REPUBLIC OF CAMEROON
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MINISTRY OF ENVIRONMENT,
PROTECTION OF NATURE AND
SUSTAINABLE DEVELOPMENT

REPUBLIQUE DU CAMEROUN
Paix – Travail – Patrie

MINISTERE DE L'ENVIRONNEMENT,
DE LA PROTECTION DE LA NATURE ET
DU DEVELOPPEMENT DURABLE

Harmonised Action Plan (2020-2030) for the restoration of degraded land and forest landscapes in Cameroon

This document was designed and produced with financial and technical support from the Global Environment Facility (GEF), the International Union for Conservation of Nature (IUCN) and the International Bamboo and Rattan Organization (INBAR), within the context of the TRI project.

LEGAL DISCLAIMER AND TEAM OF CONSULTANTS

General supervision

Mr. HELE Pierre, Minister of Environment, Protection of Nature and Sustainable Development

Coordination

Dr. NANA ABOUBAKAR DJALLOH, Minister Delegate to the Minister of Environment, Protection of Nature and Sustainable Development

Technical assistance

Prof. Paul TCHAWA, Secretary General of the Ministry of Environment, Protection of Nature and Sustainable Development

Prof. Bring, Director of Conservation and Management of Natural Resources

(MINEPDED)

Contracting Authority

Ministry of Environment, Protection of Nature and Sustainable Development/International Bamboo and Rattan Organisation (INBAR)

Website: https://www.inbar.int/fr/about-inbar/

Production

Action for Biodiversity and Land Management (ABIOGeT)

Website : https://abioget.org/index.php ; E-mail: Contact@abioget.org

P.O. Box: 8698 Yaoundé, E-mail: contat@abioget.org , Telephone: (+237) 695 19 07 91

Mr. Clément Sofalne, General Manager

Proofing and summary

Dr. FOBANE Jean Louis

Dr. ANABA BANIMB Robert Christian (ABIOGeT)

Assessment Board

Prof. BRING, Director of Conservation and Management of Natural Resources, MINEPDED

Dr. HAMAN UNUSA, GEF Focal Point, Studies and Prospective Unit Head, MINEPDED

Mr. DAMOU LAMTOIN, Technical Adviser No.2, MINEPDED

Mr. NTEP Rigobert, Head of Environmental Information and Documentation Centre, MINEPDED

Mme WADOU Angèle ZIEKINE, TRI Project National Coordinator, Sub-Director of Biodiversity and Biosecurity, MINEPDED

Mr. PAYANG DAVID, Sub–Director of Promotion and Restoration of Nature

Valérie TSAMA, Biosecurity Service Head, MINEPDED

Mr. WAYANG Raphaël, Biodiversity Protection Service Head, MINEPDED

Mr. ENDAMANA Dominique, IUCN

Mr. FOGOH John MUAFOR, TRI Project Technical Coordinator, Cameroon Mme Nadège SOL Rosine, MINFOF

Mr. René KAAM, INBAR

Graphic design/Computer graphics:

Achile Ghislain MKEMCHE

Funding

Global Environment Facility (GEF)

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PREFACE

Lands and forest landscapes in Cameroon are experiencing anthropogenic pressures worsened by the adverse effects of climate change, which are characterised by the loss of vegetation cover, reduced fertility, agricultural productivity, grazing, etc. This vulnerability is more visible among rural communities, whose standard of living is affected.

In order to address these challenges, Cameroon has developed strategies, programmes and action plans as an intervention framework to implement activities for the preservation of ecosystems. These instruments are the result of a variety of initiatives which are reflected in the disparity of interventions throughout the country.

In order to meet Cameroon's commitment to restore 12,062,768 hectares under the AFR100 initiative by 2030, to reduce greenhouse gases by 35% by 2030 as specified in the updated NDC, and to align with the post-2020 Global Biodiversity Framework, it is necessary to harmonised all restoration initiatives of degraded lands and forest landscapes at the national level.

This is why this Harmonised Action Plan has been developed. It stems from existing strategies and plans such as the NAP/CD, Great Green Wall Initiative, National Plantation Development Programme, project document of the Green Sahel operation, LDN target settings process, the strategic Framework for Forest Landscape Restoration (FLR). Also, it will serve as baseline action for the 2020-2030 decade in order to align with the National Development Strategy (NDS30).

Hélé Pierre
Minister of Environment, Nature Protection and Sustainable Development

This document is an important tool in the planning and decision-making process at the strategic level. It aims at contributing to the improvement of performance on degraded lands and forest landscapes restoration through the harmonization and synergy of degraded lands and forest landscapes restoration actions in all sectors.

We would like to express our gratitude to GEF, IUCN and INBAR whose financial and technical contributions have been crucial for the development of this Harmonised Action Plan.

ABSTRACT

This study analyzes the opportunities for combating land degradation and forest landscapes in Cameroon. It relies on strategic orientations based on the different initiatives undertaken at the national level in order to better address the commitments made at the international level. The effects of land degradation are increasingly noticeable and affect the environments and people who depend on natural resources.

The awareness of the Government of Cameroon of the issue of land degradation as one of the most serious ecological threats has materialized through its commitment to ratify the Rio conventions: United Nations Framework Convention on Climate Change (UNFCCC), Convention to Combat Desertification (UNCCD), Convention on Biological Diversity (CBD). To this end, it has taken strong measures for many decades, notably the Green Sahel Project implemented within the framework of the National Action Plan to Combat Desertification (PAN/LCD). To enrich its intervention mechanism, Cameroon committed itself during the COP21 in Paris, to the AFR100 initiative within the framework of the Bonn challenge, and to the African Union's Great Green Wall initiative.

The fight against land degradation resulting from these initiatives is organized through Forest Landscape Restoration (FLR), which is intended to be participatory, and which integrates emerging issues in terms of resource renewal, under the aegis of reforestation approaches, biodiversity conservation, watershed management ... to contribute to improving the living conditions of populations and the fight against poverty.

North-West, by continuing restoration efforts in mangrove areas. Attention was also given to deforestation in rainforest areas for better provision of a number of ecosystem services essential for the survival of populations.

The implementation of the fight against land degradation contributes to the achievement by Cameroon of the objective of reducing its greenhouse gas emissions by 35% in accordance with the commitment made by the Head of State during the COP21 and the objective of restoring by 2030, an estimated area of 12,062,768 hectares of degraded and deforested landscapes under the African Forest Landscape Restoration Initiative (AFR100).

In Cameroon, the fight against landscape and land degradation is integrated into the sustainable development efforts defined in the National Development Strategy (NDS30). In this context, it aims to contribute to the improvement of living conditions of populations, the fight against climate change, desertification and the preservation of biodiversity in all sectors of activity.

The main objective assigned to the strategic document for the fight against landscape and land degradation in Cameroon is to federate all the reflections and efforts of the actors involved in the fight against landscape and land degradation in Cameroon, based on the achievement of the objective of restoring 12 million hectares of degraded forests and landscapes and the commitment to reduce greenhouse gas emissions within the framework of the Paris Agreement on climate.

The results obtained in this study were based on a methodology that included a literature review (reports, studies, dissertations, theses...) of works related to desertification, land degradation and other related topics. The evaluation of land degradation was done through a reliable diagnosis based on the precise qualification of the types of degradation and the quantification of this phenomenon by highlighting the areas of degraded land and the different levels of degradation. A mapping of the degraded land areas appeared necessary in order to detect the signs of a deterioration of the land quality. A characterization of all actors having an impact, more or less important, in the process of combating desertification was considered relevant.

