Readiness Preparation Proposal

For the Central African Republic

Revised Formal R-PP

(English)

Date of Formal Submission: September 28, 2011

Submission Format:
Working Draft Version 5 (revised): December 22, 2010

For use by countries for submitting a
Readiness Preparation Proposal (R-PP) for the

Forest Carbon Partnership Fund (FCPF)

United Nations REDD Program (UN-REDD)

R-PP Table of Contents

General Information

CONTACT INFORMATION

Name	Igor TOLA KOGADOU
Title	Climate Focal Point and REDD+ National Coordinator
Organization	Ministry of the Environment and Ecology (MEE)
Address	BP 686 Bangui – Central African Republic
Telephone	+ 236 75 55 82 22
Fax	
Email	tolakogadou@hotmail.com
Website	

R-PP DEVELOPMENT TEAM

Name	Organization
Gustave DOUNGOUBE	Special Advisor for the Environment at the Office of the MEE
Blandine P. GAHORO-DEHALI	Director for the Natural and Physical Environment at the MEE
Jérôme LAVOU	Registered Attorney at the Bar of Bangui and Member of the National Assembly (NA)
Mba Libimbo NGAKEU	President of the NGO Platform under the FLEGT Process in the CAR
Alban Thierry POULIZOUH	Technical Advisor at the Office of the Ministry of Planning
Jean-Bernard YARISSEM	World Wildlife Fund (WWF) Representative in the CAR
Olivier BOUYER	Coordinator of the Climate Unit at ONFI (Office National des Forêts – international)
Pascal CUNY	Director, ONF-Cameroun
Thomas DUFOUR	Biomass/Remote-sensing Expert ONFI
Maden LE CROM	Modeling Expert ONFI

SUMMARY OF THE R-PP

Date of preparation:	September 3, 2010
Duration of implementation:	December 2011 to June 2014
Total budget estimate:	USD 6,599,000
Anticipated sources of funding:	From the Government: USD 200,000 From FCPF: USD 3,600,000 From UN-REDD: To be determined From AFD: To be determined Others: To be determined
Government signer of grant request:	The Minister in charge of the Environment
Expected key results from the R-PP implementation process:	==> Net GHG emissions related to forests decrease - Strengthened national institutions efficiently lead the REDD+ strategy - All stakeholders are identified, informed and consulted on the national REDD+ strategy - Underlying causes and direct drivers of pressure on forests are clearly identified - Institutional arrangements are in place to implement the national REDD+ strategy - Social and environmental impacts have been assessed and an *ad hoc* management framework established and operational - A national reference level has been developed in a credible and transparent way - A MRV system on GHG and other amenities is operational

EXECUTIVE SUMMARY

Comp. 1a – National Readiness Management Arrangements

The institutional arrangement for REDD+ readiness includes three entities: (i) The National REDD+ Committee (CN REDD+), (ii) the Interprefectural REDD+ Committees (CIP REDD+), and (iii) the Technical REDD+ Coordination (CT REDD+).

The CN REDD+ gathers 20 members from the civil society, the private sector, and the government. It meets semi-annually and is chaired by the Prime Minister. The CN REDD+ is the paramount entity in charge of steering the overall REDD+ strategy.

Three CIP REDD+ gather 45 to 54 members each, based on their respective areas. Members represent the civil society, the private sector, and the government. The CIP REDD+ meet semiannually and are chaired by the host Prefect. Their mission is to ensure implementation of the REDD+ program at the decentralized level and to share with the CT REDD+ all proposals from their respective region.

The CT REDD+ has a permanent technical secretariat and five thematic groups: (i) Information, education, and communication (IEC), (ii) legal and land tenure, (iii) modeling and reference level, (iv) social and environmental assessment, and (v) measurement, reporting, and verification (MRV).

The National REDD+ Coordinator is in charge of the permanent technical Secretariat with the assistance of a technical advisor and an expert monitoring CIP REDD+ activities. The CT REDD+ is responsible of implementing the R-PP under the authority of the CN REDD+.

The National Environmental Fund (FNE) supervises the financial aspects of the national REDD+ strategy implementation.

Comp. 1b - Consultation and Dialogue with Key Stakeholders Groups

During the development phase of the R-PP, ten consultation workshops took place and over 100 resource people were individually consulted. The objective was to gather the maximum inputs from stakeholders to ensure their involvement in the national REDD+ strategy and define the R-PP.

The six identified stakeholder groups attended the workshops: civil society, private sector, government, elected representatives, academic and scientific community, and development partners. Workshops mainly took place in Bangui with the exception of one workshop in Mbaïki. Two R-PP pre-validation and validation workshops ended the first consultation cycle.

Comp. 1c – Consultation and Participation Process

Further consultations are planned from the fourth quarter of 2011 to the second quarter of 2014 via individual interviews, national or regional workshops, covering the R-PP or on specific components. Specific workshops with indigenous peoples such as the Ba'aka and the Mbororo Peulhs will also take place in the relevant prefectures.

In addition to these consultations, information and awareness campaigns (radio, national TV, and school programs) will be launched countrywide to reinforce a broad understanding of REDD+, ensure acceptance of the national REDD+ strategy, and ensure its success.

Comp. 2a – Assessment of Land Use, Forest Policy, and Governance

There are 4.2 million inhabitants in the CAR, unevenly distributed on an approximate surface of 623,000km² (average density of 6.8 habitants/km² with strong regional variations). The country has 28.3 Mha of forests or about 45 % of its surface, including 80 % of savanna forests and 20 % of dense forests, respectively in the Southwest (logged) and in the Southeast (no logging concessions).

Various threats exist. The deforestation rate is estimated at about 0.13% per year, or about three times less than the global average for tropical forests. The degradation rate is also similar.

The underlying drivers of deforestation and degradation include (i) lack of policy coordination and weak institutions, (ii) lack of dissemination of technical progress, (iii) economic weakness and the focus on the exploitation of natural resources, (iv) high population growth, (v) lack of understanding of the notion of environmental common good, and (vi) insecurity and political and military crises.

The direct threats on forests include (i) unsustainable extensive livestock farming, (ii) unsustainable slash-and-burn agricultural practices, (iii) uncontrolled logging and harvest of non-timber forest products (NTFP), and (iv) infrastructure development (roads, mining, housing).

Additional studies are planned on (i) production and consumption of fuelwood, (ii) agriculture and livestock, (iii) logging both for export and the domestic market, (iv) small-scale and/or industrial mining (gold, diamond, uranium, etc.).

Comp. 2b - REDD+ Strategy Options

To identify strategy options to address pressure on forests, a summary assessment of past programs and potential actions was carried out using the Strengths, Weaknesses, Opportunities, and Threats (SWOT) Matrix.

Based on the underlying and direct causes of threats identified under Component 2a, four strategy options were selected and broken down into several sub-options:

1. Finalize the zoning process: (1-i) countrywide zoning and (1-ii) updated maps and reinforcement of protected areas;
2. Improve agricultural, sylvicultural, and livestock technologies and productivity: (2-i) reinforcement of the sustainability of livestock and agricultural ranges and (2-ii) promotion of efficient logging and wood transformation techniques;
3. Promote sustainable management of forests: (3-i) promotion of legal and sustainable forest management, (3-ii) promotion of reforestation, (3-iii) operationalization of the community forestry concept, (3-iv) stronger involvement of local populations in sustainable forest management and (3-v) development of a Domestic Energy Strategy (DES);
4. Strengthen institutions and governance: (4-i) public IEC on REDD+, (4-ii) financial, material, and technological support to the government, (4-iii) capacity-building of the civil society on sustainable management of forest resources, advocacy, and control.

Each sub-option was assessed based on a series of criteria including: (i) linkages with underlying and direct drivers of threats on forests, (ii) costs (opportunity, investment, and transaction), (iii) feasibility, (iv) sustainability and mainstreaming into other sectoral policies and strategies, (v) displacement risks of GHG emissions (domestic “leakage”).

The national REDD+ strategy will be developed using roadmaps for each sub-option and lessons learned from pilot REDD+ projects.

Comp. 2c - REDD+ Implementation Framework

The CAR wishes to develop an integrated, participatory, effective, and efficient approach, by fully and sustainably involving all stakeholders in the implementation of its national REDD+ strategy, with the objective of contributing to the country’s sustainable development and to global efforts against climate change.

A number of legislative and regulatory reforms is needed to address gaps in the current legal framework, including aspects on land tenure, forest, environment, agriculture, territorial administration and governance in general.

A Law on REDD+ is planned and will define (i) the objectives of the REDD+ strategy, (ii) eligibility criteria and REDD+ indicators, (iii) arrangements for the national REDD+ registry and authorization and/or registration conditions for REDD+ activities, (iv) financial tools to support REDD+ activities (including the creation of a REDD+ unit within the FNE), (iv) transfer of capacities to the CN REDD+, (v) the legal status of REDD+ carbon credits, etc.

The latter point will be the subject of a specific study to select one of two options: (i) consider carbon removed/ emissions avoided are part of the public domain and heritage; the State is the only competent entity to carry out transactions or (ii) consider that a credit is the result of an action and that private ownership can be claimed.

It should also be noted that the CAR plans to use the FNE to manage international and national funding, both public and private, through the establishment of a REDD+ unit. The FNE could facilitate transactions of REDD+ credits and equitable revenue-sharing based on distribution criteria to be defined.

Comp. 2d - Social and Environmental Impacts

The implementation of the national REDD+ strategy can have both positive and negative impacts on livelihoods and other environmental assets, as confirmed by a preliminary assessment based on strategy options identified under Component 2b.

Therefore, a Social and Environmental Strategic Assessment (SESA) is planned as soon as the R-PP is implemented. The SESA will be based on the existing national legal framework. Following the SESA, an Environmental and Social Management Framework (ESMF) will help mitigate potential adverse impacts and maximize cobenefits.

The SESA and the ESMF will be implemented in accordance with the World Bank’s Safeguard Policies including: OP 4.01 on environmental assessment; OP 4.04 on natural habitats; OP 4.11 on physical cultural resources; OP

4.10 on indigenous peoples, and OP 4.36 on forests. It will also be based on the relevant treaties and conventions ratified by the CAR, notably the International Labor Organization (ILO) Convention 169 and the Voluntary Partnership Agreement of the Forest Law Enforcement, Governance and Trade process (VPA-FLEGT)

Component 3: Develop a Reference Level

Establishing a reference level requires an estimation of past GHG emissions (such an assessment does not exist for the CAR) as well as disaggregated statistical data on the main threat factors identified under Component 2a (related data are incomplete or even inexistent in the CAR). Data collection will require capacity-building and logistical enhancement for entities in charge of statistics, mainly the CAR Institute for statistics and economic and social studies (ICASEES).

To address the lack of data while establishing a credible reference level, it is suggested to:

- Establish four sub-national reference levels based on appropriate data (related to local drivers of threats on forests) and simple models, and aggregate these levels to obtain a national level ("bottom-up approach")
- Make every effort to disaggregate the results for the CAR from the regional CongoBIOM model created by the International Institute for Applied Systems Analysis (IIASA) ("top-down" approach).

The final national level would be the result of a comparison between the bottom-up and the top-down levels after successive adjustments of the bottom-up level. It is clear that all tasks and the final reference level will be reviewed by international experts as stipulated by the Decisions of Parties to the Climate Convention.

Component 4: Design a Monitoring System

The CAR possesses data and human resources to monitor biomass stocks in the southwestern forests, based on the national forest management standards defined under the Program on natural resources management (PARN) and the Project supporting the development of forest management plans (PARPAF).

However, these are only partial data and savanna forests (80% of the country's forests) are not included. Capacity-building and logistical reinforcement are recommended for institutions in charge of forest surveys in order to comply with the tier 2 level.

A similar pattern applies to the monitoring of land-use changes: data exist mainly for the southwestern forest range and capacity-building is strongly needed to reach the tier 2 level.

An internal monitoring system and an external quality control of surveys are recommended. The latter will rely on an independent observer installed for the VPA-FLEGT.

In addition to GHG emissions and removals, a monitoring system on other social and environmental impacts and benefits related to the implementation of the REDD+ strategy will also be developed. This system will be based on the SESA and the ESMF developed under Component 2d.

Component 5: Schedule and Budget

The total budget in this R-PP is 6,599 kUSD. A significant part of this budget (2,640 kUSD or 40 % of the total budget) was voluntarily allocated to pilot projects defined in Component 2b. Indeed, many local lessons are expected from these pilot projects to help develop national-level strategy options.

The FCPF is supposed to provide 3,600 KUSD or about 2/3 of this budget. The Government could contribute 200 kUSD or a little less than 4 %. Contacts will be rapidly established with UN-REDD and the French development agency (AFD) and other potential donors to finalize the funding plan. The work schedule covers two years and a half, from December 2011 to June 2014 with numerous activities taking place the fourth quarter of 2011.

ACRONYMS

ACAP	Agence centrafricaine de presse (CAR press agency)
ACAPE	Association centrafricaine pour la protection de l'environnement (CAR association for environmental protection)
ACDA	Agence centrafricaine de développement agricole (CAR agency for agricultural development)
ADB	African Development Bank
ADECAF	Agence de développement de la caféiculture familiale (Development agency for family coffee cultivation)
ADEM	Association pour le développement des exploitants miniers (Association for the development of mining operators)
AFD	Agence française de développement (French development agency)
AFOLU	Agriculture, Forestry and Land Use
AGB	Aboveground biomass
AGDRF	Agence autonome d'appui à la gestion durable des ressources forestières (Autonomous agency supporting the sustainable management of forest resources)
ANDE	Agence nationale de développement de l'élevage (National livestock development agency)
BCR	Bureau central du recensement (Census central bureau)
BEAC	Banque des États d'Afrique centrale (Bank of Central African States)
BECDOR	Bureau d'évaluation et de contrôle du diamant et de l'or (Office for the evaluation and control of diamond and gold)
BEF	Biomass expansion factor
BIVAC	Bureau Veritas, Inspection Valuation Assessment and Control
Caistab	Caisse de stabilisation (Stabilization fund)
CAR	Central African Republic
CAS-DF	Compte d'affectation spécial – développement forestier (Special allocation fund – forestry development)
CBD	Convention on Biological Diversity
CBFP	Congo Basin Forest Partnership
CCSO	Compagnie commerciale de la Sangha Oubangui (Sangha Oubangui commercial company)
CDF	Centre des données forestières (Center for forest data)
CDM	Clean Development Mechanism
CEFDHAC	Conférence sur les écosystèmes de forêts denses et humides d'Afrique centrale (Conference on Central African Moist-Forest Ecosystems)
CENTRAPALM	Centrafricaine des palmeraies (CAR group of palm groves)
CES	Conseil économique et social (Economic and social council)
CFASP	Centres de formation agro-sylvo-pastoraux (Training centers on agriculture, sylviculture and livestock)
CFGF	Centre de formation des gardes forestiers (Training center for forest wardens)
CFP	Centre forestier pilote (Pilot forestry center)

CFSVA	Comprehensive Food Security and Vulnerability Analysis
CIONGCA	Collectif Inter-ONG en Centrafrique (NGO group in the CAR)
CIP REDD+	Comités inter-préfectoraux REDD+ (REDD+ inter-prefectural committees)
CIRAD	Centre de coopération internationale en recherche agronomique pour le développement (Center on agricultural research for development)
CITES	Convention on International Trade in Endangered Species of Wild Fauna and Flora
Cm	Centimeter
CN REDD+	Comité national REDD+ (National REDD+ Committee)
CNEDD	Comité national de l'environnement et du développement durable (National committee for the environment and sustainable development)
CNT	Conseil national de trésorerie (National treasury council)
CODICOM	Comité pour le développement intégré des communautés de base (Committee for the integrated development of communities)
COMIFAC	Commission des forêts d'Afrique centrale (Central African Forest Commissions)
COOPI	Cooperazione Internationale
CT REDD+	Coordination technique REDD+ (REDD+ Technical Coordination)
CTP-PAS	Conseil technique permanent des plans d'ajustement structurel (Permanent technical council for structural adjustment plans)
D	Diameter
DER	Direction de l'environnement ressource (Directorate for environment resources)
DES	Domestic Energy Strategy
DFAP	Direction de la faune et des aires protégées (Directorate for fauna and protected areas)
DGE	Directeur général de l'environnement (Director for the environment)
DGEF	Direction générale des eaux et forêts (Directorate for water and forests)
DGSEES	Direction générale de la statistique, des études économiques et sociales (Directorate for statistics and economic and social studies)
DIAF	Direction des inventaires et de l'aménagement forestier (Directorate for surveys and forest management)
DNA	Designated National Authority
DPDDA	Droit de propriété et développement du diamant artisanal (Property and development rights for small-scale diamond exploitation)
EC JRC	Joint Research Center of the European Commission
ECASEB	Enquête centrafricaine pour le suivi et l'évaluation du bien-être (CAR survey on monitoring and evaluation of well-being)
ECCAS	Economic Community of Central African States
ECOFAC	Projet Ecosystèmes forestiers d'Afrique centrale (Project on forest ecosystems in Central Africa)
ECVR	Enquêtes sur les conditions de vie en milieu rural (Surveys on livelihoods in rural areas)
ECVU	Enquêtes sur les conditions de vie en milieu urbain (Surveys on livelihoods in urban areas)
EIA	Environmental Impact Assessment

ENAM	Ecole nationale d'administration et de magistrature (National judicial and administration academy)
ESMAP	Energy Sector Management Assistance Program
ESMF	Environmental and Social Management Framework
EU	European Union
FAO	Food and Agriculture Organization
FCFA	CFA Franc
FCPF	Forest Carbon Partnership Fund
FFBC	Fonds forestiers du bassin du Congo (Congo Basin Forest Fund)
FFEM	Fonds français pour l'environnement mondial (French Global Environment Facility)
FLEGT	Forest Law Enforcement, Governance and Trade
FNE	Fonds national pour l'environnement (National environmental fund)
FNEC	Fédération nationale des éleveurs en Centrafrique (National federation of livestock farmers in the CAR)
FRAD	Fondation de recherche et d'action pour le développement (Foundation for research and action for development)
GALD	Groupement des agriculteurs pour la lutte contre la désertification (Farmers' group against desertification)
GDP	Gross Domestic Product
GEF	Global Environment Facility
GEOMOD	Geographical modeling
GHG	Greenhouse gas
GICA	Groupement interprofessionnel centrafricain (CAR interprofessional group)
GIS	Geographic Information System
GOFC/GOLD	Global Observation of Forest and Land Cover Dynamics
GTZ	Gesellschaft für technische Zusammenarbeit (German technical cooperation)
Ha	Hectare
ICASEES	Institut centrafricain des statistiques, des études économiques et sociales (CAR Institute for statistics, economic and social studies)
ICRA	Institut centrafricain de la recherche agronomique (CAR Institute on agronomical research)
IEC	Information, education, and communication
IFAD	International Fund for Agricultural Development
IFB	Industrie forestière de Batalimo (logging company in Batalimo)
IGN	Institut géographique national (National Geographic Institute)
IIASA	International Institute for Applied Systems Analysis
ILO	International Labour Organization
IMF	International Monetary Fund

IPCC	Intergovernmental Panel on Climate Change
ISDR	Institut supérieur de développement rural (Institute for rural development)
ITTO	International Tropical Timber Organization
IUCN	International Union for Conservation of Nature
JUPEDEC	Jeunesse unie pour l'environnement et le développement en Centrafrique (Youth group for environment and development in the CAR)
Kg	Kilogram
Km	Kilometer
LACCEG	Laboratoire de climatologie, de cartographie et d'études géographiques (Laboratory on climate, mapping, and geographical studies)
LBS	La bonne semence
LCBC	Lake Chad Basin Commission
LCDH	Ligue centrafricaine des droits de l'Homme (CAR League for human rights)
LRA	Lord Revolution Army
LULUCF	Land-use, Land-use Change and Forestry
M	Meter
MAB	Man and the Biosphere Program
MDCL	Minimum Diameter Cutting Limits
MDRA	Ministère du développement rural et de l'agriculture (Ministry of rural development and agriculture)
MEE	Ministère de l'environnement et de l'écologie (Ministry of environment and ecology)
MEFCP	Ministère des eaux, forêt, chasse et pêche (Ministry of water, forests, hunting, and fisheries)
MEFP	Maison de l'enfant et de la femme pygmées
MEPCI	Ministère de l'économie, du plan et de la coopération internationale (Ministry of economy, planning, and international cooperation)
Mha	Million hectares
MMEH	Ministère des mines, de l'énergie et de l'hydraulique (Ministry of mining, energy, and hydraulics)
MODESS	Modèle de micro-simulation simple (Simple simulation model)
MRV	Measurement, Reporting, and Verification
NA	National Assembly
NAMA	Nationally Appropriate Mitigation Actions
NAPA	National Adaptation Plan of Action
NEAP	National Environmental Action Plan
NGO	Non-governmental Organizations
NTFP	Non Timber Forest Products
NTS	National Traceability System
OCDN	Organisation centrafricaine de défense de la nature (CAR organization for nature protection)
OD	Operational directives
OEFB	Observatoire économique de la filière bois (Economic observatory of timber)
OFAC	Observatoire des forêts d'Afrique centrale (Observatory of the forests of Central Africa)
OFB	Observatoire des feux de brousse (Observatory of bush fires)
OFCA	Organisation des femmes Centrafricaines (Organization of CAR women)
OLT	Origin and Legality of Timber

ONFI	Office National des Forêts - International
ONMAP	Office national de matériel agro-pastoral (National office for agricultural and livestock equipment)
OP	Operational Policies
ORCCPA	Office de réglementation de commercialisation et conditionnement des produits agricoles (Office for regulation of trade and packaging of agricultural products)
OSFAC	Observatoire satellitaire des forêts d'Afrique centrale (Satellite observatory of Central African forests)
PAIA	Programme d'appui aux institutions agricoles (Support program for agricultural institutions)
PAPAAV	Projet d'appui à la production agricole et à l'autopromotion villageoise (Support project for agricultural production and village self-promotion)
PARFF	Projet d'appui à la recherche forestière et faunique (Support project for forest and fauna research)
PARIR	Projet d'appui à la réhabilitation des infrastructures rurales (Support project for rural infrastructure restoration)
PARN	Programme d'aménagement des ressources naturelles (Natural resources management program)
PARPAF	Projet d'appui à la réalisation des plans d'aménagement forestiers (Support project for the development of forest management plans)
PASEF	Projet d'appui au suivi de l'exploitation forestière (Support project for logging monitoring)
PDA	Plan directeur agricole (Agricultural master plan)
PDDAA	Programme détaillé de développement de l'agriculture africaine (Detailed program for the development of African agriculture)
PDEGP	Projet de développement de l'élevage et de gestion des parcours (Project on the development of livestock and rangeland management)
PDRB	Projet de développement de la Région de Bouca (Development project for the Bouca Region)
PDRN	Programme de développement de la région Nord (Development program for the Northern Region)
PDSV	Programme de développement des savanes vivrières (Program for the development of food-producing savannas)
PEA	Permis d'exploitation et d'aménagement (Logging and management permit)
PFABO	Produits forestiers autres que le bois d'œuvre (Forest products other than lumber)
PGPRF	Programme de gestion participative des ressources forestières (Program on participative management of forest resources)
PICV	Principles, Indicators, Criteria, and Verifiers
PRCA	Projet de réponse à la crise alimentaire (Response project to the food crisis)
PRSP	Poverty Reduction Strategy Paper
PRSS	Programme de réforme du système sécuritaire (Reform program of the security system)
PSA/PFABO	Programme de sécurité alimentaire et de promotion des produits forestiers autres que le bois (Program on food security and promotion of forest products other than lumber)
PURISU	Projet d'urgence de réhabilitation des infrastructures urbaines (Emergency project for restoration of urban infrastructure)
QA/QC	Quality Assessment / Quality Control
R-PP	Readiness Preparation Proposal
REDD	Reduction of GHG emissions from deforestation and forest degradation
REDD+	Reduction of GHG emissions from deforestation and forest degradation, conservation and reinforcement of carbon stocks
RGPH	Recensement général de la population et de l'habitat (General census of population and habitat)
RONGEDD	Réseau des ONG de l'environnement et du développement durable (Network of environmental and sustainable development NGOs)
RSDSD	Rural Sector Development Strategy Document
SAP	Structural Adjustment Plan
SCAD	Société centrafricaine de déroulage (rotary cutting company)

SCD	Société centrafricaine de développement (development company)
SEA	Strategic Environmental Assessment
SEFCA	Société d'exploitation forestière centrafricaine (logging company)
SEKOFAD	Société d'exploitation forestière de la Kadéï (logging company in Kadéï)
SESA	Social and Environmental Strategic Assessment
SME	Small and Medium Enterprises
SOCACIG	Société Centrafricaine de Cigarettes (Cigarettes' manufacturer)
SWOT	Strengths, Weaknesses, Opportunities, and Threats
teCO2	Tonnes of CO2 equivalents
TLU	Tropical Livestock Units
UCL	Université catholique de Louvain (Catholic University of Leuven)
UN-REDD	United Nations Program on REDD
UNDP	United Nations Development Program
UNESCO	United Nations Educational, Scientific and Cultural Organization
UNFCCC	United Nations Framework Convention on Climate Change
UNPC	Union nationale patronale de Centrafrique (CAR employers' organization)
USAID	United States Agency for International Development
USD	US Dollar. 1 USD = approx. FCFA 500
VCS	Voluntary Carbon Standard
VHR	Very High Resolution
VICA	Vicwood Centrafrique
VOB	Volume over bark
VPA	Voluntary Partnership Agreement
WB	World Bank
WD	Wood basic density
WFP	World Food Program
WISDOM	Woodfuel integrated supply and demand overview mapping
WRI	World Resources Institute
ZCV	Zones de chasse villageoise (Village hunting areas)

Component 1: Organize and Consult

1a. National Readiness Management Arrangements

Standard 1a the R-PP text needs to meet for this component:
National readiness management arrangements

The cross-cutting nature of the design and workings of the national readiness management arrangements on REDD, in terms of including relevant stakeholders and key government agencies in addition to the forestry department, commitment of other sectors in planning and implementation of REDD+ readiness. Capacity building activities are included in the work plan for each component where significant external technical expertise has been used in the R-PP development process

1. INSTITUTIONS

1.1. National REDD+ Committee (CN REDD+)

The CN REDD+ has 20 members (6 from the Government and 14 from other sectors). The Prime Minister, Head of the Government, chairs the CN REDD+. The Minister in charge of the environment is the first vice-president. A representative of a civil society organization, member of the CN REDD+, should be the second vice-president. The REDD+ Technical Coordinator (CT REDD+) is the secretariat. The Coordinator of the REDD+ Technical Coordination is not considered a member of the CN REDD+ as he is already in charge of the technical body of the CN REDD+ (the CT REDD+).

Members include:

- The ministries in charge of water and forests, agriculture, finance, planning and economy;
- The Chairman of the Commission in charge of the environment at the National Assembly (NA);
- The President of the Economic and Social Council (CES);
- Two representatives of environmental non-governmental organizations (NGO), to be designated by the NGO Platform;
- The General Secretary of the national CAR federation of livestock farmers (FNEC);
- The President of the farmers' organization;
- The President of the small-scale miners' organization;
- Two representatives of logging companies, to be designated respectively by the CAR inter-professional organization (GICA) and the national employers' union (UNPC).
- Four representatives of indigenous peoples, two for the Aka Pygmies and two for the M'bororo Peulhs to be designated by the National coordination of indigenous peoples to be established following the CAR recent ratification of the International Labor Organization (ILO) Convention 169;
- A representative of the CAR women organization (OFCA).

A message is sent to each CIP to ask the private sector, NGOs and indigenous peoples to send to the Ministry in charge of the environment the names of their representatives for the CN REDD+.

The CN REDD+ is the paramount entity. It defines the national REDD+ policies and ensures its implementation. It arbitrates potential conflicts among the Inter-prefectural Committees (CIP REDD+) and the CT REDD+. It meets semi-annually in ordinary session and as needed in extraordinary session. Decisions must be approved by a two-thirds majority of its members. Minutes of meetings should be taken. The CN REDD+ may call upon any needed expertise.

All other ministerial departments involved in the REDD+ process – trade, urban development, mining and energy, territorial administration, justice, equipment, defense, national education, tourism, family and social affairs, and communication – can be invited and/or consulted by the CN REDD+ as needed.

The Central African Republic is a member of the COMIFAC, and as such, the CN REDD+ will have to work in close cooperation with other sub-regional REDD+ entities, The CN REDD+ operates in line with sub-regional strategies and/or planning for REDD+. The CAR is strongly involved in cross-border initiatives such as the Sangha Trinational Landscape (with Cameroon and the Republic of the Congo) as well as three sub-regional programs (FAO project on MRV for the 10 COMIFAC countries, EU REDDAF Project on forest mapping and scenario in Cameroon and the CAR, GEF project covering 6 Congo Basin countries).

It should be noted that Article 7 of the CAR Environmental Code stipulates the creation of a national commission for the environment and sustainable development (CNEDD) with a much wider scope than REDD+. The CNEDD will be a joint body of governmental representatives, elected representatives, environmental NGOs, civil society, and specialized scientific institutions. The mission of the CNEDD is to:

- Contribute, in an advisory capacity, to the development and implementation of governmental sectoral policies for the environment, sustainable development, and social economy;
- Validate terms of references for development projects with impacts on the environment;
- Ensure that environmental and sustainable development issues are integrated in development policies, strategies, and actions plans for all sectors;
- Validate the status of programs under the authority of the environment and ecology governmental department;
- Advise on all national programs impacting the environment;
- Arbitrate on any conflict related to environmental management at national level;
- Make every effort to seek and secure funding to support actions from the Government, NGOs, the civil society, and specialized scientific institutions working on the environment, sustainable development, and social economy.

This national environmental Commission is in charge of all issues related to the environment and sustainable development in the CAR, including REDD+. This entity is placed under the authority of the Ministry in charge of the Environment. A close link exists between the CNEDD and the CN REDD+ as all departments involved in environmental issues are part of the Commission. It also serves as a discussion platform. The CN REDD+, chaired by the Prime Minister, can inform its discussions or even its decisions using the results of CNEDD.

1.2. REDD+ Inter-Prefectural Committees (CIP REDD+)

There are three inter-prefectural committees with 45 to 54 members each. The Inter-Prefectural Committees cover three areas:

- The CIP REDD+ North includes five prefectures: Vakaga, Bamingui Bangoran, Ouham Pendé, Ouham, and Nana Gribizi and has 45 members. This area was selected due to the presence of forests and shrub savannas dominated by agricultural and livestock activities (transhumance practice by the Mbororo Peulhs), uncontrolled mining, and frequent slash-and-burn;
- The CIP REDD+ Southwest includes six prefectures: Nana Mambéré, Mambéré Kadéï, Sangha MBaéré, Lobaye, Ombella Mpoko, and Kémo and counts 54 members. This area is characterized by a dense humid forest forest, a concentration of mining/logging activities, the presence of Aka Pygmies, and a level of harvest of non-timber forest products (NTFP) due to its proximity with Bangui, the capital city;
- The CIP REDD+ Southeast includes five prefectures: Mbomou, Haut Mbomou, Ouaka, Basse Kotto, and Haute Kotto and counts 45 members. This area of primary forest is noted for its high level of poaching and small-scale logging. Refugees and Ugandan rebels from the Lord Revolution Army (LRA) are also present in the area.

The host prefect chairs the meeting of the CIP REDD+. Meetings are semi-annual and rotate between prefectures. The regional director in charge of water and forests, the regional director in charge of agriculture, and the prefectural inspector in charge of the environment at the host prefecture will be the recording secretaries of these meetings. Decisions should be approved at the two-thirds majority. Minutes should be taken and shared with the CT REDD+.

Each prefectural team in charge of the CIP REDD+ has nine members (4 from the Government and 5 from other sectors):

- The prefect;
- The regional director in charge of water and forests;
- The regional director in charge of agriculture;

- The prefectural inspector in charge of the environment;
- A representative of the employers' group, to be designated based on the characteristics of each prefecture;
- A representative of recognized local environmental NGOs, to be designated by the local members of the environmental and sustainable development network;
- A representative of indigenous peoples and local communities, to be designated based on the characteristics of each prefecture by the local members of the national coordination of indigenous peoples;
- A representative of farmers' groups to be designated by the local chambers of agriculture;
- A representative of the livestock farmers' groups to be designated by the local members or the FNEC.

The CIP REDD+ will play two roles: (i) ensure implementation of the REDD+ program at the decentralized level and (ii) share with the CT REDD+ proposals from their own prefecture.

After the CIP REDD+ meetings, prefectural representatives will report to their local stakeholders and seek their feedback.

In case of a conflict within a CIP REDD+, mediation of the CN REDD+ will be sought.

It should be noted that each Prefecture builds its team based on its own ecological characteristics and above all, based on existing indigenous peoples. In areas where peulhs live but not pygmies, peulhs will represent the indigenous peoples. This also applies to the private sector.

1.3. REDD+ Technical Coordination (CT REDD+)

The CT REDD+ includes a permanent technical secretariat and five thematic groups.

The National REDD+ Coordinator heads the technical secretariat, with the assistance of a national expert in charge of monitoring and coordinating activities of inter-prefectural committees, an international technical advisor, an assistant, and two drivers.

Each thematic group will have two experts. National consultants involved in the development of the R-PP are suggested for each thematic group. The thematic groups include (i) Information, education, and communication (IEC), (ii) legal and land tenure, (iii) modeling and reference level, (iv) social and environmental assessment, and (v) measurement, reporting, and verification (MRV).

The "modeling" and "MRV" thematic groups will work in collaboration with the laboratory on climate, mapping, and geographical studies (LACCEG) at the Bangui University, the center on forest Data at the MEFCP (CDF), the directorate for surveys and forest management (DIAF) at the ministry in charge of forests, the directorate on environmental resources (DER) at the ministry in charge of the environment, the Central African Republic institute for statistics and economic and social studies (ICASEES) at the MPE, etc. Components 3 and 4 present in detail the cooperative arrangements.

Members of the CT REDD+ are designated by order of the Minister in charge of the environment after consultation with other involved ministerial departments.

It should be noted that stakeholders play an important role for the design and implementation of REDD+ at national level. The governmental strategy is to have all thematic groups of the Technical Coordination work closely with other technical and specialized institutions, the private sector and non governmental organizations that will be heavily involved in Component 1c and other components.

The mission of the CT REDD+ is to implement activities included in the R-PP under the authority of the CN REDD+. It develops and submits activity proposals and communicates activity reports to the CN REDD+. The CT REDD+ is the linkage between all entities (see Figure 1 below).

Besides the Technical Permanent Secretariat, thematic groups will meet on a monthly basis and will produce the minutes of each meeting.

1.4. National Environmental Fund (FNE)

Article 9 of the Law defining the Environmental Code created the FNE on December 27, 2008. The FNE is under the authority of the Ministry in charge of the environment, which covers all eligible expenses and implements the national environmental policy. A REDD+ unit was established within the FNE to receive funds for the implementation of the national REDD+ strategy and to disburse funding for REDD+ specific activities in the CAR.
To ensure transparency:

- The National Treasury Committee (CNT) supervises all State funds, including the FNE. The CNT is comprised of ministers in charge of planning, transportation, mining, territorial administration, presidential affairs, rural development, justice, postal services, equipment, water and forests, foreign affairs, as well as the general directors of customs, tax administration, treasury, budget, police, gendarmerie, CAR armed forces, the Chief of Staff of the Minister in charge of finance, officers at the Ministry in charge of finances, the Economic Advisor of the Presidential Office, the State General Inspector, and the Permanent Secretary of the technical Council for the monitoring of macroeconomic and financial reforms.
- All expenses must be consistent with a work plan submitted to the CN REDD+.
- After approval of activities, the CN REDD+ requests disbursement by the FNE.
- The FNE periodically establishes a financial report to be submitted to the CN REDD+ for information and/or control.

The FNE is not yet a member of the National Treasury Committee. Once operational, the FNE will be systematically invited to join CNT meetings. This ongoing process should be finalized soon.

Additional measures should help channel the REDD+ funding and distribute carbon credits among REDD+ activity developers (See Component 2c).

The FNE is currently funded on the State budget with a budget of FCFA 800,000,000 or USD 1,600,000 (see the 2001 Finance Law).

The overall relationship between the various REDD+ management entities in the CAR is the following:

- The CN REDD+ is responsible for defining REDD+ directives and policies to the attention of the CT REDD+. It approves or redirects activity proposals from the CT REDD+.
- If needed, the CN REDD+ instructs the CIPs REDD+ on the implementation of REDD+ directives and policies.
- The CN REDD+ can also arbitrate any conflict related to the implementation of the REDD+ policy.
- The CT REDD+ submits activity proposals at national and international levels. The CT REDD+ is the implementing entity for all REDD+ directives and policies approved by the CN REDD+
- The CT REDD+ monitors the implementation of proposed programs in the REDD+ national strategy at the level of the CIPs REDD+. The CT REDD+ is in charge of centralizing, analyzing, and developing an implementation plan for proposals submitted by the CIPs REDD+.
- The level of operation of the REDD+ process at national level can be judged by the smooth, coordinated, and participatory collaboration of the three entities in charge.

The current institutional arrangement is the result of a consensus after consultation of all REDD+ key players and stakeholders in the CAR.

It should be noted that while small progress has been made for the past two years, the lack of institutional capacities in the CAR remains a significant challenge. Capacity building is required along the process with a focus on sustainability. Institutional and technical entities involved in REDD+ in the CAR need permanent improvement in order to develop actual, flexible, and dynamic REDD+ programs in the short run.

