.00	434.44	482.00	1662.00
	ER project area	**1252**	**1026**	**471**	**1049**	**1625**	1084.57	418.84	470.57	1624.86
tC/ha	Nyong_et_Mfoumou	328	298	124	284	445	295.80	115.06	124.00	445.00
	Nyong_et_So	297	253	120	248	356	254.80	86.95	120.00	356.00
	Haut_Nyong	368	363	133	305	533	340.40	143.73	133.00	533.00
	Dja_Et_Lobo	367	297	142	287	480	314.60	123.46	142.00	480.00
	Mvila	340	269	131	290	436	293.20	111.23	131.00	436.00
	Ocean	341	223	117	299	396	275.20	108.67	117.00	396.00
	Vallee_du_Ntem	346	254	131	288	453	294.40	118.52	131.00	453.00

[13] Baccini *et al*. 2012. Estimated carbon dioxide emissions from tropical deforestation improved by carbon-density maps. Nat. Clim. Chang. 2, 182–185. doi:10.1038/nclimate1354

[14] Saatchi *et al.*, 2011. Benchmark map of forest carbon stocks in tropical regions across three continents. Proc. Natl. Acad. Sci. U. S. A. 108, 9899–904. doi:10.1073/pnas.1019576108

[15] Kindermann, G.E., McCallum, I., Fritz, S., Obersteiner, M., 2008. A global forest growing stock, biomass and carbon map based on FAO statistics. Silva Fenn. 42, 387–396.

[16] Avitabile *et al.*, 2016. An integrated pan-tropical biomass map using multiple reference datasets. Glob. Chang. Biol. n/a–n/a. doi:10.1111/gcb.13139

[17] Mermoz *et al.* (2014): Biomass Assessment in the Cameroon Savanna Using ALOS PALSAR Data. Remote Sensing of Environment 155: 109–119.

	ER project area	**341**	**280**	**128**	**286**	**443**	295.49	114.07	128.29	442.71

Remaining carbon stocks on agricultural land after conversion of forest were defined per land use type. Following the conversion of forests, annual cropland, perennial crops, and pasture were distinguished (Table 20). The carbon content on cropland in Southern Cameroon is higher than the IPCC default value of 5 tC/ha because the dominant farming system is still shifting cultivation in this area: not all trees are cut during the clearing and after two years cultivation, the land is left to fallow for several years during which there is some natural vegetation regeneration. Moreover, perennial crops which are cultivated in Southern Cameroon are typically tree crops like cocoa or oil palm which also sequester carbon.

Table 20: Carbon stock remaining on deforested sites per land use class.

Average carbon stock on cultivated land in shifting agriculture system	130.15	tCO_2/ha	Kanmegne et al., 2004; 12% trees remaining[18]
Average annual carbon sequestration on fallow	22.02	tCO_2/ha	Makana and Thomas, 2006[19]
Average carbon content on cropland over 10 years	343.21	tCO_2/ha	Assumption of 2 years cultivation followed by 5 years fallow
Remaining carbon stock on perennial cropland	767.03	tCO_2/ha	Kanmegne et al., 2004, tab 1, *Cocoa plantation*
Remaining carbon stock on pasture	29.54	tCO_2/ha	IPCC default EF for land converted to pasture (ID: 511046)
Emission factor for conversion of forest to annual cropland	741.36	tCO_2/ha	
Emission factor for conversion of forest to perennial crops	317.54	tCO_2/ha	
Emission factor for conversion of forest to pasture	1055.03	tCO_2/ha	

Adjustment

-Upwards adjustment of deforestation activity data due to future agricultural expansion

From modelling results, the expansion of crop production leads to a strong increase in deforestation in the next decades: the deforested area over 2010-2020 is more than two times higher (142,500 ha) than the deforested area over 2000-2010 (67,300 ha) and increases by 55% during the 2020-2030 period (222,200 ha). The cassava production and related fallows is responsible for half of the future deforestation, followed by groundnut and maize (Figure 7).

[18] Kanmegne, J., 2004. Slash and Burn Agriculture in the Humid Forest Zone of Southern Cameroon: Soil Quality Dynamics, Improved Fallow Management and Farmers' Perceptions. Wageningen University.

[19] Makana, J.R., Thomas, S.C., 2006. Impacts of selective logging and agricultural clearing on forest structure, floristic composition and diversity, and timber tree regeneration in the Ituri Forest, Democratic Republic of Congo. Biodivers. Conserv. 15, 1375–1397. doi:10.1007/s10531-005-5397-6

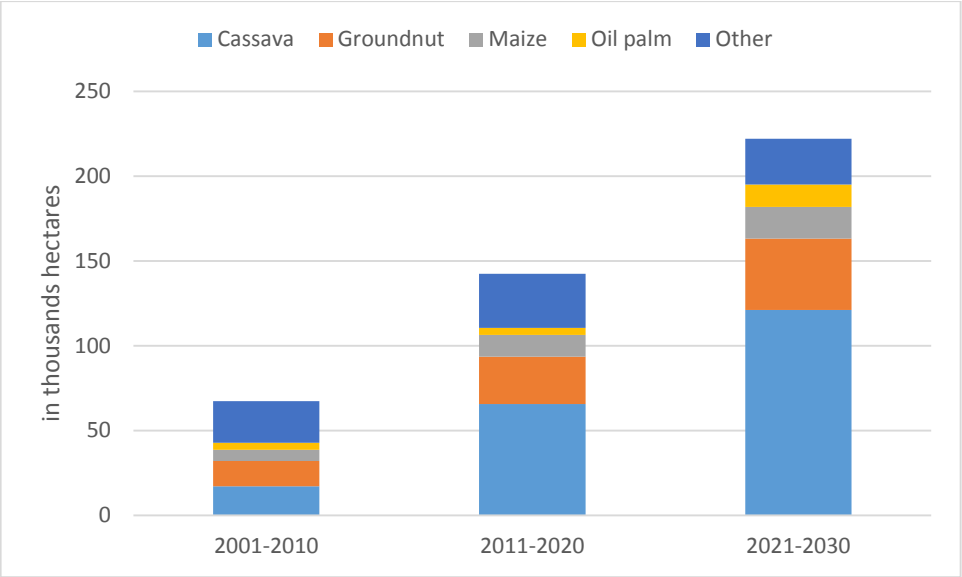

Figure 7: Adjustment of the 2000-2010 activity data (first bar) to projected levels of deforestation in the periods 2010-2020 and 2020-2030, respectively. (Source: results from the REDD-PAC project)

Note: GLOBIOM overestimates the deforestation over 2000-2010 in the ER-PIN area by 32% (88k hectares modelled vs 67k hectares observed). The GLOBIOM results for 2010 and the following periods are all divided by 1.32 in the figure to match historical deforestation and ensure consistency in the next periods.

-Emissions associated with deforestation from agriculture

Using the projected expansion of annual cropland, perennial crops and pasture into forest, and the corresponding EF as described in the previous sub-section (Table 19), projections of total emissions from deforestation due to agriculture expansion are 96 million tCO2 over 2011-2020 and 151 million tCO_2 over 2021-2030. For the period 2018-2028, the total estimated emissions are 138 million tCO_2.

-The Kribi-Mballam railway project

The Kribi-Mballam railway project is proposed to transport ores from the Mballam mining site in Eastern Cameroon to the newly constructed port of Kribi[20]. Stretching over a distance of 510 km and a width of approximately 60m, the construction of the railway will entail the conversion of 3,060 ha of land, 2,810ha (92%) of which is forest as revealed by a spatial analysis of the area[21]. The same average EF (295.45 tC/ha) was used as described in the EF section to calculate emissions from deforestation linked to the Kribi-Mballam railway.

[20] http://www.investiraucameroun.com/mines/3004-6317-sundance-resources-a-entame-les-leves-topographiques-sur-le-trace-du-chemin-de-fer-mablam-kribi

[21] Spatial data of the railway and forest cover was sourced from Laurance et al. (2015) and Pinet (2015), respectively. Laurance, W.F., Sloan, S., Weng, L., Sayer, J.A., 2015. Estimating the Environmental Costs of Africa's Massive "Development Corridors." Curr. Biol. 1–7. doi:10.1016/j.cub.2015.10.046; Pinet, C., 2015. OBSERVATION SPATIALE DES FORÊTS TROPICALES BASSIN DU CONGO. Cartographies Forestières Historiques et détaillées du Cameroun. Résultats statistiques finaux & Metadonnees. Paris , France.

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.

The ER-Program proposes to monitor ER's against an FRL of 139 Mt CO_2e for the proposed ER program area over a period of 10 years (Table 21).

Table 21: Proposed emission adjustment

	Value (tCO2e)	Unité	% of FRL
Historical emissions (2000-2010)	44,606,733.32	tCO2e	31%
Emissions from degradation	3,647,311.10	tCO2e	
Emissions from deforestation	40,959,422.22	tCO2e	
Future emissions for May 2018-May 2028	144,718,613.82	tCO2e	
Emissions from degradation	3,647,311.10	tCO2e	
Emissions from the Kribi-Mballam railway project	3,047,639.68	tCO2e	
Emissions from deforestation caused by agriculture	138,023,663.04	tCO2e	
Adjustment factor	100,111,880.49		69%
0.1% annual cap	0.10%	% of total C stock	
FRL adjusted 10 years	144,718,613.82		100%
Total forest area in 2000*	8,880,348.23	ha	
Total carbon stocks in 2000**	9,631,359,278.73		

*Source: Airbus-REDDAF
**Using an EF of 1084 tCO2/ha

The proposed annual upwards adjustment is therefore 100 $MtCO_2$, corresponding to average annual emissions 0.10% of the total carbon stock of the ER project area. This meets the requirement of the cap of 0.1% of the total carbon stock.

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 approach for monitoring and reporting emissions in the Cameroonian REDD+ process is still under development. Nonetheless there exists project experiences on which current reflections on MRV developments are based. The methodology applied for the development of the FRL described in Section 8 draws from experiences of the REDD-PAC project implemented by IISASA, and the National REDD+ Coordination. The elements presented in this section whilst acknowledging the methodology presented in Section 8 builds more on current reflections in MRV development. A concept for the elaboration of the national FLR and MRV are expected to have been consolidated prior to the commencement of the Program. Notwithstanding the ER Program emission accounting will adhere to IPCC Guidelines and build on available methodological guidance documents like GOFC GOLD Sourcebook, GFOI Methodological Guidance Document.

Key issues to be considered in monitoring and reporting on emissions include: the definitions of what is being monitored; the data and methods required for monitoring; quality assurance and control of the reported parameters; and the required institutional framework and capacity for monitoring and reporting. These issues are addressed here below:

Key Definitions

The definition of forest and the REDD+ eligible activities (deforestation, degradation, sustainable forest management, enhancement and conservation of carbon stocks) are primordial for the setting up of any MRV system. It should be noted that whilst the estimations presented in Section 8 considers deforestation and forest degradation, the other activities are considered in the priority interventions in the ER Program area and would be considered during Program development.