The elaboration of this strategic document aims, in the long run, through an ambitious action plan, to allow the country to vegetate degraded areas in order to reverse this phenomenon in priority areas or areas at high risk of degradation such as the savannahs of Adamaoua, the North and the Far North, and the highlands of the West and the North-West, by continuing restoration efforts in mangrove areas. Attention was also given to deforestation in rainforest areas for better provision of a number of ecosystem services essential for the survival of populations

RÉSUMÉ

La présente étude analyse les opportunités de lutte contre la dégradation des terres et des paysages forestiers au Cameroun. Elle s'appuie sur les orientations stratégiques basées sur différentes initiatives entreprises au niveau national afin de mieux adresser les engagements pris au niveau international. Les effets de la dégradation des terres sont de plus en plus remarquables et affectent les milieux et les hommes qui sont tributaires des ressources naturelles.

La prise de conscience par le Gouvernement du Cameroun de la question de dégradation des terres comme étant l'une des menaces écologiques les plus sérieuses, s'est matérialisée par son engagement à ratifier les conventions de Rio : Convention cadre des Nations Unies sur la Lutte Contre les Changements Climatiques (CCNUCC), Convention des Nations Unies sur la Lutte Contre la Désertification (CNULCD) et Convention sur la Diversité Biologique (CDB). A cet effet, il a engagé des mesures fortes depuis de nombreuses décennies. L'on peut notamment citer : le Projet Sahel Vert, mis en œuvre dans le cadre du Plan d'Action National de Lutte Contre la Désertification (PAN/LCD) ; l'initiative AFR100 dans le cadre du défi de Bonn ; l'initiative de l'Union Africaine connue sous le nom de la Grande Muraille Verte.

La lutte contre la dégradation des terres découlant de ces initiatives s'organise à travers la Restauration des Paysages Forestiers (RPF) qui se veut participative et qui intègre les problématiques émergentes en matière de renouvellement de la ressource. Elle utilise des approches de reboisement, de conservation de la biodiversité, de la gestion des bassins versants…Il s'agit aussi de contribuer à l'amélioration des conditions de vie des populations et de lutter contre la pauvreté.

L'implémentation de la lutte contre la dégradation des terres participe de même à l'atteinte par le Cameroun de l'objectif de réduction de 35% de ses émissions de gaz à effet de serre d'ici 2030, conformément à la CDN révisée. Plus spécifiquement, il est question d'atteindre l'objectif de restaurer, d'ici 2030, une superficie estimée à 12 062 768 hectares de paysages dégradés et déboisés dans le cadre de l'Initiative de Restauration des Paysages Forestiers Africains (AFR100).

Plus spécifiquement, il est question d'atteindre l'objectif de restaurer, d'ici 2030, une superficie estimée à 12 062 768 hectares de paysages dégradés et déboisés dans le cadre de l'Initiative de Restauration des Paysages Forestiers Africains (AFR100).

Au Cameroun, la lutte contre la dégradation des terres et des paysages forestiers est intégrée aux efforts de développement durable définis dans la Stratégie Nationale de Développement 2020-2030 (SND30). Dans ce contexte elle vise à terme la contribution à l'amélioration des conditions de vie des populations, la lutte contre les changements climatiques, la désertification et la préservation de la biodiversité.

L'objectif principal assigné au Plan d'Actions Harmonisé de lutte contre la dégradation des terres et des paysages forestiers au Cameroun est de fédérer l'ensemble des réflexions et efforts des acteurs intervenant dans la lutte contre la dégradation des paysages et des terres au Cameroun.
Les résultats obtenus dans cette étude se sont appuyés sur une méthodologie basée sur une revue documentaire (rapports, études, mémoires, thèses…) des travaux ayant trait à la désertification, la dégradation des terres et d'autres sujets connexes. L'évaluation de la dégradation des terres s'est faite à travers un diagnostic fiable fondé sur la qualification précise des types de dégradation et la quantification de ce phénomène en mettant en exergue les superficies de terres dégradées et les différents niveaux de

dégradation. Une cartographie des zones de terres dégradées est apparue nécessaire afin de déceler les signes d'une détérioration de la qualité des terres. Une caractérisation de tous les facteurs ayant un impact plus ou moins important dans le processus de lutte contre la désertification a été jugée pertinente.

L'élaboration de ce présent document ambitionne à terme, à travers un plan d'actions, de permettre au pays de végétaliser les zones dégradées afin d'inverser ce phénomène dans les zones prioritaires ou à fort risque de dégradation telles que les savanes de l'Adamaoua, du Nord et l'Extrême-Nord, et les hautes terres de l'Ouest et du Nord-Ouest, tout en poursuivant les efforts de restauration dans les zones de mangroves. Une attention a également porté sur la déforestation dans les zones de forêts humides pour une meilleure fourniture d'un certain nombre de services écosystémiques indispensables pour la survie des populations.

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ABIOGeT: Action for Biodiversity and Land Management

ADB: African Development Bank

AFD: French Development Agency

AFOP: Programme for the Renovation and Development of Vocational Training in Agriculture and Livestock sectors

ALAP: African Landscapes Action Plan

ANAFOR: National Forestry Development Agency

ARLI: Africa Resilient Landscapes Initiative

ARSEL: Electricity Sector Regulatory Agency

CBD: Convention on Biological Diversity.

CCPM: Cercle de Concertation des Partenaires for MINFOF-MINEPDED CILSN: Inter-regional Committee for Drought Control in the North

CDC: Cameroon Development Corporation

CDPs: Communal Development Plans

CIE: Inter-ministerial Committee on Environment

CIMENCAM: Cimenterie du Cameroun

CNC: National Coordination Committee

CNULCD: United Nations Convention to Combat Desertification

COP21: 21st Session of the Conference of the Parties

CSO: Civil Society Organisation

DDTS: Desertification, Land Degradation and Drought

DPGT: Farm Development and Land Management Project

ESA Project: Water - Soil - Tree Project

FAO: Food and Agriculture Organisation of the United Nations

FEICOM: Special Council Support Fund for Mutual Assistance

FLR: Forest Landscapes Restoration

FSSRP: Fertiliser Sub-Sector Reform Programme

GEF: Global Environment Facility

GGW: Great Green Wall

GTZ: Gesellschaft für Technishe und Zusammenabeit

HEVCAM: Hévea Cameroun

ICCP: International Climate Cooperation Programme

IKI: International Klima Initiative

INBAR: International Organisation for Bamboo and Rattan

IRAD: Institute of Agricultural Research for Development

IRGM: Institute of Geological and Mining Research

IUCN: International Union for the Conservation of Nature

KFW: Kreditanstalt für Wiederaufbau

LDBA: Climate Change, Biodiversity and Land Degradation

LDN: Land Degradation Neutrality

LDN-TSP: National Land Degradation Neutrality Target Setting Programme

MEAVSB: Study Mission for the Development of the Upper Benoue Valley MEADEN: Study Mission for the Development of the North

MIDIMA: Mandara Mountains Integrated Development Mission

MINADER: Ministry of Agriculture and Rural Development

MINAT: Ministry of Territorial Administration

MINDCAF: Ministry of State Property, Surveys and Land Tenure

MINEPIA: Ministry of Livestock, Fisheries and Animal Industries MINTP: Ministry of Public Works

MINDDEVEL: Ministry of Decentralization and Local Development

MINEPAT: Ministry of Economy, Planning and Regional Development

MINEPDED: Ministry of Environment, Protection of Nature and Sustainable Development