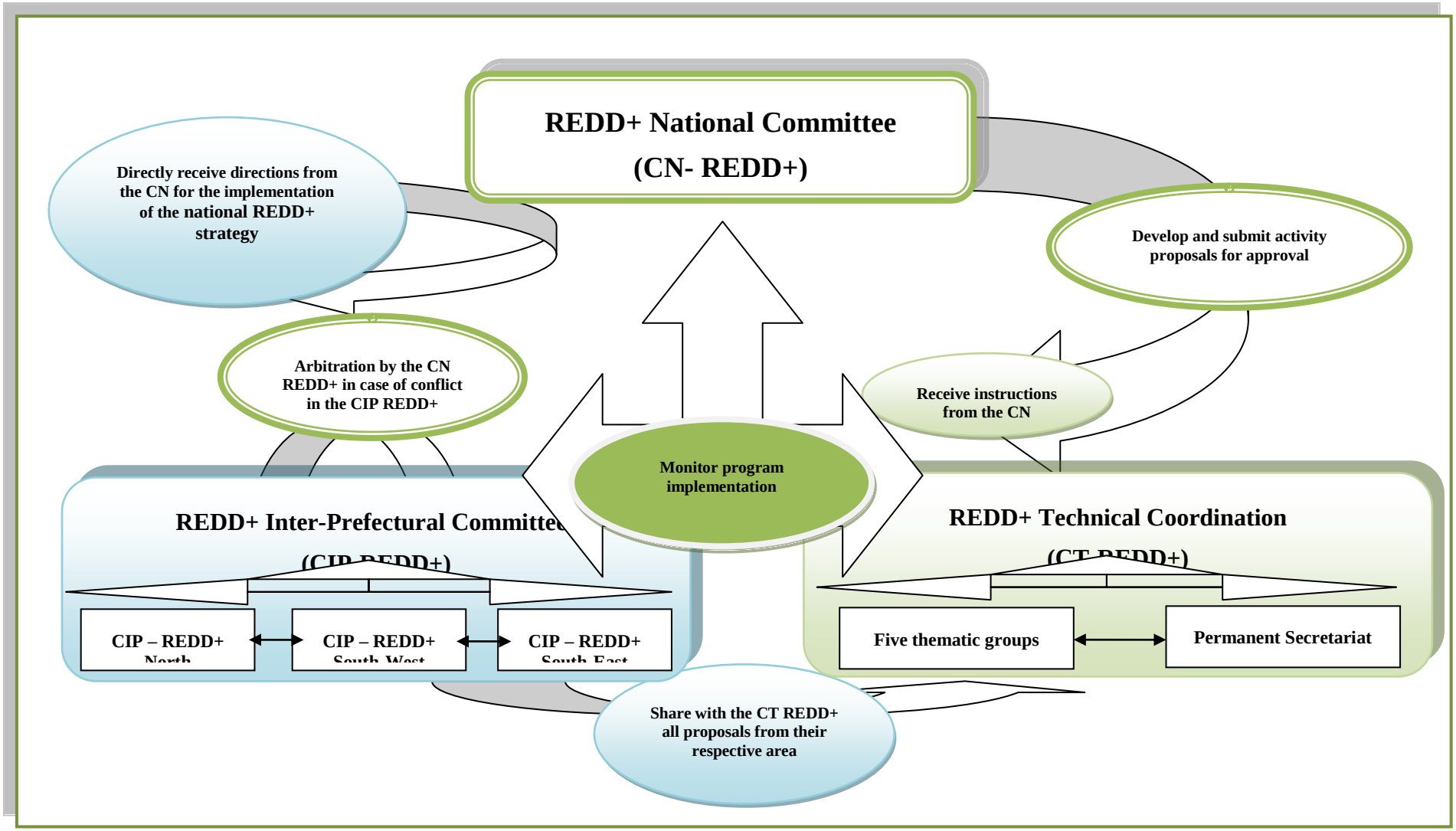

Figure 1 – Flowchart of the National Readiness Management Arrangements for the REDD+ Strategy in the CAR

2. SCHEDULE AND BUDGET (IN KUSD)

Main activities	Sub-activities	S2 2011	S1 2012	S2 2012	S1 2013	S2 2013	TOTAL
Creation and operation of the CN REDD+	Creation of the CN REDD+						
	Adoption of REDD+ regulations						
	Approval of activities proposed by the CT REDD+						
	Meals for regular/extraordinary meetings (0.3kUSD/meeting)	0.6	0.6	0.6	0.6	0.6	3
	Transportation for regular/extraordinary meetings (3kUSD/meeting)	7	7	7	7	7	35
	Communication fees (4kUSD/semester)	5	5	5	5	5	25
Creation and operation of the CIP REDD+	Creation of the CIP REDD+						
	Regional consultations and development of activity proposals						
	Implementation of directions received from the CN REDD+						
	Meals for regular/extraordinary meetings (0.5kUSD/meeting/CIP x 3 CIP)	4	4	4	4	4	20
	Transportation and lodging for meetings (6.5kUSD/meeting/CIP x 3CIP)	39	39	39	39	39	195
	Communication fees (0.3kUSD/semester/CIP x 3 CIP)	0.8	0.8	0.8	0.8	0.8	4
Creation and operation of the CT REDD+	Creation of the CT REDD+						
	Permanent Secretariat of the REDD+ Process						
	Interface between national and international institutions						
	Development of technical proposals and implementation of the R-PP						
	Activity coordination (purchase and maintenance 2 4x4: 48kUSD x 2 4x4 +3 USD/km x 5,000km/yr)	166.5	22.5	22.5	22.5	22.5	256.5
	Equipment purchase and maintenance (3 computers, 6 laptops, 3 printers, 2 copiers) and Internet access	40	10	10	10	10	80
	Various supplies	2.2	2.2	2.2	2.2	2.2	11
	Meals for regular/extraordinary meetings (0.5kUSD/semester)	1	1	1	1	1	5
	Communication fees (2.3kUSD/semester)	2.3	2.3	2.3	2.3	2.3	11.5
	Monthly allowance for 16 members (57.6 kUSD/semester)	57.6	57.6	57.6	57.6	57.6	288
	Monthly fee for an international technical advisor (10kUSD/month)	60	60	60	60	60	300
Support to FNE Operation	Further arrangement to integrate REDD+						
	Secure REDD+ funding						
	Organize distribution of carbon credits to action developers						
	TOTAL	**386**	**212**	**212**	**212**	**212**	**1234**
	Government Contribution						
	FCPF Contribution						1234
	UN-REDD Contribution						
	AFD Contribution						

Figure 2 – Schedule and Budget for Component 1a of the CAR R-PP

1b. Consultation and Dialogue with Key Stakeholders Groups

Note: As most tasks related to these components were carried out before the publication of the V5 of the R-PP (published on October 30, 2010 and revised on December 22, 2010), it was deemed preferable to revise the work plan from the V5 of the R-PP, published on January 12, 2011.

1. INTRODUCTION

The REDD+ readiness process described in this R-PP should be transparent, participatory, inclusive, and representative of all opinions. The views of all stakeholders should be gathered and all key players fully involved.

Six target groups were identified to participate in consultations:

- Civil society members: (i) Local communities and indigenous peoples of both sexes and regardless of age, harvesters of NTFP, livestock breeders, farmers, small-scale miners and (ii) formal organizations including international or national NGOs, associations, professional groups, media organizations, syndicates, religious groups, etc.;
- Members of the private sector including logging and mining companies, carriers and traders of wood, NTFP, or agricultural products, etc.;
- Governmental representatives, both at centralized and decentralized levels, in the following sectors: water and forests, energy and mining, urbanization, environment, rural development, planning and cooperation, finance, communication, justice, decentralization, human rights, etc. as well as representatives of the Presidential Office and the Prime Minister's Office;
- Elected representatives at the National Assembly (NA) including from the Commissions on environment and laws and the economic and social Council (CES);
- Researchers and teachers, including from the departments of geography, anthropology, law, economics, and biology at the Bangui University, and from the scientific research community such as the Central African Republic Institute for agronomical research (ICRA) and the Institute for rural development (ISDR); and
- Donors and development partners involved in development actions related to forestry, agriculture, environment, rural development, and infrastructure (roads/trails, mining, housing).

Consultations were held between September and July 2011 during the development of the R-PP and described under this Component 1b. Further consultations are planned from December 2011 to June 2014 during the implementation phase of the R-PP and are also described under this component.

2. CONSULTATIONS HELD IN THE DEVELOPMENT OF THE R-PP

2.1. Methods Used and Themes of Consultations

Consultations were carried out through (i) discussions between representatives of target groups and experts in charge of the development of the R-PP and (ii) local or regional workshops including specific groups at national level and all target groups at the level of the CIPs REDD+.

The use of target groups (November 2-13, 2010) was based on the negotiation approach for the Voluntary Partnership Agreement (VPA) of the Forest Law Enforcement, Governance and Trade process (FLEGT). Stakeholders were consulted separately to avoid any external influence.

Consultations were held at the prefectural level as the CAR has distinctive ecosystems affected by different threats.

Consultations were structured around different themes related to the structure of the R-PP:

- Organization process in the CAR to manage preparation and implementation of a REDD+ strategy,
- Definition of a broad and efficient information, education, and communication process to share challenges, opportunities, and risks related to REDD+,
- Results and lessons learned from past forest and environmental policies to contribute to the national REDD+ strategy,
- Implementation of the national REDD+ strategy,

- National reference level to measure REDD+ results,
- Preliminary assessment of social and environmental conditions as well as potential negative impacts and mitigation measures before the implementation of the REDD+ strategy,
- Measurement, reporting, and verifications of GHG emissions and removals related to the REDD+ strategy, and assessment of the impacts of the strategy on other social and environmental amenities, and
- Human and financial resources to implement the strategy and external support.

All consultants involved in the development of the R-PP presented their component during these workshops. The REDD+ coordination units presented the national REDD+ management arrangements and asked stakeholders for their feedback. This means that all proposals included in this document are the result of a consensus by consulted parties.

Selection of entities, their representatives, and interviewees to participate in critical discussions on REDD+ policies and decision-making was based on lessons learned from the FLEGT process (on forest regulations), as well as from the development of the first version of the PRSP. Both initiatives helped recognize potential bottlenecks during the information-sharing process with local stakeholders and their representatives at national and regional levels. An appropriate facilitation process is crucial to ensure a meaningful involvement of local communities and appropriate communication of their views.

2.2. Key Objectives of Consultations for Each Target Group

There were three common objectives to all groups: (1) providing information and awareness on the REDD+ process to enhance understanding and ownership, (2) gathering feedback on all or some of the eight themes identified above and developed in the R-PP, and (3) gathering views on the proposed institutional arrangement. In addition to these global objectives, each group had specific objectives:

➔ Group 1. Civil society members

- Gather their knowledge and views on the drivers of deforestation or degradation;
- Gather their opinions on the links between the REDD+ strategy and rights of access to and use of natural resources;
- Brainstorm on the best way to involve them in the definition and implementation of the REDD+ strategy; and
- Discuss opportunities and challenges related to REDD+ in terms of poverty reduction (alternative livelihoods, carbon revenue-sharing mechanism).

➔ Group 2. Private sector

- Gather their knowledge and views on the drivers of deforestation or degradation related to mining, logging, or infrastructure development;
- Gather their opinions on the links between the REDD+ strategy and more sustainable production methods; and
- Brainstorm on the best way to involve them in the definition and implementation of the national REDD+ strategy.

➔ Group 3. Representatives of central and decentralized authorities

- Gather their knowledge and views on the drivers of deforestation or degradation related to weaknesses of governmental services;
- Brainstorm on the best way to steer the definition and implementation of the REDD+ strategy, at both central and decentralized levels.

➔ Group 4. Elected representatives and members of the CES

- Share with the elected representatives and CES members the political and diplomatic implications of REDD+ and economic opportunities, including details on the Climate Convention, the Kyoto Protocol, the status of post-2012 negotiations, and the role of carbon markets for the national economy;

- Highlight the role of REDD+ for the sustainable management of natural resources and the country's economic development (and discard any notion of incompatibility); and
- Brainstorm on any legislative option to speed up the definition and implementation of the national REDD+ strategy both at central and decentralized levels.

➔ Group 5. Researchers and teachers

- Gather their knowledge and views on the drivers of deforestation or degradation;
- Gather their opinions on scientific and technical aspects related to the MRV of GHG emissions/removals or modeling of threats on forests;
- Brainstorm on priority studies and training to promote the definition and implementation of the REDD+ strategy.

➔ Group 6. Donors

- Communicate the country's progress in preparing its REDD+ strategy; and
- Identify intervention areas and potential multi-faceted support to the different components of the R-PP.

2.3. Individual Consultations (Surveys)

Over 100 surveys were carried out by experts in charge of the development of the R-PP. **Annex 1b-1** lists the names of interviewees with the date of the meeting, his/her institution, position within the institution, and key elements from the discussion.

Summarizing all opinions here would be extremely difficult given the number and diversity of interviewees. Nevertheless, the experts made every effort to integrate and note all opinions in this document. However, a classification based on activity, gender, age, urban or rural settlement, indigenous group is possible.

2.4. Consultations Held in a Workshop

Several workshops were organized both in Bangui and in other provinces, by the CT REDD+ and with the financial and logistical support of WWF CAR and the technical support of the five national experts in charge of the development of the R-PP:

➔ August 11, 2010 at the WWF office in Bangui: Preparatory meeting for the official launch of the REDD+ process

- Participation: 14 participants including one from the central government, 11 members of the civil society and two representatives of international NGOs (the International Union for the Conservation of Nature –IUCN- and WWF);
- Facilitation: CT REDD+ and WWF CAR;
- Key elements: (i) Presentation of the REDD+ process and participants' activities related to the R-PP and (ii) definition by consensus of quotas of invitees at the launching workshop;
- Report and list of participants in **Annex 1b-2.**

➔ September 3-4 2010 at the NA in Bangui: Official launching workshop of the REDD+ process

- Participation: Under the sponsorship of His Excellency the Prime Minister, an average of 70 participants attended the meeting, representing the central government, the civil society, and international NGOs;
- Facilitation: CT REDD+, ONFI, and WWF CAR;
- Key elements: (i) Clarification of the national management framework for the REDD+ process, (ii) broad awareness of stakeholders, (iii) Governmental political goodwill to support the process;
- Report and list of participants in **Annex 1b-3.**

➔ October 27, 2010 at the national judicial and administration Academy (ENAM) in Bangui: Mid-term presentation of the R-PP development tasks

- Participation: 68 participants including 47 from the central government, 17 from the civil society, and 4 from international NGOs;
- Facilitation: CT REDD+ and ONFI;

- Key elements: Presentation of the seven components under development (1a, 1b, 2a, 2b, 2c, 2d, 3) followed by discussions and recommendations;
- Report and list of participants in **Annex 1b-4.**

➔ November 2, 2010 in the conference room of the Ministry of water, forests, hunting, and fisheries (MEFCP) in Bangui: Information workshop for the civil society on REDD+ and presentation of the progress of the R-PP

- Participation: 59 participants from the following organizations: FLEGT/VPA civil society platform, network of environmental and sustainable development NGOs (RONGED) from CIONGCA, NGOs involved in human rights, religious groups, wood and NTFP traders' groups, syndicates and women NGOs;
- Facilitation: CT REDD+ and ONFI;
- Key elements: (i) awareness and information on potential institutional anchoring to promote the REDD+ process, (ii) identification of potential benefits of REDD+ and inherent threats, (iii) focus on the five components under development (1a, 1b, 2c, 2d et 3), and (iv) discussions and recommendations;
- Report and list of participants in **Annex 1b-5.**

➔ November 9, 2010 in the meeting room of WWF CAR in Bangui: Information workshop on REDD+ for the private sector and presentation of the progress of the R-PP

- Participation: 24 participants from the following companies: (i) Logging companies (Thanry, Société d'exploitation forestière de la Kadéï (SEFOKAD), Vicwood Centrafrique (VICA), Industrie forestière de Batalimo (IFB), Société d'exploitation forestière centrafricaine (SEFCA), Société centrafricaine de déroulage (SCAD), (ii) Mining companies (Aurafrique, Diamond Centrafrique), (iii) Small-scale loggers and miners (Amis bois, Association pour le Développement des exploitants miniers (ADEM), and (iv) carpentry shops;
- Facilitation: CT REDD+;
- Key elements: (i) Gathering of knowledge and views on the drivers of deforestation and degradation related to logging, mining, and infrastructure development, (ii) gathering of opinions on the links between the REDD+ strategy and more sustainable production methods, (iii) brainstorming on the best way to involve the private sector in the definition and implementation of a REDD+ strategy;
- Report and list of participants in **Annex 1b-6.**

➔ November 10, 2010 in the meeting room of WWF CAR in Bangui: Information workshop on REDD+ for authorities and presentation of the progress of the R-PP

- Participation: 41 participants from the President's Office, the Prime Minister's Office, ministerial departments, and research institutions;
- Facilitation: CT REDD+;
- Key elements: (i) Awareness and information on potential institutional anchoring to promote the REDD+ process, (ii) drivers of deforestation and degradation, (iii) selected reference scenario, (iv) planned MRV studies, (v) focus on the six components under development (1a, 1b, 2a, 2b, 2d, and 3), and (vi) discussions and recommendations;
- Report and list of participants in **Annex 1b-7.**

➔ November 11-12, 2010, in the audience room of the City Hall in Mbaïki: Information and awareness workshop on the REDD+ process

- Participation: chaired by the Sub-Prefect of Mbaïki, assisted by mayors and leaders from neighboring municipalities, chiefs of groups and villages, 59 participants including 30 from decentralized authorities, 27 from the civil society (including three representatives of indigenous peoples, two Aka Pygmies and one Mbororo Peulhs), and two from international NGOs Cooperazione internationale (COOPI) and Rainforest UK;
- Facilitation: CT REDD+;

- Key elements: (i) Awareness and information on potential institutional anchoring to promote the REDD+ process, (ii) Benefits of REDD+ and inherent threats, (iii) focus on the five components under development (1a, 1b, 2c, 2d, and 3);
- Report and list of participants in **Annex 1b-8.**

➔ December 21-22, 2010, in the Rock Hotel meeting room: R-PP preliminary validation workshop

- Participation: Chaired by the Advisor for ecology at the Ministry of environment and ecology (MEE), 45 participants including 25 from central authorities, 14 from the civil society and six journalists;
- Facilitation: CT REDD+;
- Key elements: (i) report on institutional anchoring to promote the REDD+ process, (ii) benefits from REDD+ as well as inherent threats, (iii) focus on the five components under development (1a, 1b, 2c, 2d, and 3);
- Report and list of participants in **Annex 1b-9.**

It should be noted that at this workshop, the person in charge of Task Force 3 for the review of components on stakeholders' consultation (1b) and assessment of social and environmental impacts (2d) is one of the representatives of the NGO national platform.

➔ January 11-12, 2011 in the conference room of the 20,000-seat stadium in Bangui: R-PP validation workshop

- Participation: chaired by His Excellency the Minister of environment and ecology, 70 participants;
- Facilitation: CT REDD+, with support from ONFI and WWF;
- Key elements: (i) all components were reviewed by commissions then presented in plenary session before validation, (ii) participants expressed two global recommendations: senior staff at governmental departments need some capacity-building on REDD+ and the FNE status should integrate carbon credits as a new potential source of revenue;
- Report and list of participants in **Annex 1b-10.**

➔ June 22, 2011, in the conference room of the School of theology in Bangui: Information and exchange workshop and a one-hour press conference on the implementation of the Climate Convention in the CAR

- Participation: Chaired by the Advisor on ecology at the Ministry, 48 participants;
- Facilitation: CT REDD+ and WWF;
- Key elements: (i) all projects under the authority of the Climate Change Coordination Unit were presented,(ii) all REDD+ projects of the World Bank, FAO, and the German BMU were reviewed (iii) participants expressed two global recommendations: senior staff at governmental departments require some capacity-building on REDD+ and the FNE status should integrate carbon credits as a new potential source of revenue;
- Report and list of participants in **Annex 1b-12.**

➔ June 23-24, 2011 in the conference room of the City Hall of Bimbo: Information and awareness workshop on the REDD+ process

- Participation: Chaired by the Prefect of Ombella M'Poko, Mrs. Clotilde NAMBOI, assisted by mayors and leaders from neighboring municipalities, chiefs of groups and villages, 75 participants including 17 from decentralized authorities and 58 from the civil society (including representatives of indigenous peoples - Aka Pygmies and Mbororo Peulhs- and international NGOs);
- Facilitation: CT REDD+ and WWF;
- Key elements: (i) Awareness and information on potential institutional anchoring to promote the REDD+ process, (ii) benefits from REDD+ as well as inherent threats, (iii) focus on the five components under development (1a, 1b, 2c, 2d, and 3);
- Recommendations: Participants recommended that the regional agriculture directorates be integrated in the Interprefectural Committees.
- They also recommended that the government, through the unit at the FNE, manages REDD+ funding.

- They also recommended including illegal logging as a direct cause of forest degradation.
- Report and list of participants in **Annex 1b-13.**

➔ June 30- July 1, 2011 in the conference room of the City Hall in Nola: Awareness and information workshop on the REDD+ process.

- Participation: Chaired by the Nola Sub-Prefect Mr. Rémy ZOUNGALANI, representing the Prefect of Sangha-Mbaéré, assisted by mayors and leaders of neighboring municipalities, chiefs of groups and villages; 60 participants including 13 from decentralized authorities, 47 from the civil society (including representatives of indigenous peoples - Aka Pygmies and Mbororo Peulhs- and international NGOs);
- Facilitation: CT REDD+ with support from ONFI and WWF;
- Key elements: (i) Awareness and information on potential institutional anchoring to promote the REDD+ process, (ii) benefits from REDD+ as well as inherent threats, (iii) focus on the five components under development (1a, 1b, 2c, 2d, and 3);

Recommendations

- Include a representative of the civil society among the 14 members of the second CN vice-presidency for a better balance;
- Maintain the proposed funding process through the REDD unit at the FNE;
- Involve youth associations in community surveillance of forests;
- Present current regulations in a simpler and more accessible way;
- Develop local management plans to manage forest resources in a consensual way given the diversity of sectors and actors involved;
- Have radio programs in the Ba'Aka language for better awareness or develop brochures, sketches, or songs in the Aka language;
- Integration of the Aka Pygmies should not be coercive but adapted to their rhythm and lifestyle.
- Report and list of participants in **Annex 1b-14.**

Summary of Key Elements/Recommendations during Consultations Integrated in the Revised Version of the R-PP

Activities	Date and Location	Facilitation	Key Elements	Recommendations	Integration
Stakeholder Consultation for the REDD+ Process in the CAR	August 11, 2010 at the WWF office in Bangui: Preparatory meeting for the official launch of the REDD+ process	CT REDD+ and WWF CAR	(i) Presentation of the REDD+ process and participants' activities related to the R-PP and (ii) definition by consensus of quotas of invitees at the launching workshop	No specific recommendation. Congratulated the REDD+ Technical Coordination for the initiative and the list of 10 NGOs was given to the CT REDD+.	Done by CT REDD+ in the latest version of the RPP
Stakeholder Consultation for the REDD+ Process in the CAR	October 27, 2010 at the national judicial and administration Academy (ENAM) in Bangui: Mid-term presentation of the R-PP development tasks	CT REDD+ and ONFI	Presentation of the seven components under development (1a, 1b, 2a, 2b, 2c, 2d, 3) followed by discussions and recommendations	Recommendations include: **Component 1a** • Integrate the Ministry of Defense – a key player for the reform program for the security system (PRSS) – and the Ministry of Social Affairs in the CIM REDD+ because of the significant role of these entities for the REDD+ process • Integrate the Ministry of Agriculture in the CN REDD+. Therefore, the national federation of farmers should be withdrawn and replaced by the MDRA • Closely involved the Ministry of Mining in the REDD+ process • Integrate also the directorate for meteorology in the process (this recommendation was not confirmed in the plenary session) • Distinguis the Ministry of National Education from the University (Research Institution) **Component 1b** a) Highlighted difficulty of integration of poachers, transhumant farmers and illegal loggers (stakeholders without affiliation) in the REDD+ process b) During negotiations, rely on the NDélé Sultan, the Ardo chiefs and traditional chiefs to communicate with the Mbororo transhumant farmers as well as stakeholders from neighboring countries c) Include visual support material in IEC and translate outreach manuals in Sango, the national language	All recommendations were integrated in the informal version submitted last March. Subsequent changes were made and the CIM REDD+ does not exist any more in latest version of the R-PP but departments should be consulted by the CN REDD+ and it should be remembered

				d) Include the communication component in IEC e) Include schools as REDD+ stakeholders f) Develop a specific strategy for indigenous peoples g) Include all University bodies h) (In the long run) integrate climate science in the university curriculum i) Integrate and define the role of village chiefs in the REDD+ process j) Edit and publish a manual outlining acronyms. **Component 2a** i. Build synergies between the national reforestation policy and REDD+ ii. Include savannas in REDD+ issues iii. Align REDD+ objectives and development objectives iv. Integrate mining issues in territorial management policies v. National forest policies should be developed wit the support of available partners to assist the CAR. **Component 2c** With regards to communication, consider the own interests of the six categories of stakeholders Address gaps in legislative and/or regulatory tenure arrangements Explore examples from other countries on carbon sequestration **Component 2d** *[no comment here]* **Component 3** Senior staff, including GNASSE Georges, BOUAWA Eugène, MEDY Augustin et KEMANDA Jean-Charles, who already received a training on reference scenario (IIASA) should participate in the following preliminary validation workshop in November 2010 in Bangui Biostatistics should be mastered The consultant was asked to make all necessary efforts to submit a revised draft by November 10, 2010.	that all departments are present within CNEDD. All recommendations were integrated in the latest version of the R-PP and others will be integrated during the implementation of the RPP
	November 2, 2010 in the conference room of the Ministry of water, forests,	CT REDD+ and ONFI	(i) awareness and information on potential institutional anchoring to promote the REDD+ process, (ii) identification of potential benefits of REDD+ and	**Component 1b:** Participants expressed their concern on their involvement in the process. Documents should be available well ahead. Communication with CN REDD+ should be fluid and continuous. Traditional healers who have a thorough knowledge on forests, should be included. **Component 2b:** REDD+ is not a main concern for populations. For a thorough understanding of the process, additional studies are needed to initiate projects and	

Stakeholder Consultation for the REDD+ Process in the CAR	hunting, and fisheries (MEFCP) in Bangui: Information workshop for the civil society on REDD+ and presentation of the progress of the R-PP		inherent threats, (iii) focus on the five components under development (1a, 1b, 2c, 2d et 3), and (iv) discussions and recommendations (i)	programs adapted to the needs and realities of populations, especially indigenous peoples. **Component 2d**: SESA should be participative and inclusive to integrate all stakeholders **Component 3:** Participants expressed concerns on the complexity of calculations. Further explanation is needed to allow the parties to identify the best scenario for the CAR.	All recommendations were included in the latest version of the RPP
Stakeholder Consultation for the REDD+ Process in the CAR	November 9, 2010 in the meeting room of WWF CAR in Bangui: Information workshop on REDD+ for the private sector and presentation of the progress of the R-PP	CT REDD+	(i) Gathering of knowledge and views on the drivers of deforestation and degradation related to logging, mining, and infrastructure development, (ii) gathering of opinions on the links between the REDD+ strategy and more sustainable production methods, (iii) brainstorming on the best way to involve the private sector in the definition and implementation of a REDD+ strategy	Participants insisted to be informed on the progress of the development of the R-PP in the CAR as well as on international negotiations on REDD+, so that their efforts to reduce deforestation and forest degradation in their respective fields (logging, mining, etc.) are equitably compensated.	All recommendations were included in the latest version of the RPP
Stakeholder Consultation for the REDD+ Process in the CAR	November 10, 2010 in the meeting room of WWF CAR in Bangui: Information workshop on REDD+ for authorities and presentation of the progress of the R-PP	CT REDD+	(i) Awareness and information on potential institutional anchoring to promote the REDD+ process, (ii) drivers of deforestation and degradation, (iii) selected reference scenario, (iv) planned MRV studies, (v) focus on the six components under development (1a, 1b, 2a, 2b, 2d, and 3), and (vi) discussions and recommendations	Discussions resulted in the following recommendations: a) Explain the numerous acronyms which limit a clear understanding of the subject b) Change the composition of the CT REDD+, from 17 to 15 members c) Make documents available well ahead of workshops d) Integrate the Ministry of Tourism in the Technical Coordination as ecotourism strongly contributes to sustainable forest and fauna management e) Address the institutional instability of senior staff f) Involve research institutes and the University in the process g) Carry out impacts assessment for the cement factory to be installed near Bangui as well for all new projects in the CAR, specifically the project on water diversion from Oubangui to Lake Chad h) Associate the MEFCP with the Commission allocating mining permits i) Involve traditional healers in consultations due to their role for degradation	All recommendations were included in the latest version of the RPP and others will be integrated during the implementation of the RPP

				j) Reinforce training and increase the number of forest ecorangers k) Provide training on MRV to students. l) Define a method for quantifying forest carbon stocks.	
Stakeholder Consultation for the REDD+ Process in the CAR	November 11-12, 2010, in the audience room of the City Hall in Mbaïki: Information and awareness workshop on the REDD+ process	CT REDD+	(i) Awareness and information on potential institutional anchoring to promote the REDD+ process, (ii) Benefits of REDD+ and inherent threats, (iii) focus on the five components under development (1a, 1b, 2c, 2d, and 3)	i. Include local groups (municipalities, groups, village chiefs) and leaders in brainstorming workshops ii. Clearly define benefit-sharing mechanisms. Aka Pygmies should gain some REDD+ benefits as they strongly contribute to sustainable management iii. Clearly define tenure status and beneficiary of profits from land-use iv. Organize regional meetings in rotation v. Include village chiefs in controls of logging companies vi. Get governmental support for reforestation vii. Organize a specific workshop, in their environment, for the Aka Pygmies and the Mbororo Peulhs to get their feedback on the REDD+ process viii. Aka Pygmies wish to have schools at their settlements for "{*their} children to be educated and become civil servants one day like non-indigenous children*". They also want essential infrastructure such as health clinics, wells, etc. ix. Integration of the Aka Pygmies should not be coercive but adapted to their rhythm and lifestyle	All recommendations were included in the latest version of the RPP and others will be integrated during the implementation of the RPP
Stakeholder Consultation for the REDD+ Process in the CAR	December 21-22, 2010, in the Rock Hotel meeting room: R-PP preliminary validation workshop	CT REDD+	(i) report on institutional anchoring to promote the REDD+ process, (ii) benefits from REDD+ as well as inherent threats, (iii) focus on the five components under development (1a, 1b, 2c, 2d, and 3);	1. Rotation of regional meetings in different capital cities of the same region 2. Add another private sector member to the CN REDD+ 3. Complete the list of interviews of component 1b and edit a glossary of acronyms 4. Review budget based on planned activities 5. Add a bibliography for component 2b 6. Edit and publish a manual on acronyms 7. Clarify what "expert opinions" means.	All recommendations were included in the latest version of the RPP

Stakeholder Consultation for the REDD+ Process in the CAR	January 11-12, 2011 in the conference room of the 20,000-seat stadium in Bangui: R-PP validation workshop	CT REDD+, with support from ONFI and WWF	(i) all components were reviewed by commissions then presented in plenary session before validation	i. Senior staff at governmental departments and entities need some capacity-building on REDD+ ii. The FNE status should integrate carbon credits as a new potential source of revenue.	All recommendations were included in the latest version of the RPP
Stakeholder Consultation for the REDD+ Process in the CAR	June 22, 2011, in the conference room of the School of theology in Bangui: Information and exchange workshop and a one-hour press conference on the implementation of the Climate Convention in the CAR	CT REDD+	(i) all projects under the authority of the Climate Change Coordination Unit were presented, (ii) all REDD+ projects of the World Bank, FAO, and the German BMU were reviewed	- Participants expressed two global recommendations: senior staff at governmental departments require some capacity-building on REDD+ and the FNE status should integrate carbon credits as a new potential source of revenue - Public information should a focus on climate change issues discussed at international level, using all possible means of communication - Development of a communication document in simple and understandable terms, specifically in the national language, on environmental concepts used for REDD+ for public information, particularly for the rural population - Creation of a national Observatory on the environment and renewable energy for early alert and prevention of natural disasters including bushfires, floods, drought, deforestation, etc. - Involvement of the technical services of the Ministry of the Environment and Ecology, based on their responsibilities, in climate change issues would be a crucial asset - Use of Geographic Information Systems is essential for the creation of model forests and monitoring of vegetation cover.	All recommendations were included in the latest version of the RPP and others will be integrated during the implementation of the RPP

Stakeholder Consultation for the REDD+ Process in the CAR	June 23-24, 2011 in the conference room of the City Hall of Bimbo: Information and awareness workshop on the REDD+ process	CT REDD+ and WWF	(i) Awareness and information on potential institutional anchoring to promote the REDD+ process, (ii) benefits from REDD+ as well as inherent threats, (iii) focus on the five components under development (1a, 1b, 2c, 2d, and 3)	i. Participants recommended that the regional agriculture directorates be integrated in the Interprefectural Committees. ii. They also recommended that the government, through the unit at the FNE, manage REDD+ funding. iii. They also recommended including illegal logging as a direct cause of forest degradation.	All recommendations were included in the latest version of the RPP
Stakeholder Consultation for the REDD+ Process in the CAR	June 30- July 1, 2011 in the conference room of the City Hall in Nola: Awareness and information workshop on the REDD+ process	CT REDD+ and WWF	(i) Awareness and information on potential institutional anchoring to promote the REDD+ process, (ii) benefits from REDD+ as well as inherent threats, (iii) focus on the five components under development (1a, 1b, 2c, 2d, and 3)	– Include a representative of the civil society among the 14 members of the second CN vice-presidency for a better balance; – Maintain the proposed funding process through the REDD unit at the FNE; – Involve youth associations in community surveillance of forests; – Present current regulations in a simpler and more accessible way; – Develop local management plans to manage forest resources in a consensual way given the diversity of sectors and actors involved; – Have radio programs in the Ba'Aka language for better awareness or develop brochures, sketches, or songs in the Aka language; – Integration of the Aka Pygmies should not be coercive but adapted to their rhythm and lifestyle.	All recommendations were included in the latest version of the RPP and others will be integrated during the implementation of the RPP

3. ADDITIONAL CONSULTATIONS

Stakeholder consultation, an important activity for this process, requires significant financial resources. The process is complex in the CAR as the country is divided in 16 prefectures (Regions) in addition ot Bangui, the capital city. Consultations have only been held in Bangui, Lobaye Prefecture, Ombella M'poko Prefecture and Sangha-Mbaéré Prefecture.

Funding is an issue for the CAR Government, which wishes to consult a maximum number of people in this process. The Government wishes to continue consultations upon funding from the World Bank. National NGOs will carry out consultations with the CN REDD+ based on a plan to be defined jointly by the NGOs and the CT REDD+ (see 1c)

Schedules and deadlines will be established for consultations for adequate preparation and feedback from participants (see Figure 3). Stakeholders' opinions should be collected and transmitted to the decision-making entity on REDD+ in the CAR.

Objectives of consultation will be developed in the beginning of this schedule to ensure timely progress, given the level of response capacity of participants.

Note: The schedule and calendar for the remaining stakeholders consultations are included in the Budget for Component 1c of the CAR R-PP.

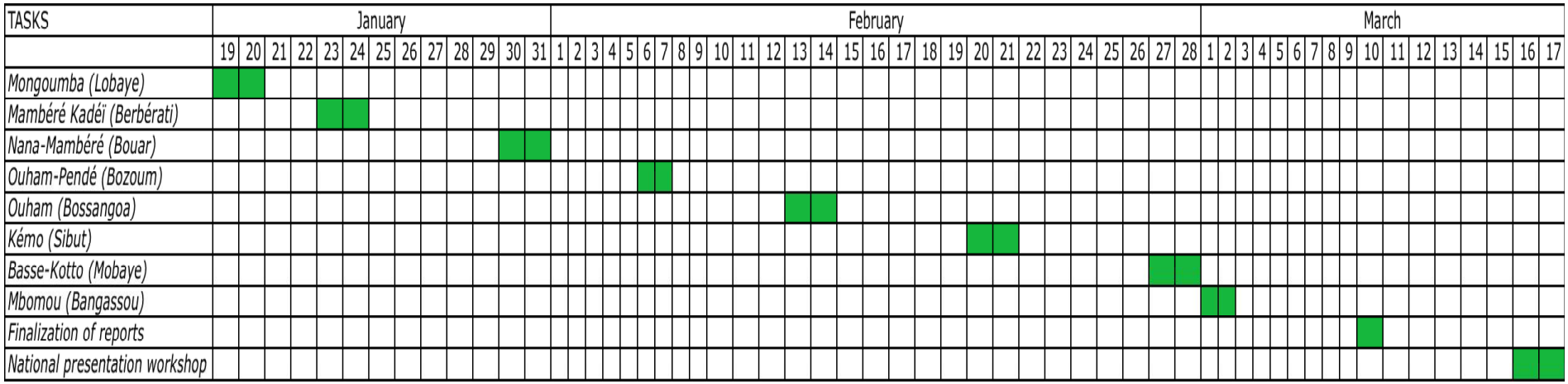

Figure 3 – Schedule for Further Consultations and Dialogue with Key Stakeholder Groups in Other CAR Prefectures.

1 c. Consultation and Participation Process

Note: As most tasks related to these components were carried out before the publication of the V5 of the R-PP (published on October 30, 2010 and revised on December 22, 2010), it was deemed preferable to revise the work plan from the V5 of the R-PP, published on January 12, 2011.

For a broad and inclusive participation of and ownership by all stakeholders, a broad consultation will take place between the end of 2011 and June 2014 in order to integrate their concerns in the REDD+ strategy and ensure implementation success.

Workshops are planned in line with consultations held up to now: general or specific workshops, both at national (with support from the CT REDD+) and prefectural (CIP-REDD+) levels. Specific and local workshops will be organized for indigenous peoples (Mbororo Peulhs and Aka Pygmies).

National experts involved in consultations from December 2011 to June 2014 will have a good understanding and ownership of REDD+ concepts. Lessons learned during the development of the R-PP will help these experts carry out countrywide consultations.

Alongside these workshops, a public information and awareness campaign will be launched and individual consultations continued.

1. National Workshops

Participation at each national workshop will include all target groups. Based on specific themes (e.g. a political theme for Components 1a and 2b, a technical theme for Component 4 or a mix of both for Component 3), there will be a focus on one or the other target group.

Workshops will take place once a month immediately following the CT REDD+ meeting, in accordance with the focus subject of this meeting. Some or all five thematic groups of the CT REDD+ will facilitate discussions and gather the participants' comments.

2. Local/ District Workshops

The vision of the CAR in this readiness document is to fully integrate consultation and ownership while focusing on information and national capacity building.

Stakeholder consultation, an important activity for this process, requires significant financial resources. The process is complex in the CAR as the country is divided in 16 prefectures (Regions) in addition ot Bangui, the capital city. Consultations have only been held in Bangui, Lobaye Prefecture, Ombella M'poko Prefecture and Sangha-Mbaéré Prefecture.

Funding is an issue for the CAR Government, which wishes to consult a maximum number of people in this process. The Government wishes to continue consultations upon funding from the World Bank. National NGOs will carry out consultations with the CN REDD+ based on a plan to be defined jointly by the NGOs and the CT REDD+ (see 1c). The Ministry of the Environment and Ecology, through the national coordination, is launching a recruitment notice for two national NGOs for this purpose.

The national NGOs will work closely with the CN REDD+ to provide support on stakeholder consultation through the development of an efficient consultation plan.

The NGOs should have a renowned national representation and work with representative local NGOs or credible networks such as the NGO platforms to ensure the linkage between the local and the leader levels.

The national NGOs will be in charge of the following tasks:

1) Contribute to the preparation and implementation of national workshops and other activities (drafting of preparation documents for information and awareness) of the consultation phase, in line with the R-PP

2) Based on national experience, the NGOs will advise and assist the national coordination team to obtain key results from the consultation phase, including

   a) A proposed stakeholder consultation plan to implement REDD+ in the CAR

b) Preparation based on the R-PP, relevant documentation for discussions and debates with consulted groups

c) Support to the National Coordination through practical advice on planning and implementation of consultations

d) Support to the National Coordination through a clear understanding of strategies, policies, and measures related to climate change, based on baseline and additionality, according to the actions presented for REDD+

e) A proposal for effective involvement of Indigenous Peoples and Other Forest Dwellers as well as a special policy to safeguard their rights and interests. Communication will take place in their dialects. As a reminder, activities affecting Indigenous Peoples must comply with the World's Bank Operational Policy 4.10 on Indigenous Peoples.