In the process of elaboration of a national strategy, a definition for forest has been agreed by stakeholders (See Section 8.1 above). This definition will be applied in the ER Program. Deliberations on the national definitions for the other eligible REDD+ activities are currently underway and should be available prior to the implementation of the ER-Program.

Carbon Accounting

The gain-loss or flux accounting approach which estimates the net balance of additions to and removals from a carbon pool is being considered in the national MRV development because it is preferable in circumstances where individual carbon pools are difficult to measure and is less susceptible to short-term variations in carbon stocks. To effectively account for carbon stock changes from forest land to other land as well as the changes from forest land remaining forest land using the activity-based approach, which combines the application of Remote Sensing technology for the assessment of activity data and field inventories for the estimation of emission factors is proposed in the national MRV developments.

Assessment of Activity Data

A spatially explicit approach is applied for assessing activity data. Earth Observation (EO) data form the basis of this analysis. The wall-to-wall approach, which provides spatially explicit detection of changes for

entire region and hence facilitates the understanding of drivers of change is adopted. The monitoring concept considers the assessment of historical changes for the establishment of the reference level. Information related to historic trends of deforestation for the periods 1990-2000 and 2000-2010 are available from the EU FP7 REDDAF and OSFT projects.

Due to huge amount of EO systems available, a multi-sensor multi-temporal approach for the assessment of activity data (historical and future) is proposed for the national MRV and hence the ER-Program. The following criteria guides the selection of EO-data: thematic discrimination, accessibility, cost and minimum mapping unit. The MRV approach considers cost-free optical data (with VNIR and SWIR bands). In order to keep data acquisition costs at the minimum, other cost-free optical datasets (with SWIR band) will be explored and lastly cost-free SAR data to fill any residual gaps. Freely available Landsat series (most exhaustive archive of historic data) and SENTINEL 2 data constitute the basis for the monitoring. It should be noted that the government of Cameroon has signed an agreement with Airbus putting at its disposition SPOT data to address climate change related issues. The SPOT data archive will also be considered. RADAR systems like L-band ALOS PALSAR will also be employed.

The approach used in the assessment of AD is based on the interpretation of satellite imagery using object-based classification. Regardless of the sources of the data, a series of image pre-processing steps (radiometric and geometric calibration) ensure comparison among the different images of varying resolutions. A minimum mapping unit of 0.5 hectare (the same like the minimum area coverage of the forest definition) is applied. To determine changes, a multi-sensor multi-temporal composite approach is used rather than the traditional post classification comparison. This eschews the possibility of propagating errors across the years. Mosaic datasets will be used to integrate data from multiple sources (Landsat, Planet Labs, SPOT, SENTINEL, etc.), and years and to provide harmonized data. A mosaic dataset allows storing, managing, viewing, and querying small to vast collections of raster and image data. Mosaic datasets are designed to handle data with varying resolutions-spectral, spatial, temporal, and radiometric. The raster types and functions in a mosaic dataset play a strong role in how all this data is handled and displayed. Additionally, the mosaic dataset is particularly aware of the spatial and temporal information as attributes of the raster data. Based on the cell sizes, the mosaic dataset will display the imagery at the most appropriate scales. With some additional display control properties, called mosaic methods, the temporal information is controlled, allowing to view the images for the dates required. Mosaic methods in a mosaic dataset will be used to control the visualization of the mosaic dataset. There is no pixel data loss or metadata loss when using mosaic datasets, as the source pixels are never altered or converted, and the files are never moved; therefore, any metadata files remain in their location.

Monitoring changes in land use

Land use and land use change are derived from the interpretation of satellite images. The overall production process is based on a multi-sensor multi-temporal composite change detection approach to map the land use and land use changes. An approach based on the classification of pixels or objects will be used to classify the images into the five IPCC land use categories: forest land, crop land, settlement, grassland, wetland and other land. Depending the thematic scheme adopted for the ER Program area, these main categories could be further divided into subcategories.

Satellite images of higher resolution than those employed for the classification will be used to assess the accuracy of the map products.

The methodology applied in Section 8 uses temporal statistics on land use occupation obtained from the respective ministries to estimate deforestation. Deforestation statistics from satellite-based interpretations are then used to calibrate the projections.

Monitoring changes in forest land remaining forest land

The monitoring of the area extent of changes within forest land remaining forest land remains complex as it entails relatively dynamic processes as opposed to permanent land use changes (GOFC GOLD, 2010). This requires monitoring at a higher frequency to detect and delineate changed areas within forest. The main causes of forest degradation in the ER Program area are subsistence agriculture, selective exploitation of commercial wood, exploitation of fuel wood etc. It should be noted that these factors occur at varying intensities within the Program area. These different forest degradation causes will require different methods to monitor and quantify. In the case of selective logging, inventory plots could be set at the damaged site to determine damage factors within different forest management systems. This method has been used in the *Haut Nyong* division and damaged factors obtained applied in establishment of the FRL (Section 8). Another direct approach will see the application of remote sensing data (optical or radar) to either directly identify and map forest canopy damage (gaps and clearings) or map the combined area of forest canopy damage, intact forest and regeneration patches. Tests carried out in the scope of the EU FP7 REDDAF were applied on stem sites and hence not representative for application in the ER-PIN. To better capture the extent of forest degradation caused by subsistence agriculture, an indirect approach which uses predefined set of criteria to separate intact from non-intact forest will be applied.

Determination of Emission Factors: terrestrial Inventory

IPCC 2006 requests the prioritization in inventories, of categories whose estimates have a significant influence on the total inventory of greenhouse gases in terms of the absolute level, the trend, or the uncertainty in emissions and removals. In the scope of the national MRV developments, a feasibility study will be carried out to ascertain the key categories. Higher tier levels will then be accorded to these key categories as well as additional attention with respect to quality assurance and quality control.

Biomass Conversion and Expansion Factors (BCEF) and/or allometric equations will be used for the implementation of inventory based carbon stock assessment. Updated and species specific versions of these equations are presented in IPCC, 2003. Nevertheless, to reduce uncertainties in biomass estimates it will be important to apply allometric equations specific to the ecosystem in the ER Program area. The PRREDD project of the World Bank is currently developing allometric equations specific for Congo basin forest ecosystems. These equations will be suitable for the ER Program ecosystems. Furthermore, allometric equations will be developed for the Guinean savanna agroecological zone in the scope of the same project.

The EF applied in Section 8 are based on averages from global carbon maps derived from remote sensing applications considering mainly above ground biomass. The estimates will be revised as the ER Program will measure four pools (above ground biomass, litter, soil organic matter and dead wood), and estimate below ground biomass as a factor of above ground biomass.

Stratification

Carbon emission accounting in the ER-Program will aim at Tier 2 accuracy. To allow for a cost-effective and creditable linkage between the remote sensing assessments of the area extent of the activity and the estimates of carbon stock it is quintessential to stratify. Stratification will enable the division of the ER

Program area into more homogenous units of carbon density. There are presently different forest classification schemes for the ER Program area based on different parameters: floristic, phenology, physiognomy, spectral reflection etc. A classification scheme based on vegetation physiognomy, which will enable regrouping vegetation types according to carbon stock similarities (homogeneity), would form the basis of the stratification. REDD+ projects are expected to report only on human induced changes, consequently, the concept of "managed land", which requires countries to estimate only changes in "managed land", is recommended (IPCC 2006). As such, the next level of the stratification will consider creating sub-categories of "managed" and "unmanaged land", and further dividing the "managed land" into different management practices. The combined approach proposed requires ground sampling for the estimation of carbon stock; consequently, stratification will increase accuracy and precision, and reduce costs.

Institutional Capacity

Preliminary reflections on the institutional arrangement for monitoring and reporting on forest carbon was carried out with different stakeholders prior to the elaboration of the Draft 1 of the national REDD+ strategy. The outcome of these reflections is presented in Figure 8.

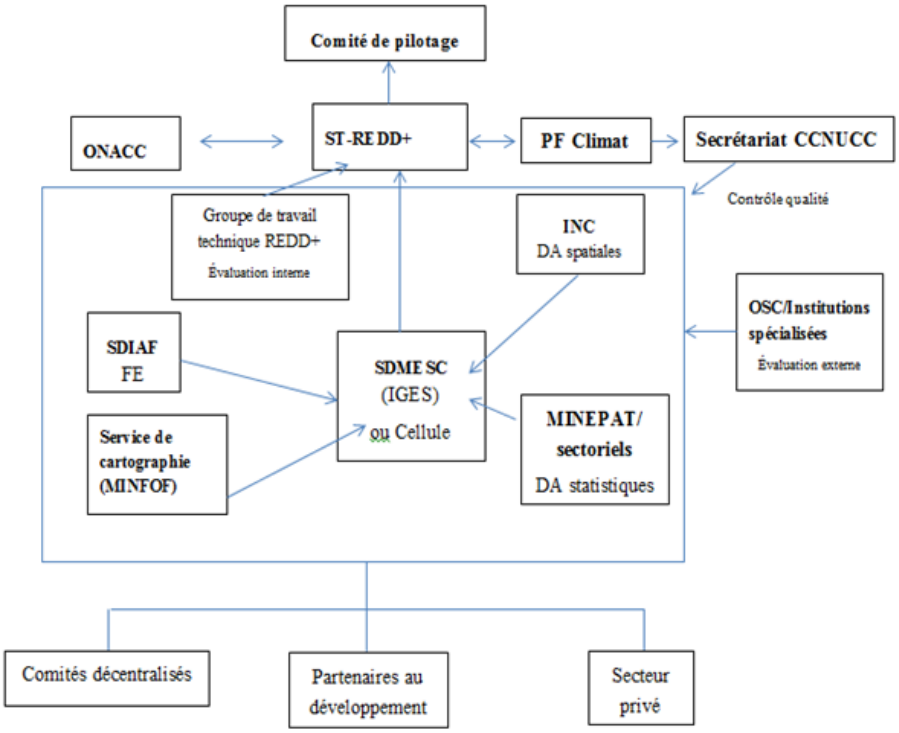

Figure 8: National MRV institutional arrangements

The Steering committee: Its main role will be to ensure the full involvement of all sectors in the MRV design and implementation, and ensure proper coordination.

The REDD+ Technical Secretariat: Its role is to coordinate the conception, the implementation, the monitoring and evaluation of REDD+ activities in Cameroon. As far as MRV is concerned, the REDD+ Technical Secretariat will mobilize funding and partnership both internally and externally for the implementation and monitoring (quality assurance) of planned activities. It will also coordinate the interventions between different actors involved in the MRV system.

The MRV Unit: this is the organ in charge of MRV at the REDD+ Technical Secretariat. The MRV unit will provide orientations to institutions involved in the collection and analysis of data (Activity Data & Emission Factors) for Green House Gas Inventory as well as coordinating the relationship between these institutions. The MRV unit will also provide these institutions with capacity building and solutions to potential issues.