MINFOF: Ministry of Forestry and Wildlife

MINMIDT: Ministry of Mines, Industry and Technological Development

MINRESI: Ministry of Scientific Research and Innovation

MTN: Mobile Telephone Network

NAP/CD: National Action Plan to Combat Desertification

NBSAP: National Biodiversity Strategy and Action Plan

NCCAP: National Climate Change Adaptation Plan

NDS30: National Development Strategy 2020-2030

NDVI: Normalized Difference Vegetation Index

NEMP: National Environmental Management Plan

NFSP: National Food Security Programme

NGO: Non-Governmental Organization

NIC: National Institute of Cartography

NTFP: Non-timber Forest Product

ONACC: National Observatory on Climate Change

ORANGE: Orange Cameroun

PACA: Agricultural Competitiveness Improvement Project

PADESAR3C: Partnership in action: Universities and local communities developing climate-resilient agroforestry systems in Cameroon

PAN/GIRE: National Action Plan for Integrated Water Resources Management Agriculture Productivity Improvement Programme

PARSEBALT: Socio-economic Reintegration Support Project for Vulnerable Groups in the Lake Chad basin

PASGIRAP: Support Programme for the Security and Integrated Management of Agro-Pastoral Resources

PDCVEP: Livestock and Fish Farming Value Chains Development Project

PDFFAV: Village Poultry Sector Development Project

PDFP: Pig Sector Development Programme

PIAIC: Climate-Smart Agriculture Investment Plan in Cameroon

PLGFV: Major Food Pests Control Programme

PNDP: National Community-Driven Development Programme

PNVRA: National Agricultural Extension and Research Programme

PPEA: Aquaculture Entrepreneurship Promotion Project PRODEL: Livestock Development Project

PRESIBALT: Rehabilitation and Resilience-Building Programme for Socio-Ecological Systems in the Lake Chad Basin

Pro-PFE: Forest & Environment Programme

PVBF: Inland Valley Extension Programme

REDD+: Reducing Emissions from Deforestation and forest Degradation

ROCAGLIA: Les établissements Chaux-Roca

SABC: SABC: Société Anonyme des Brasseries du Cameroun SCAC: Cooperation and Cultural Action Service

SDG: Sustainable Development Goal

SODECOTON: Cameroon Cotton Development Corporation

SFDF: Special Forestry Development Fund

SNGDES: Water and Soil National Sustainable Management Strategy

TRI: The Restoration Initiative

UNFCCC: United Nations Framework Convention on Climate Change

WRI: World Resources Institute

1. GENERAL INTRODUCTION: BACKGROUND, SITUATIONAL ANALYSIS AND GUIDELINES OF THE STUDY

1.1. Background

In Cameroon, natural resources (land, water, pastures, etc.) are under increasing pressure, in an environment where not all the potential is fully exploited. Indeed, in the Sudano-sahelian zones, desertification and land degradation resulting from the combined processes of factors are acting to weaken the environment and affect human activities. Similarly, forest landscapes degradation is characterised by a reduced capacity of plant formations to provide goods and services (FAO, 2011). This vulnerability is most visible among rural populations, where the consequences result in reduced crop yields and affect living standards and incomes.

The trend is becoming more and more widespread and calls for actions to address it, either through prevention and or protection against disturbances, or through actions to restore the ecological functionality of ecosystems through awareness raising and diversified actions to restore degraded forest lands and landscapes.

1.2. Rationale

Le présent travail trouve son explication This work focuses on the need to produce a harmonised framework for interventions on land and landscape degradation. Indeed, the need to combat desertification has led to the production of several strategic intervention documents. This can be seen from the various commitments made by Cameroon to initiatives and organisations involved in combating desertification. Thus, beyond the application of guidelines of the Convention to Combat Desertification through the elaboration of the NAP-CD or land degradation neutrality (LDN) target setting, Cameroon has committed itself to the Bonn Challenge initiative through its African name known as “African Forest Landscape Restoration (AFR100)”; in order to prepare for its implementation, a strategic framework for the Forest Landscape Restoration (FLR) has been developed.

In addition, in order to take into account environmental concerns of the Sudano-sahelian zone integrated in the priority intervention zone No.1 for combating desertification, Cameroon expressed interest in the Great Green Wall initiative. To this end, a national strategy and an action plan were developed to define the implementation framework of this initiative.

Furthermore, studies have enabled Cameroon to have a baseline situation of landscape and land degradation in the Northern part of the country in order to have a good understanding of the stakes and actions to be undertaken. In the same vein, the updating of the “Operation Green Sahel” project document defined the operational guidelines for the project implementation; detailed information was provided and can serve as a basis for a more refined analysis for the various interventions. Similarly, the National REDD+ Strategy has defined three important programmes1, the implementation of which will contribute not only to reduce greenhouse gas emissions and carbon sequestration, but also to develop communal land-use plans to support REDD+ projects that will be carried out in all agro-ecological zones.

Faced with multiple strategic and operational documents, there is a need to identify a common axis. Indeed, all these initiatives and opportunities to be implemented have the same goal: restoring landscapes and degraded lands. It is therefore necessary to produce a harmonised

action plan for the implementation of activities within the framework of land and landscapes restoration, and sustainable land management. This plan should make it possible to organise interventions in this field of activity, which includes several conventions and initiatives. It should also serve as a baseline within the framework of the 2020-2030 decade, for interventions concerning the guidelines of the various existing strategies: NAP/CD, Great Green Wall Strategy, reference documents of the Green Sahel Operation, Land Degradation Neutrality (LDN) target setting process, strategic framework for Landscape Restoration (FLR)..., with the aim of achieving the target of restoring 12 million ha of landscapes and degraded lands.

This work is in line with the strategic spirit chosen by Cameroon through the recent adoption of the National Development Strategy 2020-2030 (NDS30). Indeed, the aim is to harmonize strategies and action plans by avoiding duplication of actions or the multiplication of initiatives in the field of sustainable land and landscape management. To this end, the idea of the NDS30 corresponds to this approach developed to harmonize actions to combat desertification, land and forest landscapes degradation. The NDS30 was indeed developed to further consolidate sectoral strategies by clearly defining national development priorities. It therefore integrates imperative and indicative planning based on a legal and regulatory framework to achieve

“transform the national economic production system; generate income and decent jobs to reduce poverty; and promote the development of human capital (education, health, social security, culture, etc.), in a backdrop of sustainable development”.

At the end of this work, the following specific objectives should be achieved:

1) Present a situational analysis of all strategic and reference documents related to landscape and land restoration and sustainable land management. Project documents or feasibility studies of projects related to the above themes can be consulted;

2) Analyse the choice of activities to be prioritised from the various strategic documents;

3) Prioritize activities that take into account the areas of intervention proposed in the strategic documents and the current national policy guidelines;

4) Provide an investment plan based on the proposed activities, taking into account the planning to be carried out and taking into account the relevance to achieve the objective of restoring 12 million hectares by 2030.

1.3. Situational analysis for combating desertification, land and forest landscape degradations in Cameroon

1.3.1. Recall on the challenges of desertification, land and forest landscape degradations in Cameroon

Cameroon is located at the bottom of the Gulf of Guinea, and provides a good connection between Central and West Africa. It is characterized by an ecological and cultural diversity that makes it a summary of all geographical and cultural sensitivities observed in Africa. Economically, Cameroon has an estimated average annual growth rate of 2.6%. Just like in many other countries, the increase in population is reflected in the need for survival. This results in great pressure on natural resources, particularly in the northern part of the country. In the Sudano-sahelian zone of Cameroon, the issue of land and landscape degradation is one of the most remarkable aspects of environmental degradation; together with the mangrove ecosystem in the coastal zone, it is one of the most sensitive parts of Cameroon to degradation. This ecological diversity has enabled to identify five (5) agro-ecological zones, namely; the Sudano-sahelian zone, the

Guinean high savannah zone, the high plateau zone, the monomodal rainfall zone and the bimodal rainfall zone. (Map of Cameroon's agro-ecological zones)

1.3.1.1. Natural factors causing desertification and land degradation

Generally, desertification occurs on land that is vulnerable to land degradation processes. The vulnerability of a land to desertification is determined by the climate, whose current fluctuations contribute to its complexity, by the relief, the soil condition and natural vegetation. Climate has a determining influence through rainfall, solar radiation and wind. The relief is mainly a driver in the aggravation of water erosion phenomena. The state of the soil plays an essential role in the vulnerability to desertification processes influenced by human activities. The same applies to the state of the natural vegetation, which is the result of ancient and recent influences of climatic, pedological and often human factors. Trees, because of their longevity and their ability to emit powerful root systems, are often essential protectors against soil degradation. Their absence makes the environment vulnerable, especially as the process of their disappearance is mainly human-induced. Other natural factors such as erosive processes can be mentioned because of their capacity to strip the earth and make visible boulders on slopes that are likely to break off and cause threats related to landslides.