Consultation requires representation and participation. Therefore, there are prerequisites for each target group, including the use of appropriate communication techniques for information and awareness. Participation of all groups regardless of gender and age is also necessary.

Tools should be prepared and validated by the National Coordination including a template for the minutes of meetings and a template for consultation reports including all key information.

Grief and conflict resolution mechanisms as well as participatory management approaches should also be considered. In the event of a conflict, the REDD+ Technical Coordination will inform the CN REDD+ for an adequate response. The CN REDD+ will implement a conflict resolution mechanism in its rules and regulations.

Similarly, prefectural workshops will take place every six months after each CIP REDD+ meeting. Participants at the CIP REDD+ meeting will report to their local stakeholders once they are back in their home prefecture. If needed, members of the CT REDD+ can provide assistance for reporting.

3. Specific Workshops (for the Aka Pygmies and Mbororo Peulhs Indigenous Peoples)

There will be a special focus on the consultation of indigenous peoples. They should be able to speak freely, in a calm and relaxed environment, so that their views could be taken into account in all REDD+ activities.

Workshops for the Aka Pygmies will take place in four cities: in Bayanga in the Sangha-Mbaéré Prefecture, in Bimbo in the Ombella-M'poko Prefecture, in Mbaïki in the Lobaye Prefecture, and in Berberati in the Mambéré-Kadéi Prefecture.

Workshops for the Mbororo Peulhs will take place in six cities: in Bambari in the Ouaka Prefecture, in Bouar in the Nana Mambéré Prefecture, in Bossangoa in the Ouham Prefecture, in Paoua in the Ouham Pendé Prefecture, in Mobaye in the Basse-Kotto Prefecture, and in Bangassou in the Mbomou Prefecture.

The CT REDD+ will organize workshops in rotation with support from the CIPs REDD+: by organizing two workshops each month, all ten cities will be covered in less than six months.

4. Public Information and Awareness Campaigns on REDD+

This public information and awareness campaign on REDD+ will be consistent with existing communication strategies. Within the limits of the CT REDD+ human and financial resources, national radio and TV programs, local and community radio programs (in Sango and in French), games and plays in schools, in public arenas and in villages, involvement of community leaders (religious, opinion leaders, etc.) could be included.

5. Individual Consultations (Opinion Surveys)

Over 80 resource people have been identified for consultations before the end of the first semester of 2014, mostly between the fourth semester of 2011 and the fourth semester of 2012. The list of these people can be found in **Annex 1b-11.**

6. SCHEDULE AND BUDGET (IN KUSD)

Main activities	Sub-activities	S2 2011	S1 2012	S2 2012	S1 2013	S2 2013	TOTAL
Organization of national workshops (1/month) after each meeting of the CT REDD+	Preparation of IEC materials before each workshop (2md/month of IEC experts from the CT REDD x36 moths - covered under Comp 1a)						
	Workshop Facilitation (1md/month of IEC experts from CT REDD x 36 months - covered under Comp. 1a)						
	Participants meals and transportation (50 part/workshop x 20 USD/part x 1 workshop/month)	6	6	6	6	6	30
	Preparation of workshop minutes and dissemination (1md/month of IEC experts from the CT REDD x 35 months - covered under Comp. 1a)						
Organization of prefectural workshops (1/semester) after each meeting of the CIP REDD+	Preliminary training on the basics of REDD+ by IEC experts from the CT REDD+ for two IEC correspondents in each Prefecture (5md/corr. X 32 corr.. X 20 USD/md)	3.2					3.2
	Continuous training on the new developments of REDD+ and the CAR R-PP by IEC experts from the CT REDD+ (2md/semester/corr x 32 corr. X 20 kUSD/md)	1.3	1.3	1.3	1.3	1.3	6.5
	Participants meals and transportation (50 part/workshop x 12 USD/part x 1 workshop/sem./Pref x 16 Pref.)	9.6	9.6	9.6	9.6	9.6	48
	Facilitation of prefectural workshops (2md/corr. X 32 corr. X 20 USD/md)	1.3	1.3	1.3	1.3	1.3	6.5
Organization of workshops for indigenous peoples (10/semester, 1/semester in each of the 10 cities listed in 3.3)	Preparation of IEC materials before each workshop (2md/month IEC experts from the CT REDD x 36 months - covered under Comp. 1a)						
	Facilitation of meetings (2md/workshop by IEC experts of the CT REDD x 10 workshops/semester - covered under Comp 1a + 2 md/workshop of prefectural corr. X 10 workshops/semester x 20 USD/md)	0.4	0.4	0.4	0.4	0.4	2
	Participants meals and transportation (50 part/workshop x 12 USD/part x 10 workshops/semester)	6	6	6	6	6	30
	Preparation of workshop minutes and dissemination (1md/month of IEC experts from the CT REDD+ x 10 workshops/semester x 6 semesters - covered under Comp. 1a)						
Public outreach on REDD+ and the R-PP	Purchase of specific equipment for IEC (in addition to equipment in Comp. 1a): TV/VCR/DVD, camera, projector, recorder	35					35
	Production and dissemination of communication materials - radio and TV programs, plays, school games, etc. (10 md/month of IEC experts of the CT REDD+ x 36 months- covered under Comp. 1a)						
	Support by artists, radio hosts, communication specialists to prepare communication materiasl (4 md/semester of comm. experts or artists x 0.1 USD/md)	0.4	0.4	0.4	0.4	0.4	2
	Radio or TV broadcasting costs (4k USD/semester for 1 week/month of daily radio spots + 4kUSD/semester for 1 week/month for daily TV spots)	8	8	8	8	8	40
Consultation of stakeholders for the remaining prefectures	Recruitment of local NGOs to support the National Coordination for stakeholders consultations (2md/month x 2 months + 2 IEC experts from CT REDD+ covered under Comp 1a)		60				60
Organization of national workshops (2/month) after consultation process	Preparation of IEC materials before each workshop (posters, support documents 50 pers x 60 USD)		3				3
	Copies (Tenure Code, RPP, Agropastoral Code)		1				1
	Meals and transportation for participants (50 part/workshop * 20 USD/part x 10 workshops)		6				6
Individual consultations with key people	Consultations (4md/month of IEC experts of the CT REDD+ x 36 months - covered under Comp. 1a)						
	TOTAL	**71.2**	**103**	**33**	**33**	**33**	**273**
	Government Contribution						
	FCPF Contribution						273
	UN-REDD Contribution						
	AFD Contribution						

Figure 4 – Schedule and Budget of Component 1c of the CAR R-PP

Component 2: Prepare the REDD-plus Strategy

2a. Assessment of Land Use, Forest Policy, and Governance

The purpose of the assessment of land use, forest law, policy, and governance is to help the country identify key drivers of deforestation and/or forest degradation. This assessment shall review its past experiences with reducing deforestation and degradation in order to identify approaches for the emerging REDD+ strategy. This strategy should overcome challenges and issues from previous programs.
Note: The list of publications used for Components 2a and 2b can be found in **Annex 2a-1.**

1. POPULATION AND FORESTS

1.1. Population

According to the State of the Forests in the Congo Basin (OFAC, 2010), the CAR has a total land area of 623,000 km². The estimated population in 2005 is 4,2 million (UN Statistical Yearbook, 2006) with an average population density of 6.8 inhabitants/km^2.

According to the Comprehensive Food Security and Vulnerability Analysis (CFSVA), the CAR had an annual growth rate of 2.5% between 1988-2003 (WFP& al, 2009). Based on this rate, the population is expected to reach five million by 2015.

The population distribution is highly uneven with a low density in the East and the Northeast (one inhabitant/km^2) and a higher density in the West and the Northwest (11 inhabitants/km^2). Bangui has a very high density with 10,000 inhabitants/km^2 and about 800,000 inhabitants.

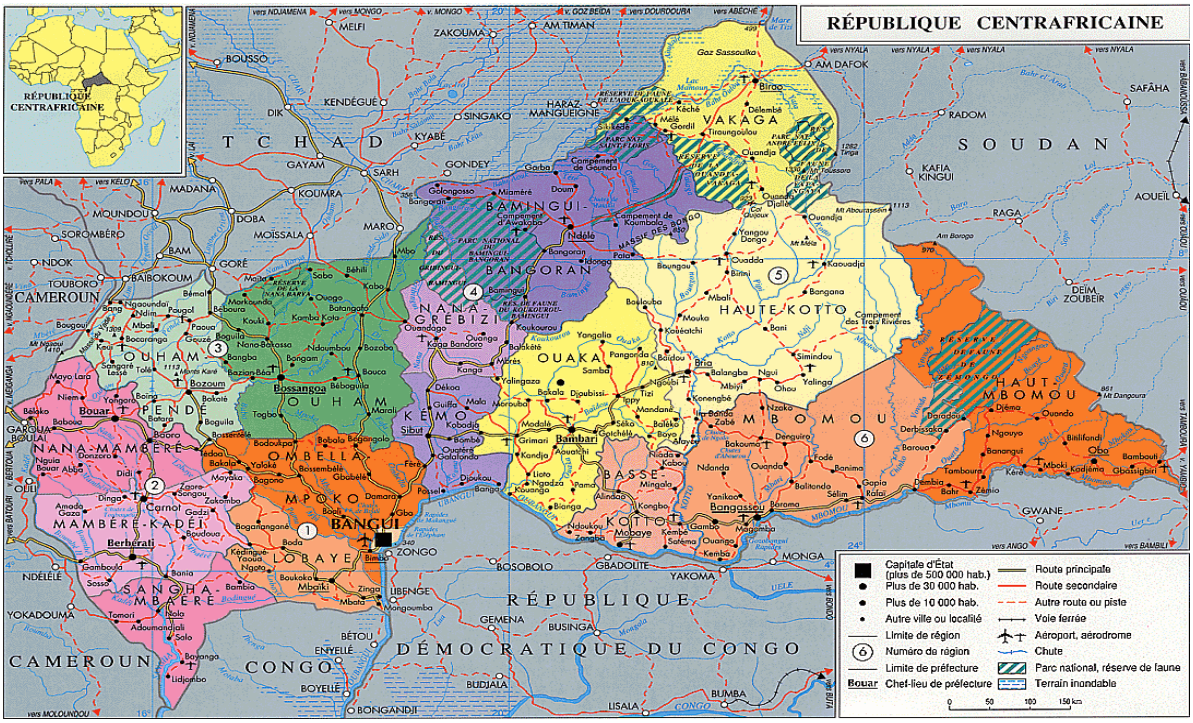

Figure 5 – Administrative Map of the CAR (Source: Ministry of planning: CAR National Report for the Johannesburg Summit - Rio +10)

1.2. Forests

The forest cover represents about half of the CAR land area or over 28.3 Mha, including dense and semi-deciduous forests and forest-savanna mosaics. Wet dense forests, semi-humid forests, dry forests, and gallery forests represent about a third of this surface or 9.2 Mha, while savannas (wooded in the central part, shrub savannas in the North) cover the other two-thirds or 19 Mha.

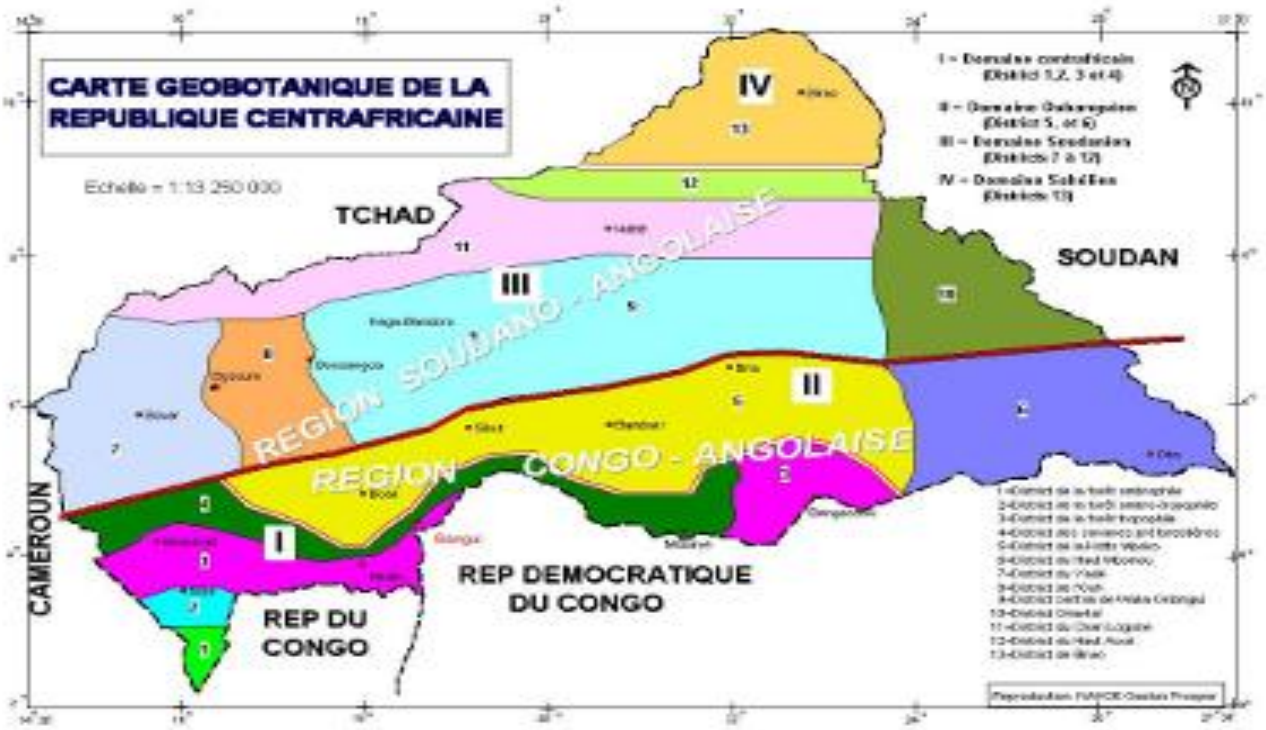

Figure 6- Geobotanical Map of the CAR (Source: CDF, 2009)

Humid dense forests are found in the Southwest (commercially logged) and in the Southeast (no concessions). Relict and dry forests remain in the central part of the country. Savannas cover the northern part.

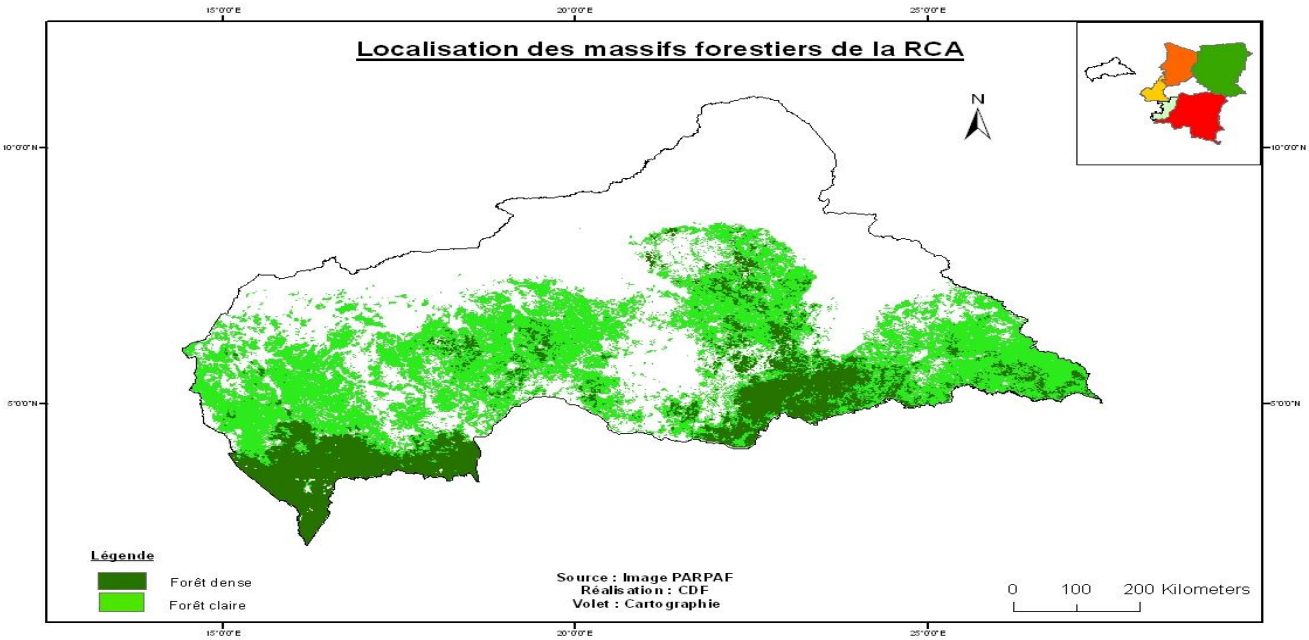

Figure 7 – Forest Map of the CAR (Source: CDF, 2010)

Timber logging takes place in humid dense forests in a total area of 5.4 Mha: in the southwestern forest range (3.8 Mha) where the majority of logging activities is concentrated and the southeastern range or the Bangassou Forest Range (1.6 Mha), which is more remote and less exploited. In 2007, the most logged species were the Sapelli (300,000 m^3) and the Ayous (80,000 m^3), representing 70 % of the national log production. In 2010, production level decreased due to the international financial crisis.

Reforestation remains marginal with 1,640 ha of old plantations and 660 ha of recent ones (MEFCP, 2010).

According to the Directorate of fauna and protected areas (DFAP) at the MEFCP, protected areas –as defined by IUCN – represent about 25.5 Mha or 41 % of the national territory. They include six national parks (3.4 Mha), nine reserves[1] (2.9 Mha), 47 farmed-out[2] hunting sectors (15.6 Mha), and six active village hunting areas (ZCV).

The net annual deforestation rate (deforestation – reforestation) is low and estimated at (i) 0.14 % countrywide for 1990-2005 (FAO, 2005), or 30,000 ha of forest cover net loss, and at (ii) 0.13 % for the southwestern dense forests for 1990-2000 (DUVEILLER & al., 2008).

2 SECTORAL POLICIES

2.1. Environment

A National Environmental Action Plan (PNAE, 1999) has already been implemented and provides for the participation of local communities in forest conservation, community reforestation (based on terrain and the state of ecosystems), protection of priority or ecologically fragile sites, support to local development, and impacts assessment.

It should be noted that environmental protection was not included in the Poverty Reduction Strategy Paper (PRSP) for 2007-2010. On the contrary, the third keystone of the PRSP called “Rebuilding and Diversifying the Economy” promotes the exploitation of natural resources (forest, fauna, fisheries, etc.) without any actual aim at sustainable management and modernization of agriculture.

However, the PRSP II should take environmental issues into account, notably climate change, through an Environmental Policy Letter, which is being developed using an inter-sectoral approach and support from the United Nations Development Program (UNDP).

2.2. Forests and Fauna

The CAR does not have a specific paper on forest policy. However, recommendations were made during the September 2003 roundtables on forests, along three main themes:

- Enhance knowledge on the country’s forest resources;
- Develop forest management plans; and
- Promote forest resources.

In addition, these roundtables also focused on:

- Improving the definition of permanent (State forests) and non permanent (public group, community, and private forests) forest estates;
- Promoting participatory forestry; and
- Determination of usage rights and provisions related to logging (industrial and small-scale).

---

[1] *A strict reserve (8, 000 ha), a “special” reserve for the fragile ecosystem near Bangui (335,900 ha), five fauna reserves (2.44 Mha), two Biosphere reserves (14.600 ha) with one already included as a national park.*

[2] *A farm-out is a legal agreement under which a public authority allocates a normally inalienable area (public domain) to a private company or a group for a limited period of time and usually in a reversible way.*

Law # 08.022 of October 17, 2008 on the Forest Code covers such concerns. Several implementing regulations were finalized: (i) Decree # 09.11 of April 28, 2008 defining the application of the Forest Code, (ii) Decree # 09.118 of April 28, 2008 on logging and management permits (PEA), and (iii) Resolution # 09.021 of April 30 defining the application of the Forest Code.

Highlights of the Forest Code and its implementing regulations include:

- The former "exploitation permits" were converted into logging and management permits (PEA) to reflect a focus on sustainability of forest resources;
- Standards for management plans are based on stakeholders' consultation, Environmental Impact Assessments (EIE), management surveys, determination of a minimum diameter cutting limit (MDCL), integration of agricultural ranges in the PEA, etc.;
- Small-scale logging permits and NTPF harvest permits were also established;
- (i) Industrial logging conventions between concession-holders and the State and (ii) a list of requirements to produce benefits for neighboring populations were also established;
- Abandoning timber in forests is now strictly prohibited;
- A minimal local transformation rate of 70% was set for harvested logs;
- Legal provisions on bush fires, forest fires, and pastures are planned;
- A summary of infractions is regularly published;
- A statistical yearbook on forest data is published;
- An economic observatory for timber (OEFB) was created to periodically publish economic forecasts for the logging sector;
- A special allocation fund for forestry development (CAS-DF) was created to support forestry initiatives through forest taxes; and
- Forest revenues are secured with support from Bureau Veritas, Inspection Valuation Assessment and Control (BIVAC).

In addition to the Forest Code, the following national initiatives are of interest:

- Resolution # 022/MEFCP/DIRCAB/DGEFPC/DEIFP of July 3, 2010 established a national committee in charge of the definition of large-scale reforestation and identification of potential sites;
- The CAR adopted and participates in the implementation of the COMIFAC Convergence Plan;
- The CAR signed a VPA-FLEGT with the EU on December 21, 2010. The country launched a multi-stakeholder consultation process, which is promising for the development of the national REDD+ strategy. It was also decided to have an independent observer of the PEA allocation process (to be designated soon). The development of the R-PP will be closely aligned with the implementation of VPA-FLEGT; and
- Several logging companies have already started to implement the FLEGT. IFB obtained the Origin and Legality of Timber (OLT) certificate awarded by Bureau Veritas.

The following past, ongoing, and planned projects are also worth mentioning:

- The program on natural resources management (PARN) funded by the World Bank (WB) and implemented between 1991 and 1997. This program produced some aerial photography and digital mapping of the southwestern region, a survey and land-use planning for the area, the master plan for the management of the periurban Bangui area, and support to the protection of fauna in the Trinational Protected Area of Dzanga-Sangha;
- The CDF created in 2004 with the financial support of the European Union. Operations slowed down for lack of funding before activities resumed in 2009. The mission of the CDF was to collect forest data, produce forest-related statistics and manage a forest database, ensure timber traceability from production to exportation, map the PEAs, and undertake the FLEGT process. The project is expected to close at the end of 2011;
- The OEFB was conceived in 2008 as an economic intelligence tool for the timber industry to update indicators, so that (i) the State could adjust taxation in order to ensure economic sustainability of the timber sector and (ii) the State, sectoral companies, development partners and the civil society have all necessary information to monitor sectoral activities and profitability;
- The project supporting forest management plans (PARPAF), funded by the French Development Agency (AFD) and implemented from 2000 to 2011. This project contributed to the management

plans for 11 PEAs (The IFB PEA in the Ngotto area was the first to have a management plan in Central Africa). By March 2011, the eleven allocated and operational PEAs should have management plans. The three other unallocated PEAs should get their management plans soon. From the future PARPAF, for which implementation regulations are still under discussion, should emerge the autonomous agency supporting the sustainable management of forest resources (AGDRF). The mission of this agency and potential links with CDF and OEFB have been clearly defined (Personal communication from H. M. MAÏDOU – Deputy Chief PARPAF, January 2011);

- The development Program for the northern region (PDRN) funded by the European Union and implemented from 1987 to 2000. This program contributed to actions against poaching, infrastructure (buildings, trails, aerodrome, etc.), and development activities in the Bamingui-Bangoran and Vakaga Prefectures;
- The Project on forest ecosystems of Central Africa (ECOFAC) funded by the European Union in 1992 and implemented by the international Center on agricultural research for development (CIRAD). An outcome of this project was a participatory mapping of the Ngotto Forest, where anthropogenic pressure is intense;
- The project supporting forestry research (PARF) initiated in 1982 by the French Cooperation and implemented by CIRAD. This project, now jointly funded by the Government of the CAR through the CAS-DF, carried out studies of the Lolé and Boukoko Forests near the city of Mbaïki, on the dynamics of growth of natural stands of dense forests and logging impacts;
- The program on participatory management of forest resources (PGPRF) funded by the German technical cooperation (GTZ) and implemented between 1992 and 2009. Thanks to this project, the Bangui Special Reserve was very partially restored: 245 ha was under protection and 129 ha reforested with Gmelina and Teck (for a total of 335,900 ha) to mitigate the effects of fires and erosion;
- The program on the use of forest fees: since 2001, a distribution key for forest taxes and fees defined in the Finance Law has allowed municipalities to receive 30 % of felling taxes and 25 % of reforestation taxes. In addition, for ZCVs, villages receive hunting fees and repay 25 % to municipalities and 15 % to the State, the remaining 60 % being allocated to their socioeconomic development. In 2008, 1.1 billion FCFA of forest and fauna taxes and fees were paid to municipalities;
- The project supporting logging monitoring (PASEF) was funded the World Resources Institute (WRI) and implemented until 2010. This project (now closed) monitored logging in the PEAs using satellite images and produced an interactive atlas of the forest sector;
- The program for food security and promotion of non-timber forest products (PSA/PFABO) supported by the FAO and implemented between 2010 and 2012. The project is now at its mid-term and operates in two sites (Bossangoa and M'baïki);
- The "Dzanga-Sangha dense forest reserve" project funded by WWF, GTZ (funding now closed), and AFD has been operational since 1988. IUCN has also been part of this project since 2010. The project helped protect megafauna through actions against poaching, promotion of tourism and enhancement of local development, and ecological monitoring of flora and fauna. This project is planned to continue around Bangassou (personal communication J.-B. Mamang-Kanga –DFAP Director, Dec. 2010). The GTZ planned an additional funding of 200 million FCFA for 2011;
- The project on "sustainable production and use of biodiversity in the Bangassou Forest through a highly decentralized approach" funded by the Global Environmental Facility (GEF) and UNDP between 1999 and 2004. This project mitigated the impacts of mining activities and involved local populations in forest management through eco-development management units. An expansion of this project to other sub-prefectures is planned;
- The "Basse Lobaye Biosphere Reserve" project funded by UNESCO under the Man and Biosphere (MAB) Program. Initiated in 1979, this project supported activities at the periphery of the reserve (reforestation, income-generating activities) to reduce the level of threats. The project was subsequently abandoned for lack of funding. COMIFAC replaced UNESCO as a donor and funded a restoration project, implemented by the NGO OCDN since 2009 and closing in 2011. ADB has planned to provide additional funding in 2011;
- The ECOFAUNE project for which a convention was signed between the EU and the CAR. The project will start after budget signature. This project only covers the northeastern part of the country.

2.3. Agriculture and Livestock

The roundtables on agriculture were held in December 2007 and focused on improving both the management of natural resources and food security. The Rural Development Strategy published in August 2008 included many actions such as agricultural intensification, mechanization, extension, strengthening of farmers' organizations, market development, and biofuel production (the latter was enhanced by Law # 08.018 on the production of bioethanol, biodiesel, and biogas).

The agricultural master plan (PDA), developed in 1998 with the support of the African Development Bank (ADB) was adopted in 2000. Its objective is to increase agricultural, sylvicultural, and livestock production and revenues by 2012.

The project for an agricultural and livestock Land Code – not the same as the Land Code defined by Law # 63-441 of January 9, 1964 on national estate – is in the hands of the National Assembly for review. It includes provisions on agricultural, livestock, and land taxes and fees, the level and the arrangements of which will be defined by an implementing decree.

Such taxes and fees will fund the agricultural and livestock management process implemented by the Government. In addition, the Code foresees the possibility for the CAR to receive industrial investments for the establishment of large-scale farms.

In the context of a planned detailed development program for African agriculture (PDDAA), the CAR is considering an alignment of its agricultural policy with the policies of the other member countries of the Economic Community of Central African States (ECCAS).

The main projects implemented in the CAR in the agricultural and livestock sectors include:

- The Program for the development of food-producing savannas (PDSV) funded by the International Fund for Agricultural Development (IFAD) since 1984 and active in the central and western part of the country (Ombella-Mpoko and Nana-Mambéré Prefectures);
- The Project for the development of the Bouca Region (PDRB) funded by IFAD between 1991 and 1999 and implemented in the Bouca Sub-Prefecture. It supported integrated rural development activities;
- The project supporting agricultural production and village self-promotion (PAPAAV) funded by the European Union between 1996 and 2000 and implemented in the Ouaka, Basse Kotto, and Mbomou Prefectures. It provided support to coffee production and farming of small animals;
- The program supporting agricultural institutions (PAIA) funded by several donors (with the WB as the lead donor) and implemented between 1989 and 1998;
- The Project on the development of livestock and rangeland management (PDEGP) funded by the WB between 1995 and 1998.

Other ongoing or identified projects should also be mentioned:

- The project to address the food crisis (PRCA) funded by the WB. This project was initiated in 2008 and will end in 2012;
- The project supporting rural infrastructure restoration (PARIR), funded by the ADB and implemented between 2000 and 2014 in the Kémo and Ouaka Prefectures;
- The project on the recovery of subsistence crops and farming of small animals, funded by IFAD, under development;
- The project on agricultural and livestock recovery funded by the WB: under development;
- Agricultural projects selected under the National Adaptation Plan of Action (NAPA) and available since May 2008; funding is pending;
- Agricultural projects initiated under the National Strategy against Land Degradation – supported by UNDP: funding is pending.

2.4. Other Sectors

National policies for other sectors also have a direct or indirect incidence on threats on forests. Such sectors include:

- Mining. Law #09.005 of April 28, 2009 includes provisions on environmental protection (no mining in protected areas, EIE before mining, post-mining restoration, etc.). However, it should be noted that part of the mining sector is informal and that the governmental control on mining activities is limited;

- Infrastructure and improvement of communication and access. An EIE for all road or infrastructure projects. A ministry is in charge of road infrastructure planning and has an EIE unit;
- Land tenure. The 1964 Land Code, based on the 1899 French land legislation, regulates issues of tenure and access rights. The Code defines the public estate (Law # 62.289 on the definition and organization of public estate and Law # 61.262 on public expropriation) and the State private estate. It also identifies vacant lands assumed to be State property;
- Land-use planning. Policies are limited to the registration of urban settlements. There is no master plan, neither at national nor at prefectural level, and no regulations on potential sectoral goals;
- Decentralization. There are several regulations on the creation of districts and regions: (i) Order # 88.005 of February 5, 1988 on the creation of administrative districts and regional authorities, (ii) Order # 88.006 of February 12, 1988 on the organization and operation of administrative districts and regional authorities, and (iii) Law # 96/013 of January 13, 1996 on the creation and delimitation of regions.

  Other regulations are under development including (i) a bill on the organization and operation of administrative districts and regional authorities, the status of staff of regional authorities as well as a bill on the financial resources of regional authorities and (ii) a bill on an implementation plan for the CAR decentralization policy.

  The national zoning includes seven regions, including Bangui. A region includes at least two prefectures with a capital town: Region 1 (Ombella M'Poko and Lobaye), Region 2 (Nana-Mambéré, Membéré Kadéï, and Sangha Mbaéré), Region 3 (Ouham and Ouham Péndé), Region 4 (Ouaka, Kémo, and Nana Gribizi), Region 5 (Haute Kotto, Bamingui-Bangoran, and Vakaga), Region 6 (Basse Kotto, Mbomou, and Haut Mbomou), and Region 7 (Bangui).

3. GOVERNANCE

3.1. Strengths

- Better transparency for PEA allocation. Forest governance has also recently improved in the CAR with the new provisions of the Forest Code described above. In 2005, the transition from the temporary logging permit to the logging and management permit (PEA) helped reduce the level of uncontrolled logging and corruption. An inter-ministerial commission was created to assess bids based on the Public Market Code. An independent observer evaluates the bids for PEAs and has the authority for potential rejection. Representatives of relevant municipalities and of the civil society are observers within this commission.

- Stronger involvement of the civil society. The State has recently engaged the civil society in forest management and integrated its views:
  - The National Forum of the Conference on Central African Moist-Forest Ecosystems (CEFDHAC), chaired by the OCDN General Secretary, is heavily involved in the FLEGT process;
  - The civil society has participated in all steps leading to the signature of the VPA-FLEGT with the EU;
  - In addition to FLEGT, the action of the CIONGCA, a platform gathering over 50 NGOs (out of the 500 associations/NGOs present in the CAR) should be mentioned. The CIONGCA is divided in six thematic networks including the RONGEDD;
  - IEC activities are also well integrated in the following initiatives: the Dzanga Sangha Dense Forest Reserve Project (Associations of Friends of Nature are present in Dzanga-Sangha), PDRN, the ECOFAC Project, etc.
- Decentralization of forest taxation. Decentralization is in place even if capacity-building of municipalities and communities is still required to ensure proper management of revenues and development of sound projects.

  The State has initiated a training program for municipal accountants, established an Inter-ministerial Committee on the use of forest taxes (Resolution # 008/MICSP/MEFCPE of October 3, 2007) and an Inter-ministerial Committee on the control and monitoring of investment projects of forest municipalities (Resolution # 109/MFB/DIRCAB of February 28, 2008).
- Sub-regional alignment of national forest policies. As mentioned above, the CAR is a member of the COMIFAC and follows objectives defined in the COMIFAC Convergence Plan. As far as REDD+ is concerned, the CAR actively participates in the COMIFAC task force on climate. The

CAR chaired this task force between the Copenhagen (December 2009) and the Tianjin (September 2010) climate negotiations.

3.2. Weaknesses

- Fraudulent and irresponsible behavior of some loggers. Several infractions to the PEA requirements are noted: absence of definition of agricultural ranges, logging outside the felling plot or even the PEA, logging over the defined exploitable volume, repeated cuts in the same felling plot, abandoning timber in forests, etc.
- Export statements are often underestimated to reduce the level of export taxes. Only about half (according to some experts, even 10%) of the timber is transformed in the CAR compared to the 70% rate required by the Forest Code. This results in illicit logging and transformation for the domestic market;
- Lack of human and financial resources within the forest administration. Despite the recruitment of about a hundred forest agents in 2010, staff is still lacking to complete all needed field tasks. Only 522 public forest agents (many are in Bangui and only 26 forest rangers are in the field) are not enough to cover the entire country. There is almost no participatory approach.

  In addition, forest agents often find themselves in a conflict situation with other security forces, bureaucratic red tape is omnipresent, and law enforcement is weak and uncontrolled. Three examples are particularly representative:
  - Taxes (on wood, NTFPs, commercial hunting, etc.) are rarely collected for several reasons, mainly because of their unpopularity in such a poor country. However, illicit tax collection takes place at check-points. Firewood – including green wood, the collection of which is illegal - is informally harvested and represents an estimated annual revenue of 5 billion FCFA (PARN, 1996);
  - 10 to 15 tons of bushmeat are illegally hunted (including gorillas killed for their hands and used for some ceremonial practices) and transported each week on the Bayanga-Bangui road. Without sufficient resources, the MEFCP and NGOs remain passive. Only ECOFAC takes action but most NGOs react after the fact to condemn the methods used;
  - Numerous herds encroach on protected areas due to complicity between traditional chiefs of transhumant groups and government officials.
- Lack of resources and lobbying and advocacy power of NGOs. Despite the positive aspect of their emergence, these NGOs do not have the necessary means to carry out field actions. They often lack international visibility and technical and/or negotiation capacities.
- Low level of involvement of local populations in forest and environmental issues. Public information on sustainable management of forests and REDD+ is largely inadequate despite some isolated initiatives such as the support to the Maison de l'enfant et de la femme Pygmées (MEFP) by the Congo Basin Forest Fund (FFBC) to develop REDD+ projects.

The level of involvement of and consultation with local populations is also low in the development and implementation of PEAs despite some legal requirements. Local populations are rarely hired by logging companies: managers usually recruit their family members, their friends, etc. Even worse, they often exploit local populations (including Pygmies) for poaching and farm work. Finally, local populations do not benefit from taxes and fees on fauna and flora.

A capacity building is planned during the implementation of the R-PP to optimize governance (see 2b: Strategy Option 4).

4. UNDERLYING DRIVERS OF DEFORESTATION AND DEGRADATION

4.1. Lack of Policy Coordination and Weak Institutional Capacities

CAR does not currently have any land-use planning policy or even worse, any vision. For instance, a development zoning to establish an integrated and sustainably managed national economic space, as required to implement the REDD+ mechanism, is far from being achieved.

In addition, resources are lacking to effectively implement the decentralization policy for land-use planning and management of natural resources.

There is no legal and regulatory land-planning tool such as an outline legal act, a management blueprint, or a land-planning observatory.

Land planning should be structured based on local and regional development, sustainable development and environmental protection, the subsidiarity principle for decentralization, and the

establishment of a joint land management arrangement between the State and decentralized authorities.

Promotion of economic development centers at the level of prefectures is a start. By taking advantage of differentiated spatial objectives, such centers should contribute to the complementarity and inclusiveness of urban and rural development.

Lack of inter-institutional coordination produces a weak institutional memory. When projects come to an end, old practices, some with negative impacts on forest ecosystems, often resume.

The forest sector has seen numerous development policies and actions since 1946, the year when industrial logging started. Forest administration was for a long time under the authority of the ministry in charge of agriculture and livestock, an authority that penalized its political priorities.

It was only in the 1970s that an independent institution was created for the forest sector. All agricultural reforms during the same period did not integrate the economic interest of the forest sector. The forest sector only emerged as an economic sector with the 1990 Forest Code, but without any focus on environmental aspects. The 2008 Code is the first to cover these aspects but an alignment with the Environmental Code is needed for effective application. The lack of practical provisions on community forests and small-scale permits in the 2008 Forest Code can have significant impacts on forest cover.

In the 1990s, the various structural adjustment plans (SAP) had an adverse impact on the forest sector, mainly on human resources: for one hired employee, three were leaving. In 2010, out of the 522 forest agents, only 5 % were forest rangers. There is an obvious lack of human resources, both in terms of quality and quantity, for forest surveillance.

Recovery of taxes on permits is difficult. The number of DFAP eco-guards is extremely low; they are underequipped and not often present in the field. This situation contributes to the looting of protected areas.

In addition, days or even weeks are needed to cross the country, which makes the implementation of the forest policy even more difficult.

The CAS-DF resources (1.5 billion FCFA in 2008, under the authority of the MEFCP) are unfortunately used outside of the forest sector (salaries, governmental overhead costs, etc.). It should be noted that other departments in charge of agriculture and livestock also suffer from a lack of resources (human, material, financial).

In general, coordination of sectoral policies, particularly of land-use decisions, by the Ministry of planning is weak.