The Cartography Unit (Ministry of Forestry and Wildlife) and the National Institution for Cartography (Ministry of Scientific Research) will be in charge of collection of Activity Data from forest and other land use types and the production of spatial Activity Data and LuLuC cartography respectively. The two institutions will work in close collaboration with MRV unit and other institutions dealing with geospatial information.

The Sub-direction of Forest Inventory and Forest Management (SDIAF/MINFOF) will be responsible for National Forest Inventories and all related activities towards development of specific Emission Factors for Cameroon, this in close collaboration with MRV Unit.

The Sub-Direction of Monitoring of Ecology and Climate (SDMESC/MINEPDED) will be responsible of Green House Gas inventory. It will work closely with institutions generating activity data and emission factors.

The National Climate Change Observatory (ONACC) will play a strategic role for the whole MRV system. It will provide resources and data necessary for the functioning of the whole system; will provide technical guidance to ensure the alignment of MRV activities with the national climate change strategy.

Other stakeholders (CSO, private sector, ministerial departments, universities and specialized institutions, development partners etc.) will be regularly consulted depending of their expertise to provide information and data, guidance and orientation for the design and implementation of activities.

The regional and divisional delegations, as decentralized government entities involved in REDD+ activities will monitor the collection of information and data in the field and the transfer of these data to the corresponding central MRV institution in Yaoundé.

Capacity building for forest monitoring

The REDD+ Technical Secretariat and ONACC have elaborated a plan to strengthen overall capacity on monitoring and reporting on GHG from all sectors in general and forest in particular. In this respect, collaboration has been signed between the REDD+ Technical and the GEOFORAFRI Project financed by the French Development Agency. In the scope of this collaboration, the REDD+ TS has been equipped with hardware and software for satellite image processing. Technical assistance supported has been ensured to provide training to technical staff of the Secretariat.

Furthermore, in the framework of the debt conversion program with France, a Competence Center and a Resource Centre with the aim to strengthen national capacity on forest monitoring are envisaged. With the operationalization of the National Climate Change Observatory, these centers are expected to become fully functional under its auspices.

The US Forest Service through the Silva Carbon program is supporting the REDD+ TS in MRV developments. Financial and technical assistance support have been earmarked for specific activities in the MRV Action Plan

Cameroon is actively participating in the Global Forest Observation Initiative (GFOI). Technical staffs of the REDD+ Technical Secretariat participate regularly in the GFOI meetings and discussions are ongoing on the application of the Methods Development Guidelines in the national MRV developments.

Discussions are also ongoing with JICA to provide technical support on forest inventory.

Finally the scope of a convention with AFD/Airbus, SPOT image archive has been put at the disposition of the government for all REDD+ activities.

The capacity within the administration will be supported by a host of national and international institutions accompanying the government in implementing the ER Program:

ecoPartners - The ecoPartners team is internationally recognized group of experts in REDD+ and IFM project types. ecoPartners served as technical consultant for approximately half of all validated and verified REDD projects to date, accounting for over 7.4 million tons of verified reductions on 800,000 hectares. ecoPartners not only brings project management experience but also technical capacities in GIS, remote sensing, inventory design, and forest carbon modelling for REDD+ project development.

GeoEcoMap – GeoEcoMap has extensive expertise in designing and implementing carbon inventory and assessments systems at national and project levels to quantify the stocks, emissions, and removals for greenhouse gas (GHG) monitoring and reporting. The expertise has been evolved through more than twenty years of experience in a combination of satellite and field approaches developed and tested in tropical forests by the science staff members of GeoEcoMap.

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

The national strategy for M&MRV is currently being elaborated and it builds on the National MRV Action Plan which has been validated by REDD+ stakeholders. Key issues that are currently being deliberated by technicians and stakeholders include the following:

1. Organizational Structure
    - Definition of functions of the structure
    - Elaboration of the institutional arrangements for MRV
    - Defining roles and responsibilities and interactions and inter-relationships
2. National Circumstances
    - Defining the scope of the MRV (carbon, non-carbon, integrated natural resource monitoring)
    - Elaboration of key definitions: forest, deforestation, forest degradation, sustainable management of forests, conservation of carbon stocks, enhancement of carbon stocks
    - Assessment of key categories in the different agro-ecological regions
    - An analysis of significant carbon pools and gases in the different agro-ecological regions
    - Analysis of existing data and information and their utility for the national MRV system (metadata assessment).
3. Elaboration of a concept for forest carbon monitoring
    - Methods compendium and technical specifications (input data, thematic classes, products, accuracy etc.) for the analysis of remote sensing data to map/measure/quantify activity data
    - Concept for estimating EF (sampling design, pre/post stratification etc.)
    - Techniques for relating AD and EF
4. Integrated QC/QA Plan

- Documentation
- Data flow
- Information storage and backup
- Uncertainty assessment for AD, EF and emissions
- Uncertainty assessment (historic assessments)

5. Accounting for non-carbon benefits
    - Defining the scope
    - Development of integrated methods to quantify non-carbon benefits like biodiversity, ecotourism, payment of environmental services, water catchment etc.
6. How to integrate community-based monitoring in the national MRV concept
7. Capacity building (human resources and infrastructure)

Even though a consolidated approach on all the issues shortlisted has not been reached, the ER Program is built along the lines of these issues and is adopting the outcomes as they are reached. For example, the ER Program will use the forest definition that was recently validated by stakeholders. Furthermore, thematic classes for land representation in Cameroon has also been adopted. The ER Program will take this into consideration when classifying land using remote sensing technology. Finally, a series of criteria and indicators have been established for the monitoring socio-economic parameters during REDD+ implementation. The ER Program will also adopt these parameters and indicators during implementation.

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 MRV system proposed by the ER Program will align with the UNFCCC guidelines and the FCPF Carbon Fund Methodological Framework. With regards to the FCPF Carbon Fund Methodological Framework the proposed MRV system meets Criteria 14, 15, and 16:

Criterion 14 – as described in section 9.1 the MRV system aligns with the sources and removals of GHG emissions as defined in Cameroon's R-PP and are thus within the scope of the ER Program. Additionally, the Cadent Monitoring System is updated in real-time and in the 5-year Term of the ERPA can be reported periodically and as frequently as necessary. As described in section 9.1 Approach 3 is used for the MRV system by combining the spatial explicit information provided by the Live Warning System and the accounting of emission reductions provided by the Cadent Monitoring System. Lastly, emission factors will be determined as discussed in section 9.1 for both the REL and the MRV.

Criterion 15 – the MRV system fits within the National System for Forest Carbon Monitoring as it adopts the definitions of sinks and sources of GHG emissions, carbon pools to be included within emission factors, and eligible activity data as described in section 9.1

Criterion 16 – Discussions are currently underway on how to incorporate community-based monitoring into the MRV component of the national REDD+ strategy. IUCN and WWF have broad experience on community-based monitoring with communities in the ER Program area. Different options are currently being assessed on how to customize certain components of the MRV system to the local communities and how specific knowledge from the local communities can be integrated into the monitoring and reporting system. The outcome of these discussions will be a system that also integrates parameters relevant to the communities.

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

Local and indigenous communities will be involved in the development and implementation of the monitoring system at several levels, described as follows:

- Through their representatives in the National SC, Task Force, Regional and Divisional committees to develop the policy and procedural framework of the ER Program, which will help frame the MRV system, including the question of the involvement of local communities and indigenous projects and in monitoring individual ER projects;
- They will be mobilized on the ground to monitor the indicators of program performance, including the monitoring of ER activity proxy and social performance;
- They will be integrated into program MRV efforts, particularly for forest inventory. Tree species identification is the most difficult aspect of forest inventory work. Often, local forest communities possess extensive, unparalleled knowledge of forest biodiversity. It is vital to program success that these groups are heavily engaged in carbon inventory work, both for technical purposes as well as the tangible community benefits / stakeholder acceptance that employment of local forest peoples brings to the ER Program.

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 multiple carbon benefits associated with planned REDD+ interventions (see Section 5.3) such as biodiversity as well as socio-economic, governance, and institutional capacity strengthening (see Sections 13.1 and 16.1), which will complement the forest cover and emission reductions indicators included in MRV. During the design of the ER Program, these indicators will be further defined and a baseline and tracking methodology will be developed. The process will be conducted by the REDD+ Technical Secretariat, supported by CARN and ECO-PARTNERS. It will involve local administration and communities, civil society as well as indigenous people. Other institutions, such as environmental NGOs, universities, international organizations, indigenous organizations will also be included. Multiple biodiversity conservation reference points will be established and studied longitudinally to determine changes in animal populations and hunting offtake and to determine conservation trends in the area related to the program. The Dja Reserve Bouamir research Station will act as a reference point for an area under conservation management to compare with sites affected by program activities and similar sites where no program activities have taken place. Data on multiple benefits and indicators will be incorporated in the Program MRV system and later on the National 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.

Risks of catastrophic loss through forest fire is unlikely in the ER program area because surface fire is uncommon in the area given the moisture levels and forest type. As these forests are put under improved management practices, localized fire incidence will also be reduced.

There are risks of reversals resulting from illegal logging and unsustainable harvest of forest products, if local employment opportunities or forest products are not commercialized at a reasonable price. The proposed ER program will be developed in consultation with all stakeholders, to reduce risks of reversal.

Proposed improved enforcement of forest laws to reduce deforestation and forest degradation will also help to address reversal. Woodlot and other silviculture interventions in the ER program area will result in increases in both carbon stocks and timber supply, reducing pressures on the forest.

With strong local ownership of forest management, the risks of anthropogenic reversals within Cameroon are significantly mitigated. The history of community-based forest management within Cameroon has demonstrated that the benefits are long lasting once these local models are in place.

During the ERPD development phase, the REDD Cell will launch a study that includes the following:

- Assess the anthropogenic and natural risk of reversals that might affect ERs during the term of the ERPA, and the potential risk of reversals after the end of the term of the ERPA;
- Identify measures to support effective ER program design and implementation to mitigate significant reversal risks, and address the sustainability of ERs, both during the term of the ERPA, and for a reasonable period beyond that term;
- Determine ways to account for reversals from ERs that have been transferred to the Carbon Fund during the term of the ERPA; and propose, as feasible, arrangements to address the risk of reversals for the long term;
- Recommend reversal management mechanisms to address potential reversals;
- In the course of ER program implementation, any significant emissions in the Accounting Area or changes in ER program circumstances that the ER program considers could lead to reversals of previously transferred ERs by the next monitoring event, and will be reported to the Carbon Fund within the timeline prescribed in the Carbon Fund Methodological Framework.

11. Displacement

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.

While developing the ER-PD, Cameroon will prioritize the most significant sources of displacement risk, assess their associated risk for displacement, and propose effective strategies to mitigate and/or minimize potential displacement to the extent possible. A procedure to estimate in-country displacement will also be developed, which may include, for example, the monitoring and evaluation of potential areas where displacement occurs in the National Forest Monitoring System, or use of default factors of displacement appropriate for Cameroon and drivers of deforestation and forest degradation, or other appropriate methods.