1.3.1.2. Human activities as drivers of degradation

a. Degradation associated with production activities

Human activities are indeed the major reason for triggering desertification processes on vulnerable lands. They are multiple and diverse, and depend on the environment, the type of society, occupation and land-use strategies, as well as the cultivation techniques adopted. The impact of human societies does not depend exclusively on its density; in this respect, the FAO believes that the notions of pressure limits expressed by the "carrying capacity" or "critical threshold" must be considered with caution in the sense that cases observed show that these criteria can change considerably depending on the strategies adopted and the techniques used by the populations. For example, the cultivation of fragile soils or soils exposed to water and or wind erosion, the reduction of the fallow period, overgrazing, pressure on wood resources (particularly for fuel wood), the uncontrolled use of bush fires to regenerate pastures, hunting, agricultural clearing, etc.

b. Socio-economic aspects

Climatic crises marked by drought and aggravated by desertification are the cause of survival constraints for people in vulnerable areas. All this has consequences on the production systems of these areas vulnerable to desertification, especially those that have no other alternatives than resources from agriculture. Resources generated by agricultural activities cannot reverse the permanent state of poverty that exposes the populations to conditions of permanent precariousness and inhibits any hope of building production opportunities that would allow them to envisage any development opportunity.

1.3.1.3. The different types of land degradation

Any action on soils transforms them. This may be deliberate changes to improve some characteristics (organic matter content, pH, salinity) or functions (e.g. drainage), but often intervention in the soil leads to various forms of physical, chemical and biological degradation, the most extreme of which is erosion, i.e. loss of arable land. Be it physical, chemical or biological, degradation is a complex phenomenon that is most often related to human actions. It not only has negative impacts on soils (changes in soil properties and functions), but also, due to the interface role of soils, on the hydrosphere, atmosphere, lithosphere and biosphere (Cahiers Agricultures, 1999). Appendix 2 presents in detail the different types or

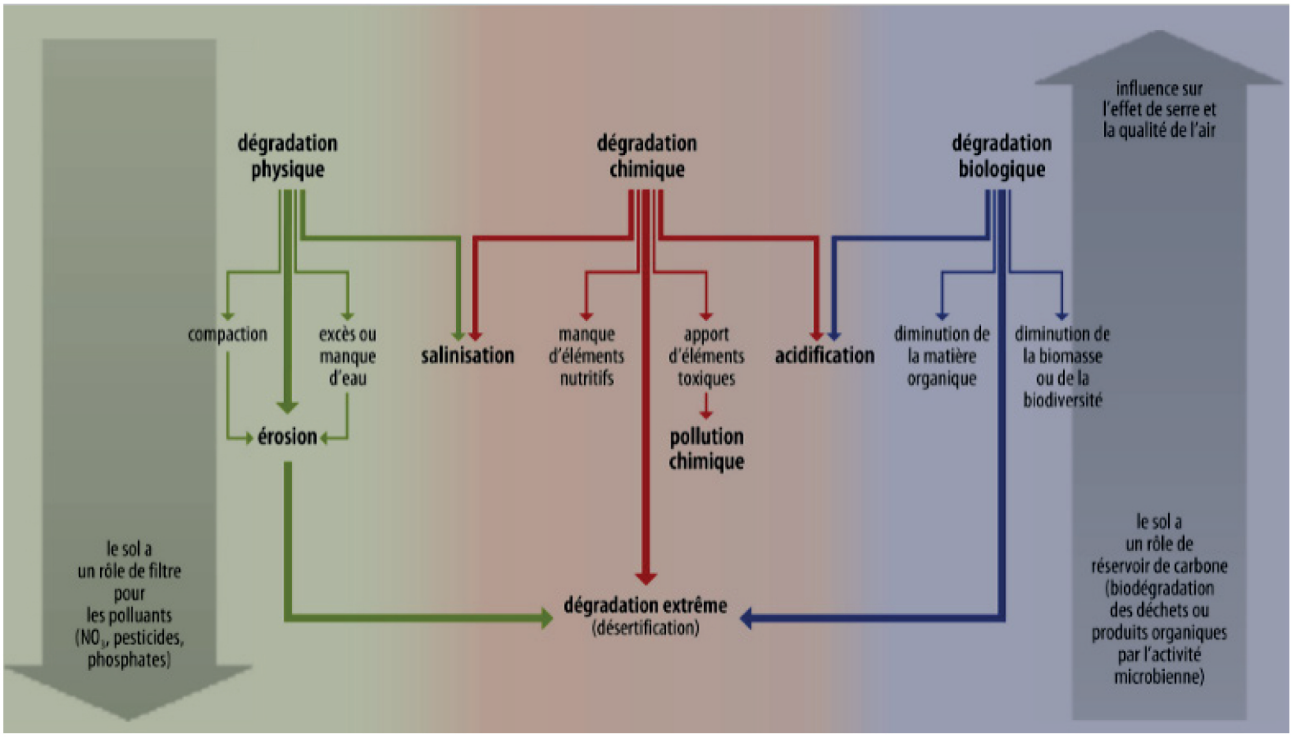


Figure 0 : Types of soil degradation. Source: Encyclopædia Universalis France

The forms or types of land degradation observed are presented in the table below:

Table 1: Types or forms of land degradation and their manifestations

TYPES OR FORMS OF	MANIFESTATIONS/SUB-TYPES		COMMENTS/DEFINITIONS
Physical degradation	Encroûtement		Résultat de la réorganisation des particules de la surface du sol, sous l'effet du vent ou de la pluie.
	Compaction		Reorganisation of soil particles under the influence of external pressure (trampling by animals in wet conditions or the passage of heavy machinery) and a reduction in pore space. It leads to a decrease in the biological activity of the soil and in the productivity of agricultural and forest soils
	Erosions	Wind erosion	It refers to the removal and deposition of particles by wind, and the abrasive influence of these particles during transport, and occurs when the ground is bare. Deflation, silting and dune formation are forms of wind erosion.
		Water erosion	It refers to the deterioration of land by the action of run-off water. Amongst water erosion, we distinguish: splash, sheet erosion, gully erosion, etc. We can also have urban erosion; coastal marine erosion and riverbank erosion.