For instance, EIEs were planned under Law #07.018 of December 28, 2007 defining the Environmental Code. Several ministries (mining, transportation, etc.) have established specific units for these EIE, but due to the lack of inter-ministerial coordination and capacities, no EIE has been carried out to date (except by international companies).

In addition, the absence of a sound database on the history of forest management leads to a lack of visibility and the impossibility to optimally manage forest resources. It was only with the launch of PARPAF in 2000, the creation of CDF in 2004 and OEFB in 2008 that forest data became available.

4.2. Lack of Dissemination of Technical Tools

This is an issue for several sectors:

- Extensive transhumance is a source of significant pressures on the vegetation cover. Without a clear definition of rangeland to preserve forests (and crops) and provision of fodder in low season, maintaining the livestock causes negative impacts on the vegetation;
- Extensive slash-and-burn agriculture requires a lot of space and is unsustainable given the significant population growth. Fires and introduction of long-handled hoes (daba) and plough promoted extensive cultivation without any concern for tree formations. Agricultural research has not developed any intensive system adapted to the landscapes in the CAR;
- Small-scale logging (without any management plan) prevents forest sustainability and leads to degradation or even deforestation;
- Development of housing using traditionally-baked bricks (using open kilns with poor combustion) has compounded forest destruction around major settlements; and

- Lack of promotion of techniques to reduce fuelwood consumption (improved stoves and smokehouses, improved kilns, etc.) also increases pressure on periurban forest resources.

4.3. Weak Economy Largely Based on the Exploitation of Natural Resources

While the country is sparsely populated and rich in natural resources, 65% of the population lives below the poverty line. According to a 1994 study by the CAR Institute on statistics and economic and social studies (ICASEES), the level of average annual income per capita and per region is highly heterogeneous: they increase from the savanna to the forest or mining areas and from rural to urban areas.

Twenty per cent of the richest households share 72% of the total income while the poorest 40% only share 5% of the total income. Poverty is a source of major threats on “free” natural resources (poaching and illegal logging around cities).

Economic crises at the end of the 1990s and insecurity led to reduced cash-crop production (cotton, coffee, tobacco). Farmers compensated by increasing their production of commercial food crops requiring more space. The 2008 global economic crisis also had a major impact on the forest industry. Unemployed and public servants forced to early retirement by the SAP resorted to illegal logging, commercial food crops cultivation, and poaching.

4.4. High Population Growth and Rural Exodus

The population of the CAR is mainly rural (58 %) and unevenly distributed: average density is relatively low (6.8 inhabitants/km²) and increases westward with a concentration along major roads.

This low density reduces the risks on forest resources. However, the municipality of Bangui has a high demographic concentration and about 800.000 inhabitants (or 20 % of the total population) creating a continuous growth of the demand for fuelwood or subsistence crops and creating pockets of degradation or even deforestation around the city.

The same growth trend is observed in other major cities such as Berbérati (76,000 inhabitants), Bambari (43,000 inhabitants), Bouar (39,000 inhabitants), Bossangoa (36,000 inhabitants), Bangassou (31,000 inhabitants), Mbaïki (21,000 inhabitants), and Bozoum (20,000 inhabitants) (ICASEES, 2003). The urban growth is due to an overall population increase (three-fold over the past 40 years) and an intensified rural exodus.

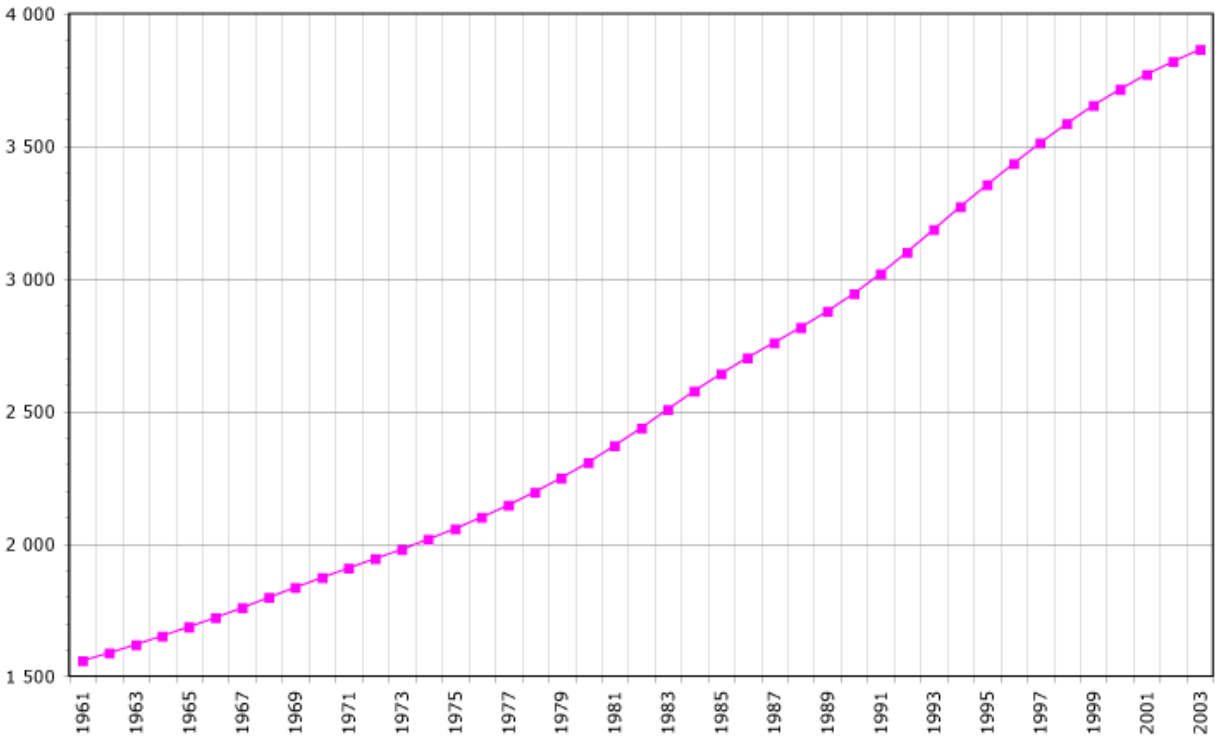

Figure 8 – Population between 1961-2003 in thousands (Source: Wikimédia Commons, 2010)

In addition, forced displacement of populations from conflict areas in neighboring countries (north, north-east, south, and south-east of the CAR) has increased the pressure on natural resources in the central and southern parts of the country. Drought also displaces, seasonally and to some extent,

some rural populations, notably from the Bamingui-Bangoran Prefecture towards areas where water is available.

4.5. Lack of Understanding of the Notion of Environmental Common Good

The population is very poor and often live in a “survival” mode. Potential consequences of actions on forest ecosystems are usually not a prime concern.

The “commons theory”, easy benefit, a lack of vision for the future, and individualism compound the situation worse. Forests are part of the non-permanent public estate and in theory belong to all, and therefore to nobody.

Specifically, transhumance has played and will continue to play a role in the destruction of ecosystems despite governmental efforts to permanently settle livestock farmers and intensify their production systems.

Finally, the collapse and/or the dismantling of traditional leadership have hindered the sound management of national natural heritage as traditional power used to help protect forests, especially against late fires.

4.6. Insecurity and Political/Military Conflicts

The CAR has experienced highway robbers and poachers for about twenty years, preventing any development action in the affected areas. Insecurity is also due to the presence of armed groups in some areas in the northern and eastern parts of the country: the LRA rebellion at the Uganda/CAR border and the Darfur crisis at the Sudan/CAR and the Chad/CAR borders.

On the contrary, internal political and military conflicts have significantly decreased for several years. Between 1996 and 2003, conflicts created massive displacement of rural populations, considerable environmental damage, and agricultural destruction, especially in the northeast, the country’s granary.

Conflicts and mutinies contributed to increased urban and rural unemployment. Unemployed and unpaid employees resolved to agriculture and logging and continue to create pressure on forests. Today, only the northern and eastern parts of the country continue to experience such instability.

Tenure issues and access rights to natural resources have not yet contributed significantly to degradation and deforestation but are not negligible. Without appropriate measures, they will become an issue. A related study will be proposed under Component 2c.

5. CURRENT DIRECT DRIVERS OF DEFORESTATION AND DEGRADATION

Direct causes of deforestation and forest degradation (countrywide, as causes vary at the local level) include: (i) transhumance practices, (ii) slash-and-burn agriculture, (iii) informal and uncontrolled logging and collection of fuelwood and NTFPs, and (iv) infrastructure development (roads, mining, housing).

5.1. Unsustainable Extensive Livestock Farming

About 74 % of the workforce is involved in the agriculture and livestock sectors, which represent 45 % of the Gross Domestic Product (GDP). In addition, 63 % of poor households directly depend on these sectors for their livelihoods (PRSP, 2007).

The CAR has 16 Mha of grasslands among which 9.3 Mha are used by a herd of 3.2 tropical livestock units (TLU), mostly transhumant (PRSP, 2007).

Pastoral farming is the main cause of degradation of vegetation cover and soil: (i) Cows, which are low-grazers, cut the grasses below their crown and prevent fast regeneration, (ii) late fires for pasture regeneration degrade the vegetation cover, (iii) repeated trampling and livestock concentration around waterholes clear vegetation and dry up small streams, and (iv) tree topping for fodder, notably in the northeastern part of the country, is a compounding factor.

Livestock pressure associated with insecurity in the North led to a dramatic loss of biodiversity in the Manovo / Gounda / St-Floris National Park (a UNESCO World Heritage Site), now a “Heritage in danger”.

Finally, due to treatment and prevention actions against trypanosomiasis, cattle herds were able to graze in savannas within humid dense forests, leading to further degradation. Overgrazing in humid savannas limits the development of Andropogons, a food of choice for cattle, while stimulating the emergence of weeds including *Chromoleana odorata*.

Cattle do not eat the latter but limits forest regeneration while creating a more workable soil, notably for corn and cassava.

All these factors have accelerated deforestation. In humid savannas, extensive livestock rearing has stimulated brush invasion.

5.2. Slash and Burn Agriculture

While agriculture plays a major role for the improvement of food security, it contributes to forest and soil degradation. The CAR has rich but fragile soils. Out of about 16 Mha of arable land, only 0.6 Mha (or less than 5 % of all arable lands or 1 % of the country) is exploited each year with an average of 0.5 ha per farm asset.

Agricultural impacts on forests are localized but can be significant. Some practices are unsustainable such as itinerant slash-and-burn in a context of population growth. Agriculture always demands more space and fertile lands as fallow periods decrease and population grows. In addition, uncontrolled or late fires have damaging effects.

Lowland and steep-slope cultivation is also a source of destruction of gallery forests, erosion, and loss of soil fertility.

Development of cash crops is another factor of deforestation:

- Rubber tree. The Sangha Oubangui Commercial Company (CCSO) introduced production in 1905. At the time, it represented about 6 % of the total land area (in the Mambéré Kadéi, Sangha Mbaéré, and Lobaye Prefectures). Forests were cleared to create settlements and plantations. Rubber tree exploitation was abandoned after the Second World War. Today, its impact on forests is marginal;
- Cotton. Governor Félix Eboue, introduced production in 1925 in the savanna area of Oubangui Chari. Five Prefectures (in the central and northwestern parts) are affected. Cotton fields cover an estimated area of 13,000 to 14,000 ha. The table below shows the 2008 projections of revitalization by 2012, a trend not confirmed by the latest figures:

	Campaigns 2005-2012: results and projections						
	05/06	06/07	07/08	08/09	09/10	10/11	11/12
	Result	Result	Result	Projection	Projection	Projection	Projection
Farmers	27,688	14,280	27,975	36,000	43,636	41,026	44,444
Area (ha)	13,630	6,233	14,029	18,000	21,818	24,615	26,667

Figure 9 – Projections of Cotton Production 2005-2012 (Ministry in charge of agriculture, 2008)

- Coffee. Coffee was introduced in the CAR from Congo Léopoldville (today the Democratic Republic of the Congo) in 1921. Coffee production was significant in forest areas and their periphery in 1966 due to the Bokassa Operation. Today, coffee is cultivated in seven prefectures in the Southeast and Southwest (Ombella-MPoko, Nana-Membré, Sangha-Mbaéré, Mbomou, Basse-Kotto, Lobaye, and Ouaka). In the 1970s, coffee production was mostly industrial (7,000 tons produced mainly by expatriates on about 17,000 ha).

  Coffee has received a special attention from the Government since 1987 with the creation of a development agency for family coffee cultivation (ADECAF) funded by the European Union. ADECAF was active in the Lobaye, Sangha-Mbaéré, and Membéré Kadéi Prefectures and strongly promoted production:

	Surface (ha)		Production (t)		Yield (kg/ha)	
Period	70	90	70	90	70	90
Commercial Production	17,000	5,010	7,000	1,577	412	315
Family Production	22,000	60,841	3,000	21,025	136	346
Total Production	39,000	65,851	10,000	22,602	390	343

Figure 10 – Comparison between Coffee Production in the 1970s and the 1990s (Source: ADECAF, 2000)

In 1996, coffee plantations covered an estimated area of 65,000 ha for 70,000 farmers with the following distribution (Ethnic Africa, 2010):

- Southwest: (i) Ombella-Mpoko and Lobaye: 23,000 ha of family farms, 2,000 ha of commercial plantations (abandoned), (ii) Membéré-Kadéi and Sangha-Mbaéré: 11,000 ha of family farms and 300 ha of commercial plantations (abandoned);
- Southeast: (i) Ouaka and Basse-Kotto: 18,000 ha of family farms and 1,500 ha of industrial plantations (abandoned), (ii) Mbomou and Haut-Mbomou: 8,500 ha of family farms and 900 ha of industrial plantations (abandoned).

It can be concluded that industrial plantations experienced a strong decline and that coffee, especially shade-grown coffee, is not a direct driver of deforestation.

- Tobacco. Cultivation was also introduced with the Bokassa Operation and is estimated to continue only in two prefectures, Mambéré Kadéi and Nana Mambéré. Tobacco cultivation does not exceed an estimated surface of 5,000 ha (personal communication of P. DOKO, Dec. 2010), once again a very marginal area;
- Oil palms. 200 ha of palm groves are located 50 km from Bangui and exploited by the CENTRAPALM factory. While cultivate surface is minimal, excessive use of pesticides and herbicides has led to soil acidification and impoverishment and therefore to reduced forest colonization opportunity.

5.3. Uncontrolled Harvest of Timber and NTFPs

According to some past data of the Energy Sector Management Assistance Program (ESMAP) and PARN, annual demand of fuelwood at the beginning of the 1990s was estimated at 1.59 million tons of firewood and 3,650 tons of charcoal (ESMAP, 1990 and PARN, 1996).

At the time, daily consumption per capita was estimated at 1.37 kg of firewood and close to 0 of charcoal. In 1994, annual demand of firewood in Bangui was about 290,000 tons (or 18 % of the national consumption) representing sales revenue of 5.3 billion FCFA (ESMAP, 1994).

The annual deforestation rate around Bangui and peripheral towns is estimated at 2,500 ha (PARN, 1996). According to the CAR association for environmental protection (ACAPE), the deforestation front is located at about 55 km from Bangui northward and 33km southwestward, with a yearly progress of 300 meters due to the use of chainsaws and “heated nails” (to make trees wither away and be able to cut “dead wood” as collecting wet wood is prohibited).

Localized degradation and deforestation related to informal/illegal logging and collection of firewood and NTFPs are also found:

- Around concessions: IFB has noted pressure from an agricultural front on two of its PEAs, west and south of PEA 165 and south of PEA 186. Thousands of people have settled in and around forest concessions leading to logging, NTFPs harvesting, and cultivation on large areas along trails with reduced fallow periods. It should be noted that the population in Bangui organized a walk to protest against logging in periurban areas, viewed as the cause of disappearance of host trees for caterpillars;
- Around fishing, hunting, or gathering camps. For instance, collection of caterpillars, kökö (*Gnetum africanum*), and wrapping leaves (mainly Amaranthaceae) are often associated with tree felling and mutilation;
- On the Bangui-Mbaïki and Bangui-Lobaye roads where a severe deforestation is observed;
- East, around Bangassou where anarchic logging using mobile saws has been observed for the past five years.

Small-scale timber logging. An analysis carried out by CIFOR over 6 months showed the following results: from July to December 2010, 33,000 cubic meters were small-scale sawn timber compared to 34,000 cubic meters for all logging companies (domestic production). Small-scale logging takes place around Bangui or even in allocated logging concessions in the southwestern logged forest range.

For the record, the CAR has about 45,000 traditional healers who collect herbs, leaves, dried fruit, etc. or even mutilate some trees, for instance to collect roots of *Rauwolfia macrofila*. (Personal

communication by M. ABIALI, President of the CAR national association of traditional healers, Dec. 2010).

It should also be noted that construction of traditional beehives using barks from live trees is very popular, notably in Votovo in the Ouham Prefecture.

A young individual would build an average number of 300 beehives per year, an older person 50 to 60. To build a beehive, a 1.50 m * 0.50 m strip of bark will be collected. On average, building one beehive makes one tree wither away (personal communication by M. TITO, Manager of the PGPRN/GTZ Project, Dec. 2010). Damage caused by beekeeping is marginal and not a major factor of forest degradation.

5.4. Development of Infrastructure (Roads/Bridges, Mining, Housing)

➔ Road Network and Engineered Structures

The road network in CAR includes over 24,000 km of roads and trails:

- National roads: about 5,400 km, included 700 km of tarred road and 155 km currently being tarred between Bouar and Garoua Boulaï, with joint funding from the EU (73 km), the WB (27 km), and ADB (54 km). The remaining roads are dirt roads, 300 km of which are maintained in partnership with logging companies;
- Regional roads: about 3,800 km maintained by logging companies (including the 4th parallel road) and with funding from the EU (for the Berbérati-Nola-Bayanga section in a forest area in the South-West);
- Rural trails: about 15,000 km, very degraded (for more than 80 %) after agricultural projects and maintenance by development agencies under the authority of the Ministry of rural development and agriculture (MDRA) stopped.

Initial deforestation linked to these roads and trails is estimated at about 20,000 ha, or 0.03 % of the national forest cover (given an average width – road/trail+ shoulder- of 40 m for tarred roads, 20 m for national roads, and 12 m for rural trails).

However, settlement along road sections and related activities (agriculture, hunting, harvesting, etc.) can be a direct cause of degradation and deforestation. In addition, logging companies need a network of trails (for log skidding and forwarding), the clearing of which destroys part of the forest cover.

The total deforested area since 1946 associated with forest trails (main or secondary) is probably important but no consolidated database exists to estimate this impact.

➔ Small Scale Mining

Small-scale mining focuses mainly on alluvial diamond extraction (often associated with extraction of gold and other secondary ores such as iron, copper, etc.). The diamond industry includes 130 cooperatives employing 80,000 small-scale miners (Ministry of trade and industry, 2010).

Cooperatives are distributed in settlements all over the country, located close to watercourses. Often, these are scattered hamlets near protected areas (for instance the Monovo / Gounda / St. Floris and Dzanga-Sangha National Parks). Therefore, they significantly contribute to their degradation.

Given an average of seven individuals per family, including the miner himself, the total number of people in diamond extraction settlements is estimated at 560,000 individuals, which represent a major pressure on forests.

While the impacts of mining might be minor, firewood collection and subsistence farming associated with settlements can be significant. For an average area of 250 m x 250 m occupied by a miner and his family, the total affected area can reach 0.5 Mha or a potential degradation rate of 0.8 % of the total forest surface.

In addition to forest degradation and poaching, small-scale mining also has impacts on water flows: damming of watercourses modifies smaller river beds, induces some siltation, and decreases the level of groundwater which leads to local vegetation depletion. This is observed today north of the Dzanga-NDoki National Park.

In general, small-scale mining is considered to have significant impacts on forest degradation.

➔ Industrial Mining Permits

The State granted two permits to two mining companies: (i) AXMIN (Aurafrique) exploiting a gold mine in Passendro in the Ouaka Prefecture, on a surface of 1,050 ha and employing over 600 people and (ii) AREVA prospecting uranium in the Mbomou Prefecture on a large area (159,400 ha).

In the Mbomou Prefecture, open-pit mines will be experimented for the deposits in Patricia (16,470 m²) and Patou (1,200 m²). The beginning date has not been confirmed and access to information is difficult. Potential impacts in terms of deforestation can be considerable.

For the record, CONOCO, an American company, exploited an oil well in the 1960s in Sikikédé, in the Vakaga Prefecture. The site closed in 1968 and reopening is not foreseen.

➔ Urbanization

Urbanization related to population growth and rural exodus is also a direct driver of forest degradation and deforestation. However, it is difficult to precisely quantify its impacts.

6. FUTURE DRIVERS AND CAUSES OF DEGRADATION AND DEFORESTATION

6.1. Potential Underlying Drivers

Potential underlying drivers include:

- Underemployment: Out of 100 jobs, 64 are in the small extensive agriculture sector and 26 in the urban informal sector with only 10 in the so-called modern sector (private and public) (Common Country Assessment– UNDP, 2010). Continued impoverishment and lack of income-generating alternatives to natural resources exploitation will exacerbate pressure on forests in a context of population "survival";
- Population growth. If the current trend continues, the population of the CAR will reach 6.2 million inhabitants in 2030 (or a human density of 10 inhabitants/km²) and 7.6 million inhabitants in 2050. Demand for timber, fuelwood, and NTFPs will increase and lead to further deforestation and forest degradation;
- Lack of agricultural and pastoral reforms to preserve the environment and as a result, insufficient resources allocated to forest conservation and management. Inversely, the creation of the National office for agricultural and livestock equipment (ONMAP) by Law # 07.016 of June 19, 2007 and promotion of agricultural mechanization might result in further deforestation and degradation;
- Climate change related to border porosity. Northern livestock farmers might go southward to seek better pastures with future consequences on deforestation, forest degradation, and water resources;
- Low turnover of field agents and lack of equipment for decentralized forest control services as well as agriculture and livestock technical units;
- Low level of implication of all stakeholders who are the stewards of natural resources, including Aka Pygmies and rural communities, leading to conflicts of interest between guardians of forest resources and some users interested in rapid benefits and illegal wealth.

6.2. Potential Direct Causes

Potential direct causes include:

- Continued development of extensive livestock rearing, lack of improved pastures and resistance to change to preserve a nomadic culture;
- Continued and increased slash-and-burn practices (around urban areas and along roads) without improved croplands and in a context of population growth, as well as the related bush fires;
- Continued and increased unsustainable logging, harvest of firewood and NTFPs in a context of population growth and despite efforts to promote sustainable management of forests;
- Potential investments for large agricultural plantations (cotton, tobacco, coffee, cereals, oil palms, biofuel, etc.) in line with the PDA called "Horizon 2012" and within a global phenomenon of land grabbing;
- Small-scale extraction of alluvial diamond – countrywide- and semi-industrial exploitation of (i) gold and uranium in the Bangassou Forest in the eastern part of the country and (ii) mechanization of diamond exploitation for higher productivity;
- Various infrastructure development:
    - Damming in Carnot and Kotto (proposed projects in the PRSP, funding is pending);

- Water diversion from the Oubangui, from Palamabo, to Lake Chad, as planned by the Lake Chad Basin Commission (LCBC) with potential funding from the LCBC using contributions of member countries (Personal communication of P. B. ZARABINGUI, member of the LCBC inter-ministerial committee supporting the feasibility study on water diversion from the Oubangui to Lake Chad, Dec. 2010);
- Construction of the international road Ouesso (Congo) – Bangui (CAR) – Sahr (Chad) to be funded by the African Union through ADB;
- Restoration of roads to improve access from Bangui to Mbaïki (106 km), Bangui to Sibut (190 km), and Bangui to Baoro (394 km) under a regional project to facilitate transportation and transit;
- Restoration of 2,600 km of dirt roads and 4,500 km of rural trails (PRSP, 2007);
- Creation and operation of a cement plant near Bangui (Kilometric marker 10, southwest exit). The Bangui cement plant is located in the old forest site of Botambi. Operation requires clear cutting to access the limestone;
- For the record, launching of economic development centers in 10 cities. A 40 M€ EU project should have started in 2009. In any case, activities will mainly focus on social infrastructure.

7. NEEDED DATA

In general, and given the sad history of the CAR in the recent years, an exhaustive and multi-sectoral database on forest and forest degradation at national level does not exist.

Information on production forests in the southwest are available from PARPAF but data are lacking on the phenology and dynamics of dry forests in the central and eastern parts, gallery forests, fuelwood, and NTFPs.

Unfortunately, data on all sectors are either inexistent or outdated. Additional studies should be done on (i) production and consumption of fuelwood, (ii) agriculture and livestock, (iii) logging both for export and the domestic market, (iv) small-scale and/or industrial mining (gold, diamond, uranium, oil, etc.). Specific efforts should be made for the implementation of the R-PP to collect additional data and rebuild a national database.

7.1. Production and Consumption of Fuelwood

In collaboration with the ministries in charge of forests, environment and energy, the study will have the following objectives: (i) spatialization of firewood and charcoal production areas, (ii) assessment of impacts of these activities on forests, and (iii) solutions / technical measures to limit these impacts.

Focus will be on the two pillars of a “domestic energy strategy”, namely “supply” (production) and “demand” (consumption):

- For supply, the study will focus on the fuelwood production areas in each administrative unit (prefecture, sub-prefecture, municipality), origin, type and volume of products, methods/tools used (yield and quality of products), actors (charcoal-makers, carriers), cost/purchase price in each area, etc.;
- For demand, the study will focus on a classification of actors (households among others) and describe the nature of the fuel (wood, charcoal, gas, etc.) and equipment (three-stone, improved stove, etc.).

The study will present recommendations (technical, economic, and regulatory) to organize the industry and limit its impacts on forests.

7.2. Agricultural and Livestock Production

Partial data on livestock and agriculture are related to production but not expressed in terms of area. A better knowledge of agricultural and livestock farming areas is needed (cash or subsistence crops, small-scale or commercial, etc.).

This study will integrate both the local context (spatialized population growth, future infrastructure to improve access, political stability, etc.) and international circumstances (variation of global prices of main animal/plant products, global evolution of diet, pressure for the production of biofuels, etc.).

Detailed maps of each administrative unit will be useful, showing the status of agriculture (cultivated lands, fallow lands, degraded and/or deforested and/or eroded lands, dry streams, etc.) and livestock (transhumance range, new passages, concentration of herds, etc.).

In collaboration with the MDRA, the aim of this study will be to (i) spatialize the influence of agriculture and livestock on degradation and deforestation, (ii) assess their impacts on forests, and (iii) establish recommendations (technical, economic, and regulatory) on the global organization of the agriculture and livestock sectors to minimize their impacts on forests.

7.3. Logging for Export and for the Domestic Market

A study was launched by CIFOR in partnership with PARPAF to complete the data on legal and sustainable timber production and export (from CDF, OEFB, PARPAF, and upcoming AGRDF, and the independent observer to be designated soon) with data on illegal and/or unsustainable production and export of timber for both domestic and export markets.

In collaboration with the ministries in charge of forests and the environment, the study has the following objectives: (i) spatialization and quantification of timber production areas (legal or illegal, sustainable or unsustainable, for both domestic and export markets), (ii) impact assessment of activities in terms of degradation and deforestation, and (iii) recommendations (technical, economic, and regulatory) for the organization of the timber sector to limit its impacts on forests.

This study will take place in the vicinity of Bangui in a savanna area.

7.4. Small Scale and/or Industrial Mining (Gold, Diamond, Uranium, Oil)

Given the absence of data on the sector, this will be the most complicated study. However, all efforts were made to gather, for each extracted product, some basic data: production areas in each administrative unit (prefecture, sub-prefecture, municipality), types and volumes of produced material, extraction methods (and impacts on forests), actors (small-scale miners, companies, buyers), cost/purchase price in each area and for each product, etc.

In collaboration with the ministries in charge of forests, environment, and mining, the study has the following objectives: (i) spatialization and quantification of production areas, (ii) impact assessment of activities in terms of deforestation and degradation, and (iii) recommendations (technical, economic, and legal) for the organization of the mining sector to limit its impacts on forests.

It should be noted that previous consultations could be used to contribute to the assessment of causes of deforestation and degradation. In addition, the project on forest mapping and forest cover monitoring, funded by the European Union and steered by GAF AG and LACCEG at the Bangui University also contribute to a better identification of causes of degradation and deforestation.

All suggested additional studies will closely take place with the FLEGT process implementation due to the significant overlap, and therefore significant collaboration opportunities, between both processes. It is also important to identify all potential studies related to deforestation and degradation in other sectors.

8. SCHEDULE AND BUDGET (IN KUSD)

Main activities	Sub-activities	S2 2011	S1 2012	S2 2012	S1 2013	S2 2013	TOTAL
Study on fuelwood production and consumption	Literature survey and preparation of field mission (5md/inter. expert x 1kUSD/md + 5 md/ nat. expert x 0.4kUSD/md)	7					7
	Field mission focusing on 3 Prefectures: Ombella Poko - Southwest, Mbomou- Southeast, and Ouham-North (15 md/inter. expert x 1kUSD/md + 3kUSD/ inter. transport + 15 md/national expert x 0.4 kUSD/md)	24					24
	Report with conclusions and recommendations presented to CT REDD+ and CN REDD+ (5md/inter. expert x 1kUSD/md + 5md/national expert x 0.4kUSD/md)	7					7
Study on unsustainable itinerant agriculture	Literature survey and preparation of field mission (5md/inter. expert x 1kUSD/md + 5 md/ nat. expert x 0.4kUSD/md)	7					7
	Field mission focusing on 4 Prefectures: Ouaka- Center, Basse-Kotto - Southeast - Lobaye Southwest and Ouham-Pendé-North (20 md/inter. expert x 1kUSD/md + 3kUSD/ inter. transport + 20 md/national expert x 0.4 kUSD/md)	31					31
	Report with conclusions and recommendations presented to CT REDD+ and CN REDD+ (5md/inter. expert x 1kUSD/md + 5md/national expert x 0.4kUSD/md)	7					7
Study on unsustainable transhumant livestock farming	Literature survey and preparation of field mission (5md/inter. expert x 1kUSD/md + 5 md/ nat. expert x 0.4kUSD/md)	7					7
	Field mission focusing on 3 Prefectures: Ouham Pend- North, Nana Membéré-Northwest, Lobaye-Southwest (15 md/inter. expert x 1kUSD/md + 3kUSD/ inter. transport + 15 md/national expert x 0.4 kUSD/md)	27					27
	Report with conclusions and recommendations presented to CT REDD+ and CN REDD+ (5md/inter. expert x 1kUSD/md + 5md/national expert x 0.4kUSD/md)	7					7
Study on unsustainable and/or illegal timber, lumber, and NTFP harvest	Literature survey and preparation of field mission (5md/inter. expert x 1kUSD/md + 5 md/ nat. expert x 0.4kUSD/md)	7					7
	Field mission focusing on 5 Prefectures: Lobaye-Southwest, Ombella-Poko-Southwest, Membéré-Kadeï-Northwest, Kémo-Center, Mbomou-Southwest (25 md/inter. expert x 1kUSD/md + 3kUSD/ inter. transport + 25 md/national expert x 0.4 kUSD/md)	38					38
	Report with conclusions and recommendations presented to CT REDD+ and CN REDD+ (5md/inter. expert x 1kUSD/md + 5md/national expert x 0.4kUSD/md)	7					7
Study on small-scale and/or industrial mining (gold, diamond, uranium)	Literature survey and preparation of field mission (5md/inter. expert x 1kUSD/md + 5 md/ nat. expert x 0.4kUSD/md)	7					7
	Field mission focusing on 4 Prefectures: Haute-Koto-North, Basse-Kotto-Southeast, Mbomou-Southeast, Membéré-Kadeï-Northwest (20 md/inter. expert x 1kUSD/md + 3kUSD/ inter. transport + 20 md/national expert x 0.4 kUSD/md)	31					31
	Report with conclusions and recommendations presented to CT REDD+ and CN REDD+ (5md/inter. Expert x 1kUSD/md + 5md/national expert x 0.4kUSD/md)	7					7
Assessment and training on governance	Specific capacity building for governance (summer university first semester of 2011)		100.0				
	TOTAL	**221.0**	**100.0**				321.0
	Government Contribution						
	FCPF Contribution						321.0
	UN-REDD Contribution						
	AFD Contribution						

Figure 11 – Schedule and Budget for Component 2a of the CAR R-PP

2b. REDD-plus Strategy Options

1. INTRODUCTION

The purpose of Component 2b is to address the development of the national REDD+ strategy: principles, objectives, stakeholders' roles/responsibilities, consultation of stakeholders, activities, planned resources, schedule, etc.

Therefore, REDD+ strategy options are identified based on national priorities for sustainable development and future threats on forests identified under Component 2a. Strategy options are identified below and assessed based on the following criteria:

- Linkages with underlying and direct drivers of threats identified under Component 2a;
- Costs and benefits of potential strategy options including opportunity, investment and transaction costs[3];
- Feasibility;
- Sustainability and mainstreaming of options in other sectoral policies and strategies; and
- Risk of displacement of GHG emissions (domestic leakage).

The national REDD+ strategy will be developed based on the following principles:

- Focus on (i) areas with the highest risk of deforestation and degradation and (ii) activities with the strongest mitigation potential in the short run;
- Application of the full scope of REDD+: reduction of deforestation and degradation, sustainable management of forests, conservation of some forests, and enhancement of carbon stocks;
- Improvement of the socioeconomic conditions of populations in accordance with the PRSP2; and
- Stakeholders' ownership of activities to ensure sustainability of results.

2. SWOT ANALYSIS OF THE PRESERVATION OF FORESTS

The SWOT (Strengths, Weaknesses, Opportunities, and Threats) analysis includes both the past (retrospective) and the future (prospective). The analysis helps define strategy options to optimize past successes and minimize past weaknesses while promoting opportunities and mitigating threats.

---

[3] *Besides its negative impacts, deforestation can have some beneficial consequences (more agricultural lands or pastures, etc.) for affected people. Degradation can have the same effect (timber, fuelwood, etc.). Under the REDD+ mechanism, affected people would have to fully or partially give up these benefits, which would represent* ***opportunity costs****.*

In addition to opportunity costs, implementation costs of the REDD+ mechanisms represent ***investment costs****. Those can include costs of forest surveillance, intensification of agricultural/livestock production systems, road detour to avoid a forest, capacity building of all REDD+ stakeholders, etc.*

Finally, ***transaction costs*** *are the needed costs for a transaction between all REDD+ players (REDD+ credit buyers and sellers) as well as for the mechanism itself (market regulator, system manager, evaluator of the GHG emissions reduction, etc.). Such costs ensure the credibility and transparency of the process.*

	Past	Future
Positive	***Strengths*** • Participatory development of the Forest Code • Sustainable forest management • Independent observer for the PEA attribution process • Exiting conventions between concession - holders and the State and controlled PEAs • VPA-FLEGT signed on December 21, 2010 • Availability of forest data (PARPAF, CDF, OEFB, etc.) • Contribution of forest taxation to community investments • Promotion of community forests with participatory management • Integration of the environment in the Mining Code • Civil society involvement in forest resources management • Ongoing community management of fauna (ZCV) • Creation of the National Day of the Tree	***Opportunities*** • Sustainable management of the southeastern forest range • Increased local timber transformation • Standards (management, EIE, etc.) and certification • Promotion of NTFPs • Urban/periurban forestry (existing concept) • Secured forest / fauna resources • Development and implementation of a Domestic Energy Strategy • Application of the National Reforestation Plan • Adaptation of forestry research to users' needs • Improved governance (IEC, field independent observer, enhanced involvement of the civil society, etc.) • Capacity-building of all stakeholders • Environmentally friendly practices (agriculture/livestock) • Hiring of 100 new forest agents (2011)
Negative	***Weaknesses*** • Lack of resources (material, financial, human) of the Government (26 forest rangers in the field) • Destructive cultivation and livestock practices (fires, itinerant agriculture, transhumance, etc.) • Chronic poverty and uneven distribution of wealth • Lack of coordination of sectoral policies • Lack of tenure security • Uncontrolled logging and harvesting around cities • Lack of reliable sectoral statistics • Lack of involvement of rural communities in the "forest-environment" sector • No lobbying/advocacy role of the civil society • Insufficient benefits for local communities from the decentralized forest taxation • Lack of public awareness on forest and environmental issues	***Threats*** • Persistent poverty/ impoverishment => adverse/illegal practices • Governmental financial needs and risks of intense exploitation of natural resources • Extensification (agriculture, livestock, etc.) without regards for sustainability • Development centers (infrastructure, mining, biofuel, cement plant, etc.) • Low involvement of stakeholders in discussions/actions related to the "forest-environment" sector • Corruption • Influence peddling • Limited and/or undiversified information channels • Urban population growth

Figure 12 – SWOT Analysis of Forest Preservation in the CAR

3. INITIAL IDENTIFICATION OF STRATEGY OPTIONS

The section below highlights the linkages between the proposed strategy options and underlying and direct causes of pressure. The following table summarizes these linkages:

		Underlying causes						Direct causes			
	# of corresponding subpart of Component 2a ==>	4.1	4.2	4.3	4.4	4.5	4.6	5.1	5.2	5.3	5.4
<= # strategy (sub) option in Component 2b		Uncoordinated policies and weak institutions	Lack of dissemination of technical progress	Weak economy based on the exploitation of natural resources	High population growth and rural exodus	Lack of understanding of environmental common good	Insecurity and political and military crisis	Unsustainable extensive livestock farming	Unsustainable slash-and-burn agriculture	Uncontrolled timber and NTFP exploitation	Infrastructure development (roads, mining, housing)
1	Complete zoning										
1.1	Complete zoning of the entire territory	■		■	■	■		■	■	■	■
1.2	Update mapping and enhance protected areas	■		■	■	■		■	■	■	■
2	Improve technologies and agricultural, sylvicultural and pastoral yields										
2.1	Improve sustainability of pastures and agricultural ranges		■	■	■	■		■	■	■	
2.2	Promote efficient timber logging and transformation techniques		■	■	■					■	
3	Promote sustainable forest management										
3.1	Promote legal and sustainable forest management	■	■	■	■	■				■	
3.2	Promote reforestation	■	■	■	■					■	
3.3	Operationalize the concept of community forest	■		■	■	■				■	
3.4	Involve local communities in sustainable forest management	■		■	■	■				■	
3.5	Develop a Domestic Energy Strategy (DES)	■	■	■	■	■				■	
4	Strengthen institutions and governance										
4.1	Develop public IEC on REDD+	■	■	■	■	■		■	■	■	■
4.2	Provide financial, material, and technical support to administrations	■	■	■	■	■		■	■	■	■
4.3	Build capacities of the civil society on sustainable management of forest resources, advocacy, and control	■	■	■	■	■		■	■	■	■

Figure 13 – Assessment of Linkages between Causes/Factors of Threats on Forests Identified under Component 2a and REDD+ Strategy (Sub-) Options Identified under Component 2b

For each strategy sub-option, an assessment will be carried out based on criteria mentioned in the introductive part, with the following ranking: 1 (very bad); 2 (bad); 3 (average); 4 (good); 5 (very good).