The risk of domestic displacement will be minimized through the improved supply of forest products in a sustainable manner and community based forest fire monitoring and control to significantly reduce leakage from forest fire incidence. The displacement program shall include better law enforcement (e.g. promoting the role of community-based law enforcement). Illegal logging for example can be addressed by rethinking forest policy with a particular focus on redressing the rights of access and secure tenure for local forest dependent communities, promoting wood residues and the review and facilitation of timber license procurement process. Agriculture intensification and diversification proposed in the ER-Program could be extended across scale (from local, divisional and regional level) for example to avoid displacements related to agriculture. Also, all the ER activities will be planned, developed and implemented with extensive consultation and active participation of all stakeholders including IPs, CSOs and local people at all levels, which will contribute to ownership by all stakeholders and mitigation of displacement. The on-going national zoning plan elaboration will also serve as a means to prevent leakages. As part of ER implementation, the Government of Cameroon will develop a mutual process to addressing any cross border issues. Since Cameroon has an open border, cross-border issues such as timber smuggling, wildlife trade and poaching are rampant. In order to address those issues, there are mechanisms in place to hold annual bilateral meeting on transboundary biodiversity conservation in Cameroon. A proposed way to address transboundary displacement of emissions is to enhance the transboundary landscape management for example, the case of the TNS and TRIDOM landscapes which are part of the project area. Similarly, Cameroon has signed a Memorandum of Understanding for transboundary biodiversity conservation and a regional project financed by the World Bank to improve the effectiveness of wildlife and habitat conservation. The activities proposed in the ER program are directly linked to the REDD+ strategic options identified during the R-PP elaboration and to be addressed by the REDD+ national strategy.

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 CO_2e, that would be generated by the ER Program:

a) up to December 31, 2025 (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.

Forest plantations compensating planned deforestation

The Cameroonian forest code stipulates that 50-70% of planned deforestation, for example due to installation of infrastructures is to be compensated through compensation plantings with native tree species in the same administrative region. The planned deforestation related to the construction of the Kribi-Mballam railway in the ER program area would result in reforestation plantations of ca. 1,700ha. Okoume (Aucoumea klauneana) has been identified as the most adequate tree species due to its features as pioneer species (supporting direct sun and performing rapid growth in early age classes) and its wood is an appreciated good on the local market which will facilitate acceptance by local populations given that restricted access to this resource will be granted after the ER period. Some key characteristics of the compensation plantations are presented in Table 22. ER's from compensation plantings are calculated as

$$ER_{CompPlant} = A_{refor} * (Vtree_t \, x \, N_{\frac{tree}{ha}} \, x \, D_{wood} x Conv_{C-CO2})$$

Where

$ER_{CompPlant}$ are the calculated removals linked to compensation plantings (tCO2e)

A_{refor} is the area to be reforested (ha), i.e. 60% of the area to be deforested for the Kribi-Mballam railway, corresponding to 1705 ha

$Vtree_t$ is the volume per tree (m3) growing over time

$N_{\frac{tree}{ha}}$ is the number of trees planted per ha, i.e. 325 trees/ha constant over the ER project period

D_{wood} is the specific wood density of *A. klauneana, i.e. 47% of* $Vtree_t \, x \, N_{\frac{tree}{ha}}$

$Conv_{C-CO2}$ *the C to CO2 conversion factor, i.e. 3.67*

The calculation assumes that Okoume plantations will be established in mid-2018 and will not be used in a 10 years period.

Table 22: Description of the main parameters used to calculate the ER potential from compensation plantings.

Description	Number (Unit)	Source	Remark
Area to restore	1,705.24 ha	GIS calculation	Assuming 60% of the deforested areas to be restored
Specific wood density	.47 ton/m3 de	Gautam & Pietsch (2012)[22], tab 2	
Carbon content	48% of absolute dry wood	Gautam & Pietsch (2012), tab 3	
Number of trees planted	325	Fuhr et al. (2001), tab 1	No thinning or mortality during the ER period

The ER offered through compensation plantings amounts to 22,824.56 tCO2eq in a 6.5 years period and 89,752.80 tCO2eq over a 10 years period. This is a very conservative estimate since only stem wood is considered; BGB and carbon stored in other non-merchantable wood compartments are not considered.

Promotion of certification in forest concessions

The ER's generated from this ER activity are based on the assumption that 100% of logging concessions will be certified by 2020 and henceforth RIL will be practiced in these. RIL will not reduce the wood volume extracted but rather reduce the emissions related to damages occurring in the remaining forest stand (Section 12.1). This measure is expected to lead to ER's of 884,509.02 tCO2eq in the 10 years period, where ER's will only start to be generated in 2020 to account for the dissemination of improved logging practices in the two years after project start.

Increase of agricultural yields

The effects of improved agricultural yields have been tested using the land use model GLOBIOM-CMR. Different from the FRL scenario where yields were assumed to be at the same level as in 2000 over the entire ER period, in the YIELD+ scenario a crop-specific yield improvement rate was implemented (Table 23). It is important to note that these changes have been implemented in all Congo Basin countries at the same time, leading to an effect where the exports of agricultural products to neighboring countries decreases and therefore agricultural activity in Cameroon decreases compared to the FRL scenario. It should also be noted that the model does not represent the labor market and does not represent labor as a potentially limiting factor to agricultural expansion.

[22] Gautam, S., & Pietsch, S. A. (2012). Carbon pools of an intact forest in Gabon. African Journal of Ecology, 50(4), 414–427. doi:10.1111/j.1365-2028.2012.01337.x

Table 23: Crop-specific yield improvements in the YIELD+ scenario

Crops	Improvement over the period 2001-2030
Cassava	26%
Maize	41%
Groundnut	34%
Oil palm fruit	12%
Sugarcane	65%
Sweet potato	8%

The improvement in crop yields leads to a reduction of deforestation by 53% in the ER-Program area between 2010 and 2020 and by 44% between 2020 and 2030. The total avoided deforestation due to agriculture over 2011-2030 is 188 000 hectares. Reported to the period May 2018- May 2028, it leads to a reduction of deforestation of 108 000 hectares and a reduction of emission of 78 MtCO2 (Table 24).

The ER's specific per activity and per reference period are presented in Table 24 and technically elaborated in the paragraphs below.

Table 24: Presentation of ER's proposed per activity and the relevant reference periods

	Value	Unit	% by activity
a) ER from May 30th 2018 to December 31st 2025 (7.5 years)	**56,342,915.74**	tCO2e	100%
Plantations for compensation	36,117.38	tCO2e	0%
Certification of forest concessions (FMU)	663,381.77	tCO2e	1%
Increase crop productivity by hectare	55,643,416.60	tCO2e	99%
b) ER from May 30th 2018 to May 30th 2028 (10 years)	**78,739,690.88**	tCO2e	**% by activity**
Plantations for compensation	89,752.80	tCO2e	0%
Certification of forest concessions (FMU)	884,509.02	tCO2e	1%
Increase crop productivity by hectare	77,765,429.05	tCO2e	99%

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.

Based on the conservative estimates presented in Table 24 above, the country intends to propose approximately 30% of the total emission reduction in 10 years to the Carbon Fund. The country plans to contact other carbon financiers and buyers during the elaboration of the program.

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)[23]

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.

Prime ministerial decree number 2013/0171/PM of 14 February 2013 has fixed the modalities for the development, approval and scope of SESA. A SESA study has been commissioned by the REDD+ TS and is currently underway. Prior to the commencement of the study the REDD+ Technical Secretariat drafted a methodological framework for elaboration of SESA and ESMF, which articulates around eight steps:

- The scope of application has to do with an analysis from the stakeholders with particular emphasis on representation of indigenous peoples and the community. Preliminary work on analyzing perspectives for the application of the SESA shows the deficit of national environmental norms;
- Consolidation and validation of the SESA work plan and budget by all stakeholders;
- A participatory approach to identify key social and environmental issues and the corresponding data and information required to address them. The priority given to environmental and social concerns will be carried out using several analytical tools.
- Priority given to the environmental and social issues though consultations with stakeholders;
- Evaluation of REDD+ strategic options in order to present their socio-environmental impacts;
- Validation of REDD+ strategic options with stakeholders;
- The development of the Environmental and Social Management Framework to monitor and solve pending problems and risks during the implementation of the REDD+ strategy;
- Roadmap and estimated budget of the ESMF.

The elaboration of SESA and development of EMSF will follow these steps. Preliminary consultations with stakeholder, indigenous people and local communities in the ER-Program area regarding the social and environmental impacts of the proposed ER-Program interventions have been carried out. SESA will identify the social and environmental risks as well as mitigation actions during the implementation phase of the ER Program. Then, there will be the collection, analysis and dissemination of primary data, including mapping of social, economic and environmental issues pertaining to the drivers of deforestation and degradation in the ER program area. SESA will be complemented by an Environmental and Social Management Framework (ESMF), which establishes the principles, guidelines and procedures for reducing, mitigating and/or offsetting potential environmental and social impacts associated with the implementation of the ER program.

The SESA Unit of the REDD+ TS will support the ER Program Task Force and the Regional and Divisional Technical Committees in coordinating activities related to risk assessment and mitigation measures for all ER Program activities, minimizing or eliminating potential environmental and social impacts, particularly on vulnerable groups.

[23] 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.

The national REDD+ institutions work in close collaboration with women's organizations, IP organizations, civil society and other key stakeholders, to mainstream gender and IP's considerations into Cameroon's REDD+ process. This is approach is considered in the scope of the ER Program.

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?

The proposed ER program will integrate the outputs and outcomes of the SESA process particularly on risk mitigation measures that are relevant for the specific ER program context. According to agreed guidance in the Carbon Fund Methodological Framework, ER Program design and implementation will comply with applicable World Bank safeguard policies and procedures, promote and support safeguards included in the UNFCCC Cancun decisions. Safeguards plans will be prepared during the design phase, including appropriate monitoring arrangements.

Cameroon has adopted a multi-stakeholder approach in its REDD+ process and seeks to ensure the participation of local communities, indigenous peoples and other relevant stakeholders in all phases of the REDD+ process. The inclusive and participatory nature of the REDD+ process in Cameroon will be especially important for the SESA and ESMF development. The potential safeguard issues requiring more attention during the SESA and potentially addressed through the future ESMF include the following:

- Benefits sharing implication for the lack of secure (i.e. officially registered) land tenure for local population, especially relevant for REDD+ activities conducted on communal land;
- Potential conflicts amongst crop cultivators and livestock herders regarding land use matters, especially regarding potential resettlement or sedentarization;
- Equity trade-offs when identifying which drivers to address based on relative contributions to net ERs, i.e. supporting agroindustry companies versus dispersed smallholder farmers operating informally;
- Access and rights to land ownership for women and Indigenous people following customary rules;
- What is the relationship and level of trust between communities and the government?
- How to ensure effective participation of forest-dependent communities through equitable and attributable REDD+ compensations?
- What are the impacts of the implementation of pilot projects by the private sector on the well-being of communities dependent on natural and forest resources?
- How to avoid leakage to other countries?
- How to avoid overburdening communities with consultations?
- How to make sure that the grassroots communities, including indigenous people are the true beneficiaries of the REDD+ mechanism, by avoiding monopolies of benefits by local elite?
- How to equitably share benefits among project/program implementation zones and the rest of national territories?
- How to ensure grievances are addressed in a timely and professional manner?
- What is the role of traditional and administrative local authorities in the benefit-sharing process?