Chemical degradation	Acidification	Résulte ente autres de la décalcification du complexe absorbant des sols. Elle peut induire sur les sols exondés une toxicité aluminique
	Salinization and alkalinisation	Salinization results from an excess of soluble salts in the soil solution. It is assessed by the electrical conductivity, which measures the ability of the soil solution to conduct electric current. Alkalinisation is characterized by an excessive presence of sodium in the absorbent complex of soils.
	Loss of nutrients and organic matter	A process of soil degradation with severe economic and social impacts, especially when crop removals are not compensated by restitution (mineral or organic fertilisation, restoration by fallowing).
Biological degradation	In the soil, biological activity controls the important processes that determine its fertility - the rate of decomposition, mineralisation, denitrification or leaching. In fact, there is a very close relationship between microbial activity and soil water content. There is a reduction in the stock of organic matter; a reduction in the quantity of soil macro-fauna and a reduction in the biodiversity of the soil macro-fauna	

1.3.1.4. State of land-use in Cameroon

The National Land Degradation Neutrality Target Setting Programme (LDN-TS) provided information on the state of land-use in Cameroon. The Climate Change Initiative provided default data on land- use in Cameroon. These data are from two periods, namely 2000 and 2010, obtaining the results grouped in 6 classes, considered as the main categories of land-use (i) Class 1: Forest; (ii) Class 2: Shrub, grassland and sparsely vegetated areas; (iii) Class 3: Cultivated land; (iv) Class 4: Wetlands and water bodies; (v) Class 5: Artificial areas; (vi) Class 6: Bare land. Figures 1 and 2, respectively, present the land-use maps of Cameroon in 2000-2010

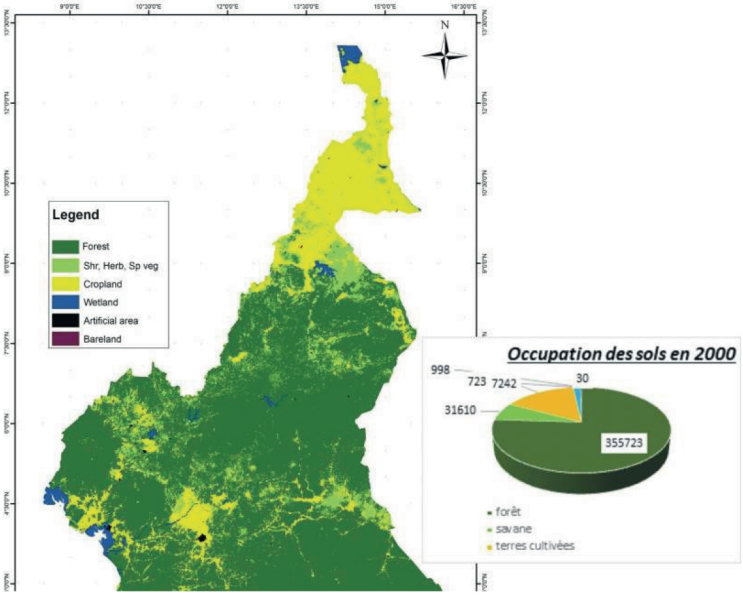


Figure 1. Land-use in 2000

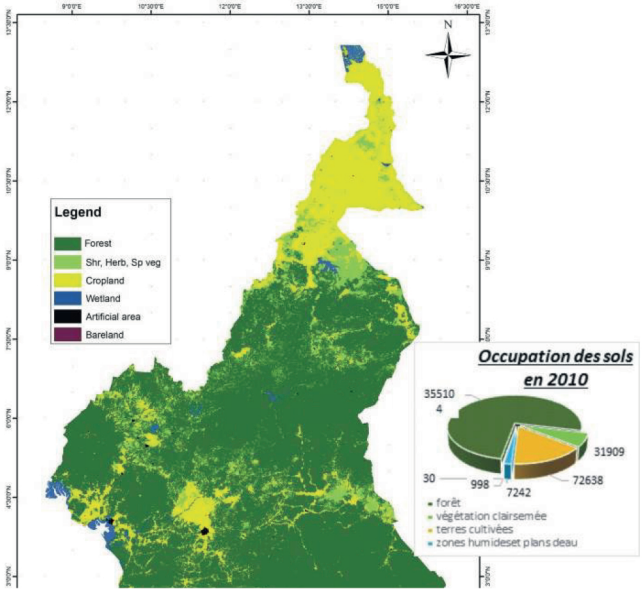


Figure 2. Land-use in 2010

1.3.2.1. Dynamics of land productivity

Several studies provide information on the state of land degradation in Cameroon, including the National Land Degradation Neutrality Target Setting Programme (LDN/TS) getting inspiration the work of Global Forest Watch 2016, the study on the assessment of land degradation in the Far-North Region (MINEPDED, 2015), and the work of ONACC in 2021 on forest cover loss in Cameroon. The information provided by these studies is summarised and presented below:

1.3.2.1.Dynamics of land productivity

SAccording to the PDC/NDT, the Land Productivity Dynamics (LPD) dataset is derived from time series of Normalized Difference Vegetation Index (NDVI) observations at the global scale over a period of 15 years (1999-2013), grouped by 10-day intervals and at a spatial resolution of 1 km.

In Cameroon, five (5) qualitative classes of land productivity trends over the period 1999 - 2013 are provided by the DPT dataset and this gave the following indications:

- **land in Declining Productivity, including 8245 km²;**
- **land showing Early Decline Signs, estimated at 32,428 km²;**
- **stable land, undergoing disturbance/stress, estimated at 64 544 km²; and**
- **stable land, not undergoing disturbance/ stress, estimated at 222,526 km²;**
- **land with Increased Productivity, estimated at 136,779 km².**

The PDC/NDT estimates that the first three qualitative classes of TPD2 trends are considered to be in a degraded state. As a result, the percentage of land productivity degradation can be estimated at 23%, i.e. 2% for the declining productivity class, 7% for the declining class and 14% for the stable but stressed class.

Figure 3 below shows the evolution of land productivity dynamics from 1999-2013.

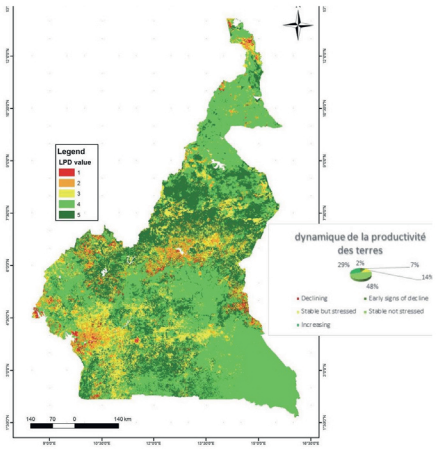


Figure 3: Évolution de la dynamique de productivité des terres au Cameroun dans période 1999 - 2013

1.3.2.1. National forest cover loss

The Cameroon Atlas of Forest Cover Losses, published in 2021, shows that the surface area of "forest land" decreased by 1,568,270 ha between 2000-2017, representing a loss rate of 0.3% representing 2.78% of the national territorial surface area. For the period ranging 2000 to 2015, losses are estimated at 1 299 504 ha for a loss rate of 0.3% or 0.57% of the national territorial surface area, and at 268 766 ha for the period 2015 to 2017 reflecting a rate of 0.4% or 3.35% of the national territorial surface area. The losses of forest cover by agro-ecological zones at the national level are presented in the table below:

Tableau 2: National forest cover loss of agro-ecological zones

Zones Agro éco-logiques	Superficie des pertes en forêt de 2000 à 2015 (ha)	Taux des pertes 2000_2015 (%)	Superficie des pertes en forêt de 2015 à 2017 (ha)	Taux des pertes 2015_2017 (%)	Superficie des pertes en forêt de 2000 à 2017 (ha)	Taux des pertes 2000_2017 (%)
Zone soudano sahélienne	447852	2.8	49703	0.5	497555	2.8
Hautes savanes guinéennes	261967	0.3	55509	0.5	317477	0.3
Hauts-plateaux	46405	0.1	20023	0.5	66427	0.2
Zone forestière à pluviométrie bimodale	279403	0.1	108472	0.3	387875	0.1
Zone forestière à pluviométrie Monomodale	263877	0.3	35059	0.3	298936	0.3
Total	**1299504**	**0.3**	**268766**	**0.4**	**1568270**	**0.3**