The total will be somewhat indicative of the value of the strategy sub-option: the higher the grade, the more interesting the strategy sub-option.

3.1 Strategy Option 1: Finalization of the Zoning Process

Sectoral zoning of the country has not yet been defined. A sensible zoning, based on the potential of each ecosystem and on the multi-functionality principle (needed coexistence of agriculture, livestock, sylviculture, fisheries, hunting, etc.) is needed. Such zoning should not lead to land segmentation nor to a prohibition of land occupation.

This process should produce consistent global responses to the causes of threats on forests listed in Parts 5.1 to 5.4 of Component 2a, including (i) unsustainable extensive livestock rearing, (ii) unsustainable slash-and-burn agricultural practices, (iii) uncontrolled timber and NTFPs exploitation, and (iv) infrastructure (roads, trails, mining, housing).

Agricultural, livestock, mining, or infrastructure development (other than mining) areas are not spatially defined and are often delimited at the expense of forests. Even worse, overlapping of such areas lead to frequent conflicts between stakeholders and to subsequent pressure on forests.

Significant efforts are needed: Law # 63-441 of January 9, 1964 regulating the national estate, based on a 1899 French law, is the only tenure code as it contains provisions on public and private estate. However, there is no national blueprint defining the sectoral attributions of the national territory based on ecosystem capacities.

The proposed bill on agriculture and livestock tenure only regulates access to lands as well as the rights of local communities on lands in their territory. This law does not include any zoning proposal.

➔ *Strategy sub-option 1.1: Countrywide Zoning*

Decree # 09.117 of April 28, 2009 defines the application of Law # 08.22 of October 17, 2008 and the limits, and therefore the zoning of forest ranges within the State permanent estate: (i) the southwestern forest range for production and management, (ii) the southeastern range for multiple purposes including biodiversity conservation and classified savanna forests. In addition, the CAR Forest Atlas (MEFCP/WRI) helped spatialize forest concessions (PEA).

Based on studies described in Component 2a, zoning will be performed countrywide for non-delimited forest and non-forest areas (relict forests, gallery forests, and savannas). Zoning will involve all stakeholders and will contribute to a better planning of forest, agricultural, livestock, and mining production and infrastructure development (other than mining) by the relevant departments.

Criteria	Comments	Grade
Links with C2a factors	See above	5
Opportunity costs	Moderate except in case of a restriction of some usage rights after zoning	3
Investment costs	Strong needs in human resources and technologies related to Geographic Information Systems (GIS), remote sensing, tenure, etc.	2
Transaction costs	Significant and potentially expensive surveillance due to insecurity	1
Feasibility	The size of the country and insecurity in some areas are limiting factors	3
Sustainability and integration	Lack of governmental capacities and resources. Lack of sectoral policy coordination. Potential request for preferential treatment.	2
Domestic leakage	Minimal if zoning is well conceived and implemented correctly.	5
	Total	**21/35**

Figure 14 – Critical Assessment of Sub-Option 1.1 – Countrywide Zoning

➔ *Strategic Sub-Option 1.2: Updated Mapping and Enhancement of Protected Areas*

Most protected areas in the CAR are merely paper parks and compliance with IUCN criteria is insufficient or even inexistent. Some are lacking infrastructure and most of the time, human resources as well.

Updated mapping of the network of protected areas should enhance fauna and flora conservation and help better address threats on forests.

Criteria	Comments	Grade
Links with C2a factors	See above	5
Opportunity costs	Moderate except in case of a restriction of some usage rights after zoning	3
Investment costs	Strong needs in human resources and technologies related to Geographic Information Systems (GIS), remote sensing, tenure, etc.	2
Transaction costs	Limited (well defined areas) but potentially expensive surveillance due to insecurity	3
Feasibility	Successful past experience in Africa and potential strong donor support	4
Feasibility and integration	Lack of governmental resources and capacities but limited issue as areas are well defined	3
Domestic leakage	Potential risks if there is no support measure at the periphery of protected areas	2
	Total	**22/35**

Figure 15 – Critical Assessment of Sub-Option 1.2 – Mapping and Enhancement of Protected Areas

3.2 Strategy Option 2: Technological Improvement and Increase of Agricultural, Sylvicultural, and Livestock Productivity

➔ *Strategy Sub-Option 2.1: Enhancement of the Durability of Livestock and Agricultural Ranges*

As explained under Component 2a, unplanned and unsustainable practices including transhumance and itinerant slash-and-burn are two main causes of destruction of the vegetation cover. This sub-option aims at:

- Reducing damage related to cattle straying;

- Intensifying livestock and agricultural production systems to minimize unsustainable slash-and-burn practices (and the related uncontrolled bush fires) and overgrazing;
- Developing ranch and fodder production (*Stylosanthes sp., Bracharia sp, Panicum sp*) to reduce threats on the natural vegetation cover and promote settlement of livestock farmers;
- Promote the use of high-nutritional-yield seeds resistant to the effects of climate change.

Criteria	Comments	Grade
Links with C2a factors	See above	4
Opportunity costs	Improved yields and long term management of agricultural soil fertility and pasture quality	4
Investment costs	Important investment for outreach and advice	2
Transaction costs	Important roles of the State and microfinance institutions	3
Feasibility	Resistance to change of local players. National outreach system is not well developed.	2
Sustainability and integration	Lack of governmental resources and capacities and lack of policy coordination in the agriculture and livestock sectors	2
Domestic leakage	If income per ha and/or domestic/global demand increase, agricultural and/or livestock areas will also probably increase	2
	Total	**19/35**

Figure 16 – Critical Assessment of Sub-Option 2.1 – Enhancement of the Durability of Livestock and Agricultural Ranges

➔ Strategy Sub-Option 2.2: Promotion of Efficient Wood Exploitation and Transformation Techniques

Inefficient felling techniques and old practices do not optimize yields and waste a lot of wood. Some companies, mainly interested by profit, use portable saws and strongly contribute to forest degradation. To minimize damages and improve the efficiency of logging and wood transformation:

- Low-impact logging techniques should be developed: (i) Controlled felling and sound cutting (direction of felling, determination of a cutting line, analysis of the crown structure, status of lianas, etc.), (ii) Sound skidding and forwarding techniques (planning of primary and secondary trails, selection of log storage areas, etc.) to minimize degradation and enhance certification opportunities;
- Development of a “selection/felling” system immediately after surveys to set aside any previously selected tree that does not comply with efficiency criteria (defective shape, crown dieback, etc.);
- Studies on the characteristics of tree species of the eastern forest range (different distribution area than most commercial species of the Southwest);
- Improve local legal wood transformation (for instance ayous for the domestic market), improve drying techniques and minimize waste.

Criteria	Comments	Grade
Links with C2a factors	See above	3
Opportunity costs	Minimize waste and improve product quality	5
Investment costs	Significant investments for capacity-building and equipment	2
Transaction costs	Needed improvement for certification process (legality, sustainable management) but the CAR just signed a VPA/FLEGT	3
Feasibility	Industry players are interested in improving productivity and in label systems	4
Sustainability and integration	Suggested technical improvement is linked to the development of the timber economic potential and cost reduction	4
Domestic leakage	Better productivity should reduce the pressure on forests	4
	Total	**25/35**

Figure 17 – Critical Assessment of Sub-Option 2.2 – Promotion of Efficient Logging and Wood Transformation Techniques

3.3. Strategy Option 3: Promotion of Sustainable Forest Management

➔ Strategy Sub-Option 3.1: Promotion of Legal and Sustainable Forest Management

Based on data on forest management and timber and NTFP harvest (PARPAF, PGPRF, PASEF, etc.), efforts should be continued to reduce the pressure on forests.

The southeastern range should be managed using the same approaches applied by PARPAF in the southwestern range. In addition, FLEGT (permits and authorizations) will also be implemented, sustainable management certification will be developed, and the independent observation of entitlement and logging will be reinforced.

Criteria	Comments	Grade
Links with C2a factors	See above	3
Opportunity costs	In the medium and long run, sustainable management will be more profitable than illegal logging or logging without a management plan	5
Investment costs	Relatively high costs of management and certification	2
Transaction costs	Monitoring/control of large areas, important resources are needed. All players also need to be organized and trained.	3
Feasibility	Interest of industry players. PARPAF is a significant outcome that the Government wishes to duplicate. But (i) insecurity and (ii) lack of human and financial resources	3
Sustainability and Integration	The MEFCP wishes to manage forests but inexistent forest policy and no integration with other sectoral policies. Regular and/or permanent external support is needed as well as a policy paper on forest/environment.	3
Domestic leakage	Minimized risk if determination and control of permanent and non-permanent forest estates are efficient. Persistent poverty without alternative income and risk of illegal logging and harvest elsewhere.	2
	Total	**21/35**

Figure 18 – Critical Assessment of Sub-Option 3.1. – Promotion of Legal and Sustainable Forest Management

➔ Strategy Sub-Option 3.2: Promotion of Reforestation

To date, reforestation has been marginal and does not meet the critical needs for timber and firewood. While theoretically ideal, partial provision of gas is not a realistic option due to the level of poverty in the CAR.

Efforts of the national committee for the promotion of reforestation (presented under Part 1 of Component 2a) should be supported to define a large-scale reforestation policy: identification of potential sites, mapping, and development of reforestation projects based on local biophysical and socioeconomic data.

Tenure issues must be solved to ensure the safety of reforestation agents (private, associations, communities).

Criteria	Comments	Grade
Links with C2a factors	See above	3
Opportunity costs	The transition from an agricultural/livestock speculation (short-term) to plantation (long-term) requires economic compensations in case of strong tenure pressure. Minimization is possible through community reforestation for energy purposes.	3
Investment costs	Even with a village-based approach, costs remain high.	2
Transaction costs	Training, organization, monitoring, and control related to reforestation require important governmental resources.	3
Feasibility	Facilitated through wide awareness and training of all field players. Initiation of a national reforestation policy is granted and forest services are mobilized.	3
Sustainability and integration	Lack of coordination with other sectoral policies. National insecurity. Lack of tenure security. A Forest Policy Paper is needed to take into account reforestation programs in both degraded forests and savannas.	2
Domestic leakage	Minimal risk due to the low population density and availability of potential lands for reforestation	4
	Total	**20/35**

Figure 19 – Critical Assessment of Sub-Option 3.2. – Promotion of Reforestation

➔ Strategic Sub-Option 3.3: Operationalization of the Community Forestry Concept

In its Article 139, the Forest Code stipulates that "*organized and interested village and/or indigenous communities have the right of use of forests attributed to them*".

Natural resources usage rights are currently exercised in an unsustainable way as local populations are preoccupied by their critical needs and exert increasing pressure on forest resources. Therefore, to avoid depletion of community forests due to a lack of knowledge and capacity, sustainable management require the following multifaceted support:

- Technical support to local communities who own community forests by developing standards and simple management plans;
- Technical support to national SMEs to improve their management and technical skills. Informal loggers using portable saws can form a SME and contribute to forest protection, thanks to relevant support and training;
- Capacity building of local NGOs who play an interface role between public authorities and populations on awareness and rights and responsibilities towards natural resources, management, leadership, income-generating activities, decision-making, fundraising, etc.
- Enhancement of forest services in the same areas to ensure a transition from the traditional police approach to a more social forestry approach.

Criteria	Comments	Grade
Links with C2a factors	Address factors identified in Part 5.3.	3
Opportunity costs	Sustainable management is more profitable than illegal logging or logging without a management plan. Community forestry can sometimes limit agricultural expansion.	4
Investment costs	Average implementation costs as political goodwill takes priority	3
Transaction costs	The government and the civil society monitor the process. Stakeholders should also be organized and trained.	3
Feasibility	New concept therefore potential resistance to change. Can be facilitated through wide awareness and training of all field stakeholders.	3
Sustainability and integration	MEFCP is still conservative and not fully grasping social forestry approaches. Risk of "free-rider phenomenon" at community level. Needed regular and/or permanent external support in the short run.	2
Domestic leakage	Minimized risk if delimitation and control of permanent and non-permanent forest estates are efficient. But persistent poverty without alternative livelihoods will lead to displacement of illegal logging and harvest.	2
	Total	**20/35**

Figure 20 – Critical Assessment of Sub-Option 3.3. – Operationalization of the Community Forestry Concept

➔ Strategy Sub-Option 3.4: Stronger Population Involvement in Sustainable Forest Management

The COMIFAC Member States enacted sub-regional guidelines on the participation of local populations and indigenous peoples in the sustainable management of forest resources. These guidelines were adopted and adapted at national level. Their priorities include:

- Participation of various stakeholders including local populations and indigenous peoples in all planning stages of national forestry programs;
- Efficient application of decentralized forest taxation as planned under the Finance Law, associated with a distribution key of taxes and fees in order for these communities to benefit from these financial resources;
- Development of income-generating activities, notably via a microfinance program to reduce pressure on forests;

- Enhancement of the role of rural communities during negotiations of conventions between concession-holders and the State and in the preparation, implementation, and evaluation of PEAs;
- Promotion of forestry best practices through intercommunity exchanges; and
- Initiation of an early warning system on forest fires at community level.

Criteria	Comments	Grade
Links with C2a factors	See above	3
Opportunity costs	Economic activity does not stop, rather alternative activities	4
Investment costs	Minimal costs if there are potential alternatives adapted to stakeholders' capacities	3
Transaction costs	The participatory process requires the engagement of considerable resources by the State, notably to support a microfinance system (interesting leverage for alternative activities, capital is often the limiting factor)	3
Feasibility	There are several social and decentralized forestry experiments in the world, including in the Congo Basin.	4
Sustainability and integration	Facilitated if local actors with decision-making power are well trained. But low adoption of regulations on decentralization can be a major limiting factor.	3
Domestic leakage	Minimal if free, prior, and informed consent of populations (needed awareness and outreach) and relevant alternatives	3
	Total	**23/35**

Figure 21 – Critical Assessment of Sub-Option 3.4. – Stronger Population Involvement in SFM

➔ Strategy Sub-Option 3.5: Development of a Domestic Energy Strategy (DES)

While the CAR still not has a DES, such a strategy could contribute to the reduction of forest degradation and to poverty reduction thanks to a concerted management of the fuelwood sector. Specific objectives could be based on the 2003 roundtables on forests:

- Updated data on the fuelwood sector (volumes, prices, margins, stakeholders, techniques);
- Development and enactment of regulations on exploitation, transformation (for charcoal), trade, transportation, and taxation of firewood and charcoal;
- Reforestation with fast-growing species for the production of firewood (for the record, this was listed under sub-option 3.2.);
- Increased potential of logging waste, including development of cogeneration systems, development of the potential of sawmill waste as a source of energy and heat for dryers [linked with sub-option 2.2.];
- Promotion of modern carbonization techniques (improved kilns) and efficient wood consumption (improved stoves and smokehouses) to improve the carbon footprint of the fuelwood sector;
- Development and communication of model master plans on the urban provision of fuelwood, associated with pilot projects in rural/urban markets;
- Studies and promotion of alternative and renewable sources of energy.

Criteria	Comments	Grade
Links with C2a factors	See above	3
Opportunity costs	Increased production efficiency and higher product quality	4
Investment costs	Low if sound techniques adapted to charcoal-makers, concession-holders and households are used	3
Transaction costs	High investment from the State: assessment of fuelwood sector, development of a DES and implementing regulations, control of mostly informal activities in the fuelwood sector.	2
Feasibility	Numerous experiences on DES exist worldwide including in Sub-Saharan Africa, lessons learned will help address challenges.	4
Sustainability and integration	Potential resistance from lobbies (informal groups of operators, carriers, etc.). An official status is needed for small-scale informal operators.	2

Domestic leakage	Possible partition of the country between legal and illegal production areas (illegal operators migrating in unorganized sites).	2
	Total	**20/35**

Figure 22 – Critical Assessment of Sub-Option 3.5. – Development of a DES

3.4. Strategy Option 4: Institutional and Governance Strengthening

➔ *Strategy Sub-Option 4.1: Development of a Public IEC on REDD+*

In order for the general public to gain understanding and ownership of the REDD+ concept, it is necessary to:

- Develop and initiate a public awareness program;
- Suggest school programs at the following level: "fundamental 1" (elementary school, age 6-12), "fundamental 2" (middle and high school, age 12-18), and higher education (college).

Criteria	Comments	Grade
Links with C2a factors	See above	5
Opportunity costs	None	5
Investment costs	Low relatively to the mobilization of mass media including national and community radio. Development of school materials might be more expensive.	4
Transaction costs	Needed development of radio programs and school materials	3
Feasibility	No apparent major difficulty	4
Sustainability and integration	Focus on youth should contribute to a sustainable awareness of current and future generations on forest protection	4
Domestic leakage	N/A (grade = 3 by convention)	3
	Total	**28/35**

Figure 23 – Critical Assessment of Sub-Option 4.1. – Development of a Public IEC on REDD+

➔ *Strategy Sub-Option 4.2: Financial, Material, and Technical Support to Authorities*

The lack of governmental human, financial, and material resources is one of the main underlying causes of pressure on forests. Therefore, a strategy for quantitative increase and qualitative improvement of such resources is required, both for MECFP and MDRA, to include research programs on forestry, agroforestry, agronomy, and livestock as well as processing of agricultural and livestock data (forestry data are already taken into account under the future PARPAF).

To ensure the sound design, control, monitoring, and evaluation of field activities:

- Two training centers on agriculture, sylviculture, and livestock (CFASP) will be reopened. These centers were active from 1988 to 1996 (with support from missionaries) in Alindao (Basse Kotto Prefecture) and Boussangoa (Ouham Prefecture). Their role will be to identify young school drop-outs and train them to become versatile agents for agricultural/sylvicultural/livestock groups;
- Reopening of the training center for forest rangers (CFGF). This center was active from 1975 to 1985 in Bamingui (Bamingui Bangoran Prefecture). Agents will be trained on forest surveillance and protection. Reopening will also help address the insufficiency of field agents (26 forest rangers countrywide);
- Reopening of the pilot forest center (CFP). This center was active from 1968 to 1974 in Bimbo (9 km from Bangui) to train agents on logging and forest surveys;
- Revitalization of the OFB (which was active from 2000 to 2005 under the National Environmental Information Management Unit of the International Environmental Information Development Agency based in Libreville, Gabon) by: (i) ensuring that satellite monitoring of bush fires is effectively carried out by the LACCEG and (ii) ensuring that the future PARPAF or AAAGDF has an updated database on forest fires.

Criteria	Comments	Grade
Links with C2a factors	See above	5
Opportunity costs	None	5
Investment costs	High if a number of agents and rangers are hired and trained	4
Transaction costs	Creation of efficient inspection systems and anticorruption measures	3

Feasibility	Capacity-building for the CAS-DF. Resistance to change.	3
Sustainability and integration	Various adverse pressure (corruption, impunity, influence peddling, conflicts of interest) can continue at different governmental levels without political goodwill	4
Domestic leakage	N/A (grade = 3 by convention)	3
	Total	27/35

Figure 24 – Critical Assessment of Sub-Option 4.2 – Financial, Material, and Technical Support to Government Authorities

➔ Strategy Sub-Option 4.3: Capacity Building of Local NGOs on Sustainable Management of Forest Resources, Advocacy, and Control

Some members of the CAR civil society do not have the needed tools for efficient advocacy and counterbalance. Capacity building is therefore required through:

- Enhancement of knowledge on tenure, forest, environmental, socioeconomic, etc. issues related to REDD+;
- Vitalization of the network of NGOs to enhance their role for the definition of forest policies and measures as related to the attribution of PEAs, FLEGT, REDD+, etc.

Criteria	Comments	Grade
Links with C2a factors	See above	5
Opportunity costs	None	5
Investment costs	Low as it is mainly theoretical training	4
Transaction costs	Networking allows for economies of scale	4
Feasibility	The Government does not seem to be against the emergence of the civil society and NGOs are asking for information on REDD+ and forest issues in general	3
Sustainability and integration	Useful only if NGOs accurately reflect the perspectives of populations, which is not always the case as some NGOs appeared to have lost their connection with communities.	3
Domestic leakage	N/A (Grade = 3 by convention)	3
	Total	**27/35**

Figure 25 – Critical Assessment of Sub-Option 4.3. – Capacity Building of Local NGOs on Sustainable Management of Forest Resources, Advocacy, and Control

➔ Strategy Sub-Option 4.4: Capacity Building of Administrative Institutions in charge of the Environment

Governance issues mentioned under Component 2a are significant. Planned actions include:

- Capacity building of institutions in charge of impact assessment studies as provided in the Environmental Code
- Capacity building of tax collecting institutions

Criteria	Comments	Note
Link with C2a factors	Cf. supra	5
Opportunity costs	None	5
Investment costs	Low as it is mainly theoretical training	4
Transaction costs	Networking allows for economies of scale	4
Feasibility	Very low governmental capacity for the collection of environmental taxes. The same applies to non governmental institutions in charge of impact assessment	4
Sustainability and integration	Useful only if targeted entities apply what they learn, which is not always the case today.	3
Domestic leakage	N/A (Grade = 3 by convention)	3
	Total	**28/35**

Figure 26 – Critical Assessment of Sub-Option 4.4. – Capacity Building of Administrative Institutions in charge of the Environment

3.5. Full Development of Strategy Options

As explained in Component 1a, the CT REDD+, under the supervision of the CN REDD+, will steer the implementation of the R-PP. In addition to studies planned in Component 2a on the identification of causes of pressure on forests, studies will be carried out under Component 2b to better evaluate the relevance of each strategy (sub-) option.

Terms of reference for these studies are found in **Annex 2b-1.**

However, based on the "learning by doing" principle, the CAR should also implement a variety (geographically and thematically) of pilot projects. These pilot projects should be implemented on the basis of a call for proposals by the CT REDD+, approved by the CN REDD+, similarly to the regional operation of the CBFF.

These pilot projects will be selected based on criteria defined by the CT REDD+ (best geographic areas or themes, applied methodology, benefit-sharing pilot mechanism, etc.) and will be monitored and evaluated by the CT REDD+. Using the assessment results, the CT REDD+ will suggest wider-scale actions to the CN REDD+.

A corresponding budget line is included in the Component 2b Budget.

4. SCHEDULE AND BUDGET (IN KUSD)

Main activities	Sub-activities	S2 2011	S1 2012	S2 2012	S1 2013	S2 2013	TOTAL
Development of calls for proposals to recruit national experts for the development of programs of action and their monitoring	Development of 12 terms of reference and calls for proposals to recruit two national experts for the development of a program of actions for each sub-option (2md/call for proposal of the National REDD+ Coordinator + 2md/call for proposal of the REDD+ Technical Advisor - covered under Comp. 1a)						
	Supervision and backstopping of tasks of national experts (10md/sub-option of REDD+ National Coordinator + 10md/sub-option of REDD+ Technical Advisor - covered under Comp. 1a)						
Development of the 12 programs of action (1/sub-option)	Literature survey and preparation of field mission (20 md/nat. expert x 2 experts/sub-option x 12 sub-options x 0.4kUSD/md)	96	96				192
	Report with conclusions and recommendations presented to CT REDD+ and CN REDD+ (5md/nat. expert x 2 experts/sub-option x 12 sub-options x 0.4kUSD/md)	24	24				48
	Validation, invalidation or reformulation of sub-options by the CN REDD+ after technical opinion of the CT REDD+						
Launching of calls for pilot projects (1/sub-option)	Development of 12 terms of reference and calls for pilot projects for each sub-option (2md/call for proposal of the National REDD+ Coordinator + 2md/call for proposal of the REDD+ Technical Advisor - covered under Comp. 1a)						-
	Selection of bids (on average 4/semester between June 2012 and December 2013) and allocation of a grant of 200kUSD/project			800	800	800	2,400
	Supervision and backstopping of pilot projects (10md/project of the REDD+ National Coordinator + 10md/project of the REDD+ Technical Advisor - covered under Comp. 1a)						
	Reports on project implementation with conclusions and recommendations presented to CT REDD+ and CN REDD+ (prepared by each project developer before the semi-annual CN REDD+ meeting, no cost for CT REDD+)						-
	TOTAL	**120**	**120**	**800**	**800**	**800**	**2,640**
	Government Contribution						
	FCPF Contribution						840
	UN-REDD Contribution						
	AFD Contribution						

Figure 27 – Schedule and Budget of Component 2b of the CAR R-PP

2c. REDD-plus Implementation Framework

1. INTRODUCTION

To efficiently implement the national REDD+ strategy, the CAR intends to develop an integrated, participatory, effective, and efficient approach with full and sustainable involvement of all stakeholders, in order to contribute to the country's sustainable development and to global efforts against climate change. REDD+ requires a clear and appropriate legal and institutional framework:

- REDD+ activities realized along the selected strategy directions should follow specific rules, integrated in the national legal and institutional framework so that all applicable public policies are consistent;
- New and existing institutions should have the necessary power and resources to fully exercise their prerogatives in a coordinated and efficient way;
- All stakeholders affected by REDD+, should be durably involved. They include indigenous peoples as their participation is crucial to the environmental, economic, and social efficiency and sustainability of activities; and
- Tenure rights, including customary rights and their recognition, as well as usage rights related to forest resources and agricultural and/or livestock activities, should be regulated and respected to ensure sustainable implementation of REDD+ activities. This would also facilitate the definition of ownership rights of removed/avoided emissions and associated entitlement.

The CAR should perform a number of legal and regulatory reforms to improve the current framework.

Note: Publications used for Component 2c are listed in **Annex 2c-1.**

2. STRENGTHS AND WEAKNESSES OF THE EXISTING LEGAL AND INSTITUTIONAL FRAMEWORK

2.1. Tenure Legislation

Tenure right is guaranteed by the Constitution of December 27, 2004. Registration is the only way for entitlement, subject to formalities and tax payment. Law # 63.441 of January 9, 1963 defining the national estate stipulates the principle of State ownership of lands. Without registration, the presumption of public domain prevails.

It should be noted that the State does not sell, but rather attributes, lands. The attribution process is led by the land registry service and requires financial resources from the applicant. Each step (preliminary recognition, preliminary order, valorization statement, final order) requires a payment of fees and taxes.

In practice and for most cases, due to the high taxes and fees (about 400,000 FCFA, or 37% of the annual salary without indemnities of a senior official), the population invokes its customary rights to lands without any entitlement or consultation of relevant services, both in rural and urban areas.

The State tolerates this type of informal tenure if no general-interest project is planned for the area. The occupier will only have the usage of the land. In general, customary rights constitute the only method of property acquisition and lands are sold and bequeathed based on the right of use.

Under REDD+, it is time that the State (i) facilitates the recognition of customary rights and (ii) reduces or even cancels some fees and taxes to facilitate entitlement.

It should be noted that a bill on agriculture and livestock tenure has been under discussion for two years, in addition to other existing tenure laws, to facilitate the recognition of customary rights to entitlement for an exploited area.

This bill is under review at the National Assembly. Details are presented in the box below. Its adoption will facilitate the recognition of customary tenure rights. A law on REDD+ (see below) could further enhance this recognition and the participatory involvement of local and/or indigenous populations in conservation, sustainable management of forests, and development activities.

The Agricultural and Livestock Code will include three methods of access to land and natural resources: customary and informal, formal and modern, and mixed.

Under the traditional and informal method, village communities will have access to land and natural resources based on locally established customary rules, without any property title. Under the modern and formal method, State services will determine entitlement. Under the mixed method, a land effectively and already exploited will be attributed to the applicant.

Management and tenure commissions will be created in villages, municipalities, prefectures, and at national level. Their responsibilities will be to:

- Ensure land valorization and improvement of exploitation conditions;
- Manage tenure conflicts at local, regional, and national levels;
- Develop and implement land-use plans and corresponding regulations;
- Contribute to tenure management and management of village, municipal, and prefectural lands as defined by the guidelines.

The village commission will be led by chief of the village, the municipal commission by the mayor, the prefectural commission by the prefect and the national commission by the Ministry in charge of agriculture and livestock.

Occupants of lands as recognized by customary rights would have the opportunity to gain private property based on a legalization process defined by the Tenure Code. A family land could be sold, rented, lent, donated, leased, sharecropped, or bequeathed.

Based on customary rights, any user could send an application for property corresponding to the area actually exploited. The application will be sent to the village tenure and management commission. Following approval, the application will be transmitted to the president of the relevant municipal commission. The mayor will gather the commission to consider the application.

Unoccupied or obviously underexploited lands would fall under the State jurisdiction, divided in plots for sale or rent, or donated for the settlement of any vulnerable group (as defined by the State) benefitting from positive discrimination.

The State would attribute public lands to industrial operators with a valorization requirement within two years following the attribution of the provisional occupancy permit. The latter would become a formal title based on the valorization certificate and the demarcation plan. Lack of valorization within the specified period would result in the withdrawal of the occupancy permit.

For small-scale operations, attribution of an occupancy certificate of new lands should be followed by effective valorization within a year. Lack of valorization as noted by the village commission will result in the cancellation of the certificate.

To consider an application for land ownership under customary rights, the Code will consider the acknowledgment of peaceful enjoyment of land for at least 3 years. This acknowledgment is signed by the applicant and by five witnesses living in the same village.

Box 27 – Details on the Tenure Provisions of the Agriculture and Livestock Code.

It should be noted that this Code is still in the hands of the General Secretariat of the Government.

2.2. Forest Legislation

For its permanent forest estate, the CAR has initiated a sustainable and socially responsible forest management policy to preserve ecosystem services. Today, all industrial logging permits are subject to a management plan for the purpose of sustainability. It should be noted that three permits, covering 33 % of the southwestern forest range, have not yet been attributed.

The situation is not as positive for the non-permanent forest estate. Significant efforts should be made particularly for community forests where the Forest Code does not apply (See Strategy Option 3.3 under Component 2b).

The Forest Code draws a distinction between the type of forest estate (permanent and non-permanent) and the status of operators (private sector or community). The PARPAF, funded by AFD since 2000, supports the forest department for the rational management of concessions. However, several legal efforts should be made to implement the REDD+ strategy:

- Implementing regulations should be adopted and specific efforts targeted at the non-permanent forest estate;
- Informal and illegal logging around urban centers and concessions should be regulated; and
- Capacity-building efforts should be carried out for a better application of regulations.

2.3. Agricultural and Livestock Legislation

As seen under Component 2a, uncontrolled agricultural and livestock activities constitute one major cause of threats on forests. The legal framework for the sector presents two main weaknesses: (i) activities are performed without any legal entitlement to the land and often without due diligence towards natural resources, (ii) impacts of activities on the environment are not monitored and are often detrimental for natural resources and forests.

The government is aware of these weaknesses and has initiated legislation on agriculture and livestock. The bill is currently in the hands of the National Assembly. It aims at regulating access to land and natural resources, enhancing community rights on their lands, and regulating land transfers to ensure tenure mobility.

Application of the future code should contribute to ensure fair access to land resources, sustainable management of such resources, and simplified administrative processes to obtain and transfer land titles.

2.4. Land-Use Planning Legislation

The country does not have a global land-use plan. Plans are developed for specific areas, such as concessions and urban centers. However, for the latter, people usually settle first and the management plans follow. Land occupation is often uncontrolled.

This is the case for instance in the Kpetene and Galabadja neighborhoods in Bangui with the emergency project for restoration of urban infrastructure (PURISU) or in the Gbazabangui hills in Bangui and in Bimbo in the Ombella M'Poko Prefecture where the official registry service intended to plan some housing development after settlements in the 2000s.

The rural sector has similar weaknesses. Agricultural, livestock, forest, mining, and infrastructure policies have not been defined in a concerted way and often lack consistency. Reinforcing the 1964 Tenure Code or a potential Law on REDD+ would help address these issues.

2.5. Environmental Legislation

As noted under Part 2.1 of Component 2a, the PRSP (2007-2010) does not integrate environmental issues. However, environmental concerns are at the core of the second version of the PRSP and therefore integrated in all of its themes.

However, several points should be highlighted to contribute to the development and implementation of a national REDD+ strategy:

- Objectives, processes, and responsibilities related to EIEs are clearly defined in the proposed implementing regulations of the Environmental Code. Component 2d discusses this point in more detail;
- Protected areas exist theoretically but as seen under Strategy Sub-Option 1.2 under Component 2b, an updated definition of their limits and restrictions, as well as additional eco-rangers, are needed;
- The FNE contributes to the funding of environmental activities through environmental taxes and fees. The 2011 Finance Law estimated the predicted amount of fees and taxes at 800 million FCFA; and
- The State guarantees the right to environmental education to all citizens (Article 5, paragraph 2 of the Environmental Code). Unfortunately, public and private institutions in charge of environmental education, research, and communication suffer from a lack of resources and tools to fulfill their mission.

2.6. Legislation on the Decentralization of Forest Taxation

Local authorities listed under the 1998 Order on territorial authorities should fully play their role. The current framework on the distribution and management of funding for forests has several strengths and weaknesses:

- Strengths: Centralization of resources and disbursement under the authority of the CNT. In principle, this should ensure transparency. Funds are kept at the Central Bank as instructed by the President. Disbursement to municipalities are authorized by the CNT based on an allocation program presented by local authorities;
- Weakness: Local authorities have a hard time developing such budgets leading to disbursement delays.

3. FUTURE INSTITUTIONAL AND LEGAL FRAMEWORK

3.1. "Basic" Institutional Framework

The CAR intends to rely on existing institutions for lessons learned and capacity building. However, given the inter-sectoral dimension of REDD+, the need for an integrated approach, and the required alignment with the REDD+ international framework, the current institutional framework needs to be adapted.

Component 1a presents the list and missions of planned institutions including the CN REDD+, the CIP REDD+, and the CT REDD+. Their mandate will be defined in an implementing regulation enacted by the Prime Minister, Head of the Government. These new institutions will be designated and created rapidly through a Presidential Order, even before the adoption of a future REDD+ Law (see below) in order to facilitate the development and adoption of the latter. The institutional framework has not yet been established. The bill of law was sent to the Commission in charge of reviewing legal bills, which reviewed and adopted, pending amendments both on format and substance, the bill on the establishment, organization and operation of the REDD+ National Committee.

The amended bill is revised and edited by the initiating department and sent to the Ministry serving as General Secretariat for the Government and Relations with Institutions to be included in the agenda of the Council of Ministers. On Tuesday, September 13, 2011, the Council of Ministers gave a ruling on this bill. After the approval of the Council of Ministers, the bill is awaiting the President's signature. The institutional framework should be operational before the Berlin session.

The Presidential Decree will specify the institutions' respective composition and missions. Members of institutions such as the CN REDD+ and the CIP REDD+ should be designated by Order of the Prime Minister, upon suggestion from the Ministry in charge of the Environment after feedback on the designation of representatives of non-governmental entities. Upon its creation, the CN REDD+ will adopt its rules of procedure.

This Decree will have to power to define the authority of each institution, extend enforceability to their decisions and recommendations, and mainstream REDD+ regulations and arrangements in the relevant public policies.

3.2. Institutional Framework

Specific institutions or mechanisms are also considered to facilitate the missions of the REDD+ institutions:

- FNE (already in place): channels and manages international funds and stimulates foreign investment. A specific REDD+ unit is planned;
- REDD+ National Registry: Based on the registry for nationally appropriate mitigation actions (NAMAs) established at the 16th Climate Conference in Cancun. This national registry will record all national REDD+ activities in order to: (i) measure, report, and verify their results in terms of reduction of GHG emissions and social and environmental impacts and (ii) record all funding requests and offers;
- A "CAR REDD+" Exchange Center based on the "CDM Bazaar": it will provide information on REDD+ in the CAR to the general public, donors, and international investors. The IEC thematic group of the CT REDD+ will manage this center.

3.3. Legal Framework: Justification of a Law on REDD+

The reasons behind a Law on REDD+ in the CAR include:

- Needed sectoral reforms and recognition of the cross-cutting nature of the national REDD+ policy;
- Consistency and/or compatibility of administrative actions for implementation (plans and programs, activities, projects subject to individual authorizations);

- Legally-binding strategy directions for REDD+, enforceable for all stakeholders including relevant authorities;
- Focus on the importance of regulations to ensure environmental integrity of REDD+ activities under good governance, in line with past or ongoing reforms.

In addition to the Presidential Decree on REDD+ institutions and the regulations formally approving the national REDD+ strategy and subsequent amendments/revisions, including via the decisions of the CN REDD+, this Law on REDD+ will define strategic priorities, principles, and implementation tools for REDD+, including incentives.

This will be a framework law and its implementation will be defined by regulation. This new legal framework will ensure consistency of public policies and therefore will introduce amendments of existing laws and regulations (Estate Code, Forest Code, Environmental Code, proposed Agricultural and Livestock Code, etc.) where shortcomings have been identified.

3.4. Potential Content of the Law on REDD+

The objective is to determine national implementation arrangements of the REDD+ strategy, in compliance with international requirements, including for funding and benefit-sharing mechanisms.

General principles underlying the development of a Law on REDD+ include: environmental integrity (sustainable management of natural resources), precaution, equity, efficiency, measurability, transparency, and good governance.

The scope of REDD+ will be defined based on the forest definition of the Climate Convention (see Component 4a below) and in relation with potential afforestation activities under the Clean Development Mechanism (CDM).

In addition to these general themes and at this stage, the following elements are considered for the Law on REDD+:

- Objectives of the national REDD+ strategy;
- Sustainable development criteria, eligibility criteria, and REDD+ indicators;
- Creation of the national REDD+ Registry and authorization and/or registration requirements for REDD+ activities (modification of the Forest and Environmental Codes if needed);
- Support mechanisms for REDD+ activities including tax incentives (tax exemption or tax credit);
- Governmental clearance for the creation of the REDD+ unit within the FNE, specification of disbursement criteria;
- Devolution of competences to the CN REDD+ to establish implementation mechanisms (economic and tax mechanisms, conventions with local authorities and CIPs REDD+, relationship with logging concession-holders, etc.);
- Development of a ESMF on REDD+ (See Component 2d);
- Modeling requirements and devolution of competence for the legal specification of implementation mechanisms:
- Designation of competent authorities, applicable methodologies, etc. (See Component 3);
- Legally-binding value of national and/or sub-national reference levels (See Component 3);
- MRV requirements and devolution of competence for the legal specification of implementation mechanisms;
- National forest survey (See Component 4);
- Legal status of REDD+ carbon credits, delivery and transfer conditions for carbon credits, accounting and taxation processes for credit transfers, devolution of competence to carry out REDD+ transactions for the State; and
- Amendments of other relevant regulations.

4. FUNDING, CARBON FINANCE, AND CARBON MARKETS

For the CAR, development of an institutional framework and implementation of planned activities under the REDD+ strategy should be funded by national and international sources, both public and private, taking into account that funding requirements will evolve with further institutional capacity building and implementation.

While the CAR intends to focus its efforts on developing national approach, a sub-national approach is also considered.

The CAR will turn to the carbon market if it contributes to the creation of incentives for public and private involvement in REDD+ activities and to the sustainability of such activities. Generally, the CAR intends to use all funding, regardless of origin, in an accountable, efficient, transparent, and equitable manner.