In 2014, Cameroon validated the national guidelines for Free, Prior, Informed Consent (FPIC). These guidelines are meant to ensure the full and effective engagement of indigenous people and local communities in the design and implementation of REDD+. These guidelines were developed based on decades of experience in engaging specific IP groups in Cameroon, including for example the MAPAPPY - *"Méthodologie d'Approche Participative des Populations Pygmées"* (Participatory approach to the Pygmy population), a Participatory Rural Appraisal tool developed specifically for indigenous forest communities of Cameroon.

In the development and implementation of the program, socio -economic and environmental diagnosis will be carried out to know the state of the elements on which the program is likely to have an impact. Based on this diagnosis, the principles, criteria and indicators for measuring the impacts will be identified and tested during the implementation of the program. This system will thus supply the ESMF and the results used in the construction of this ESMF.

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 process of elaborating a feedback and grievance redress mechanism for REDD+ is ongoing. Preliminary reflections have been carried out by the REDD+ Technical Secretariat and experts from various institutions dealing with the subject. The FGRM for the ER Program will be developed in conformity with the guidelines in the R-PP and build on existing conflict redress mechanisms. It will take into consideration the potential conflicts between sectorial ministries and different actors (local communities, indigenous people, private sector) for the utilization of land, management of REDD+ funds and other benefits. Instances for the management of potential conflicts will be put in place at the level of the departmental technical committees. The mechanism to channel information to the central level will be done following an adopted communication plan. Bearing in mind that the supreme instance to address conflict remains the Ministry of Justice, the commissioned study on elaborating the FGRM will clearly identify the adequate level, arrangement, structure, functioning and steps to be taken to set up effective and efficient FGR organs.

Potential causes of conflict in the ER Program area

According to the Draft 1 of the National REDD+ Strategy governance, socio-economic issues, communication, procedures and monitoring mechanisms are the principal causes of conflict in the management and utilization of natural resources. Table 25 presents a characterization of potential conflicts linked with the utilization of natural resources liable to occur in the ER Program area.

Table 25: characterization of potential conflicts

Domain	Principal causes of conflicts	Types of conflicts	Consequences of conflicts		
			Immediate (1)	Short term (2)	Long term (3)
Governance	- Institutional positioning - Institutional instability - Land insecurity - Decentralisation without transfer of resources ; - Lack of transparency - Weak application of law and regulation	- Overlapping of rules - Insufficient communication - Insufficient collaboration between sectors - Inter-sectoral conflicts - Conflict of competence between local and national level - Conflict of interest between the parties - Institutional instability	- Delay and indecision in the execution of the actions(1) o Lack of membership and involvement of parties o Mistrust between parties - Duplication with respect to allocation of resources (2) o Withdrawal of the parties - Inefficiency (3) o Non sustainable resource management o Investor mistrust		
Economic Environment	- Management of financial benefits - Lack of incentives - Profit perception	- Conflict of interest - Competition between actors - Macroeconomic instability	- Lack of membership (1) o Investors mistrust - Negative impact on development (3) o Poverty o Non sustainable management of resources		
Socio-cultural context	- Insufficient information and training - Insufficient involvement of vulnerable people - Decrease of resources (land, water etc.) - Low respect of culture	-incomprehension -conflict of interest - discredit of process - Conflict between communities and between families	- Sense of not belonging (1) o Disenfranchisement o Marginalization o Separation		

Feedback and Grievance Redress Mechanism for the ER-Program

Pending the finalization of the FGRM study, preliminary analysis of existing conflict and redress mechanisms in the ER-Program area has revealed two kinds of systems: statutory and traditional systems. The existing statutory mechanism for managing conflicts in land and forestry sectors is codified and documented with rules, and have a plan of action at the national level. It has an evolutionary character with the possibility of making an appeal after judgement. This mechanism does not entirely take into consideration socio-cultural realities and is most often unknown to the local actors. It is characterized by bureaucratic bottle-necks and vulnerable to socio-political problems. The traditional mechanism on the other hand is generally accepted by the local actors as it is rooted in their cultures and easy to implement. It has a reconciliatory and peace seeking character. Nonetheless, they have a static character in certain aspects with a code applicable within a reduced geographic scope. Judgement is sometimes partial and there is lack of an archiving system.

Besides these two mechanisms, a third alternative which is a synthesis of both is proposed by the FAO. It aims to resolve conflicts using a method based on common interest and by searching points of convergence. It recommends an analysis of the context, strengthening the capacity of local actors, dialogue between conflicting parties, and advocacy at competent authorities. The methods used are negotiation, mediation and reconciliation. The FGRM will thus build on this mechanism. Key elements that will be taken into consideration include: the legality and legitimacy of mechanisms, strengthening the capacity of local actors, the participatory and inclusive character in decision making, identification of appropriate and coherent sub-mechanisms at every intervention level (international, national, regional, and local), and the guarantee of justice and maintenance of social cohesion etc.

To ensure the effective consideration of these parameters, consultations will be carried out at varying levels with all the stakeholders in the ER Program area.

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.

In line with land use planning, improving tenure security will be an important component of the ER Program, as this is a fundamental enabling environment condition for investments in sustainable land and forest management. The land tenure system currently operating in Cameroon is classified under two categories:

a) Land tenure based on customary or traditional rules, which varies significantly and can be dynamic based on leadership changes at the local level. This system is most often not codified but based on informal local systems with basic verbal agreements;

b) Land tenure based on written rules, codified and part of the legal system of the state administration. The Ministry of State Property and Land Tenure (MINDCAF) produces land titles. These rules are being implemented by the administration of the State and are part of the State's legal system.

The current land tenure system also has its origins in colonial land policies, which were largely based on land acquisition from the natives. All land which was not effectively occupied (fallow land, hunting ground or community reserves) by the natives were considered *terra nullius* and assimilated by colonial powers. Current land legislations reinforce centralized state land ownership.

Tenure security, or land under permanent land rights, can structure incentives for sustaining responsible land use of rural dwellers while reducing deforestation. Whether tenure security results from formal or informal arrangements may be less important than the permanence of land rights. The government of Cameroon supports implementation of a more modernized system of property rights (i.e., with surveys of GPS coordinates supporting registration processes), but the implementation of this policy is slow.[24] Most smallholders lack secure rights to land and this insecurity constrains their ability to invest, produce and prosper.

It is expected that the planned institutional and legal framework review within the framework of REDD+ will consider issues related to land and resources rights. The Terms of reference for this review have been elaborated and the recruitment process of the consultant is on-going. Questions regarding land tenure and land use will also be addressed by the SESA and considered within the ER-Program. Some of these questions shall include:

- The potential conflicts between farmers and livestock farmers regarding land use matters;
- The actual anthropogenic pressures related to land use on forests and natural resources;
- The role of large agricultural exploitation with regards to REDD+;

[24] Decree n°2005/481 of 16 December 2005 call for the transcription of all land titles.

- Access and rights to land ownership for women and Indigenous people following customary rules.

Several governmental and non-governmental initiatives related to land and resources rights for local communities, women and indigenous peoples are ongoing. These initiatives are geared towards contributing to the current land tenure revision process with emphasis on the rights to land ownership and access by local communities, IPs and women.

Although it is not expected that any significant change in the national land law will be passed through this ER program, it will provide a real opportunity to assess the details of the implementation of the existing process, with respect to REDD+, to ensure that the process is robust and fair. The program will improve and strengthen the traditional ownership and management of forests through participatory land use mapping, but will also encourage the use of modern land use systems to ensure transfer of land ownership from state to communities for the implementation of the ER-Program activities such as intensive agriculture and re/afforestation by households. It must be noted that unlike the difficulties experienced by women and indigenous peoples in land ownership and access with the customary land tenure law in Cameroon, the modern land tenure system gives the opportunity for all communities including women and indigenous people to own portions of land for settlement, agriculture, livestock or other activities.

However, a practice which can be encouraged is that in which the government (who is the principal owner of land according to the Cameroon regulation) can provide a land title to any individual for the implementation of specific activities. This is a measure that will be explored in the ER-Program. The government through this program could purchase land and offer/rent out land titles or periodic ownership documents to local communities of the project area to carry out project activities within predefined time frame. Other mechanisms for tenure rights include the establishment of community (see infobox in section 5.3) or council forests.

As part of this emission reduction initiative, it will be important to analyze how policies and regulatory frameworks address land tenure and how it positively or negatively affects the involvement of local communities and REDD+ benefits for these communities. The analysis should lead to concrete proposals for action to facilitate access to and ownership of community lands by communities; this will constitute a significant advancement compared to the current practice in which communities of community forests are really just simple users to whom a lease has been granted for a fixed period.

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.

In Cameroon, there is an institutionalization of mechanisms for benefit sharing in the forestry, mining and land sectors. For these sectors, there is a determination of top-down allocation keys. These sectors have mechanisms of management and evaluation of funds. The ongoing decentralization process, which transfers a number of skills and resources to municipalities and communities, could be a palliative to the shortcomings of the current mechanisms.

In the ER-PIN area, three quarters of the rural population practice customary regime of governance and management of land and forests (RRI, 2013). The land and forest management systems used are the council forests, community forests, forest reserves, protected areas, agro-industries and developmental projects.

For the ER program, the benefit sharing mechanism will be based on two pillars: namely customary rights and statutory rights. The mechanism would be based on the following guidelines:

- The supervision of the elements relating to the management of carbon credits by the state;
- The codification and documentation for the mechanism is well-established;
- The institutionalization of the mechanism and the establishment of mechanisms of distribution for regional and local level;
- Codification and determining the grid distribution of benefits with the participation of all stakeholders;
- The distribution key should take into account the participation and contribution of stakeholders and specifically women;
- Determining the mechanism for monitoring and accountability;
- Identification of all beneficiaries of REDD + with emphasis on local communities taking into account their subcategories;
- Consideration in the mechanism on strengthening the capacity of actors;
- The use of funds will be based on local development plans;
- Compensation based on efforts will be equal and fair.

An inventory of benefit -sharing mechanisms was carried out and it shows the strengths and weaknesses of existing mechanisms. Based on this inventory the REDD /ST proposed orientations for a benefit-sharing mechanism for REDD+.