Source: Atlas on forest cover loss (ONACC, 2021)

1.3.2.2 State of land degradation in the Sudano-sahelian zone and the Guinean high savannahs

Using the technical method of remote sensing, a study was carried out to determine the state of soil degradation by identifying all surface areas (even the smallest) that show signs or indicators of land degradation such as loss of vegetation cover (organic matter content in the soil), loss of arable land, soil compaction, pollution, acidification or salinization, loss of pastoral agricultural productivity, thus resulting in some consequences such as denudation, erosion, desertification. Complemented with morphological analysis, this study focused on the genesis of soils and their vertical and lateral evolution to reach to soil taxonomy. "Land degradation was thus considered in this analysis as the deterioration of soil surface conditions with, on the one hand, the physical structure of the soil (roughness), without necessarily leading to soil entrainment (denudation, crusting), and in the other hand the topsoil (vegetation, water body).

a. State of land degradation in the Far-North region

Surface areas and typology of degradation produced by this study are summarised in table 2 below for the divisions of the Far-North Region. The result is a presentation of the degradation situation according to the table and map below. The surface area and level of degradation (Typology) were determined in order to have statistics per Division at the sub-regional level, which are very important within the framework of the development of reforestation plans.

Table 3: Surface areas and types of land degradation in the Far-North Region (in hectares)

Division	Nil to very low	Very	Low, locally low	Faible, locale-ment moyen	Moderate	High or severe
Mayo Kani	1,1268	66,1113	950,0004	1742,228	2206,84	5,499
Diamare	6,0507	231,1335	970,6347	1565,736	1851,891	151,6194
Mayo Sava	6,8121	89,1279	416,0574	451,6605	515,7702	1149,287
Mayo Tsana-ga	51,4845	351,4158	920,7054	1018,41	1233,95	908,3664
Mayo Danay	235,161	893,286	2121,122	1410,278	613,0035	0,162
Logone et Chari	801,738	2670,317	4382,756	1142,844	949,3704	2181,534
Total	1102,3731	4301,3915	9761,2759	7331,1565	7370,8251	4396,4678

Source of statistical data: Study on the assessment of land degradation in the Far -North region (MINEPDED, 2015

The map shows a legend with six various types of land degradation, ranging from marginal to high or severe degradation via very low, low and moderate. It also shows the proportions of the various degradation sequences.

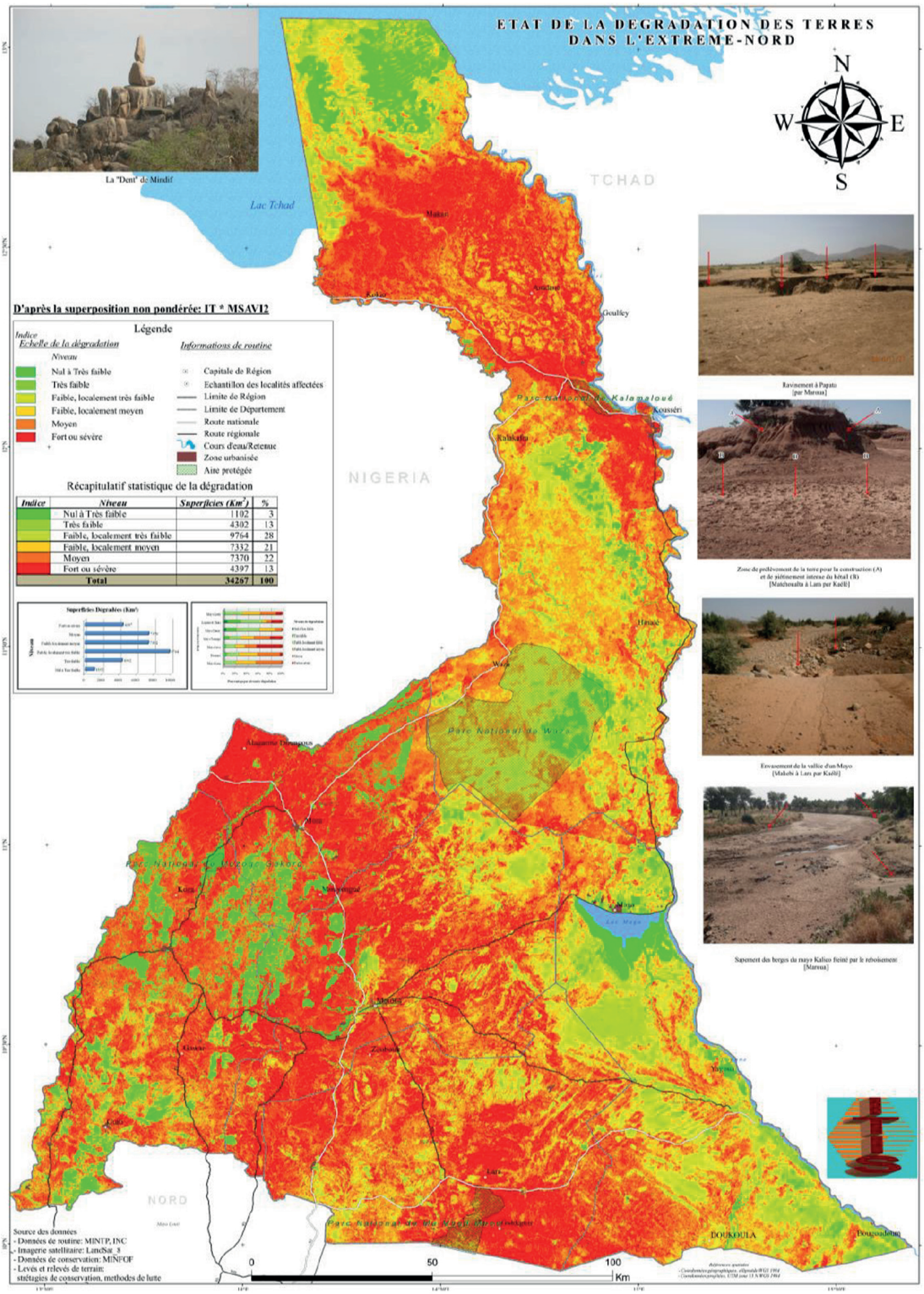
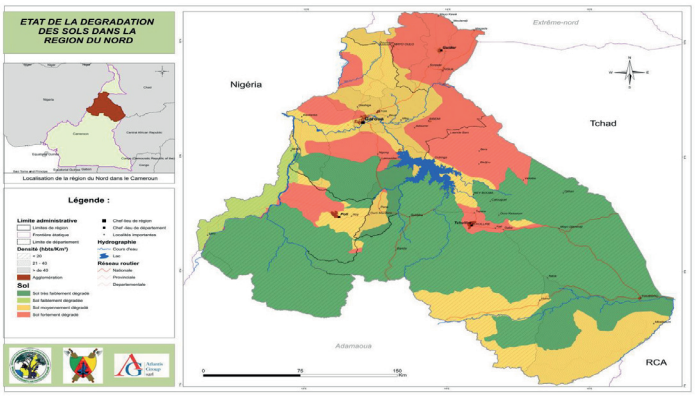


Figure 4: State of land degradation in the Far-North Region of Cameroon

Source: Study on the assessment of land degradation in the Far -North region (MINEPDED, 2015)

b.State of land and landscapes degradation in the North Region

The configuration of land and landscape degradation in the North Region follows the same logic as in the Far-North Region. The specificity that emerges from this Region is the remarkable influence of the presence of migrants, which makes complex the pressure on resources. Indeed, the North Region has witnessed migratory movements of people from the Far-North Region, encouraged and organised since the early 1970s, notably with the supervision of the Study Mission for the Development of the Upper Benoue Valley (MEAVSB). Initially, this migration was aimed at enhancing the developed areas of the Benoue Valley; subsequently, other waves of people converged in the area and settled permanently through "uncontrolled" occupation of the areas. Thus, they created villages with agriculture as their main activity. The area has thus been modified by diversified cultivation choices. Furthermore, SODECOTON has increased this deployment of populations through their involvement in cotton farming.