To ensure the financial value of its efforts for REDD+, the CAR believes that the legal status of carbon assets should be clarified and potential owners identified in order to secure transactions with both governmental and private players, including on the voluntary market.

As for the legal status of REDD+ credits, the CAR is reviewing several options (See Parts 4.1. and 4.2. below). Based on decisions, funding arrangements for the implementation of the national REDD+ strategy will be defined, including transactions on the carbon market (See Parts 4.3. and 4.4). All stakeholders, starting with the CIP REDD+, which will transmit recommendations to the CT REDD+, will take decisions. Once the recommendations are consolidated, the CT REDD+ will communicate them to the CN REDD+ for a final decision.

4.1. Thoughts on the Legal Status of Avoided/Removed Carbon

REDD+ credits are created either using international legal instruments or by private voluntary initiatives. Neither the former (unable to regulate inter-country legal relations), nor the latter (falling under the private sphere) cannot be substituted to the legislator and define the legal status of credits.

Given the silence of the international law, applicable legislation should be used. This could be the applicable law on the sale of credits or the law of the country hosting the activities. If the law is silent, the decision is up to the contracting parties involved in a mutual-agreement transaction.

To date, the legislation of the CAR does not define the legal status of carbon credits and does not attribute the benefits of emissions reduction or sequestration to a given entity. Furthermore, there are no existing CDM or voluntary projects in the country from which lessons can be learned to assess the legal status of REDD+ credits and their legal ownership.

Given the silence of both international and national legislations, the REDD+ credit appears as a *sui generis* mechanism and should be compared to other existing instruments. Relevant experience of other countries should be examined.

On the CDM global market, carbon credits are usually viewed as an intangible property or commodity, but also often as a financial tool (if the transaction is a constituent of a forward contract) or a service. They can also be legally considered as an entitlement on a natural resource (sequestrated/avoided carbon for instance).

4.2. Two Options to Determine the Legal Nature of Avoided/Sequestrated Carbon

At this stage, the CAR is considering two options:

Option 1 ➔ The State is the only owner of legal titles

Law will consider avoided/sequestrated carbon as a natural resource, a part of CAR public domain and heritage. This status, regardless of tenure or access rights to forest resources, would grant the State full ownership of sequestrated/avoided carbon. The State is the sole holder of a title, potentially transferable to others.

Under this option, the State would be the sole authorized entity to carry out transactions on credits. However, this option does not exclude the possibility of granting this authority to local and territorial authorities, considered decentralized entities of the State under the 1988 Order.

This is for instance the option selected by New Zealand in 2002 for the so-called “Kyoto forests” (planted after 1990), by considering the sequestrated carbon as a public asset. If the CAR follows this option, the applicable law would also specify the distribution mechanisms of carbon revenues to all entities directly or indirectly involved in the implementation of REDD+ activities (regardless of whether these activities are regulated or developed under a market mechanism). Such people include landowners (including the State), holders of access rights (including customary rights on resources) such as concession holders, local populations, or community forests managers.

Option 2 ➔ Ownership is Proportionate to Efforts

Sequestrated/avoided carbon can be viewed as an industrial or natural asset depending on whether the effort aimed at increasing carbon stocks (afforestation and reforestation) or at maintaining or preserving these stocks (sustainable management, conservation).

Therefore, the result (sequestrated/avoided carbon) is linked to the service. Entities contribute either directly (through material or capital input) or indirectly (waiver of their rights to exploit resources) to REDD+ activities and therefore to the provision of this service.

The landowner, who makes the land available for this service, could be considered as the main recipient of payments for ecosystem services.

It also possible to consider that sequestrated/avoided carbon cannot be detached from forests. Therefore, holders of the usage rights, including recognized customary rights, could be viewed as the recipients of payments for ecosystem services.

Under this option, carbon credits could be considered as an intangible personal asset. In countries traditionally influenced by the Roman Law, such as the CAR, a credit could be considered as an intangible personal asset as it constitutes evidence of an action or a result (sequestrated/avoided carbon). Its holder has the right to transfer the credit to a third party without any public legal constraint.

This right to transfer creates a subjective right on heritage property (due to the monetary value related to the potential use of the asset, as defined by demand for regulatory compliance or compensation on the voluntary market).

This asset is subject to private ownership (including for the benefit of entities governed by public Law such as the State, to manage their private heritage). As an example, the Civil Code rationale was applied in France to consider CDM credits as personal assets (See Article L.229-22 of the French Environmental Code). For the record, the CAR applies the 1958 version of the French Civil Code.

Under this option, owner(s) of carbon credits would not necessarily be identified by law, but potentially by the parties in a transaction based on several criteria or indicators (specified by law if needed):

- Tenure rights, including recognized and registered customary rights;
- Resources usage rights, including for forest concession-holders contributing to removals/emissions reduction;
- User rights in the activity area (including recognized rights of indigenous peoples); and
- Capital or material input contributing to the increase of removals or to the reduction of emissions.

Without any specific regulations on the attribution of ownership rights of carbon credits, sharing and distribution can be proportionate to inputs or efforts by all involved in the relevant activity.

Summary ➔ How to Select an Option?

The legal status of credits determines the rights and responsibilities of the owner and the possibility of legal transfer to a buyer, and therefore contributes to the indirect identification of the owner and the legal framework for the transaction.

Therefore, the legal status is crucial for the valuation of REDD+ activities in the CAR. Selection of legal options will be based on several criteria:

- Efficiency in terms of funding of REDD+ activities;
- Equity in terms of revenue/funding distribution with a focus on the needs of local and indigenous populations;
- Sustainability of REDD+ activities and expected results (permanence of sequestration/ emissions reduction); and
- Reduction of risks of conflicts between access right holders on lands and/or forest resources, including customary rights.

Under the first option, REDD+ credits would not be subject to private ownership when created, but only if transferred by the State, including to private entities investing in REDD+ activities in the CAR.

Under the second option, private ownership would be possible at the onset. However, given its status as a landowner and its significant role in the sustainable management of forests, the State should own a significant portion of REDD+ credits.

4.3. Transactions on REDD+ Carbon Credits: Which Role for the Government?

If the State decides to select a “market” approach combined with a “fund” approach, several options can be considered for transactions on REDD+ credits, regardless of whether ownership is determined or not by law.

Option 1 ➔ Centralized Approach

The State is at the core of transactions. Even if the State is not necessarily the owner of credits, it is the sole seller and offers the buyer some guarantees against the risks of the activity *per se*. If needed, a public entity is designated to carry out negotiations and transactions for the State.

This entity could be a Fund in charge of funding management of REDD+ activities (See Part 4.4. below). This would allow a direct link between revenues from transactions, proceeds of the Fund, and expenses for the activities, equitably distributed based on legal criteria.

This REDD+ Fund can be hosted by the FNE. Incidentally, the State can select buyers by competitive bidding, to be supervised by the manager of the national REDD+ registry (See Part 2 above).

Option 2 ➔ Decentralized Approach

Any entity entitled to claim ownership of the legal title proving sequestration/emissions reduction can be authorized by the State to transfer this title to a third party by mutual agreement.

Credits are distributed to their owners by the State, based on granted authorization, and will offset credits delivered based on the results of the national strategy on the national reference level.

Transactions are concluded based on negotiations between both parties, as stipulated in the agreement, and if needed based on the relevant legislation selected by the parties (not necessarily the CAR legislation).

This option assumes that REDD+ credits can be privately owned and that there is no risk of expropriation by the State. Under this option, project developers guarantee the expected results using a guarantee system or commitment to provide replacement credits.

4.4. Accountable and Transparent Management of Funds

To manage international and national funds, both public and privates, allocated to support REDD+ activities, the CAR intends to use the FNE, created by Article 9 of Law # 07.018 of December 27, 2007 defining the Environmental Code. The by-laws of the FNE were approved by Decree #10.158 of May 19, 2010.

While there is no explicit mention of REDD+ in the Decree, the Government of the CAR could amend it so that the FNE becomes the financial mechanism for the implementation of the national REDD+ strategy. A special unit would be created to fund eligible REDD+ activities.

The FNE is placed under the authority of the Ministry in charge of the environment. It is supervised by a management committee and headed by a director. The management committee reviews and approves the budget, reviews activity reports, and if needed, revises the FNE by-laws.

Resources of the FNE include environmental taxes on forests, mining, tourism, transportation, sale of cigarettes, liquor sale, sale of telephone coupons, electromagnetic nuisance, car wrecks, sewage, oil and lubricants, industrial waste, plastic bags, as well as subventions from partner entities, donations, bequests, and financial assistance.

For the first time since its creation in 2008, the finance bill has included in the 2011 budget a 800-million FCFA prevision for the FNE, to reflect the price of previously untaxed petroleum products.

The FNE could be the national entity hosting the Green Fund created at the 16th Climate Conference in Cancun and would include a REDD+ unit to ensure efficient and specialized financial operations.

The FNE could also facilitate transactions of REDD+ credits for the State, if needed through competitive bidding of public and private entities that can potentially claim ownership of credits.

Once the FNE is operational, decentralized units of the Public Treasury in the capitals of prefectures and sub-prefectures could be used to bring the Fund closer to its beneficiaries. These decentralized units could hold the funds and carry out disbursements based on pre-established rules.

4.5. Arrangements for an Equitable Revenue Distribution

Revenues from REDD+ activities will be distributed after deduction of the share of the State, based on activities carried out in public and non-public forests:

- Private entities (logging companies, private owners) could directly receive revenues based on the legal title showing their involvement in the implementation of REDD+ activities (revised management plan, authorization) and based on their performance. Other funding methods could be considered such as tax exemption or tax credit (exemption of forest tax), or even a loan with a preferential rate for investments towards low-emission practices;
- Territorial authorities will claim revenues based on their level of involvement and on a program of activities approved by the CN REDD+;
- Local communities and indigenous peoples will receive revenues through funding of development projects contributing and/or facilitating the implementation of REDD+ activities. Such activities are predefined in the implementation program of the national strategy and jointly approved by the local State representative (for instance, via a management permit for a community forest as provided in the Forest Code, or by contract). Local communities and indigenous peoples are represented in the CIPs REDD+, which are also the entities in charge of validating projects proposed for funding.

To ensure sound management of funds and transparency of State expenses (control of disbursements compared to requests), this arrangement will be supported by the new CAR Penal Code promulgated on January 6, 2010, which largely focuses on the repression of all forms of corruption.

Chapter XIV of this Code contains provisions on measures against embezzlement of public funds and assets, to be punished with two to ten years of prison for values below 100,000 FCFA (or about 2,000 USD), and with forced labor for higher values.

Corruption is punished with one to ten years in prison and a fine of 100,000 to 2,000,000 FCFA. Misappropriation is punished with one to five years in prison and a fine of 100,000 to 4,000,000 FCFA, and influence peddling with one to five years in prison and a fine of 100,000 to 2,000,000 FCFA. According to the CAR penal process, the public prosecutor triggers the prosecutions.

It should finally be noted that a national committee against corruption was created by Decree #08.133 of March 31, 2008 and placed under the authority of the Prime Minister, Chief of the Government.

5. SCHEDULE AND BUDGET (IN KUSD)

Main activities	Sub-activities	S2 2011	S1 2012	S2 2012	S1 2013	S2 2013	TOTAL
Creation of CN, CIP, and CT REDD+ by Presidential Decree	Development of a preliminary draft of the Decree by legal experts from the CN REDD+ with the National Assembly Commissions on Laws and Environment (10md/nat. expert from the CN REDD+, covered under Comp. 1a)						
	Promulgation of the Decree						
Study on weaknesses of the legal framework with respect to tenure, forest, agriculture and livestock, environment, decentralization, forest taxation, and management of the FNE	Development of terms of reference for the study and call for tenders to recruit an international legal expert in environmental law (5md/legal and tenure experts from the CN REDD+ - covered under Comp. 1a)						
	Selection of the legal expert and initiation of the study						
	Literature survey and preparation of mission (20md/legal expert x 1kUSD/md + 5 md/ nat. expert from the CT REDD+ covered under Comp. 1a)	20					20
	Field mission focusing on Bangui, with visit in 2 Prefectures (to be determined) (30 md/inter. expert x 1kUSD/md + 3kUSD/ inter. transport + 30 md/national expert from the CT REDD+ covered under Comp. 1a)	33					33
	Report with conclusions and recommendations presented to CT REDD+ and CN REDD+						
Preparation of the REDD+ Bill	Development of a preliminary draft by legal experts from the CN REDD+ with the National Assembly Commissions on Laws and Environment and backstopping from the international legal expert (50md/nat. expert from the CT REDD+, covered under Comp. 1a + 20md/legal expert x 1kUSD/md + 3kUSD/inter. transport)		23				23
	Regular work meetings with Deputies, CES members and services/and or offices of Ministries						
	Validation in principle, invalidation, or reformulation of the draft by the CN REDD+ after technical opinion of the CT REDD+						
	Promulgation of the law on REDD+ by the ad hoc authority						
Support to the operation of the REDD+ unit at the FNE and legal monitoring of pilot projects	Support to the operations of the REDD+ unit at the FNE and implementation or strengthening of transparent disbursement procedures						
	Legal monitoring of pilot projects including on equitable sharing of carbon revenues between the State, project developers, local communities, and indigenous peoples						
	TOTAL	**53**	**23**				**76**
	Government Contribution						
	FCPF Contribution						76
	UN-REDD Contribution						
	AFD Contribution						

Figure 28 – Schedule and Budget of Component 2c of the CAR R-PP

2d. Social and Environmental Impacts during Readiness Preparation and REDD-plus Implementation

Standard 2d the R-PP text needs to meet for this component:
Assessment of social and environmental impacts:
The proposal includes a program of work for strategic environmental and social impact assessment in compliance with the World Bank's or UN-REDD Program's safeguard policies, including methods to evaluate how to address those impacts via studies, consultations, and specific mitigation measures aimed at preventing or minimizing adverse effects. For countries receiving funding via the World Bank, a simple work plan is presented for how the SESA process will be followed, and for preparation of the ESMF.

1. OBJECTIVES AND STEPS OF THE SESA AND THE ESMF

1.1 Objectives

Implementing REDD+ strategy options mainly aims at reducing GHG emissions due to deforestation and degradation. However, there may be some adverse impacts both on populations and on environmental assets including carbon.

Therefore, a Strategic Environmental and Social Assessment (SESA) is important to assess social and environmental impacts, both negative and positive, of REDD+ strategy options. The SESA will contribute to the finalization of the national REDD+ strategy.

Based on the recommendations of the FMT, the SESA should focus on development, rights (including the rights of indigenous peoples), stronger protection of vulnerable groups, biodiversity, cultural heritage, gender, and governance issues.

An Environmental and Social Management Framework will be derived from the SESA and will confirm, modify, or invalidate the initial REDD+ strategy options and suggest potential corrective or compensation actions.

1.2. Steps

The following steps are suggested for the SESA and ESMF:

➔ SESA

1. Prior identification of potential impacts of strategy options;
2. Identification of needed data and collection methods, in order to assess impacts;
3. Identification of alternative data collection methods if data described under point 2 are not readily available;
4. Environmental and social impacts assessment.

➔ ESMF

1. Development of a plan to mitigate negative impacts and optimize positive impacts;
2. Identification of remaining environmental and social impacts after modification of strategy options;
3. Development of an institutional capacity-building plan for continuous improvement of social and environmental management of the REDD+ strategy.

2. POTENTIAL IMPACTS OF STRATEGY OPTIONS AND FOUNDATIONS OF THE SESA

2.1. Potential Impacts of Strategy Options

The following figure presents a very preliminary assessment of positive (++ or +) and negative (-- or -) impacts of options (O) and sub-options (SO) proposed under Component 2b:

Figure 29 – Preliminary Assessment of Social and Environmental Impacts, both Positive and Negative, of Strategy Options and Sub-Options Proposed under Component 2b

Social impacts		Environmental impacts	
++ or +	-- or -	++ or +	-- or '
01- Zoning			
SO 1.1. Countrywide zoning, with a focus on relict forests and gallery forests			
++: job creation and income improvement if tenure access is easy	- Reduction of activity areas for some stakeholders -Potential human/wildlife conflict (e.g. human/elephant conflict in Bayanga) - Departure of some stakeholders	++ Respect of global ecological balance (biodiversity, water, soils, landscape)	
SO 1.2. New mapping and strengthening of protected areas			
++ Job creation and income improvement if revenue-generating alternative activities (including tourism) are created	- Social, tenure, and resources use conflicts if framework is too strict for local populations	++ Respect of global ecological balance (biodiversity, water, soils, landscape)	- Elimination of destructive activities at the edge of protected areas
O2. Improvement of techniques and agricultural, sylvicultural, and livestock yields			
SO 2.1. Improve livestock and agricultural ranges and yields			
++ Reduction of conflicts between farmers/livestock rearers ++ job creation and income improvement if zoning is regulated		++ Reduction of soil erosion and compaction + Better management of biodiversity and water resources	-- Potential increase of the use of chemical products (fertilizers, pesticides) -Decline of local biodiversity and use of exotic seeds
SO 2.2 Promotion of efficient wood exploitation and transformation techniques			
++ Job creation and income improvement if adapted technologies are used +Less burden related to wood collection for women and children + Improvement of domestic air quality in households using improved stoves		++ Less pressure on forest environmental assets (water, soil, biodiversity)	- Fewer regeneration clearings in case of low impact logging
O3. Management of forest resources			
SO 3.1. Promotion of legal and sustainable forest management			
++ Job creation and sustainable income improvement if adapted technologies are used ++ Revenue increase with logging taxation + Creation of agricultural ranges for local populations	-- Potential degradation of livelihoods of indigenous peoples and forest-dependent populations	++ Less pressure on forest environmental assets (water, soil, biodiversity) if sustainable management is applied to logged areas	-- More pressure on forest environmental assets (water, soil, biodiversity) if sustainable management is applied on natural forests and the management plan is not respected

SO 3.2. Promotion of reforestation			
++ Lower cost of fuelwood and timber	- Competition for lands between afforestation and agriculture and/or livestock farming	++ Soil restoration and recreation of a microclimate if area is already degraded ++ Respect of the global ecological balance (biodiversity, water, soil, landscapes) if reforestation is adapted to the natural environment	- Degradation of local environmental assets if reforestation is not adapted (e.g. monospecific plantation vs. preservation of forest biodiversity, water-intensive species vs. preservation of water resources)
SO 3.3. Operationalization of the concept of community forestry			
++ Job creation and sustainable income improvement if implementation is appropriate for national circumstances ++ Revenue improvement due to decentralized forest taxation	- Potential social, tenure and resources use conflicts if location is not appropriate - Potential conflicts related to sharing of benefits from community management	++ Less pressure on forest environmental assets (water, soil, biodiversity) if sustainable management is applied on already exploited areas	-- More pressure on forest environmental assets (water, soil, biodiversity) if sustainable management is applied to natural forests
SO 3.4 Further involvement of local populations in sustainable forest management			
++ Promotion of the rights of indigenous peoples ++ Actions against corruption and grabbing of natural resources ++ Access to agricultural lands in PEAs	- Manipulation of indigenous peoples and local communities if information is partial and decision-making not shared	++ Less pressure on forest environmental assets (water, soil, biodiversity) if sustainable management is applied to already exploited areas	-- More pressure on forest environmental assets (water, soil, biodiversity) if sustainable management is applied on natural forests
SO 3.5. Development of a domestic energy strategy			
++ Job creation and sustainable income improvement if appropriate technologies are used ++ Reduced burden on women and children with a reduced time for wood collection and cooking + Improvement of domestic air quality in households using improved stoves + No more discrimination and burden on informal loggers	-- Possible "free-rider phenomenon": some stakeholders can benefit from collective efforts without participating	++ Less pressure on forest environmental assets (water, soil, biodiversity)	
O4. Strengthening of institutions and governance			
SO 4.1. Development of public information, education, and communication on REDD+			
++ Promotion of rights of the civil society including indigenous peoples ++ Actions against corruption and grabbing of natural resources ++ Preparation of future generations on global challenges	- Manipulation of indigenous peoples and local communities if information is partial and decision-making not shared	++ Better understanding of the need to preserve natural resources and less pressure on environmental assets (water, soil, biodiversity)	
SO 4.2 Financial, material, and technical support to administrations			
++ Promotion of good governance ++ Higher efficiency of public services for citizens and less administrative burden	-- Grapping of financial or logistical resources by some public senior staff and aggravation of the climate of distrust towards public authorities	++ Better integration of policies and measures promoting natural resources and less pressure on environmental assets (water, soil, biodiversity)	
SO 4.3. Capacity-building of the civil society in sustainable management of forest resources, advocacy, and control			
++ Preparation of civil society organizations to global challenges ++ Better balance of power between the State, the private sector, and citizens	-- Grapping of financial or logistical resources by some and aggravation of the climate of distrust towards some predatory NGOs	++ Involvement of the civil society in the sustainable management of forest resources	

2.2. Existing EIE Mechanism at National Level

The foreword of Decree # 04.392 of December 27, 2004 defining the CAR Constitution states that "*the people of the Central African Republic are aware that only relentless work and sound and transparent*

management of public affairs and the environment can ensure a rational and sustainable harmonious development".

In its Article 61, the Decree stipulates that "*rules pertaining to environmental protection, tenure, forest, and mining regimes fall under the law*".

Law # 07.018 of December 28, 2007 defining the Environmental Code defines the Strategic Environmental Assessment (SEA) in its Article 101 as a "*systematic process evaluating the possibilities, capacities, and functions of resources, natural and human systems to facilitate the planning of sustainable development, decision-making, and prediction and management of impacts"*.

The SEA is based on the essential principles of good governance and sustainable development, and evaluates both potential negative and positive effects of the implementation of plans/programs. It also identifies measures to mitigate or prevent negative impacts and optimize benefits.

Annex 2d-1 describes the planned provisions in the proposed Decree "*defining EIE procedures, and the organization processes and arrangements for public audience in the CAR*" and the proposed Resolution "*defining the various categories of development projects or physical and other works submitted to an EIE*".

The national EIE legal framework is based on Law # 08.022 of October 17, 2008 defining the Forest Code and its implementing regulations, Law # 07.018 of December 28, 2007 defining the Environmental Code, Law # 09.005 of April 29, 2009 defining the Mining Code and its implementing regulations, and Law # 96.018 of May 4, 1996 defining a global involuntary resettlement process. **Annex 2d-2** presents relevant sections of these legislations.

In addition to these national legislations, the CAR ratified several Conventions and Treaties:

- The ILO-Convention 169 concerning indigenous and tribal peoples ratified by the CAR on August 30, 2010, the first and only African country to do so. A preliminary bill on the promotion and protection of indigenous peoples is under development in the CAR. Under this project, the State should define a consultation framework for indigenous peoples on any decision that might affect them and is required to protect traditional indigenous values and riches. The preliminary bill contains provisions on labor rights, access to healthcare, and use of natural resources. It should be noted that Article 25 of the preliminary bill clearly mentions the principle of free, prior, and informed consent, defined by Convention 169 and repeated in the Decision on REDD+ of the 16th Climate Conference in Cancun: " *the views of indigenous peoples are required on all governmental policy pertaining to the preservation, restoration, and protection of their environment*" (oral communication of the High Commissioner For Human Rights, January 2011);
- The Convention on Biological Diversity;
- The Ramsar Convention on Wetlands;
- The Convention on Desertification;
- The Convention on International Trade in Endangered Species (CITES);
- The Voluntary Partnership Agreement (VPA) signed by the CAR and the European Union on December 21, 2010;
- The forest sustainable management Principles, Indicators, Criteria, and Verifiers (PICV) defined by the International Tropical Timber Organization (ITTO) adopted by the CAR in 2009;
- The Program of Work on Forest Biodiversity of the Convention on Biological Diversity (CBD);
- The Kimberley Certification Process to improve diamond traceability. Implementation is supported by the project on property and development rights for small-scale diamond exploitation (DPDDA), initiated in 2007 and jointly funded by USAID and the US State Department. This project resulted in the georeferencing of diamond extraction sites and the creation of a database now being transferred to the Ministry of mining to help monitor the environmental impacts of small-scale mining; and
- The Decisions on REDD+ of the United Nations Framework Convention on Climate Change (UNFCCC or Climate Convention).

It should be noted that the CAR has very limited tools and methods to assess social impacts of rural development or environmental projects.

2.3. World Bank Operational Policies

As the WB-administered FCPF supports the R-PP process, the national SEA framework must be compliant with the World Bank Operational Policies (OP) and Operational Directives (OD), particularly those most applicable to the CAR:

- OP 4.01 on Environmental Assessment;
- OP 4.04 on Natural habitats;
- OP 4.11 on Cultural Heritage;
- OD 4.20 on Indigenous Peoples; and
- OP 4.36 on Forests.

Highlights of these policies are described in **Annex 2d-3.**

2.4. Responsibilities

The SESA will be performed by qualified experts from the SESA Thematic Group from the CT REDD+, subject to the approval of the Ministry of the environment and in accordance with Article 89 of the Environmental Code. Reports will be assessed by both the CT REDD+ and the CN REDD+ and communicated for feedback and decision to the Ministry of the environment.

The ESMF will be developed jointly by the DGEES (in relation with the CT REDD+ and the CN REDD+) and the Prefectural Environmental Inspections (in relation with the CIPs REDD+).

3. SCHEDULE AND BUDGET (IN KUSD)

Main activities	Sub-activities	S2 2011	S1 2012	S2 2012	S1 2013	S2 2013	TOTAL
Development of terms of reference for the SESA	Drafting of TOR by national SESA expert from the CT REDD+ (6md/expert - covered under Comp. 1a)						
	TOR presented to CT REDD+ and CN REDD+						
	Validation, invalidation, or redrafting of TOR by the CN REDD+ after technical opinion of the CT REDD+ and feedback from CIP REDD+						
Capacity-building of relevant stakeholders	Preparation of a training on SESA (3md/experts x 2 SESA experts from the CT REDD+ + 2md of REDD+ Technical Advisor - Covered under Comp. 1a)						
	Training on SESA for members of the CN REDD+ (1md/ training expert x 2 SESA experts from the CT REDD+ - Covered under comp. 1a + 3.2kUSD/training for the CN REDD+)	4					4
	Training on SESA for regional stakeholders at each meeting of the CIP REDD+ (1md/expert x 2 SESA experts from CT REDD+ covered under Comp. 1a + 8kUSD/training for meals and transportation)	24					24
SESA implementation	Information collection in the 16 prefectures and 2 control stations with a 2-day mission in each prefecture or control station (36md/experts x 2 SESA experts from CT REDD+ - covered under Comp. 1a + transportation with 50 USD/mission/expert x 18 missions x 2 experts)	5					5
	Information processing (20 md/experts x 2 SESA experts from the CT REDD+ -covered under Comp. 1a)						
	Prioritization and spatialization of potential social and environmental impacts of the national REDD+ strategy (10 md/experts x 2 SESA experts from the CT REDD+ + 10md of the REDD+ Technical Advisor - Covered under Comp. 1a)						
	SESA Report with conclusions and recommendations to the CT REDD+ and CN REDD+ (10 md/experts x 2 SESA experts from the CT REDD+ + 10md of the REDD+ Technical Advisor - Covered under Comp. 1a)						
Evaluation of SESA results	First evaluation by the CT REDD+ and the CN REDD+						
	Presentation to the general public of the SESA results and public evaluation by stakeholders (attendance of 10md/experts x 2 SESA experts from the CN REDD+ - Covered under Comp. 1a)						
	Integration of amendments (5md/expert x 2 SESA experts from the CT REDD+ covered under Comp. 1a)						
	Evaluation by the CT REDD+ and the CN REDD+ and potential approval						
Elaboration of terms of reference for the ESMF	Development of TORs by the national SESA expert from the CN REDD+ (6md/expert - covered under Comp. 1a)						
	TOR presented to CT REDD+ and CN REDD+						
	Validation, invalidation, or redrafting of TOR by the CN REDD+ after technical opinion of the CT REDD+ and feedback from CIP REDD+						
ESMF implementation	Information collection in the 16 prefectures and 2 control stations with a 2-day mission in each prefecture or control station (36md/experts x 2 SESA experts from CT REDD+ - covered under Comp. 1a + transportation with 50 USD/mission/expert x 18 missions x 2 experts)			5			5
	Information processing (20 md/experts x 2 SESA experts from the CT REDD+ -covered under Comp. 1a)						
	Information collection in the 16 prefectures and 2 control stations with a 2-day mission in each prefecture or control station (36md/experts x 2 SESA experts from CT REDD+ - covered under Comp. 1a + transportation with 50 USD/mission/expert x 18 missions x 2 experts)			5			5
	Information processing (20 md/experts x 2 SESA experts from the CT REDD+ -covered under Comp. 1a)						
	TOTAL	**33.0**		**10.0**		**0.0**	**43.0**
	Government Contribution						
	FCPF Contribution						43
	UN-REDD Contribution						
	AFD Contribution						

Figure 30 – Schedule and Budget of Component 2d of the CAR R-PP

Component 3: Develop a Reference Level

Standard 3 the R-PP text needs to meet for this component: Reference Level:
Present a work plan for how the reference level for deforestation, forest degradation (if desired), conservation, sustainable management of forest, and enhancement of carbon stocks will be developed. Include early ideas on a process for determining which approach and methods to use (e.g., forest cover change and GHG emissions based on historical trends, and/or projections into the future of historical trend data; combination of inventory and/or remote sensing, and/or GIS or modeling), major data requirements, and current capacity and capacity requirements. Assess linkages to components 2a (assessment of deforestation drivers), 2b (REDD-plus strategy activities), and 4 (MRV system design).
(FCPF and UN-REDD recognize that key international policy decisions may affect this component, so a stepwise approach may be useful. This component states what early activities are proposed.)

1. INTRODUCTION

The CAR has invested major efforts over several decades to preserve its forests. While specific development methods of the reference level remain to be defined under the Climate Convention, the CAR hopes that its early efforts will be duly considered in these new methods.

The reference level for REDD+ aims at predicting the future trend – without any REDD+ activity- of net GHG emissions (net emissions = GHG emissions – GHG removals in teCO2) related to the variation of forest cover and carbon stocks.

It will be based on historic trends of net GHG emissions, adjusted based on future trends. A unique national reference level will be declined in several sub-national (local) levels.

Component 4 on the MRV system examines aspects of forest-related past net emissions and the definition of forest. In accordance with the new FCPF guidelines on R-PP development, a quick reminder is included in this Component 3. Component 4 will go over the subject in detail.

As explained in Component 4, historic emissions from deforestation have not been assessed in the CAR. Forest carbon stocks are also not well determined. Finally, due to a lack of experience, the CAR has limited capacities to perform the accounting process recommended by the Intergovernmental Panel on Climate Change.

Note: **Annex 3-1** lists all publications used for Component 3 while **Annex 3-2** presents some sectoral statistical data.

2. WHICH DATA TO USE TO DEVELOP THE REFERENCE LEVEL?

2.1. Available Data on the Drivers of Pressures on Forests

For the record, the main factors identified under Component 2a include:

- Unsustainable transhumant livestock farming;
- Unsustainable slash-and-burn practices;
- Uncontrolled logging and exploitation of NTPFs;
- Infrastructure development (roads, mining, housing).

Underlying political, institutional, technical, socioeconomic, and cultural drivers were also identified under Component 2a.

Some of these direct and underlying drivers can be described by quantified variables. Others are not quantifiable and will be estimated using proxy variables. Factors for which no direct information or proxy variable is available will be roughly estimated. The figure below summarizes this process:

Source	Method	Period	Reliability (method and/or data)	Production capacity
Underlying cause 4.1. Lack of political coordination and weak institutions				
>>> Corruption				
Transparency International ranking	Population surveys	Annual	Average	Low
>>> Business climate				
WB Doing Business Ranking	Investor surveys	Annual	Good	Low
Underlying cause 4.2. Lack of dissemination of technical progress				
Several variables used for 5.1. 5.2 and 5.3				
Underlying cause 4.3. Weak economy based on the exploitation of natural resources				
>>> GDP				
ICASEES	Based on 1993 national accounting system	1985-2010	Good	Good
>>> Poverty indicators				
Surveys on urban and rural livelihoods	Field surveys with support from UNDP	2003	Good	Good
Survey on monitoring and assessment of well-being in the CAR (ECASEB)	ICASEES survey with support from the WB and UNDP	2008	Good	Good
Underlying cause 4.4. High population growth and rural exodus				
>>> Demographic indicators (population, population structure, geographic distribution among others)				
National census	Population surveys	1975, 1998, 2003	Good	Good
Underlying cause 4.5. Lack of understanding of the notion of environmental common good				
Underlying cause 4.6. Insecurity and political and military crisis				
For the record - not quantifiable				
Direct driver 5.1. Unsustainable extensive livestock farming				
>>> Herds				
MDRA or ANDE	1983 cattle census and extrapolation 1996 survey on cattle productivity 1999 survey on small ruminants	1983-2009	Low	Low
>>> Other data (areas affected by late fires, livestock pressure)				
No data found				Absent
Direct driver 5.2. Unsustainable slash-and-burn agriculture				
>>> Food production				
MDRA	1985 agricultural census 1985-1992 annual surveys and 1992-2010 extrapolation on productions (yields are estimated as fixed)	1985-2010	Low	Average
>>> Cash crops				
Structures under the authority of MDRA	Cotton: monitoring of producers Other crops: monitoring of export	1984-2004 or 2009	Average	Average
Direct driver 5.2. Uncontrolled wood and NTFP harvest				
>>> Consumption of fuelwood				
ESMAP, 1992	Synthesis of urban surveys and application of a "generally accepted value for rural areas of Equatorial Africa" for rural areas 1990-2000 extrapolations: assumptions on future needs and distribution between energy sources	1990-2000	Low	Low
>>> Illegal timber logging				
PARPAF, CIFOR, TERFA, MECPF, 2010	Available data mid-2011 for the Bangui region	2010	Good	Low
>>> Legal timber logging				
CDF, OEFB	Monthly surveys on logging, transformation, and trade. Surveys and audits of logging companies.	2000-2010	Good	Good
Direct driver 5.4. Infrastructure development (roads, mining, housing)				
>>> Roads				
National Geographic Institute (IGN)	Remote-sensing	1980	Good	Low
>>> Diamond and gold				
DPDDA/ Kimberley certification process	Remote-sensing	2007-2011	Good	Good
Evaluation and control bureau for diamond and gold (BECDOR)	Sale slips records	1929-2010	Low for production and good for export	Low for small-scale production
>>> Uranium				
No data found				Absent
>>> Urban development				
Some studies on urban development	Analysis of satellite and aerial images at different dates	Between 1889 and 2002 in Bangui	Low (few cities)	Good

Figure 31 – Available Data to Develop a Reference Level for REDD+ in the CAR

2.2. Actions for Data Improvement

➔ *Needed Data*

Component 2a highlighted the lack of reliable data on livestock, agriculture, mining, illegal logging, and firewood collection. Recommended studies will contribute to the acquisition of data needed to assess the effects of each factor on forest-related net emissions.

Regular data collection is needed to update the reference scenario and to assess the impacts of REDD+ activities for the MRV. As recommended in Component 4 on the MRV, data on the ecological and socioeconomic impacts of REDD+ will contribute to the readjustment of reference levels.

➔ *Capacity-Building*

Law #01.008 of July 16, 2001 regulating statistical activities in the CAR specifies that the mission of ICASEES is to ensure collaboration with specialized statistical structures, and collect, process, analyze, and disseminate statistical data. Capacity building in data collection, storage, and processing is required for ICASEES.

In addition, given the importance of agriculture and livestock for deforestation and degradation, the statistics department at MDRA should be revitalized and subsidiary institutions should be allocated the appropriate financial, human, and technical resources to collect raw data, mainly on production and areas as current efforts are focused on export.

Relevant organizations include the CAR agency for agricultural development (ACDA), the CAR group of palm groves (CENTRAPALM), the Office for regulation of trade and packaging of agricultural products (ORCCPA), and ANDE.

The statistical services of the Ministry of mining, energy, and hydraulics (MMEH) should also receive a support related to the corresponding activities.

2.3. Sectoral Political Objectives and Impacts on Forests

The relevance of sectoral objectives as starting assumptions to develop reference levels can be questioned as reaching quantitative objectives by 2015 or 2020 is not guaranteed.

In the agriculture and livestock sectors, the Rural Sector Development Strategy Document (RSDSD, 2009) determined production goals from 2008 to 2015 for the seven main food crops (cassava, sesame, maize, groundnut, millet/sorghum, rice, and squash), for the four main cash crops (coffee, cotton, tobacco, and palm oil), and for the five main animal productions (cattle, sheep, goat, pigs, and poultry) (MDRA, 2009).

For instance, the annual needs for palm oil are estimated at 15,000t while the RSDSD forecasts a production of 4,000t by 2015. In 2000, the production level was at 2,300t and in 2010 at 1,000t. Therefore, the goal seems to be very ambitious and the objective of 4,000t should probably be lowered.

In the hydraulics sector, the number of drilling holes is supposed to increase (with potential impacts on livestock) with an objective of 500 drilling holes per year until 2015.

In the energy sector, future demand has not been estimated but the objective is to reach an electrification rate of 10 % by 2015 (mainly through hydropower) from the current rate of 4%. Once again, this appears to be an extremely ambitious goal.

In the road sector, the lack of visibility on available funding prevents a precise estimation (in km/year) of future asphalting.

Urban development is totally out of control and there are no corresponding objectives.

In the mining sector, the recovery strategy aimed at "*a significant and durable increase of the mining production so that, by 2010, the contribution of the mining sector for the public income will double (6 %) and the poverty rate of populations in mining areas considerably reduced*" (MMEH, 2007). This objective included uranium. The lack of information on the sector and on the beginning situation prevents an assessment of these objectives.

2.4. Predicted Sectoral Trends Using Models

➔ *Socioeconomic Models*

Macroeconomic Simulation: The TABLO Model developed by AFRISTAT[4] provides economic growth predictions over a maximum period of two years. External variables include national accounts as well as assumptions on prices, investments, and demand. For each sector, the model calculates the increase of revenues using a demand-production-demand scheme, and estimates public revenues and trade balance.

TABLO is user-friendly and requires limited human, technical, and financial resources (AFRISTAT, 2009). ICASEES applies this model and has the needed corresponding capacities. However, a recent International Monetary Fund (IMF) mission in the CAR highlighted that the 1985 database used for the model was outdated. For instance, variation of agriculture production in the GDP between 1985 and 2010 has not been integrated.

Microeconomic Simulation: The simple micro simulation model (MODESS), jointly developed by UNDP and the general directorate for policies and strategies at the Ministry of economy, planning, and international cooperation (MECPI), establishes projections of poverty indicators. It is based on results from the TABLO model and from ECVU, ECVR, and ECASEB. This model was applied to develop the PRSP for 2005-2012. ICASEES has a good command of this tool and surveys on household livelihoods are recent.

➔ *Demographic Model*

Based on data on population, fertility, mortality, and migration flow from the 1975, 1988, and 2003 censuses, the central census bureau (BCR), under the authority of ICASEES, projected population indicators for 2008. Manuals from the United Nations (1984) and the program SPECTRUM were used. Such data will be useful to estimate future population pressure. A new census will take place in 2013.