The basic elements of this mechanism are:

- The establishment of a REDD+ fund lodged in the Ministry of Finance;
- A fair and equitable redistribution system of sharing funds between the Government and other stakeholders (REDD+ project developers, local communities, municipalities, etc.);
- The signing of a joint text between the Ministry of Finance and the Ministry of Environment that gives the modalities for REDD+ revenue, and inspired by the text on the distribution of forestry royalties.

The imminent benefit sharing study will provide further details on the operational elements of the proposed benefit sharing mechanisms based on the orientations and the strengths and weaknesses of the

previous mechanism on the distribution of forestry royalties. The ER program will provide an opportunity to test the proposed mechanism in the field.

Land and forest tenure right

In Cameroon, customary law recognizes the ownership of land and forest resources for local communities. The state ownership of land and forests is established by the law. The institutional arrangement for recognizing land tenure rights and registration is done individually.

Customary rights (land and resources) are considered as property rights, with the particularity that it is a collective property. Members of each community with respect to customary norms have access to the use of land and resources. According to this instrument women are the most marginalized in access to land because the Cameroonian society is predominantly patriarchal.

According to statutory land rights, local communities do not have the right to property on land and forest resources. However, the 1994 Forestry Law calls for co-management through the development of community forestry and community conservation, zoning, access to benefits and compensation, rights to the formulation of claims in the proceedings of classification of a forest and compensation in case of extinction of community rights.

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 mechanisms are critical to the ER Program's success as this will incentivize changes in land use, forest and tree management. However, at this stage, it is too early to clearly define the benefits that are to be shared, as these will go beyond payments for ERs. With regards to potential issues or constraints, stronger recognition of land tenure claims or reforms to tree or carbon tenure will be important in enhancing security to natural resources and claims to subsequent benefits. It is also very clear that benefits will need to be shared in a manner which rewards those whose activities that contribute to emission reductions. Thus, attribution and how to reward individuals, households or communities whose efforts result in ERs on communal lands may also be a matter that deserves further attention.

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.

Pending the finalization of the national benefit sharing mechanism, consultations have been carried out with technical partners (WWF, GTZ, IUCN, Transparency International), sectoral Ministries (Agriculture and Rural Development; Economy and Regional Planning; Forestry and Wildlife; Territorial Administration and Decentralization; Mines, Industry and Technological Development; Fisheries and Animal Industry; National Program on Participatory Development; National Forestry Office); civil society and indigenous people organizations (REDD+ and Climate Change Platform, RFC, NCACT, REFACOF, AIWOCAN, REPAIR, Cabinet MINADEV). This allowed preliminary identification of REDD+ benefits, analysis of existing mechanisms for benefit sharing, and key issues that the benefit sharing mechanism should consider.

The potential benefits and beneficiaries of REDD+

The outcome of the participatory analysis of the potential benefits and beneficiaries are summarized in Table 26.

Table 26: Potential REDD+ benefits and corresponding beneficiaries

Domain of actions	Potential benefit/compensation of REDD+	actors concerned/beneficiaries
Forest reserves and protected areas	- Contribution to the national economy by paying for sequestration; - Reinforcement of capacity of riparian communities; - Development of income generating activities; - Transfer of technologies to communities; - Structuring of the surrounding communities; - Payment for Environmental Services	State, municipalities, local communities, CSOs.
Other permanent forest estate (forest concessions, community forests, private plantations)	- Transfer of technologies (processing, NTFPs and AGR); - Payment for emission reductions; - Structuring of the surrounding communities; - Contribution to the national economy; - Development of income generating activities; - Transfer of technologies to communities; - Acquisition of good farming practices.	State, municipalities, riparian communities, technical and financial partners, CSOs and the private sector.
Non-permanent forest domain: community forests	- Payment for emission reductions; - Technology transfer; - Capacity building; - Ownership by communities of REDD +;	State, municipalities, concessionaire, forest local communities, technical and financial partners, CSOs and the private sector.

Domain of actions	Potential benefit/compensation of REDD+	actors concerned/beneficiaries
	- Improved socio-economic conditions of the population.	
Other non-permanent forest estate	- Technology transfer; - Capacity building; - Improvement of conditions; socioeconomic individuals.	State, municipalities, forest local communities, CSOs and the private sector
Mining and development of infrastructure (roads, dams etc.)	- Improvement of socioeconomic condition of the population; - Redistribution of mining benefits	State, municipalities, neighboring communities, concessionaires, technical and financial partners, CSOs and the private sector.

Analysis of formal mechanisms of benefits sharing in the management of natural resources

Different management systems identified in the forest, land, mining and energy sectors are: the operation manuals, implementation guidelines by the company, the retrocession of taxes through decentralized local authorities, local development funds, national support funds and social projects. Most of them are part governed by rules, applied at national level and have a distribution key (exception of energy in the mining sector). In forestry, forest management is institutionalized and has a system of management, monitoring and evaluation of funds. The funds are used in accordance with guidelines elaborated in the development plans.

The limit observed for sectors are: the distribution key takes place in a "top-down" process; Conflicts between sectoral administrations for the management of natural resources; the absence of municipal and local communities in the implementation of certain advisory committees; the limited power of local actors in resource management processes, insufficient implementation of the institutional framework and regulatory and non-existence of the various strategy documents in Cameroon. Other limitations noted in the forestry sector include: inadequate accountability at the municipal level, inadequate sectoral coordination, inadequate community empowerment and account management capacity, and insufficient access to key documentation.

The above limitations can be reduced by certain aspects of the actual context. It concerns discussions, capitalization of experiences of other countries, the decentralization seen here as a joint accountability factor for the municipalities and communities (transfer of skills and resources). The principles of social and environmental safeguards, the presence of technical and financial partners to help municipalities build capacity, the reforms of the legal and regulatory framework of strategies and policies on Social Responsibility of Private Companies (SRC) whose legislation is being prepared at MINEPAT are also favorable factors.

Experiences from informal benefit sharing mechanisms and recommendations

The experiences from the implementation of informal mechanisms by some partners (IUCN, EDC etc.) at the local and / or regional level, have proposed few recommendations to improve formal mechanisms. They are:

- Review the unequal distribution of income in sector and taxes paid back to communities;
- Create separate community municipal accounts and establish accountability mechanisms;
- Ensure that the allocated funds are used effectively for social achievements;
- Accompany and train communities to manage funds;
- Establish a systems against-power, devices of positive and negative sanctions;
- Consideration of disadvantaged social groups.

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.

Non carbon benefits, which are also known as collateral benefits, are all benefits, in addition to increases in carbon stocks, resulting from the implementation of REDD+ activities, such as poverty reduction, conservation of biodiversity, and improvements in forest governance. The activities to be carried out under this Emission Reductions Initiative are expected to generate a series of non-carbon benefits, these benefits achieved at the local level are core elements of a sustainable REDD+ program, and the proposed program will model this principle.

In fact, the long-term success of the program rests upon its ability to catalyze economic, ecological, and socio-political benefits on a scale equal to that of the carbon benefits.

The implementation of the ER Program will be contributing to sustainable development in broader terms. It will strongly emphasize poverty reduction, employment creation and governance and community participation in forest management and biodiversity conservation. These non-carbon benefits priorities will be discussed with and validated by the relevant stakeholders for each of the ER Program elements during its elaboration along with methodologies to monitor these benefits.

The main co-benefits as priority Non-Carbon Benefits are described in the following paragraphs and summarized in Table 27 below:

A. Enhancement of low carbon impact development

In addition to reducing emissions of greenhouse gases and increasing carbon sequestration, the ER-program position as a program of support to development incorporating sustainable management of biodiversity.

B. Improved governance, institutional setup and policies for participative natural resource management at local to national levels

One of the most fundamental and long-term benefits of the proposed program will be to increase and strengthen collaborative forest management models.

There will be extensive capacity building, including for women, IPs and economically disadvantaged groups, to improve and facilitate more equitable participation and to equitably distribute the benefits of improved management.

C. Enhancement of local livelihoods

Low-carbon forestry and agricultural and livestock production is expected to enhance the quality of natural resource management.

D. Increase in the value of biodiversity:

Conservation activities will be developed to take into account biodiversity conservation as a part of the ER Program, building on existing conservation programs.

By reducing forest loss broadly, improving forest monitoring and enforcement, and demonstrating community-level benefits associated with increasing the value of forests, the ER program will help to develop a more sustainable landscape that supports its globally unique wildlife and continues to attract ecotourism to the area.

E. Better ecosystems services to people and environment:

F. More resilient ecosystems for climate change adaptation:

Agricultural techniques are expected to become more sustainable and the nutritional value of harvests is expected to improve. Ultimately, these activities are estimated to have the long-term impacts of improved food security and resilience for communities. Research in the southern rainforest of Cameroon has shown that relating adaptation and mitigation in the forest sector as proposed by this Program can provide socio-economic benefits, biodiversity conservation, and other environmental benefits.[25]

G. Contributions to MEAs:

Implementing REDD+ activities and the ER program will also contribute towards meeting the objectives and targets of many international conventions and agreements such as CBD, Ramsar, CITES.

Table 27: Summary of the non-carbon benefits

Sector	Emission Reduction generating activity	Non carbon benefit
Agriculture	Intensification through mixed cultures and promotion of improved varieties	Improve the income of local producers and food security
	Improving the production of cash crops (cocoa, rubber, coffee, oil palm, fruit, moringa)	Adaptation, diversification and increase of local revenues
	Improvement of agroforestry (legumes, Promoting the use of bio-fertilizers based mychorisienne) Introduction of commercial species (andok, djansan, Moabi)	Improved soil fertility and climate change adaptation Support local development;
Forestry	Forest protection	Conservation of biodiversity, improving resilience to climate change
	Sustainable forest management	Conservation of biodiversity and social acceptance
	Creation of forest plantations and enrichment in fallows and abandoned fields	Increase the resilience and diversification of sources of income Enhancing cultural value of forests (pharmacopoeia, traditional knowledge, sacredness) Soil stabilization Reduction vis-a-vis dependence forest
	Support the production, preservation and processing of NTFPs	food security and increase local revenues Strengthening local community organizations
	Promotion of micro forestry and recycling of waste	Better access to energy wood (urban center)
Mines	Professionalisation of artisanal miners Monitoring the implementation of the rehabilitation of industrial and artisanal mining sites	Securing jobs for miners (artisanal) Restoring other forest ecosystem services
Infrastructure development	Application / Usage and low carbon technology	Job creation
	Support compensation programs	Restoring other forest ecosystem services
	Creation / development of urban woodland	Promoting recreational activities in urban areas

[25] Eugene Loh Chia, Olufunso A. Somorin, Denis J. Sonwa, Youssoufa M. Bele & M.A. Tiani (2015): Forest–climate nexus: linking adaptation and mitigation in Cameroon's climate policy process, Climate and Development, 7, 85-96.

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 proposed ER program in Cameroon will provide substantial learning value for the FCPF, donor and other countries that seek to develop ER programs in the context of REDD+.