Source: Study on the state of land degradation in the North region of Cameroon (2015)

Figure 5: State of land degradation in the North region of Cameroon

c. State of land degradation in the Adamawa region

In the Adamawa region, the degradation is dominated by anthropic practices resulting from agriculture and especially pastoralism. Indeed, livestock farming remains the main activity that has a great impact on land-use. The Adamawa region therefore has enormous natural potential with the development of grazing areas. However, the current practice of livestock farming in this region is basically extensive with the age-old practice of transhumance which has a strong impact on the environment. Indeed, with the increase in the number of livestock, the grazing lands are strongly disorganised and increasingly solicited; this results in considerable pressure which remarkably degrades the pastures. This is why the level of degradation is high. Furthermore, the

Adamawa region has recently seen a diversification of the use of space by various activities such as: stone and sand quarrying, industrial agriculture, the exploitation and carbonization of wood energy, and the settlement of refugees. An illustration of this degradation is given in the table below for the Vina and Mbéré divisions:

Table 4: Types of land degradation identified in the Mbéré and Vina divisions (Adamawa region) for the various zones/strata (Subdivision)

Indicator 1: CATEGORY OF DEGRADATION	1- EROSION: It occurs when part of the soil material, or sometimes the entire soil, is moved off site over a variable distance, by water, wind, gravity or the tools used for tillage.			2- SENSU STRICTO DEGRADATION: It occurs when the soil is degraded on-site without displacement of material The degradation concerns its physical, chemical or biological properties			3- VARIOUS DEGRADATIONS They include degradation states resulting from human activities alone, with or without displacement of soil material.						
TYPE OF DEGRADATION	By water	**By wind (E)**	**Aerial and mechanical (M): There are two (2) sub-types: 1 - aerial erosion due to cultivation practices (Mp); 2 - soil stripping due to land clearing techniques (Mc).**	**Physical degradation (P): it refers to the physical properties of the soil: thickness of the arable humus layer, structure, porosity, compactness (acidification,**	**Chemical degradation (C): It refers to the nature and quantity of nutrients stored in the soil**	**Biological degradation (B): sheet erosion, reduction in thickness of the humus layer, loss of nutrients, various pollutions**	**Urbanization and other construction (Dc)**	**Mining (Dr)**	**Sand quarrying (Dr)**	**Degradation due to wars and conflicts (Dw)**	**Stone quarrying (Dr)**	**Land pollution by radioactive productss**	**Degradation due to wars and conflicts**
Dir	x			x+			x	x +					
Djohong	x			x+			x	xx ++					x+
Meiganga	x			x+			xx		x+		x +		x+
Ngaoui	x			xx++			x	xx ++					x+
Belel	x			xx++			x						
Mbe	x			x+			x		x++				
Nganha	x		x+	x+			x	x+	x ++				
Ngaoundéré Ier	x		x+	x+			xxx		x ++		x +		
Ngaoundéré 2ème	x		x+	xx++			xxx		x ++		x +		
Ngaoundéré 3ème	x		x+	xx++	xx+	xx+	xxx				x+		
Nyambaka	x		x+	x+			x						
Martap	x			x+			x	x	x +				

Legend:

Indicator 2: EXTENSION OF DEGRADATION: Surface area of land subject to a given type or sub-type of degradation in a given area. It is a quantitative data, whereas type is a qualitative data. Level of extension (surface area scale and map scale): Low: x Moderate: xx High: xxx

Indicator 3: LEVEL OF DEGRADATION Stage of seriousness (or severity) reached by a given type of degradation in a given area of land:

Low: Moderate ++ High: +++

The resulting map distribution confirms the state of degradation.

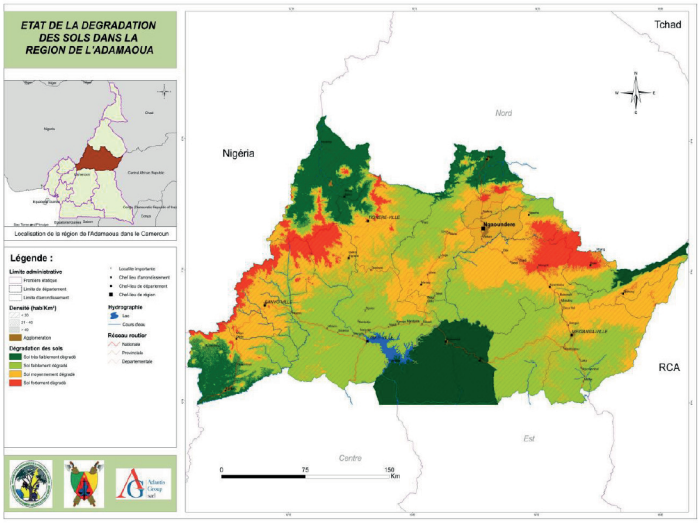


Figure 6: State of land degradation in the Adamawa region of Cameroon

Source: Study on the state of land degradation in the Adamawa region of Cameroon (2015)

1.3.2.3. State of land degradation in other agro-ecological zones

a. Bimodal rainforest zone

This zone is structured in this analysis into two watersheds according to the descriptive guidelines of the report on the «National Land Degradation Neutrality Target Setting Programme (PDC/NDT)»: the Nyong watershed with a surface area of 7,400,000 hectares and the Mbam watershed with a surface area of 11,422,500 hectares.

LThe Nyong watershed is characterized by a humid tropical climate dominated by dense lowland evergreen forest vegetation, with average annual rainfall of 1500 mm to 2000 mm. The population is estimated at around 1,050,000 inhabitants (2005) and is involved in subsistence and cash crop farming. There are also pastoral activities which, together with farming and logging, are the cause of severe forest degradation.

In this watershed, the dynamics of land productivity indicates a stable state but marked in places by a tense situation with decline in productivity. Soil organic carbon is generally between 50 and 110 t/ha, with values ranging from 110 to 200 t/ha along the Nyong River. In general, the Nyong basin does not show a change in land- use. However, some areas have been converted to cultivation area.

The factors causing degradation in this catchment are linked to agro-industrial and logging activities. This results in visible deforestation, combined with demographic pressure, whose populations, through their usual practices of slash-and-burn agriculture and ignorance of issues related to desertification, set up erosion processes that are sometimes irreversible.

The Mbam watershed covers a surface area of 11,422,500 hectares with an estimated population of about 1,770,000 inhabitants. It is an area located on the forest-savannah contact zone with tropical dry climate in the northern part of the basin and tropical wet climate in its southern part. This differentiation is also reflected in the vegetation, corresponding to the savannah in the northern part and dense forest in the south. Farming practices are basically subsistence and cash crop agriculture with pastoral activities in the savannah zone, marked by average annual rainfall of 1500 mm to 2000 mm. All these activities have a visible impact on deforestation. The resulting degradation trends indicate stable land productivity dynamics, but with a tendency to lower productivity. Just like in the previous watershed, soil organic carbon is generally between 50 and 110 t/ha, with values that can reach up to 110-200 t/h in its north western part.