➔ *Models in the Forest Sector*

Timber Market Outlook*:* The OEFB publishes supply and demand projections of timber and related products. Calibrated equations using past data collected by OEFB (between 1996 and 2009) calculate the level of supply and demand (in m^3) over time. This was done on projections by 2023 from the Timber Sector Outlook of June 2010. These projections are considered unreliable as time is the only factor and no other explanatory variable is used.

Firewood Production and Consumption: FAO supported the development of a Woodfuels Integrated Supply/Demand Overview Mapping (WISDOM) using data from 2007 to 2009 on the production and consumption of firewood and countrywide spatialization.

➔ *Projection in the Cotton Sector*

To assess the prospective recovery of the cotton sector, MDRA projected cultivated areas, yields, and number of producers. Simulations were performed using several recovery assumptions. Results were presented in Component 2b and are considered unreliable.

➔ *Study on Beef Consumption and Production*

For the development of a livestock action plan, MDRA projected beef production and demand for 2000-2015. Variables only included human and cattle population growth and therefore results are considered unreliable. The general directorate for livestock at MDRA plans to revise the census methods (personal communication M. KOMANDA, General Director for livestock, January 2011).

➔ *Assessment of Deforestation near Bangui*

To delineate agricultural plots for three PEAs near Bangui, PARPAF performed an assessment of the evolution of agriculture in the affected area by 2038 (PARPAF, 2009). The study is based on the 2008 map of the agricultural front, distances to roads and watercourses, progress rate of the front between 2002 and 2008 and population projections from the general census of population and habitat (RGPH, 2003).

➔ *Climate Models*

---

[4] *AFRISTAT is an international organization of 19 African States with the mission to contribute to the development of economic, social, and environmental statistics in its member States and to the related capacity building.*

For the record, the WB environmental assessment in the CAR (2010) mentioned the use of 14 global climate models to simulate current climate conditions and evaluate future climate trends by 2095. The document notes the limited availability of data on climate in the CAR. It appears that no national expert took part in this assessment.

Past climate trends are not taken into account in the reference level because their assessment is not usual and goes beyond the skills identified in the country. However, as the country is at the limit between the Sahelian Zone and the Congo Basin, its forests will likely be impacted by climate change.

➔ Conclusions on Existing Models

The CAR has a good command of economic modeling and simple and appropriate tools are available. However, economic data should be updated to ensure credibility. Projections and capacities related to population indicators are also satisfactory.

However, modeling is rarely applied in other sectors and capacities are lacking. Discussions will take place on the relevance of developing simple sectoral models for livestock, agriculture, forests, and infrastructure (roads, mining, housing).

3. WHICH METHODS SHOULD BE USED TO DEVELOP THE REFERENCE LEVEL?

Globally, the reference level can be developed by:

- Extrapolation from the historic level or emission trends;
- Estimation using prospective scenarios produced by modeling or expert opinions; or
- A mixed method to optimize the advantages of the previous methods and reduce their weaknesses.

3.1. Reference Level based on an Extrapolation of Historic Data

There are several potential methods:

- Use the mean value of historic data as reference level: the level takes the shape of an horizontal line;
- Use the linear trend of historic emissions between at least two periods: the level is an inclined line;
- Use the non-linear trend of historic emissions between at least two periods: the level is a curve.

All three methods are simple and transparent because they do not rely on assumptions (somewhat for the third sub-method) and third-party experts can verify past trends of forest cover.

However, these methods do not seem appropriate for the CAR. Component 2a notes that pressure on forests is likely to increase due to several factors. Using these methods would probably result in an underestimation of future emissions.

3.2. Reference Level Based on Projection Scenarios: Expert Opinions vs. Modeling

➔ Expert Opinions

Based on the experience, skills, and opinions of selected experts, the objective is to reach a consensus on the most probable scenario. This approach assumes that information is available on the nature and evolution (due to policy change among other reasons) of the drivers of pressure on forests. As previously mentioned, such information is lacking.

This method has the advantage of allowing mixed sources of heterogeneous and sometimes incomplete data. However, results might be unreliable if assumptions and demonstrations are not well substantiated. Before selecting this method, its transparency, credibility, and accuracy should be weighed.

During discussions for the development of the R-PP, several actors considered this approach unreliable. Therefore, it was not selected.

➔ Modeling

There is only one economic equilibrium model on forest cover loss in the sub-region: the International Institute for Applied Systems Analysis (IIASA) adapted GLOBIOM under the name of CongoBIOM (MOSNIER et al., 2010).

CongoBIOM predicts soil-use by applying a revenue maximization process on a plot (simulation unit), taking into account international-level constraints such as population growth and GDP. It covers three competing production sectors: agriculture, forests, and biofuels. Supply is adjusted based on the demand for agricultural and wood products (GUSTI et al., 2008)

Associated models estimate land production potential and production costs for each sector. Transportation and transformation costs are calculated based on applied techniques and existing infrastructure. Input variables include:

- At international level: shelf life of products, price of wood and agricultural products, etc.;
- At national level: corruption factors, risk adjustment factor, plantation costs, GDP, legal constraints to prevent deforestation (generating quantitative coefficients to adjust deforestation and afforestation rates), etc.;
- At the simulation unit level: population density, types of agriculture and natural vegetation, net primary productivity, biomass value, presence of protected areas, etc.

Recent results of CongoBIOM for six COMIFAC countries (CAR, Congo, Democratic Republic of Congo, Gabon, Cameroon, and Equatorial Guinea) suggest that infrastructure development, increase of agricultural productivity, and reduction of production costs for cash crops have a strong impact on deforestation. However, the increasing global demand of biofuels and meat has limited impact.

This model provides significant opportunities. In the medium or long run, the CAR would be able to estimate its national reference level and simulate the impacts of its REDD+ strategy options on the national forest cover.

However, this would be difficult in the short term: users cannot modify CongoBIOM and the model does not include specific factors for the CAR, such as livestock. Furthermore, the model does not predict GHG impacts of forest degradation, afforestation, sustainable forest management, or conservation through protected areas.

Senior staff from the Ministry of environment and ecology (MEE) participated in two workshops organized by IIASA on CongoBIOM in 2010. The first and the second workshop did not have the same attendees and therefore global understanding of the model is limited. These workshops had a low impact.

In addition to the limitations of the model (not modifiable, livestock not included), lack of national capacities is another constraint. Capacity building for LACCEG experts is therefore recommended.

Finally, it would be useful to compare the list of input variables used by CongoBIOM and the list of raw data available in the CAR (See Figure 30) to assess the usability of the latter for CongoBIOM. In the medium run, developing and adapting this model for the CAR can be an option.

3.3. Benefits and Limitations of Each Method

	Historic extrapolation	**Expert opinion**	**IIASA type modeling**
Feasibility	High	Depends on the goals	Low
Credibility and transparency	High	Potentially low	Average, degraded by the complexity of the model
Integration of causes/drivers	Low except if causes/drivers are stable	Potentially very good if experts are competent	Partial: Partial consideration of causes and drivers
Risk of over- or under-estimation	Potential underestimation in the CAR	Depends on experts' assumptions	Depends on the model's assumptions

Figure 32 – Compared Analysis of the Three Methods of Development of a Reference Level

Note: As explained in Part 3.2, the CAR does not intend to use the estimation method based on expert opinions as it lacks credibility and transparency.

4. HOW TO SPATIALIZE FUTURE DEFORESTATION?

4.1. Description of and Rationale for Spatialization

Spatialization of future deforestation could be useful for developing the national reference level, as shown in Part 6 below. It would also help the CAR identify the highest-risk areas and develop appropriate REDD+ strategies.

The GEOMOD (Geographical modeling) algorithm identifies areas that will be affected in the future by a deforestation risk (PONTIUS, 2000). Input data are maps of variables impacting deforestation: altitude, slope, distance to communication routes (roads, rivers, seas, etc.), distance to exchange centers (harbors, cities, villages, train stations, etc.), climate, distance to already deforested areas, protected areas, etc.

Based on an analysis of maps of various variables between two periods, the algorithm produces the deforestation probability for an area. The first outcome is therefore a map of deforestation probabilities.

By using the extent of deforestation (quantified at the full scale of the map and deducted from a reference level produced by extrapolation on historic data or by modeling), the second output will be a map of the probable forest cover.

4.2. Variables Needed For Spatialization

Spatialized variable	Current source	Reliability	Idea on future change?
Terrain	FAO (http://www.adwebtec/it/fra/)	Good	N/A
Roads	idem	Good	Some known renovation projects
Towns and villages	idem	Good	No idea (uncontrolled development)
Population densities	2003 RGPH	Good	Projections by BCR
Cultivable lands	Koumis and Ngouanze, 1986	Good (a priori)	N/A
Mineral resources	RCA Atlas (RSS, 2009)	Bad	N/A
Protected areas	FAO (http://www.adwebtec/it/fra/)	Good	Depends on new mapping of Pas
Livestock	ANDE	Bad	No
Food-production agriculture	MDRA	Bad	No (Some recommendations)
Cash-crop agriculture	Structures under MDRA	Good	No
Deforested/degraded areas	No reliable source	Bad	Generated by GEOMOD
Logging areas	PARPAF	Good	See with AGRDF
Firewood collection areas	FAO, 2009	Good	No

Figure 33– List of Needed Variables to Spatialize Deforestation in the CAR

Competent mapping entities such as LACCEG and CDF do not have a good knowledge of GEOMOD. It appears that LACCEG has the needed human resources to perform the spatialization exercise, subject to the provision of material resources (permits, aerial photos, satellite images), and training on the software.

5. WHAT IS THE ADVANTAGE OF DEVELOPING SUB-NATIONAL (LOCAL) REFERENCE LEVELS?

5.1. Relevance of Developing Sub-national Reference Levels

Decisions on REDD+ at the Bali (2007) and Cancun (2010) Climate Conferences stipulate that any country intending to participate in the REDD+ mechanism must develop a national reference level. However, the development of sub-national levels is not excluded if such levels are interim measures and contribute to the national reference level.

Identification of causes and drivers of threats on forests under Component 2a shows that such causes and drivers are often localized and that threats are unevenly distributed.

Developing sub-national reference levels would help the CAR differentiate the various circumstances of deforestation and/or degradation, and hence design, monitor, and optimize the results of REDD+ strategies as well as (see Part 6 below) refine the national reference level using a bottom-up approach.

5.2. Needed Data for the Development of Sub-National Reference Levels

Needed data are similar to those described under Parts 2.1 and 2.2 but under a disaggregated form. A few data on livestock and agriculture are locally available but with some reliability issues as mentioned above. However, data on illegal or unsustainable logging would be more difficult to obtain at local level. Surveys by ECVU, 2003; ECVR, 2003, and ECASEB, 2008 are relevant as they produced disaggregated data.

Prefectural services working on sectors affected by deforestation will be mobilized for data collection, under the leadership of the Modeling Thematic Group of the CT REDD+. The thematic group itself will receive the support of ICASEES, LACCEG, and AGDRF for the forest sector (for the southwestern range in the short run and for the entire country in the medium and long term).

5.3. Proposed Zoning for Sub-National Reference Levels

Based on the identification of causes and drivers of pressures on forests under Component 2a and the distribution of eco-regions in the CAR, four areas were identified:

- Zone (i) included in the CIP South: southwestern forest (Sangha-Mbaére Prefecture and south of the Prefectures of Ombella Poko, Lobaye and Mambéré-Kadéï). The area is affected by logging and limited livestock farming. Significant sources of pressure include agriculture and illegal and/or unsustainable logging, harvest of NTFPs, and small-scale diamond mining;
- Zone (ii) included in the CIP East: Bangassou Forest or southeastern range (west of the Mbomou Prefecture). There is no industrial logging but illegal wood collection exists. Sources of pressure include agriculture, livestock, and small-scale diamond mining in the Mbomou Prefecture. Uranium exploitation is planned in the Bakouma Sub-Prefecture;
- Zone (iii) included in the CIP North: Sahelian zone, mainly in the Vakaga Prefecture. Vegetation consists of a pseudo steppe with acacias and grassland savannas southward. Carbon stocks are therefore very low. Identified sources of threats include agriculture and livestock;
- Zone (iv) overlapping on the three previous CIPs: Sudanian zone, savanna eco-region, transition between the humid forest in the south and the Sahelian zone in the North. Various sources of threats including agriculture, livestock, mining, illegal and/or unsustainable logging and harvest of NTPFs.

Those sub-national areas are shown below:

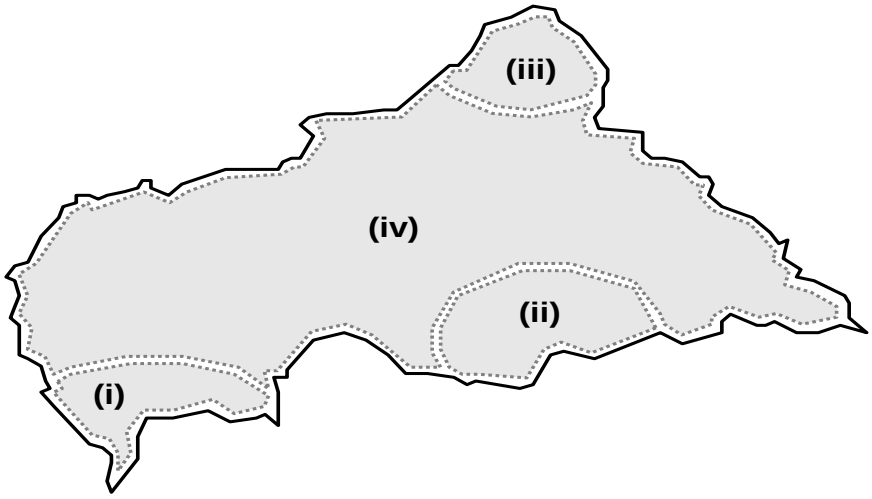

Figure 34 – Proposed Zoning in the CAR for the Sub-National Reference Levels

6. HOW TO DEVELOP THE NATIONAL REFERENCE LEVEL IN THE CAR?

6.1. Step 1: Develop and Aggregate Sub-National Reference Levels

For each of these four zones, a simple scenario will be modeled based on a few input data adapted to each area. One crucial input data will be the level of past net emissions.

Under the supervision of the Modeling Thematic Group of the CT REDD+, which receives the support of ICASEES and LACCEG, prefectural services working on the relevant sectors will collect and transfer data to the three abovementioned entities. The entities will develop the sub-national reference levels. Capacity building for prefectural services is planned.

In parallel with the development of sub-national scenarios, an algorithm such as GEOMOD will produce a national map of the probabilities of deforestation. Consistency of the sub-national reference levels will be improved: the highest levels will correspond to the high-risk areas.

The scenarios will be aggregated to define a national reference level using a bottom-up approach.

6.2. Step 2: Comparison between the bottom-up and top-down national reference levels

The bottom-up national reference level obtained above will be compared to a top-down national reference level. The latter will be obtained from the CongoBIOM sub-regional modeling.

While these results will not be expressed in absolute value but in relative trend or value, comparing the bottom-up and top-down levels remain useful to correct the sub-national reference levels, and therefore the bottom-up aggregated national reference level.

Through CongoBIOM, global and regional factors (e.g. prices of timber, agricultural products, or livestock; trans-border exchanges; etc.) will be integrated while the sub-national models would refine the integration of local factors.

6.3. Pending Questions

Several questions are pending:

- Which type of model should be used at sub-national level? The answer to this question is difficult at this stage and requires consultation between the Modeling Thematic Group of the CT REDD+, LACCEG, and IIASA when implementation of the R-PP begins. It is clear that sub-national models should be able to estimate potential impacts of the REDD+ strategies and be simple and flexible enough to become a political decision-making tool;
- How to ensure consistency? While some strategy directions (such as the management of production forests) will be implemented at sub-national level and can be integrated in a sub-national model, others will be implemented at national level. Models developed at sub-national level will be supervised by the CT REDD+ who will ensure consistency of assumptions and input data;
- How should the stakeholders be compensated in an area where net emissions have decreased based on the reference scenario if national-level emissions are higher than the national reference scenario? A study will examine this issue and the CAR will closely monitor all international efforts on this issue, including those of the Voluntary Carbon Standard (VCS);
- How should the national method of development of the national reference level be modified if REDD+ regulations at international level change? The method proposed here will be readjusted to comply with the international framework.

The work plan does not explicitly include collection and use of data related to conservation, sustainable forest management, and enhancement of carbon stocks, all activities included in REDD+. However, such issues are mentioned under Component 2a. The REDD+ process will be supported by the FLEGT process, which covers such issues.

7. SCHEDULE AND BUDGET (IN KUSD)

Main activities	Sub-activities	S2 2011	S1 2012	S2 2012	S1 2013	S2 2013	TOTAL
Data collection of local causes/drivers of pressure on forests	Preliminary training on the basics of statistical archives, modeling, and REDD+ by modeling experts from the CT REDD+ for 6 modeling correspondents in each prefecture and 8 corr. in Bangui (2md/corr. X 40 corr. X 20 USD/md). Correspondents are from ICASEES or agricultural or forestry services (to be determined in each prefecture)	4.8					4.8
	Equipment and maintenance of central and prefectural ICASEES services and other institutions in charge of statistics (1 computer/ pref at 2kUSD/computer + 6 motorbikes/pref at 6kUSD/moto + mounting fees at 100USD/agent/month x 104 agents (96 in pref. and 8 in Bangui)	618.4	10.4	10.4	10.4	10.4	660.0
	Identification of ad hoc causes/drivers based on results of studies planned under Comp. 2b (20 md/nat expert from the CT REDD+ x 2 modeling exerts - covered under Comp. 1a + 2md/corr x 32 corr x 20 USD/md + transportation with 50 USD/mission/nat expert x 16 missions x 2 experts)	2.9					2.9
	Data collection and first processing (40 md/ nat expert from the CN REDD+ x 2 modeling experts - covered under Comp. 1a)						-
Sub-national modeling (1 for each of the 4 zones) of the future pressure on forests	Identification of user-friendly models adapted to circumstances in the 4 zones (10md of modeling experts from the CT REDD+ x 2 experts + 10md of the REDD+ Technical Advisor - covered under Comp. 1a)						-
	Model selection and training on the model for members of the CT REDD+ + 2 modeling correspondents in each prefecture (10md/inter expert x 1kUSD/md + 3 kUSD/ inter transport + 4md/corr x 32 corr x 20 USD/md)		15.6				15.6
	Establishment of a hotline between the modeling task force from the CT REDD+ and modeling correspondents for the channeling of data						-
	Output of preliminary sub-national reference levels and progress report with conclusions and recommendations presented to the CT REDD+ and the CN REDD+						-
In parallel, spatialization of deforestation risks at national level to substantiate sub-national levels	Selection of a spatialization software and training for members of the CT REDD+ (10md inter expert x 1kUSD/md + 3kUSD/inter transport + 4md/corr x 32 corr x 20 USD/md)		15.5				15.5
	Spatialization of deforestation risks (30md of modeling experts from the CT REDD+ x 2 experts + 10 md of the REDD+ Technical Advisor - Covered under Comp. 1a)						-
	Output of a national map of deforestation risks and progress report with recommendations and conclusions presented to the CT REDD+ and the CN REDD+						-
	Establishment of a hotline between the modeling task force from the CT REDD+ and modeling correspondents during the adjustment of the subnational reference levels to integrate the map of risks						-
Aggregation of sub-national levels to obtain a national level (bottom-up approach)	Aggregation of deforestation risks (30 md of modeling experts from the CT REDD+ x 2 experts x 10md of the REDD+ Technical Advisor - covered under Comp. 1a)						-
Comparison between sub-national levels and the CongoBIOM regional level (top-down approach)	Attendance at the IIASA/Congo BIOM workshops by the 2 modeling experts from the CT REDD+ (1 workshop/semester/expert x 2 experts x 5kUSD/workshop - transport, meals, lodging)	10.0	10.0	10.0	10.0	10.0	50.0
	IIASA expertise mission in the CAR (20md/yr int expert x 1kUSD/md + 3kUSD/mission)		11.5	11.5	11.5	11.5	46.0
	Readjustment of national level and subnational levels to integrate the regional reference level (30md of modeling experts from the CT REDD+ x 2 experts + 10md of the REDD+ Technical Advisor - covered under Comp. 1a)						-
Sub-regional process for the reference framework	Organisation of a summer university. Analysis and experience sharing on modelling for the adjustment phase of national and subnational reference levels (2nd semester 2012). The 10 subregional countries are invited with 2 representatives per country and other organizations and stakeholders			150.0			
Readjustment of the national level and validation	Output of the national reference level and progress report with conclusions and recommendations to the CT REDD+ and the CN REDD+ for validation						-
	TOTAL	**636.1**	**63.0**	**181.9**	**31.9**	**31.9**	**944.8**
	Government Contribution						
	FCPF Contribution						944.8
	UN-REDD Contribution						
	AFD Contribution						

Figure 35 – Schedule and Budget of Component 3 of the CAR R-PP

Component 4: Design a Monitoring System

4a. Emissions and Removals

Standard 4a the R-PP text needs to meet for this component: Emissions and Removals

The R-PP provides a proposal and work plan for the initial design, on a stepwise basis, of an integrated monitoring system of measurement, reporting and verification of changes in deforestation and/or forest degradation, and forest enhancement activities. The system design should include early ideas on enhancing country capability (either within an integrated system, or in coordinated activities) to monitor emissions reductions and enhancement of forest carbon stocks, and to assess the impacts of the REDD+ strategy in the forest sector.

The R-PP should describe major data requirements, capacity requirements, how transparency of the monitoring system and data will be addressed, early ideas on which methods to use, and how the system would engage participatory approaches to monitoring by forest–dependent indigenous peoples and other forest dwellers. It should also address independent monitoring and review, involving civil society and other stakeholders, and how findings would be fed back to improve REDD-plus implementation. The proposal should present early ideas on how the system could evolve into a mature REDD-plus monitoring system with the full set of capabilities.

1. INTRODUCTION

Decision 4/CP.15 of the Climate Conference in Copenhagen indicated that the MRV system for countries willing to participate in REDD+ should "*use the most recent Intergovernmental Panel on Climate Change guidance and guidelines, as adopted or encouraged by the Conference of the Parties, as appropriate, as a basis for estimating anthropogenic forest-related greenhouse gas emissions by sources and removals by sinks, forest carbon stocks and forest area changes*".

The MRV system of the CAR will be based on (i) The Good Practice Guidance on Land Use, Land-Use Change and Forestry (LULUCF) (IPCC, 2003), (ii) the Guidelines for National GHG Inventories for the Agriculture, Forestry and Other Land Use (AFOLU) Sector (IPCC, 2006), (iii) The 2009 Technical Paper of the UNFCCC Secretariat on the costs of implementing systems for REDD+ REDD+ and (iv) the REDD Sourcebook of the Global Observation for Forest and Land Cover Dynamics (GOFC/GOLD).

The national MRV system will measure (i) the impacts, in terms of GHG emissions and removals, of REDD+ activities (in the broad sense: tackling deforestation and degradation, promoting afforestation and reforestation, sustainable forest management, and conservation) on forest cover in the CAR and (ii) the potential social and environmental impacts of these activities. The former point will be discussed under this Component and the latter under Component 4b.

The MRV system in the CAR will be developed at national level and in consistency with the system of neighboring countries, notably through current support to regional MRV initiatives in the Congo Basin. Therefore, the CAR will benefit from economies of scale for data collection and processing, as well as from sharing of experience between countries. However, the specific features of the CAR will be highlighted (e.g. the presence of large areas of savannas in the north of the country).

Two steps are needed to estimate GHG emissions and removals in teCO2/year: (i) identify land-use changes for several types of lands (forests, grasslands, etc.): the result is called "activity data" and is expressed in ha/year, (ii) calculate GHG emissions and removals for each land-use type: the result is called "emission factor" and is expressed in teCO2/ha. The product of both is therefore in teC02/year.

Note: Publications used for this Component 4a are listed in **Annex 3-1**. Reports on specific discussions on the MRV are found in **Annex 3-2.**

2. ESTIMATION OF ACTIVITY DATA FOR THE GHG MRV

2.1. Preferred Approach

According to the IPCC, there are three possible estimation approaches of "activity data":

- First approach: the total area for each land-use type is estimated at a given date without any information on conversion or location;
- Second approach: information on areas for each land-use type is available as well as converted areas but such information is not spatially explicit for any land-use type (converted or not). Data are produced by statistical sampling analysis;
- Third approach: In addition to the information described in the second approach, land-use types are spatialized. Data are provided using a wall-to-wall (exhaustive) territorial analysis.

According to the GOFC-GOLD (2009), the REDD+ mechanism should comply with the key principles of the IPCC good practices: transparency, exhaustiveness, consistency, comparability, and accuracy. Ideally, the third approach should be selected. For pragmatic reasons, the CAR will aim at the second approach and later at the third.

2.2. Available Human Resources

To collect and process activity data, the MRV Thematic Group of the CT REDD+ will rely on the following entities:

- DIAF: its role is to monitor and control the development of management plans, including the mapping component;
- CDF: its role is to centralize forest data. CDF takes part in the validation process of management plans and possesses remote-sensing and mapping capacities.
- LACCEG (Bangui University/Geography Department) plays a role in research, teaching, and services including a mapping support to forest management projects;
- OFB used to have a NOAA satellite reception station[5]. Due to a lack of qualified staff, satellite images are analyzed at the European Commission Joint Research Center (EC JRC); and
- Management units of logging companies.

While national institutions have some capacities in remote sensing and mapping, such capacities remain inadequate to ensure an efficient national monitoring system. CDF and LACCEG, the only operational remote sensing and mapping entities, only have three qualified technicians.

In addition to existing institutions, the MRV Thematic Group could rely on past and existing projects involved in remote-sensing and mapping (PARN, PARPAF, ECOFAC, PGPRF, etc.) described under Component 2a.

The REDDAF Project should be mentioned here: funded by the European Union between 2010-2012 and implemented by GAF-AG and LACCEG, it aims at producing a mapping over time of the southwestern forest logging area using Landsat satellite imagery.

2.3. Available Primary and Secondary Data

Institutions and projects contributing to the future MRV system provide a wide range of primary and secondary data.

Primary Data			
Data	**Year**	**Zone**	**Source/location**
11 IGN 1/200,000 topo maps	1960-1970	South-west	PARPAF
200 georeferenced 1/50,000 aerial photos	2002	South-west	PARPAF
IGN topo maps (75% of the country under digitalization/correction)	1960-1970	National	LACCEG
IGN 1/200,000 (incomplete) and 1/50,000 (incomplete) topo maps	1960-1970	National	Archives of the French Alliance
5 Landsat Scenes	2002 to 2003	South-west	PARPAF
38 SPOT 2, 3, and 4 Scenes	1990 to 1999	South-west	PARPAF
DMC Scene	2007	South-west	CDF/ PASEF
IGN Aerial Photo Cover	2002	South-west	PARPAF
25 ASTER Scenes	2006	South-west	CDF/ PASEF
76 ASTER Scenes	2007	South-west	CDF/ PASEF
1 ASTER Scene	2008	South-west	CDF/ PASEF
3 ALOS PALSAR Scenes (radar)	2006	Near Bangui	CDF/ PASEF
12 ALOS PALSAR Scenes (radar)	2007	Near Bangui	CDF/ PASEF
6 ALOS PALSAR Scenes (radar)	2007	Near Bangui	CDF/ PASEF

[5] *Images from the American satellite NOAA are used in meteorology to study large areas; scenes are 3 000 km x 3 000 km with a resolution of 1 km x 1 km.*

Secondary Data			
Data	**Year**	**Zone**	**Source**
Atlas of the CAR	2009	National + focus South-west	CDF/WRI
Global Land Cover Mapping 2000	2003	National	CDF/WRI – EC JRC
WISDOM Mapping	2009	Bangui	CDF/FAO
PARN Mapping	1996	South-west	CDF
MapInfo Vector Database	Ongoing	National	LACCEG

Figure 36 – Available Information to Estimate Activity Data

In addition to primary and secondary data specific to the CAR, the FAO (FAO, 2010) and the Catholic University of Leuven (UCL) (DUVEILLER et al., 2008) performed two studies on deforestation rate (or even degradation) at the scale of the Congo Basin. The latter was used by the Congo Basin Forest Partnership (CBFP) to establish the 2008 report on the State of the Forests in the Congo Basin (WASSEIGE et *al*.2009).

These studies were based on the second approach described in 2.1 (analysis of a sample of Landsat satellite images): 50 for the FAO (Systematic grid on 100 km x 100 km) and 14 for UCL (systematic grid on 10 km x 10 km, but only for the southwestern forests or 20% of the national forest cover according to the FAO definition).

Rate	Study	1990-2000	2000-2005	2005-2010
		%	%	%
Deforestation	FAO	-0.1	-0.13	-0.13
	UCL	-0.12	-	-
Degradation	FAO	NA	NA	NA
	UCL	-0.06	-	-

Figure 37 – Deforestation (or even Degradation) Rates in the CAR According to the FAO and UCL

The FAO results show an increasing deforestation rate after 2000, from 0.10% to 0.13%. As explained under Component 2a, this increase is due intensified anthropogenic pressure mainly related to (i) agriculture and informal logging in the South and (ii) itinerant livestock farming in the North where herds increasingly move southward.

Comparison between the FAO and the UCL studies is difficult:

- Deforestation rates between 1990 and 2000 are slightly different as sampling and image processing differed (DUVEILLER et *al*.2008);
- FAO did not include degradation. UCL integrates degradation to some extent: only forest clearings (roads, log storage areas) were taken into account but degradation in standing forests was not. In addition, northern savannas were not included. It can be concluded that degradation was underestimated.

In conclusion, while data exist, they largely focus on the southwestern part of the country where logging is concentrated. Savanna areas, a major part of the country, are rarely covered while they are considered as forest areas in the updated 2008 Forest Code (RIVAIN, 2008).

This point raises the issue of defining “forests” and “forest degradation”. These definitions should be cleared before the development of the MRV system. To date, the CAR Designated National Authority (DAN) has not communicated these definitions to the Climate Convention Secretariat. They should be finalized based on the updated Forest Code in order to be applied to the REDD+ framework.

2.4. Needed Data

The CAR should use the results of existing and planned regional programs to improve its MRV system:

- The CARPE program, funded by USAID, has GIS data (including on fires) and Landsat images/mosaics for the entire Congo Basin;
- The satellite observatory of Central African forests (OSFAC), a member of GOFC-GOLD, offers free Landsat TM/ETM+, SRTM, and ASTER satellite images;
- The future satellite reception station in Libreville, Gabon to be installed in 2011 will facilitate the acquisition of satellite images for the Congo Basin. This station should provide 5m, 10m, and 20m SPOT data as well as 20m data from the CBERS Chinese-Brazilian satellite.

The CAR will be the first country in the Congo Basin to benefit from the AFD/Astrium agreement, signed on December 6, 2010, to provide: (i) SPOT 2, 4, and 5 archives (ii) SPOT 6 and 7 and very high resolution (VHR) images between 2008 and 2010, (iii) an historical assessment of deforestation (rainforest and wooded savanna), and (iv) planned acquisitions of SPOT 6 and 7 images.

The CAR has raw and secondary data as well as some qualified staff to implement the MRV. However, human and material resources remain inadequate to ensure efficient implementation.

2.5. Actions to Estimate Activity Data

Thanks to PARPAF, the CAR has major assets compared to other Congo Basin countries: (i) national sustainable forest management standards are in place and have been applied for about ten years and (ii) national institutions, and not only logging companies, participated in the design and implementation of management plans (DHORNE, 2007).

National technical standards, particularly those on mapping analysis, can be expanded over the whole country to ensure consistent forest monitoring, subject to a sound definition of land-use types in accordance with IPCC directives and guidelines and with the sub-national zoning suggested in Component 3.

Therefore, proposed actions to monitor activity data include:

- Creation of the MRV Thematic Group within the CT REDD+. This group will steer the establishment of the MRV platform, using identified capacities at PARPAF, CDF, OEFB, or even AAAGRDF (under establishment);
- A study on the challenges of defining “forest” and “forest degradation” in the CAR. This study will provide recommendations and could be performed by PARPAF/AAGRDF or LACEEG, or the DNA (if operational) with support from LACEGG;
- Definition of “forest” and “forest degradation”. For the latter, one or several classification of “degraded forests” should be defined for each forest type (dense rainforest, dense, savanna, etc.) by determining ranges of crown covers (e.g. 0% to 10% = non forest, 10% to 30% = very degraded forest, 30% to 50% = degraded forest, over 50% = forest) or biomass per hectare (same rationale);
- Provision of human resources (capacity-building in SIG and image processing software, or recruitment of national experts as needed) and material resources (computers, SIG licenses, image processing software licenses) to the MRV Thematic Group and other organizations mentioned above;
- Definition of sampling (in accordance with Approach 2 described in Part 2.2) to estimate activity data. Sampling will be based on the type of satellite images, level of accuracy, and level of acceptable error;
- Acquisition of satellite images for 1990, 2000, 2005 or 2010 (or immediate years if unavailable). Satellite images could be sourced from the national database (available at PARPAF and CDF) or from regional programs through partnership agreements (CARPE, OSFAC, planned satellite station in Gabon, AFD-Astrium);
- Satellite image processing: orthorectification, elimination of clouds and haze;
- Classification of land-use types based on the IPCC nomenclature: forests, grasslands, cultivated areas, wetlands, infrastructure, other, and adaptation for the CAR (including national criteria for the definition of “forest”: minimal tree height, minimal crown cover, minimal surface and width of a forest unit);
- Stratification of forest types by:
    - Taking into account their ecological features and selected ranges to classify forest degradation;
    - Creating a specific stratus for forests affected by fires (to calculate related CO2 and CH4 emissions) with the support of CARPE and OFB;
    - Using Approach B recommended by GOFC-GOLD when Approach 3 (“wall-to-wall”) cannot be applied;
    - Ensuring consistency with the zoning defined under Component 3 for sub-national reference levels.
- Mapping land-uses for 1990, 2000, 2005 or 2010 (or immediate years if satellite data are unavailable) with a classification (forests, grasslands, etc.) and sub-classification (strata) of

forests. Maps will be designed based on the approved national methodology under PARPAF to simplify tasks and ensure the repeatability of mapping analyses;

- Estimation of errors through field missions to validate the maps;
- Determination of deforestation and degradation rates with the defined level of accuracy.

3. ESTIMATION OF EMISSION FACTORS FOR THE GHG MRV

Emission factors are the variation of carbon stocks and GHG flows for a land-use type that is stable over time (e.g. a “forest” remains a “forest” thanks to conservation) or for a converted type or sub-type (e.g. a “forest” becomes a “cultivated land”). Emission factors will be determined once land-use types (see below) and carbon stocks and GHG flows for each type have been defined.

GHG to be included are CO2 (removed by photosynthesis and emitted by combustion or decomposition), CH4 (emitted by combustion during bushfires and by anaerobic fermentation in rainforests or peat lands), and to some extent N2O (emitted through aerobic fermentation).

3.1. Preferred Tier

Emission factors are obtained with different levels of precision or tiers:

- Tier 1: Using the IPCC default values without monitoring over time ➔ high level of uncertainty;
- Tier 2: Improving tier 1 by using national data estimated once, without regular updates ➔ average level of uncertainty;
- Tier 3: Using regularly updated national data ➔ low level of uncertainty.

For the time being, Tier 2 will be applied to the MRV system in the CAR as it provides a satisfactory level of precision for a reasonable cost. However, Tier 3 will be targeted at medium or long term by implementing a continuous improvement plan.

3.2. Available Human Resources

For the collection and processing of emission factors, the MRV Thematic Group of the CT REDD+ will use the human resources from the following entities:

- MEFCP: (i) DIAF: to date, it has only performed prospection surveys based on relatively old data (from PARN 1992), (ii) six regional directorates and one autonomous directorate under the authority of MEFCP, (iii) PARPAF;
- Management units of logging companies. They carry out management and logging surveys based on national standards defined under PARPAF;
- ICRA: While its activities focus on agronomy research, its four research stations are located in the central part of the country (Bossangoa, Soumbé, Bouar, and Bambari) and could be used for surveys in savannas and in the southeastern range;
- ISDR / Bangui University: together with CIRAD and the Smithsonian Institute, it participates in the monitoring of forest dynamics in dense forests of the southwestern forest range: Dzanga-Sangha, Ngotto, Boukoko-La Lolé, Eleme Ya Ngombe, and Mbaïki. The latter is a reference for the Congo Basin as permanent monitoring of a logging area has been carried out since 1981 (PICARD and FLEURY, 2008).

In addition to these institutions, the MRV Thematic Group could use the experience of past or existing projects on forest surveys, including PARN (unfortunately, available survey data are secondary data) and ECOFAC (growth data calculated for 1992 on an IFB management pilot site).

3.3. Available Data

The CAR has not performed a national survey on forest biomass, but only management surveys supported by PARPAF in the southwestern forest range. However, these surveys are quite significant as out of 5.2 Mha of dense forests, over 2.9 Mha were conceded to logging companies, which all participated in the management process (an unusual fact). All of them have an approved management plan with validated data meaning that survey data are available for over 2.9 Mha of forests (PARPAF 2011).

Survey methods and data have the following features (MEFCP, 2006):

- Preliminary survey at a sampling rate of 1.5% on areas between 5,000 and 9,000 ha included in larger homogenous strata (several tens of thousands ha). Only a portion of each stratum is surveyed to determine variation coefficients. As strata are relatively homogenous, costs are reduced while margins of error remain acceptable;

- Survey at a sampling rate between 0.5% and 2.5% or even more on each stratum. As opposed to the preliminary survey, sampling is done on the entire stratum to produce an acceptable margin of error on variation coefficients;
- Survey plots of 0.5 ha (200 m x 25 m) along survey transects for tree diameters higher than 30 cm;
- Survey plots of 0.125 ha (50 m x 25 m) for tree diameters between 10 and 30 cm;
- Measurement of tree diameters for each 10cm-range, starting at 10cm;
- Margin of error of 15% with a 95% confidence level;
- Calculable volume tables for diameters above 30cm and for 100 % of ligneous species or about 200 species per PEA, using dendrometric measurement of all ligneous species on a survey plot (MEFCP, 2006);
- Additional ecological surveys on the same plots for NTFPs (lianas, shrubs, fruit trees, etc.)

Data on biomass are available for the southwestern part of the CAR. However, there is no available information on the southeastern range (Bangassou Forest) and all the savanna areas from the central part of the country northward.

It should be noted that data from regional studies can also be used (NASI et al., 2009; MUGNIER, 2009), including for carbon stocks in aboveground biomass, dead wood, and soil as such data are not available in the CAR.

3.4. Selection of Carbon Pools

Based on IPCC recommendations, five carbon pools should be included: (i) aboveground biomass, (ii) belowground biomass, (iii) dead wood, (iv) litter, and (v) soil organic matter. All pools will be considered for the MRV system in the CAR if deemed relevant. However, priority pools include aboveground and belowground biomasses.