- Cameroon's ER-Program will provide important lessons learned on how to structure, develop and implement a multi-sectoral approach to achieve significant emission reductions while also promoting and generating substantial co-benefits. The multi-institutional, programmatic REDD+ approach is well aligned with the country's agenda for sustainable development while not neglecting the primary objective of successfully reducing degradation and deforestation. As many countries have similar priorities, the emphasis on aligning development actions with appropriate and incentivized program activities will be valuable to donor and other Carbon Fund countries, as well as those still in the early readiness phase. With Cameroon's vision of REDD+ as a sustainable development tool, the ER Program explores a broad range of REDD+ emission reduction measures to tackle not just emission reductions, but more importantly to promote long-term sustainability within the agricultural, timber and even the mining and energy sectors. Cameroon's ER-Program proposes an option to reduce emissions while simultaneously enhancing community livelihoods by improving the link between state-of-the-art research (i.e. from CARN and IITA) with practice (i.e. smallholder farmer cooperatives and extensive service providers such as MINADER).

- Cameroon's ER Program provides many opportunities for partnerships between the public authorities and different private sector actors in order to deal with climate change issues in a way that promotes the growth of the country, both economically and socially. Lessons from effective partnerships are valuable, not only for FCPF countries but also for other developing and donor countries which actively promote networked forms of (informal) governance as complementary approaches to changing business-as-usual practices.

- In this context, the joint management plan for natural resources and physical space (forests, fauna, mine), which already exists in some parts of the program area, provides a collaborative management experience with all stakeholders which will be an example of concrete action to ensure multi-stakeholder involvement. The ER program area of intervention covers a protected area (with extremely rich biodiversity with endemic and flagship species including the African Elephant (*Loxodonta africana*), Gorillas (*Gorilla gorilla),* chimpanzee *(Pan troglodytes)* respectively vulnerable, critically endangered and endangered according to IUCN's red list of threatened species) of national and international status and two transboundary landscapes. The implementation of this program represents a unique opportunity to showcase emission reduction success in and around protected areas and transboundary landscapes. Handling transboundary leakages in the ER program through landscape approach would be a unique approach provided by the ER program.

- Finally, the REDD Systems provides an innovative technological framework for REDD+ program operators or jurisdictions that utilizes high spatial and temporal satellite imagery. These systems allow for real time feedback that mitigates the risk of non-performance, enables adaptive management, and informs carbon credit supply requirements and financial decision-making. REDD

Systems is a flexible platform that can be tailored to the programmatic details (e.g. forest definition) of a given national or sub-national REDD+ program. As the Cameroon National REDD+ Program progresses through Phase I of its implementation plan for the SNSCF, the updated definitions and scope can be included within the REDD Systems platform to maintain conformity with the UNFCCC and MF definitions and standards. REDD Systems offers management solutions that utilize high resolution daily imagery, including a Live Warning System and Action Tracking System. The Live Warning System predicts and maps incipient land use change from satellite imagery that is analyzed daily allowing immediate detection of deforestation and degradation events. Subscribers can then be notified by a web interface and SMS alerts to drive on-the-ground action and efficient allocation of resources. The Action Tracking System is coupled with the Live Warning System and documents interventions made to prevent deforestation and degradation. This platform transparently catalogs documented actions over time that clearly demonstrates emission reductions and adds value to transacted credits.

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).

Registries for national carbon accounting and associated transactions constitute a crucial part of the infrastructure needed for realizing and consolidating REDD+ in Cameroon. Cameroon has not yet constructed a registry, but consultations have been made with technical experts and a workshop was set up to come out with a strategy on how the registry will be designed and how it will function. Following the consultation, the register that will be prepared in the context of the MRV will be a national registry, and will be used to:

- Enable efficient and equitable development of REDD+ projects through a transparent process;
- Develop regulations and procedures to guide the development of REDD+ projects;
- Ensure that all projects meet national standards and fit into international frameworks;
- Facilitate integrated accounting and reporting of GHG emissions and removals;
- Provide a transparent platform for the public to access information about all REDD+ projects;
- Monitor the carbon transactions in the country;
- Ensure clarity around the nature and ownership of REDD+ assets to efficiently and confidently enable the transaction of performance payments;
- Promote credibility, and ensure legality (prevent money laundering and other illegal activities);
- Promote environmental integrity (avoid double-counting, manage leakages and REL setting, etc.);
- Ensure respect for social and environmental standards and safeguards;
- Ensure a contribution to the national readiness process (information sharing and capacity building)

A “Procedural Manual for Compliance with National REDD+ Accreditation” which will effectively spell out the criteria and process for engaging in REDD+ and the associated role of the registry will be drafted by the REDD+ Technical Secretariat. It is envisaged that the national registry will be in place prior to the beginning of the ER Program. The registry will guide the implementation of the ER Program –forms and templates will

be elaborated to facilitate tracking of the ER Program compliance with national and international standards, and assess progress.

Open source technology will be used to build the registry platform. The web-based system will enable an iterative process between the body managing the registry, and all ER Program proponents: donors, investors, local communities, technical and research partners, civil society and indigenous communities. This will ensure transparency and enhance confidence among all the stakeholders of the ER Program.

Existing Initiatives in the ER Program area

The government of Cameroon has outlined modalities on what is considered a REDD+ pilot project. Based on these modalities there are currently no REDD+ pilots (besides those to be launched by the PNDP). Nonetheless, there are lots of ongoing initiatives in the ER Program area that are complementary to the objectives of the ER Program. Pending the development of the national REDD+ registry, synergies and coordination will be assured through the REDD+ TS, responsible for centralizing and coordinating all activities related to REDD+. This will avoid any eventual double accounting of emissions. A characterization of some of these initiatives is presented in the Table 28.

Table 28: Existing REDD initiatives within the ER Program area

REDD+ initiative	Characterization	Project proponent	Location	Outcome/achievement
Support for Multi-stakeholder participation in the REDD + process in Cameroon	carbon stock estimation and avoided emissions	IUCN	Otong-Mbong in Djoum Division (Dja et Lobo)	• Estimation of total value of carbon stock and avoided emissions in defined plots
Biogas project	Transform animal waste to Butane	NGO	Nyong et Soo	• Reduce pressure wood fuel
Participatory Mapping project	Land use mapping and benefit sharing	MINEPAT	Mvila	• land use planning
Afforestation and reforestation within the decentralization framework (Reboisement du bois communal dans le périmètre urbain d'Ebolowa 125 ha et 47.5ha Ebolowa 1er)	A/R Green City Operation	MINFOF MINEPDED MINATD	Councils that have benefited from funding : Ebolowa urban council, Ebolowa 1, Fifinda	• Improve forest cover
B-Adapt	Creation of Moringa Model Forest	African Model Forest Network	Kribi	• Plantation created
Coeur Vert Avenir ROSE	Reforestation	REPAR	Kye Ossi, Meyomessala, Sangmelima	• Improvement of well-being in urban areas
Coast project	Reduce pressure on coastal ecosystem through reforestation (*Terminalia catapa* and coconut tree)	MINEPDED MINTOUR	Kribi	• Tree plantation
Mangrove Project	Construction of improved cookstoves	MINEPDED	Londji and Kribi 1	• Reduce pressure wood fuel
Cocoa Agroforestry Project	Agroforestry	SODECAO	Mvila	• Cocoa Agroforestry Plantation is being created
Community Forest Project of Nomedjoh	Agroforestry and carbon Storage in PLAN VIVO initiatives	Centre pour l'Environnement et le Développement (CED)-	Lomié	• Microzoning of Community Forests, Agroforestry Development (Association of fruit trees based on cocoa- agroforestry), Apiculture, valorization and sustainable use of NTFPs, Monitoring of illegal logging, fertilization legumes, etc.) , setting up a monitoring system and monitoring carbon stocks (dendrometric monitoring) • Payments for Environmental Services in the Community Forest of Nomedjoh
Ngoyla-Mintom forest Project	Agroforestry	WWF	04 Villages (Messok-Messok, Zoulabot I, Etékessang, Lelene	• Cocoa Agroforestry Plantation to be created in community forest

				• Payments for Environmental Services in rural Communities
Green agriculture for climate change adaptation (B-ADAPT)	Improve yields and farming practices through the introduction of bio-fertilizers based on Mycorrhiza and Rhysobium	African Model Forest Network, Canadian Cooperation, Dja and Mpomo (FOMOD) Model Forests et CAMPO MA'AN (CAMAFM) Model Forest, MINADER, MINEPAT	Mpomo and CAMPO MA'AN	• 1948 small farmers trained in agro-ecological practices in the South and East using integral biofertilizers (59% women, 9% Baka and Bagyeli); • 1 753 small producers (90%) have adopted the use of biofertilizers on 268 ha under cultivation of plantain, cassava, maize, cocoyam, peanuts, okra, leafy vegetables, Cajanus chilli intercropping.
Implementation of an Offset for CAM IRON CO_2 emissions compensation	Renting of FMU 10034 adjacent to a mining permit in Conservation Interzone of Ngoyla-Mintom	CAM IRON	FMU 10034 of Ngoyla-Mintom	• FMU 10 034 surface area 163950 Ha already converted in Animal Reserve of Ngoyla (total area of 156672 Ha) • $100 000 allocated to forest management by CAMIRON to MINFOF • CO_2 : 200 million tons stored, comparatively to 17 million tons of emissions during mining exploitation • forest resources for Baka people

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
AFD	Agence Française de Développement
AFEDYRES	Association des femmes dynamiques et responsables de Ngoyla
ASTER	Advanced Spaceborne Thermal Emission and Reflection Radiometer
AGLFB	Above Ground Live Forest Biomass
ALPICAM	Alpi Pietro et Fils Cameroun
ALOS	Advanced Land Observing Satellite
ANAFOR	National Forest Development Agency
APIFED	Appui à l'Auto Promotion et Insertion des Femmes, des Jeunes et Désoeuvrés
ASB	Alternatives to Slash and Burn
AWF	African Wildlife Foundation
BEFs	biomass expansion factors
BM	Banque Mondiale
BR&D	BioClimate Research and Development
CAFI	Central African Forest Initiative
CAFPP	Cadre pour les actions en faveur de peuples pygmées
CAMBOIS	Societe Camerounais de Bois
CARN	Conservation Action Research Network
CARPE	Central African Regional program for the Environment
CBD	Convention of Biological Diversity
CBI	Congo Basin Institute
CBOs	Community Based Organisations
CBFP	Congo Basin Forest partnership
CBFF	Congo Basin Forest Fund
CC	Climate Change
CCNUCC	Convention Cadre des Nations Unies sur les Changement Climatiques
CED	Center for Environment and Development
CEW	Cameroon Environment Watch
CHOCOCAM	Chocolaterie Confiserie Du Cameroun
CIRAD	Centre de Coopération Internationale en Recherche Agronomique pour Le Développement
CMS	Cellule de Monitoring et du Suivi
CIFOR	Centre International de Recherche sur les Forêts [International Center for Forest Research]
Co_2	Carbon dioxide
COFA	Coopérative Forestière des Ardennes
COMIFAC	Central African Forest Commission
COTCO	Cameroon Oil Transportation Company
CLIP	Consultement libre, informe, prealable
CNES	Centre National d'Etudes Spatiales
CPND	Contribution Prévue Déterminée au Niveau Nationale
CS	Civil Society
CUF	Cameroon United Forest
DBR	Dja Biosphere Reserve