➔ *Carbon stocks in Aboveground Biomass*

According to IPCC, carbon stock in aboveground biomass can be estimated using two methods: a “direct method” and an “indirect method”.

The direct method calculates the total aboveground biomass of a tree using an allometric equation and dendrometric variables (diameter, height):

$$AGB = \exp(a + b\ln(D) + c\ln(D^2)) \qquad \text{(eq. 1)}$$

Where:

AGB aboveground biomass in kg of dry matter

a,b,c coefficients specific to each species

D diameter in cm

The indirect method the aboveground biomass from the tree volume over bark multiplied by expansion factors:

$$AGB = VOB.WD.BEF \qquad \text{(eq. 2)}$$

Where:

AGB aboveground biomass in kg of dry matter

VOB volume over bark in m^3

WD wood basic density in kg/m^3

BEF biomass expansion factor, no unit

These equations were established for tropical areas (BROWN, 1997; CHAVE et al., 2005) but with data from America and Asia. None of the available equations is based on data from the Congo Basin.

The MRV system in the CAR could use existing survey data for the southwestern range (eq 1) or volume tables from management surveys (eq. 2).

When allometric models are used (eq. 1), studies will produce models for each type of forest stand (stratum) as producing a model for each species will be too costly. However, for the indirect method (eq. 2) the total aboveground biomass for each species can be determined. The sum will be the total aboveground biomass for each stratum.

For savannas where data are scarce, permanent plots will be defined as a dendrometric data has less variability if measured on the same trees (permanent plots) or on different trees (temporary plots) (BURKHART and AVERY, 1983).

In addition, permanent plots would allow more transparency in case of an external review (quality control) as it is always possible to verify or repeat a measurement.

Temporary plots can be used for destructive sampling of scrubs, annual vegetation, litter, etc. (RAVINDRANATH and OSTWALD, 2008).

To be able to reach tier 2, additional studies will help develop specific equations for the CAR, using both allometric equations (eq. 1) or BEF for the most common species (eq. 2). Such studies will be coordinated with other studies planned at the regional level: the FORAFAMA project supporting the sustainable management of the Congo Basin and the Brazilian Amazon Basin forests (funded by the French Global Environmental Facility – FFEM) starting beginning of 2011 or the regional MRV project for the Congo Basin developed by FAO.

➔ Carbon Stocks in Belowground Biomass

Carbon stocks in belowground biomass will be extrapolated from carbon stock in aboveground biomass, as measuring belowground stocks is very costly. In addition, root-to-shoot ratios are already available (CAIRNS et *al.* 1997; MOKANY et al. 2006). Once again, such coefficients are based on data from Latin America and Asia.

➔ Carbon Stocks in Dead Wood and Litter

Dead wood can be a significant carbon pool (GOFC-GOLD, 2009). Field measurement can be done in parallel with surveys of the aboveground biomass. Carbon stock in litter will be estimated using the IPCC default values (2006).

➔ Carbon Stocks in Soil Organic Matter

To reach the targeted tier 2, measurement will be performed during the surveys mentioned above. Reference soil carbon stocks for each stratum will be defined. Existing CDM tools will help determine the quantity of data needed to obtain a reliable result.

As for the aboveground biomass, a preliminary survey will determine the variation coefficient of soil carbon for each stratum. The number of measurement points will then be calculated. To obtain statistically significant results, this number should be higher than 30. Measurement points will be systematically distributed along a sampling grid randomly placed in each stratum.

3.5. Method Selection: The Gain-Loss Method vs. the Stock Difference Method

To measure emission factors, the IPCC recommends two approaches: the gain-loss method and the stock difference method:

- The gain-loss method calculates the annual carbon flow on a stratum by estimating carbon uptake (growth, dead wood, etc.) and release (timber harvest, loss from fires, etc.);
- The stock difference method calculates the difference between year n carbon stocks and year 0. Carbon stocks in years n and 0 are estimated using dendrometric measures.

In the CAR, availability of growth and mortality data is very limited while the informal timber sector is significant (for instance, statistics on actual timber harvest are incomplete). Therefore the gain-loss method does not seem appropriate. This should be discussed further as PARN and ECOFAC produced some growth, mortality, and logging data for the southwestern forest range.

Further studies will be needed to estimate emission factors related to the combustion of aboveground biomass. Emissions are significant in the country due to the number of uncontrolled bush fires.

3.6. Actions to Estimate Emission Factors

Some data and methods are in place to estimate emission factors for the southwestern forest range. They will serve a starting point for savanna areas.

Planned actions include:

- Establishment of the MRV Thematic Group within the CT REDD+. This group will steer biomass MRV, using identified capacities at PARPAF, CDF, OEFB, AGRDF, and DIAF and in close cooperation with management units of logging companies;
- Provision of human resources (capacity-building in walking surveys and potential hiring of national experts) and material resources (vehicles, GPS, chainsaws, clinometers, relascopes, topofils, etc.) to the MRV Thematic Group and other organizations mentioned above. Staff from prefectural departments in charge of environment and forests will also be trained as their participation in field surveys is necessary (data collection is extremely time-consuming);
- Additional surveys to develop specific emission factors for the CAR (using allometric models – eq 1 – or expansion factors – eq 2). Costs can be pooled at regional level when strata cover several countries (e.g. humid dense forest) or to estimate emission factors related to biomass combustion;
- Additional studies on survey methods in order to assess (i) to what extent methods used in managed forests could be applied or adapted to savanna forests, (ii) how to improve data collection for litter, dead wood, belowground biomass, and soil;
- Selection between the gain-loss and the stock difference options;
- Creation of permanent plots in savanna forests;
- Preliminary data collection through walking surveys for the entire country and calculation of emission factors by land-use type and sub-type. This survey will be updated every five years; and
- Estimation of errors through field validation missions.

4. CROSS-CUTTING ACTIONS TO DEVELOP THE MRV SYSTEM

4.1. Training

All resource-persons from institutions involved in the MRV should receive training on the principles, rules, and methods of GHG surveys defined by IPCC and the Climate Convention. These institutions include the MRV Thematic Group from the CN REDD+, DIAF, PARPAF, CDF, OEFB, OFB, management units of logging companies, environmental and/or forest prefectural services, etc. as well as local communities who can potentially participate in field surveys.

A careful selection of resource individuals is needed to ensure their effective participation after training.

Training will be carried out via theoretical and practical workshops involving national and international experts. The focus will be on basic capacities related to needed data, their collection and crossing analysis of area and biomass data to obtain emission factors for each activity data.

Specific training will also focus on satellite image processing, photographic interpretation, GIS tools, walking survey methods, database, etc.

4.2 Coordination with Regional Initiatives

Several regional initiatives are ongoing or planned to implement a MRV system for the Congo Basin:

- The REDDAF Project funded by the European Community and executed by GAF, a German Consulting Firm. This research project can contribute to the mapping of forests in the CAR. Capacity building in GIS is also planned. The project is headquartered at CACCEG at the Bangui University and has already started.
- The SPOT Images Project initiated by AFD/ASTRIUM: Very-high-resolution (2.5m) SPOT images will be available for the CAR. This project has already started.
- The FORAFAMA Project to support sustainable management of the Congo Basin and the Brazilian Amazon Basin forests, funded by the FFEM (starting early 2011): it includes several MRV components and focuses specifically on estimating emissions from forest degradation;
- The MRV Project for the Congo Basin, initiated by FAO (under development): it should support a regional MRV to be coordinated by COMIFAC through OFAC;
- The REDD+ for the Congo Basin initiated by GEF (under development): it would include local, national, and regional capacity-building in the Congo Basin countries, focusing on mainstreaming forest sustainable management in REDD+ processes. The project would have a MRV component.

The MRV Thematic Group of the CT REDD+ will evaluate these regional initiatives and potential cooperation. A regional approach has pros (cost reduction through economies of scale for sampling and better results by crossing data) and cons (bureaucracy and length of the creation process of a regional MRV, a system less adapted to the specificities of a country e.g. savanna forests, loss of sovereignty on data, etc.).

4.3. Design of a Quality Assurance/Quality Control System (QA/QC)

Internal quality control mechanisms will be established to validate estimated activity data and emission factors, as well as multiple benefits and other impacts (see Component 4b). These mechanisms will ensure that such estimations are valid and will assess the related level of uncertainty.

Another unit than the MRV Thematic Group could be responsible of quality control to ensure sound and transparent estimations. It could be:

- The National Traceability System (NTS) to be created at AGDRF to ensure timber legality (DEMARQUEZ, 2007);
- The independent observer to be established for the VPA-FLEGT. In this case, its terms of reference will specify the additional mission for REDD+; or
- A review mechanism of REDD+ surveys under the Climate Convention. The concept of peer-review is mentioned under Section III B on the NAMAs in the main decision of the Cancun Climate Conference.

5. INSTITUTIONAL FRAMEWORK AND KEY OBJECTIVES OF THE MRV SYSTEM

5.1. Institutional Framework

The MRV system will be steered and supervised by the MRV Thematic Group of the CT REDD+. This group will cross activity data and emission factors to assess annual GHG emissions and removals associated with REDD+. Production of raw data, estimation of activity data and emission factors, and QA/QC will be carried out by different entities, as shown below:

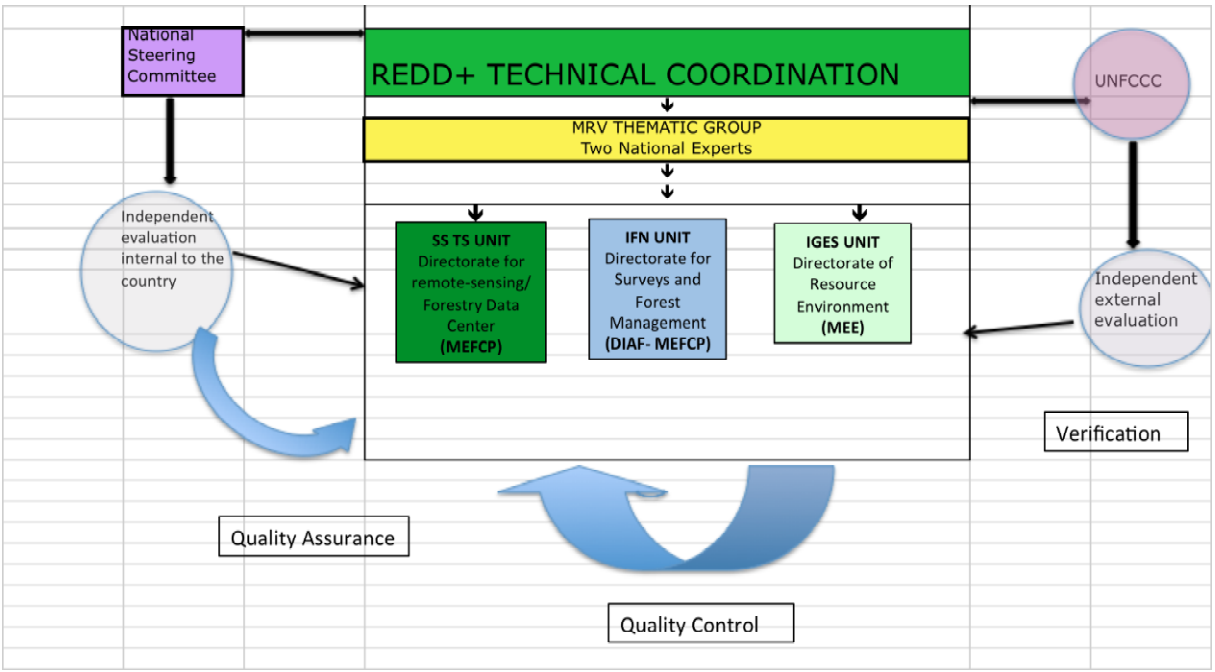

Figure 38 – Implementation Framework of the MRV System in the CAR

5.2. Key Objectives

Key elements of the MRV system				
National forest survey	**Remote-sensing for deforestation and degradation**	**Carbon density data**	**Multiple benefits beyond carbon**	**Governance and participation of stakeholders**
>>> Current MRV capacities in the country				
No national survey	Low capacities distributed between PARPAF, CDF, and LACEEG	Few national data (localized in the southwest)	No system in place	No system in place
>>> Medium-term MRV capacities of the country				
Operational centralized national forest survey	Strengthened, equipped, and operational institutions (approach 2 objective)	Strengthened, equipped, and operational institutions at least at central level (tier 2 objective)	Stakeholders, principles and simple indicators defined	Stakeholders, principles, and simple indicators defined
>>> Long-term MRV capacities of the country				
Operational decentralized national forest survey	Strengthened, equipped, and operational institutions at regional level (approach 3 objective)	Strengthened, equipped, and operational institutions at central level and prefectural levels, coordinated at regional level (tier 3 objective)	Operational monitoring system with developed indicators and routinely applied corrective measures	Operational monitoring system with developed indicators and routinely applied corrective measures

Figure 39 – Key Objectives of the GHG MRV System and Multiple Benefits

5. SCHEDULE AND BUDGET (IN KUSD)

Main activities	Sub-activities	S2 2011	S1 2012	S2 2012	S1 2013	S2 2013	TOTAL
Estimation of activity data	Creation of the MRV Thematic Group within the CT REDD+						-
	Study on the challenges related to the definition of "forests" and "forest degradation" and definition (10 md/MRV expert from the CT REDD+ x 2 experts - covered under Comp. 1a)						-
	Capacity-building of agents from the MRV Thematic Group of the CT REDD+, AGRDF, CDF, OEFB, LACCEG, ICRA etc. and GIS and image processing software (20 md/inter expert x 1kUSD/md + 6kUSD/inter transport + 20 md/agents x 20 agents x 50 USD/md)	46.0					46.0
	Equipment of the MRV Thematic Group of the CT REDD+, AGRDF, CDF, OEFB, LACCEG: 1 package for each structure (computer, GIS license, image processing software license) at 50kUSD/package	200.0					200.0
	Determination of sampling (20md/MRV expert from the CT REDD+ x 2 experts + 10md of the Technical Advisor of the CT REDD+ - Covered under Comp. 1a)						-
	Acquisition of satellite images for 1990, 2000, 2005, and 2010 from the national database of satellite images or via partnership conventions (assuming a free supply of images if agreement AFD/Astrium is on)						-
	Processing of satellite images: orthorectification, elimination of clouds and haze (undetermined time for national MRV experts + 30 md of technical support from international MRV experts x 1kUSD/md + 12kUSD/inter transport)		42.0			42.0	84.0
	Definition of land-use types (10md/MRV expert from the CT REDD+ x 2 experts - covered under Comp. 1a)						-
	Stratification of forest types (10md/MRV experts from the CT REDD+ x 2 experts)						-
	Development of land-use maps for 1990, 2000, 2005 or 2010 (undetermined time for national MRV experts + 30 md of technical support from international MRV experts x 1kUSD/md +12kUSD/inter transport)		42.0			42.0	84.0
	Estimation of errors through field missions (30 md/MRV expert from the CT REDD+ x 2 experts - covered under Comp. 1a + 30 USD/md x 30 md/experts x 2 experts for transport, meals, and lodging)		1.8			1.8	3.6
	Calculation of deforestation and degradation rates (20 md/MRV expert from the CT REDD+ x 2 experts + 10 md of the REDD+ Technical Advisor - covered under Comp. 1a)						-

Estimation of emission factors	Capacity-building of agents from the MRV Thematic Group of the CT REDD+, AAAGRDF, CDF, OEFB, LACCEG, staff from the prefectural services in charge of the environment and/or forest in walking surveys (20 md/inter expert x 1kUSD/md + 6kUSD/inter transport + 20 md/agents x 20 agents x 50 USD/md)	46.0					46.0
	Equipment of the MRV Thematic Group of the CT REDD+, AGRDF, CDF, OEFB, LACCEG: 1 package for each structure (GPS, chainsaws, clinometers, relascopes, topofil)	40.0					40.0
	Additional studies to develop specific emission factors: allometric models, expansion factors, emission factors related to biomass combustion (20 md/MRV expert from the CT REDD+ x 2 experts - covered in Comp. 1a + 15 md of technical support of inter MRV experts x 1kUSD/md + 3kUSD/inter transport)		18.0				18.0
	Studies on the adaptation of survey methods to other forests (20 md/MRV expert from the CT REDD+ x 2 experts - covered under Comp 1a + 15 md of technical support of international MRV experts x 1kUSD/md + 3kUSD/int transport)		18.0				18.0
	Studies to improve data collection on carbon stock in litter, dead wood, belowground and aboveground biomass (20md/ MRV expert from the CT REDD+ x 2 experts - covered under Comp. 1a + 15 md of technical support of international MRV experts x 1 kUSD/md + 3kUSD/inter transport)		18.0				18.0
	Selection between the gain-loss and the stock difference options						-
	Creation and monitoring of permanent plots in the 15 PEAs and in savanna forests (undetermined cost, will depend on sampling. A conservative figure of 100kUSD is budgeted for establishment and 50kUSD/yr for monitoring)		100.0		50.0		150.0
	Preliminary collection through walking surveys over the country and calculation of emission factors for each land-use type and sub-type (undetermined cost, will depend on sampling. A conservative figure of 300kUSD is budgeted)			300.0			300.0
	Estimation of errors through field missions (30 md/MRV experts from the CT REDD+ x 2 experts - covered under Comp. 1a + 30 USD/md x 30 md/experts x 2 experts for transport, meals, and lodging)			1.8			1.8
Estimation of emissions and removals	Capacity-building of agents from the MRV Thematic Group of the CT REDD+, AAAGRDF, CDF, OEFB, LACCEG, etc. in GHG surveys using UNFCCC format (10 md/inter expert x 1kUSD/md + 3kUSD/inter transport + 10md/agents x 10 agents x 50 USD/md)			18.0			18.0
	Estimation of emissions and removals (30 md/MRV experts from the CT REDD+ x 2 experts + 10 md of the CT REDD+ Technical Advisor - covered under Comp. 1a)						-
Development of the QC/QA	Development of procedures (10md/MRV expert from the CT REDD+ x 2 experts + 5md of the CT REDD+ Technical Advisor - covered under Comp. 1a)						-
	Selection of an independent entity for QC (20kUSD/operational year)			20.0		20.0	40.0
	TOTAL	**332.0**	**239.8**	**339.8**	**50.0**	**105.8**	**1067.4**
	Government Contribution						
	FCPF Contribution						1067.4
	UN-REDD Contribution						
	AFD Contribution						

Figure 40 – Schedule and Budget for Component 4a of the CAR R-PP

4b. Multiple Benefits, Other Impacts, and Governance

Actions undertaken under the REDD+ mechanism will have impacts other than the reduction of GHG emissions, as a wide range of actors (institutions, private sector, local populations) will be involved in a variety of natural environments (dense forests, savannas, etc.)

A monitoring system will be implemented to assess impacts on biodiversity, soil, water resources, landscapes, local socioeconomic development, human rights, governance, etc.

Environmental monitoring will be performed through the application of management plans and their extension to unmanaged areas. A study will focus on the adaptation of ecological surveys to monitor impacts of REDD+ activities on biodiversity, soil, water regime, etc.

Monitoring of socioeconomic impacts will take place by using management plans. Socioeconomic surveys will help:

- Identify stakeholders;
- Identify land-use conflicts;
- Identify priority social needs;
- Identify local sources of agricultural products, meat and fish, craft, etc.; and
- Identify areas and resources of exclusive or potentially concerted access.

An additional study will amend existing standards and define relevant criteria and indicators for assessing socioeconomic impacts of REDD+ activities. The forest-mapping project funded by the European Community in the CAR will have a specific focus on socioeconomic impacts and associated criteria will be defined. Potential criteria and indicators include:

- Development: infrastructure, demographics, level of employment, type of employment, employment of indigenous peoples, local average income, wood resources (evaluation of firewood supply and demand based on the model of the 2009 FAO WISDOM Program), etc.
- Human rights: Gender issues, security measures, labor policy for REDD+ projects, etc.

The monitoring system will also contribute to an impact assessment of strategy directions developed under Component 2b by defining efficiency criteria for the institutional REDD+ arrangements. A series of indicators will be defined for each strategy option: (i) Zoning, (ii) Improvement of agricultural, sylvicultural, and livestock techniques, (iii) Management enhancement of forest resources, and (iv) Institutional and governance strengthening.

Interaction of MRV with other measurement initiatives, such as biodiversity under CBD, is clearly defined. No specific safeguard exists to address the risk on biodiversity from reforestation. REDD+ activities such as reforestation, forest restoration, and enhancement of forest carbon stocks will help assist and sustainably preserve biological assets.

Definition of criteria and indicators should also be based on the social components of the Forest Code as well as on the objectives of NAPA and the VPA-FLEGT. The efficiency of REDD+ activities will be assessed based on priorities defined in these two documents.

ICASEES will be involved in the development of criteria and indicators and will support the MRV unit in collecting and centralizing data.

Multiple benefits are monitored in close consistency with the goals of the ESMF designed under Component 2d. Therefore, the related budget has been included in the Component 2d budget.

Component 5: Schedule and Budget

Standard 5 the R-PP text needs to meet for this component: Completeness of information and resource requirements
The R-PP proposes a full suite of activities to achieve REDD-plus readiness, and identifies capacity building and financial resources needed to accomplish these activities. A budget and schedule for funding and technical support requested from the FCPF and/or UN-REDD, as well as from other international sources (e.g., bilateral assistance), are summarized by year and by potential donor. The information presented reflects the priorities in the R-PP, and is sufficient to meet the costs associated with REDD-plus readiness activities identified in the R-PP. Any gaps in funding, or sources of funding, are clearly noted.

The total budget is broken down for each semester and component. Total component costs are expressed in absolute values and in percentage of the total R-PP budget. There is some "optical effect" for some components, namely Components 2c and 2d, as costs mostly cover the intervention of national experts in the CT REDD+ and have already been budgeted under Component 1a.

It should be noted that a major part of the budget (2,640 kUSD or 40 % of the total budget) was voluntarily allocated to pilot projects under Component 2b. Much is expected from these pilot projects, including to provide lessons learned locally in order to produce strategy options at national level.

Two summer schools on capacity building and experience sharing are also planned. They will be beneficial for the CAR as well as all sub-regional countries (COMIFAC country members).

	2012		2013		2014	TOTAL	%
	S1	S2	S1	S2	S1		
TOTAL COMP 1A	386	212	212	212	212	1234	18.5%
TOTAL COMP 1B	70					70	1.0%
TOTAL COMP 1C	71	103	33	33	33	273	7.6%
TOTAL COMP 2A	221	100				321	4.8%
TOTAL COMP 2B	120	120	800	800	800	2640	39.6%
TOTAL COMP 2C	53	23				76	1.1%
TOTAL COMP 2D	33	10				43	0.6%
TOTAL COMP 3	636	63	182	32	32	945	14.2%
TOTAL COMP 4A	332	240	340	50	105	1067	16.0%
GRAND TOTAL	1,922	871	1,567	1,127	1,182	6,669	100.0%
Government	nd	nd	nd	nd	nd	200	3.0%
FCPF	nd	nd	nd	nd	nd	3,600	54.0%
UN-REDD	nd	nd	nd	nd	nd	nd	nd
AFD	nd	nd	nd	nd	nd	nd	nd

Figure 41 – Total Budget of the CAR R-PP

The global working schedule of the CAR R-PP is presented below:

Comp	Main activities	Sub-activities	S1 2012	S2 2012	S1 2013	S1 2013	S1 2014
1A	Creation and operation of the CN REDD+	Creation of the CN REDD+					
		Adoption of REDD+ regulations					
		Approval of activities proposed by the CT REDD+					
		Regular/extraordinary meetings					
	Creation and operation of the CIP REDD+	Creation of the CIP REDD+					
		Regional consultations and development of activity proposals					
		Implementation of directions received from the CN REDD+					
		Regular/extraordinary meetings					
	Creation and operation of the CT REDD+	Creation of the CT REDD+					
		Permanent Secretariat of the REDD+ Process					
		Interface between national and international institutions					
		Development of technical proposals and implementation of the R-PP					
		Activity coordination					
		Regular/extraordinary meetings					
	Support to FNE Operation	Further arrangement to integrate REDD+					
		Secure REDD+ funding					
		Organize distribution of carbon credits to action developers					
1B	Organization of national workshops (1/month) after each meeting of the CT REDD+	Preparation of IEC materials before each workshop					
		Workshop Facilitation (1md/month of IEC experts from CT REDD)					
		Workshops (1 workshop/month)					
		Preparation of workshop minutes and dissemination (1md/month of IEC experts from the CT REDD)					
	Organization of prefectural workshops (1/semester) after each meeting of the CIP REDD+	Preliminary training on REDD+ by IEC experts from the CT REDD+ for two IEC correspondents in each Prefecture (5md/corr.)					
		Continuous training on the new developments of REDD+ and the CAR R-PP by IEC experts from the CT REDD+ (2md/semester/corr)					
		Workshops (1 workshop/semester/Pref x 16 Pref)					
		Preparation of workshop minutes and dissemination (1md/month of IEC experts from the CT REDD+)					
	Organization of workshops for indigenous peoples (10/semester, 1/semester in each of the 10 cities listed in 3.3)	Preparation of IEC materials before each workshop (2md/month IEC experts from the CT REDD+)					
		Facilitation of meetings (2md/workshop by IEC experts of the CT REDD+)					
		Workshops (10 workshops/semester)					
		Preparation of workshop minutes and dissemination (1md/month of IEC experts from the CT REDD+)					
	Public outreach on REDD+ and the R-PP	Purchase of specific equipment for IEC					
		Production and dissemination of communication materials (10 md/month of IEC experts of the CT REDD+)					
		Support by artists, radio hosts, communication specialists to prepare communication materials (4 md/semester of experts)					
		Radio or TV broadcasting costs (1 week/month of daily radio spots + 1 week/month of daily TV spots)					
	Individual consultations with key people	Consultations (4md/month of IEC experts of the CT REDD+)					

Comp	Main activities	Sub-activities	S1 2012	S2 2012	S1 2013	S1 2013	S1 2014
2A	Study on fuelwood production and consumption	Literature survey and preparation of field mission (5md/inter. Expert + 5 md/ nat. expert)					
		Field mission in 3 Prefectures: Ombella Poko, Mbomou, and Ouham (15 md/inter. expert + 15 md/national expert)					
		Report with recommendations presented to CT and CN (5md/inter. expert + 5md/national expert)					
	Study on unsustainable itinerant agriculture	Literature survey and preparation of field mission (5md/inter. expert + 5 md/ nat. expert)					
		Field mission in 4 Prefectures: Ouaka, Basse-Kotto, Lobaye, and Ouham-Pendé (20 md/inter. expert + 20 md/national expert)					
		Report with recommendations presented to CT and CN (5md/inter. expert + 5md/national expert)					
	Study on unsustainable transhumant livestock farming	Literature survey and preparation of field mission (5md/inter. expert + 5 md/ nat. expert)					
		Field mission in 3 Prefectures: Ouham Pendé, Nana Membéré, Lobaye(15 md/inter. expert + 15 md/national expert)					
		Report with recommendations presented to CT and CN (5md/inter. expert + 5md/national expert)					
	Study on unsustainable and/or illegal timber, lumber, and NTFP harvest	Literature survey and preparation of field mission (5md/inter. expert + 5 md/ nat. expert)					
		Field mission in 5 Prefectures: Lobaye, Ombella-Poko, Membéré-Kadeï, Kémo, Mbomou(25 md/inter. Expert + 25 md/national expert)					
		Report with recommendations presented to CT and CN (5md/inter. expert + 5md/national expert)					
	Study on small-scale and/or industrial mining (gold, diamond, uranium)	Literature survey and preparation of field mission (5md/inter. expert + 5 md/ nat. expert)					
		Field mission in 4 Prefectures: Haute-Koto, Basse-Kotto, Mbomou, Membéré-Kadeï (20 md/inter. expert + 20 md/national expert)					
		Report with recommendations presented to CT and CN (5md/inter. Expert + 5md/national expert)					
2B	Calls for proposals to recruit national experts/sub-option	Development of 12 terms of reference(2md/call REDD+ Coordinator + 2md/call Technical Advisor)					
		Supervision of tasks (10md/sub-option of National Coordinator + 10md/sub-option of Technical Advisor)					
	Development of the 12 programs of action (1/sub-option)	Literature survey and preparation of field mission (20 md/nat. expert x 2 experts/sub-option x 12 sub-options)					
		Report presented to CT and CN (5md/nat. expert x 2 experts/sub-option x 12 sub-options)					
		Validation, invalidation or reformulation of sub-options by the CN after technical opinion of the CT					
	Launching of calls for pilot projects (1/sub-option)	Development of 12 calls for pilot projects (2md/call of the National Coordinator + 2md/call of the Technical Advisor)					
		Selection of bids (on average 4/semester between June 2012 and December 2013) and grant allocation					
		Supervision/backstopping of pilot projects (10md/project of the National Coordinator + 10md/project of the Technical Advisor)					
		Semestrial reports on project implementation presented to CT and CN (prepared by each project developer)					

Comp	Main activities	Sub-activities	S1 2012	S2 2012	S1 2013	S1 2013	S1 2014
2C	Creation of CN, CIP, and CT REDD+ by Presidential Decree	Development of a preliminary draft by the CT with the National Assembly Commissions (10md/nat. expert from the CT)					
		Promulgation of the Decree					
	Study on weaknesses of the legal framework with respect to tenure, forest, agriculture and livestock, environment, decentralization, forest taxation, and management of the FNE	Development of call for tenders to recruit an international legal expert (5md/experts from the CT)					
		Selection of the legal expert and initiation of the study					
		Literature survey and preparation of mission (20md/legal expert + 5 md/ nat. expert)					
		Field mission focusing on Bangui, with visit in 2 Prefectures (30 md/inter. expert + 30 md/national expert)					
		Report with recommendations presented to CT and CN					
	Preparation of the REDD+ Bill	Development of a preliminary draft by the CN REDD+ with the National Assembly Commissions (50md/nat. expert + 20md/legal expert)					
		Regular work meetings with Deputies, CES members and services/and or offices of Ministries					
		Validation in principle, invalidation, or reformulation of the draft by the CN after technical opinion of the CT					
		Promulgation of the law on REDD+ by the ad hoc authority					
	Support to the operation of the REDD+ unit at the FNE and legal monitoring of pilot projects	Support to the operations of the REDD+ unit at the FNE and implementation or strengthening of transparent disbursement procedures					
		Legal monitoring of pilot projects including on equitable sharing of carbon revenues					
2D	Development of terms of reference for the SESA	Drafting of TOR by national SESA expert from the CT REDD+ (6md/expert)					
		TOR presented to CT and CN					
		Validation, invalidation, or redrafting of TOR by the CN after technical opinion of the CT					
	Capacity-building of relevant stakeholders	Preparation of a training on SESA (3md/experts x 2 SESA experts from the CT REDD+ + 2md of REDD+ Technical Advisor)					
		Training on SESA for members of the CN (1md/expert/training x 2 experts from the CT)					
		Training on SESA for CIP REDD+ (1md/expert x 2 SESA experts from CT REDD+)					
	SESA implementation	Information collection in the 16 prefectures and 2 control stations (36md/experts x 2 experts from CT REDD+)					
		Information processing (20 md/experts x 2 experts from the CT REDD+)					
		Prioritization and spatialization of social and environmental impacts (10 md/experts x 2 experts from the CT REDD+)					
		Report with recommendations to the CT and CN (10 md/experts x 2 experts from the CT REDD+)					
	Evaluation of SESA results	First evaluation by the CT and the CN					
		Presentation to the general public and public evaluation (attendance of 10md/experts x 2experts from the CT)					
		Integration of amendments (5md/expert x 2 experts from the CT)					
		Evaluation by the CT and the CN and potential approval					
	Elaboration of terms of reference for the ESMF	Development of TORs by the national SESA expert from the CN REDD+ (6md/expert)					
		TOR presented to CT and CN					
		Validation, invalidation, or redrafting of TOR by the CN after technical opinion of the CT					
	ESMF implementation	Information collection in the 16 prefectures and 2 control stations (36md/experts x 2 experts from CT REDD+)					
		Information processing (20 md/experts x 2 experts from the CT REDD+)					
		Information collection in the 16 prefectures and 2 control stations (36md/experts x 2 experts from CT REDD+)					
		Information processing (20 md/expert x 2 experts from the CT REDD+)					

Comp	Main activities	Sub-activities	S1 2012	S2 2012	S1 2013	S1 2013	S1 2014
3	Data collection of local causes/drivers of pressure on forests	Training on statistics/modeling/REDD+ for 6 corr. / pref 8 corr. in Bangui (2md/corr. X 40 corr.)					
		Equipment and maintenance of central and prefectural ICASEES services and other institutions in charge of statistics					
		Identification of causes/drivers based on studies of Comp. 2b (20 md/nat expert from the CN x 2 experts)					
		Data collection and first processing (40 md/ nat expert from the CN x 2 experts)					
	Sub-national modeling (1 for each of the 4 zones) of the future pressure on forests	Identification of simple and appropriate models(10md/nat expert+ x 2 experts + 10md of the Technical Advisor)					
		Model selection and training for members of the CT + 2 correspondents in each prefecture (10md/inter expert + 4md/corr)					
		Hotline between the modeling task force from the CT and correspondents for the channeling of data					
		Output of reference levels and progress report with recommendations presented to the CT and the CN					
	In parallel, spatialization of deforestation risks at national level to substantiate sub-national levels	Selection of a spatialization software and training for members of the CT (10md inter expert + 4md/corr)					
		Spatialization of deforestation risks (30md/ CT expert x 2 experts + 10 md of the Technical Advisor)					
		Output of a national map of risks and progress report with recommendations presented to the CT and the CN					
		Hotline between the modeling task force from the CT and correspondents during the adjustment of levels					
	Aggregation to obtain a national level	Bottom-up aggregation (30 md/CT expert x 2 experts x 10md of the Technical Advisor)					
	Comparison between sub-national levels and the CongoBIOM regional level (top-down approach)	Attendance at the IIASA/Congo BIOM workshops by the 2 CT experts (1 workshop/semester/expert x 2 experts)					
		IIASA expertise mission in the CAR (20md/yr int expert)					
		Readjustment of national level and subnational levels (30md/expert x 2 experts + 10md of the REDD+ Technical Advisor)					
	Validation of the national level	Output of the national reference level and progress report with recommendations to CT and CN					
4	Estimation of activity data	Creation of the MRV Thematic Group within the CT REDD+					
		Study on the definition of "forests" and "degradation" (10 md/CT expert x 2 experts)					
		Capacity-building of CT, AGRDF, CDF, OEFB, LACCEG, ICRA etc. in GIS and processing (20 md/inter expert + 20 md/agents)					
		Equipment of the CT, AGRDF, CDF, OEFB, LACCEG: computer, GIS license, image processing software license					
		Determination of sampling (20md/nat expert x 2 experts + 10md of the Technical Advisor of the CT REDD+)					
		Acquisition of satellite images for 1990, 2000, 2005, and 2010					
		Processing of satellite images: orthorectification, elimination of clouds and haze (undetermined time/nat. experts+ 30 md/int expert)					
		Definition of land-use types (10md/CT expert x 2 experts)					
		Stratification of forest types (10md/CT expert x 2 experts)					
		Development of land-use maps for 1990, 2000, 2005 or 2010 (undetermined time nat expert + 30 md/ int expert)					
		Estimation of errors through field missions (30 md/nat expert x 2 experts)					
		Calculation of deforestation and degradation rates (20 md/nat expert x 2 experts + 10 md of the Technical Advisor)					
	Estimation of emission factors	Capacity-building of CT, AAAGRDF, CDF, OEFB, LACCEG in walking surveys (20 md/inter expert+ 20 md/agents)					
		Equipment of CT, AGRDF, CDF, OEFB, LACCEG: GPS, chainsaws, clinometers, relascopes, topofil					
		Additional studies on emission factors (20 md/nat expert x 2 experts -+ 15 md of inter expert)					
		Studies on the adaptation of survey methods (20 md/nat expert x 2 experts + 15 md of inter expert)					
		Studies on litter, dead wood, belowground and aboveground biomass (20md/ nat expert x 2 experts + 15 md inter expert)					
		Selection between the gain-loss and the stock difference options					
		Creation and monitoring of permanent plots in the 15 PEAs and in savanna forests					
		Walking surveys and calculation of emission factors for each land-use type and sub-type					
		Estimation of errors (30 md/nat experts x 2 experts)					
	Estimation of emissions and removals	Capacity-building of the CT, AAAGRDF, CDF, OEFB, LACCEG, etc. in GHG surveys (20 md/inter expert + 10md/agents)					
		Estimation of emissions and removals (30 md/nat experts x 2 experts + 10 md of the CT REDD+ Technical Advisor)					
	Development of the QC/QA	Development of procedures (10md/nat expert x 2 experts + 5md of the CT REDD+ Technical Advisor)					
		Selection of an independent entity for QC operation					

Figure 42 – Global Schedule of the CAR R-PP.

Component 6: Design a Program Monitoring and Evaluation Framework

Standard 6 the R-PP text needs to meet for this component: Design a Program Monitoring and Evaluation Framework
The R-PP adequately describes the indicators that will be used to monitor program performance of the Readiness process and R-PP activities, and to identify in a timely manner any shortfalls in performance timing or quality. The R-PP demonstrates that the framework will assist in transparent management of financial and other resources.

Indicators	Verification methods	Collection methods	Responsibilities	Risks and assumptions
Evolution of GHG trends between 1990, 2000, 2010, and 2020	GHG surveys submitted to the UNFCCC and peer-reviewed	Request at the UNFCCC Secretariat	Government of the CAR	National REDD+ strategy is implemented, subject to funding
CN, CT and CIP REDD+ are established and operational	Minutes of meetings of these institutions. Progress status of the R-PP	Minutes. External evaluation reports.	Nat REDD+ institutions. External consulting firm	Intact political goodwill. No conflict of competences.
Ownership and satisfaction level related to the national REDD+ strategy	Satisfaction surveys	Questionnaires for representative panels	External consulting firm	Steering of the national REDD+ strategy by the sole MEE
Causes are defined. Drivers of pressure are quantified and spatialized.	Study reports planned under Component 2a	Field missions in key prefectures	CT REDD+	Availability of statistical data. Measurability of some phenomena.
A Law on REDD+ is promulgated and applied.	Law on REDD+ and implementing regulations	Request at the Government General Secretariat	NA and CN REDD+	Intact political goodwill. No conflict of competences.
SESA performed and ESMF operational	SESA and ESMF reports	Field surveys	CT REDD+	
Reference level and development methods	Reference level submitted to the UNFCCC and peer-reviewed	Request at the UNFCCC Secretariat	Government of the CAR	Applied methodology is accepted by the UNFCCC
MRV systems for GHG and other assets are operational	Verification reports of both MRV systems	Request at the UNFCCC Secretariat	Government of the CAR	Applied methodology is accepted by the UNFCCC

Figure 43 – Monitoring and Evaluation Framework of the CAR R-PP

It should be noted that the monitoring and evaluation framework will support in a transparent and timely way the financial management of the R-PP.

Note:

ANNEXES are not translated into English. For French version of the annexes, please refer to FCPF website