DD	Drivers of Deforestation
DRC	Democratic Republic of Congo
ECOFAC	Ecosystèmes Forestiers d'Afrique Centrale
EIA	Environmental Impact Assessment
EO	Earth Observation
ERs	Emission Reductions
ERA/WWC	Joint Venture Ecosystem Restoration Association & Wildlife Works Carbon
ERP	Emission Reduction program
ERPA	Emission Reductions Payment Agreement
ER PIN	Emission Reductions Program Idea Note
ESMF	Environmental and Social Management Framework
EU/ UE	European Union
FAO	United Nations food and Agriculture Organization
FCPF	Forest Carbon Partnership Facility
FCTV	Fondation Camerounaise de la Terre Vivante
FDU	Forest Development Units
FEICOM	Fond Spécial d'Equipement et d'Intervention Intercommunale [Special Intercommunal Intervention and Equipment Fund]
FIA	Forest Inventory and Analysis
FIPCAM	Fabrique Camerounaise de parquet
FIP	Forest Investment Plan
FGRM	Feedback and grievance redress mechanisms
FLEGT	Forest Law Enforcement Governance and Trade
FMT	Facility Management Team
FODER	Forêts et développement Rural
FPIC	Free Prior Informed Consent
FRL	Forest Reference Level
GDP	Gross Domestic Product
GIEC	Groupe Intergouvernemental des Experts sur l'Evolution du Climat
GIZ/PROPSFE	Deutsche Gesellschaft für Internationale Zusammenarbeit/ National Forestry and Environmental Programme
GIS	Geographical Information System
GLOBIOM	GLOBal BIosphere Management
GHG	Greenhouse Gases
GRUMCAM	Societe De Grumes Du Cameroun
HFLD	High Forest Low Deforestation
HIA	Health Impact Assessment
ICRAF	World Agroforestry Center
IPs	Indigenous Peoples
IRAD	Agricultural Research Institute for Development
IRTC	International Research and Training Center
IFN	Inventaire Forestier National
IITA	International Institute of Tropical Agriculture
IPCC	Intergovernmental Panel on Climate Change
IUCN	International Union for Conservation of Nature
JICA	Japan International Cooperation Agency
KfW	German Development Bank(Kreditanstalt für Wiederaufbau)
LDs	Local Communities
LDC	Local Development Committees

LULC	Land Use/Land Cover
MAPAPPY	Méthodologie d'Approche Participative des Populations Pygmées
MF	Methodological Framework
MINADER	Ministry of Agriculture and Rural Development
MINATD	Ministry of Territorial Administration and Decentralization
MINAS	Ministry of Social Affairs
MINEPAT	Minister of Economy, Land Planning and Land Use
MINDCAF	Ministry of State-owned property, the Land Register and Land Affairs
MINEPDED	Ministry of the Environment, the Protection of Nature and Sustainable Development
MINFOF	Ministry of Forestry and Wildlife
MINMIDT	Ministry of Industry, Mining and Technological Development
MINRESI	Ministry of Scientific Research and Innovation
MNV	Mesure Notification Verification
MRV & S	Measuring, Reporting, Verification & Monitoring
MTR	Midterm Term Report
NASA	National Aeronautics and Space Administration
NFCMS	National Forest Carbon Monitoring System
NGO	Non-Governmental Organisation
N-M	Ngoyla-Mintom
NORAD	Norwegian International Agency for Development
NTFPs	Non-Timber Forest Products
OCBB	Observatoire Culture Baka Bantu
ONACC	National Climate Change Observatory
OPFCR	Organisation pour la Protection de la Forêt Camerounaise et de ses Ressources
OSFT	Observation Spatiale des Forêts Tropicales
PDMS	Project Data Management System
PLACAM	Placages du Cameroun
PIN	Project Idea Note
PNDP	Programme National de Développement Participatif
PNUD	Programme des Nations unies pour le développement
PSFE	Programme Sectoriel Forêts et Environnement
PTF	Partenaires Techniques et Financiers
RACOPY	Reseau Recherches Actions Concertées Pygmées
RAPAC	Réseau des aires protégées d'Afrique centrale
REDD+	Reduction of emissions from deforestation and forest degradation,
REDDAF	REDD in Africa
REFACOF	Reseau de Femmes /Forests Communataires
REL	Reference Emission Level
RELUFA	Réseau de Lutte contre la Faim
R- PIN	Readiness Project Idea Note
R-PP	Readiness Preparation Proposal
RS	Remote Sensing
RSE	Responsabilité Sociale des Entreprises
SC	REDD+ Steering Committee
SCABOIS	Société Coopérative des Artisans du Bois
SCIEB (WIJMA)	Société Camerounaise d'Industrie et d'Exploitation des Bois
SCTB (FOKOU)	Societe Camerounaise de transformation de bois
SDGE	Strategy Document for Growth and Employment
SDIAF	Sub-direction of Forest Inventory and Forest Management

SDMESC	Sub-Direction of Monitoring of Ecology and Climate
SEPFCO	Société d'Exploitation des Produits Forestiers et de Commerce
SESA	Strategic Environmental and Social Assessment
SFID	Société Forestière et Industrielle de la douane
SIBM	Société Industrielle de bois MJP et frères
SIC Cacao	Société Industrielle de cacao
SIM	Société Industrielle de Mbang
SFM	Sustainable forest management
SMF	Sustainable Management of Forests
SN COCAM	Societe nouvelle de contreplaques du cameroon
SNSCF	Système National de Suivi du Couvert Forestier
SNV	Netherlands Development Organisation
TNS	Tri-National de la Sangha [Sangha Trinational]
TRIDOM	Tri-National Dja-Odzala-Minkebe [Dja-Odzala-Minkebe Trinational]
TS	Technical Secretariat
UCLA	University of California, Los Angeles
UNOPS	United Nations Office for Project Services
UNESCO	United Nations Education, Scientific and Cultural Organisation
UNFCCC	United Nations Framework Convention on Climate Change
UN REDD	United Nation REDD
USAID	United States Agency for International Development
USDA	United States Department of Agriculture
VCS	Verified Carbon Standards
VERs	Verified Emission Reductions
VIR	Visible and Infrared Scanner
VPA	Voluntary Partnership Agreement
WCS	Wildlife Conservation Society
WRI	World Resources Institute
WWC	World Water Council
WWF	World Wildlife Fund
ZOA	Optimal Action Zones
ZSL	Zoological Society of London

Financing plan summary table

	Description	Breakdown per Year (US $ Million)	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10	Year 11	Year 12	Year 13	TOTAL (Yr1-13)
Expected Uses of Funds	Costs related to developing the ER Program (e.g., monitoring costs)	Program Development	$ 0.26	$ 2.25	$ 4.50											$ 7.01
		MRV Costs	$ 0.09	$ 0.09	$ 0.10	$ 0.10	$ 0.11	$ 0.11	$ 0.11	$ 0.12	$ 0.12	$ 0.13	$ 0.13	$ 0.14	$ 0.14	$ 1.50
	Operational & Implementation Costs	Operational Cost (meeting, travels, office running costs)	$ 0.40	$ 0.41	$ 0.41	$ 0.42	$ 0.43	$ 0.43	$ 0.44	$ 0.44	$ 0.45	$ 0.46	$ 0.46	$ 0.47	$ 0.48	$ 5.70
	Program Implementation	Agriculture: Agroforestry, Crop Intensification, Extension Services	$ -	$ -	$ -	$ 1.63	$ 3.27	$ 3.27	$ 3.27	$ 3.27	$ 3.27	$ 3.27	$ 3.27	$ 3.27	$ 3.27	$ 31.02
		Forestry/env: Ecoguards, NTFP Production and Value Chain Development, RIL Certification for Logging Concessions, Research Stations, wood	$ -	$ -	$ -	$ 2.69	$ 3.97	$ 4.48	$ 5.25	$ 5.88	$ 6.52	$ 6.52	$ 6.52	$ 6.52	$ 6.52	$ 54.88
		Reduction of pressure on buffer zones around protected areas: Increasing tree cover and rehabilitation of degraded areas	$ -	$ -	$ -	$ 0.67	$ 1.36	$ 2.63	$ 2.72	$ 2.72	$ 2.72	$ 2.72	$ 2.72	$ 2.72	$ 2.72	$ 23.67
		Sensitization Meetings to address Mining, Agroforesty & sustainable management	$ -	$ -	$ -	$ 0.60	$ 0.60	$ 0.60	$ 0.45	$ 0.45	$ 0.30	$ 0.30	$ 0.30	$ 0.30	$ 0.30	$ 4.17
	Financing Costs (e.g., interest payments)															
		Total Uses	$ 0.75	$ 2.75	$ 5.01	$ 6.11	$ 9.72	$ 11.52	$ 12.23	$ 12.87	$ 13.37	$ 13.39	$ 13.40	$ 13.41	$ 13.42	$ 127.95
Expected Sources of Funds	Government funding	Support costs from line ministries	$ 0.16	$ 0.17	$ 0.17	$ 0.18	$ 0.19	$ 0.19	$ 0.20	$ 0.20	$ 0.21	$ 0.22	$ 0.23	$ 0.24	$ 0.24	$ 2.60
	Grants	FCPF initial grant	$ 0.65													$ 0.65
		FCPF Readiness Fund		$ 3.00	$ 5.00											$ 8.00
		FIP		$ 0.35	$ 0.35											$ 0.70
		CAFI				$ 6.00	$ 3.00	$ 4.00	$ 3.00							$ 16.00
		IUCN		$ 0.01	$ 0.01											$ 0.02
	Revenue from Sale of Emission Credits	Initial Investment FCPF				$ 3.00	$ 2.00									$ 5.00
		FPCF ERPA						$ 8.00	$ 8.00	$ 8.00	$ 8.00					$ 32.00
		Voluntary Markets						$ 2.00	$ 4.00	$ 6.00	$ 8.00	$ 12.00	$ 10.00	$ 10.00	$ 10.00	$ 62.00
	Loans															
		Total Sources (before taxes)	$ 0.81	$ 3.53	$ 5.53	$ 9.18	$ 5.19	$ 14.19	$ 15.20	$ 14.20	$ 16.21	$ 12.22	$ 10.23	$ 10.24	$ 10.24	$ 126.97
		Net Revenue Before Taxes (=total sources – total uses)	**$ 0.06**	**$ 0.78**	**$ 0.52**	**$ 3.07**	**$ (4.53)**	**$ 2.68**	**$ 2.97**	**$ 1.33**	**$ 2.84**	**$ (1.17)**	**$ (3.17)**	**$ (3.17)**	**$ (3.18)**	**$ (0.98)**