The degradation factors in this catchment are the same as those identified in the Nyong basin, namely: agro-industrial activities and logging.

b) Coastal rainforest zone with monomodal rainfall dominated by mangrove ecosystems

In this zone, which is characterized by high humidity, the annual rainfall varies between 3000 and 4000 mm with temperatures recorded between 24°C and 28°C.

On its maritime side, this zone extends between 2°20' and 4°40' north latitude. It is dominated by the mangrove ecosystem which is the main ecosystem exposed to degradation. This degradation process shows a rate of over 30% with a speed of 3000ha/year (UNEP, 2007).

Other degradation factors are identified such as urban expansion, infrastructure development, industrialisation, quarrying (agro-plantations, quarrying of sand, mining and oil exploration/exploitation). The exploitation of mangrove wood for multiple uses (fish smoking, manufacture of fishing gear, processing of other fishery products, construction, etc.) is however the most regular form of destruction of this ecosystem. Indeed, combined with remarkable population growth and the effects of poverty, climate change and a weak regulatory and policy framework, the mangrove is a special ecosystem that is full of resources that attract a lot of attention, making it vulnerable. This results in accelerated coastal erosion, sedimentation, floods, high temperatures and rainfall disturbances that impact on the livelihoods of people in coastal areas.

c) The high plateaux of West Cameroon

The high plateau zone and high savannah transition zone covers the West and North-West administrative Regions of Cameron. In its northern part, this zone, which corresponds to the North-West Region, is dominated by pastoral activity and is presented, due to extensive livestock farming (one of the highest densities of livestock per ha in the country) and its landscape, as a medium where opportunities and potential for restoration are the most important. Located at the top of the mountains, the practice of livestock farming is alongside agricultural activities located below or on the sides of the mountains. This constitutes a major challenge for the integration of agro-sylvo-pastoralism.

The West region, located southwards, presents the same spatial exploitation profile as the contiguous North-West. Spatial marking is dominated more by a fragmentation dictated by the desires of exploitation where the collective practice of land exploitation is almost non-existent. Indeed, in this densely populated area (124 inhabitants/km2), a densification and intensification of the agro-forestry production system presents significant risks of land degradation. In general, the main functions of the forest landscape relating to soil fertility, agricultural land productivity, fuelwood and timber production, and water regulation function are severely degraded.

In both regions, vulnerability to climate change is real, with a high level of vulnerability in the North-West region and a moderate level in the West. This can make the degradation constraint more complex. To this end, effects of degradation and desertification processes indicate a respective proportion of 1.72% (North-West) and 2.96% (West) in terms of loss of forest cover compared to the national total.

1.3.3. Cameroon's compliance with international agreements

The need to meet the constraints of desertification, land and landscapes degradation has long been a matter of concern for the Government of Cameroon. To this effect, and before the implementation of the major guidelines of the Rio Summit (1992) which enshrined the major conventions (United Nations Framework Convention on Climate Change (UNFCCC), United Nations Convention to Combat Desertification (UNCCD) and the Convention on Biological Diversity (CBD), Cameroon expressed the need to integrate desertification, land degradation and drought issues in its actions. As early as 1975, the Provincial Committee for Drought Control in the North was established. This body started actions to combat desertification and drought through the inception phase of the «Green

Sahel Operation». Subsequently, and in order to comply with its commitments to the United Nations Convention to Combat Desertification, Cameroon produced its National Action Plan to Combat Desertification (NAP/CD) in 2006. This plan enabled to relaunch the Green Sahel operation, which integrates new guidelines of the Convention. A few years later, the NAP/CD was aligned with the ten-year strategy of the Convention on Desertification (2015).

In the same vein, Cameroon increased its actions in terms of monitoring land and landscapes degradation through its participation in the on-line reporting tool of the Convention to Combat Desertification (UNCCD). Indeed, the UNCCD proposed in the form of the «Performance Review and Assessment of Implementation System (PRAIS)» tool to be submitted by States Parties to the Convention of national reports for the monitoring desertification processes. Cameroon has thus taken part in all the PRAIS processes in accordance with decision 11/COP.1 on national reports on progress made in the UNCCD initiative.

In the meantime, Cameroon followed the evolution of the Bonn Challenge concept, which proposed the landscape approach as an effective guideline of addressing climate change. Indeed, in 2011, following the observation of an estimated 2 billion hectares of degraded landscapes across the world, the ambition of the challenge was initially to bring 150 million hectares of forest landscapes into restoration in less than a decade (2011-2020). The New York Declaration on Forests (at the 2014 climate summit) reaffirmed the challenge target while adding an additional 200 million hectares by 2030. The goal is now to restore 350 million hectares by 2030 at the latest. This challenge is part of the global climate effort, but also part of other UN sustainability goals. The net benefits from Forest Landscape Restoration (FLR) are about US$170 billion per year, and could sequester up 1.7 gigatonnes of carbon dioxide equivalent annually. Besides, important environmental services will be capitalised by achieving this target.

The new approach of the Bonn Challenge has led to regional commitments including the African Forest Landscape-Restoration (AFR100) which was launched at the Conference of the Parties to the Climate Convention (COP21) in Paris and aims to bring 100 million hectares of degraded land into restoration in Africa. Commitments which were made by several African countries and the target of 100 million hectares to be restored was largely exceeded with 108 million hectares committed to be restored by 2030. Cameroon, based on studies carried out to estimate the magnitude of the phenomenon, has committed to restoring 12 million hectares under the AFR100 initiative.

Taking other opportunities to move in the same direction, Cameroon, during the same COP21, committed to implement the Great Green Wall initiative, whose new approach advocated by the African Union, is to integrate countries not directly part of the initial and adopted at the time when the initiative was launched.

Furthermore, in 2015, the United Nations Convention to Combat Desertification proposed land degradation neutrality (LDN), which is defined as “a state whereby the amount and quality of land resources, necessary to support ecosystem functions and services and enhance food security, remains stable or increases within specified temporal and spatial scales and ecosystems”. As a result, Cameroon proposed its national Land Degradation Neutrality target setting programme, whose guidelines at the national level aim to achieve, in relation to 2015 (no net loss), the improvement of land production conditions of at least 10% more of the national territory. At the communal level, the neutrality targets aim to achieve a coverage of at least 90% of councils located in priority areas for combating land and forest landscape degradations. In addition, on the specific level, we note in the achievement of these LDN targets, achieving the restoration of 12 million ha declared by Cameroon under the AFR100 initiative, reducing dependence on firewood, reducing forest degradation by at least 75%, halving mangrove degradation...

1.3.4. Institutional and legal framework for combating land and forest landscape degradations in Cameroon

Bodies aimed at ensuring proper coordination of activities to combat desertification in Cameroon take into account both the national initiatives needed to implement these activities, and the commitments made at the international level to address the desertification and land degradation process. To this end, we can mention among others:

- **National Consultative Commission for the Environment and**
- **Sustainable Development (CNCEDD);**
- **Inter-ministerial Committee on Environment (CIE);**
- **Regional Committees on Environment;**
- **the National Coordinating Committee (NCC) serving as the National Coordinating Body (NCB) for the implementation of the UNCCD;**
- **Cercle de Concertation des Partenaires for MINFOF-MINEPDED (CCPM)**
- **The Inter-Regional Committee for Drought Control in the North (CILSN) which was established in 1976 and re-organised in 2019.**
- **Support bodies include: The National Environmental and Sustainable Development Fund, the Special Forestry Development Fund, (SFDF), the Special Fund for the Development and Equipment of Areas for the Conservation and Protection of Wildlife.**

For their operationalisation, these bodies bring together several actors and are dedicated to leading the activities. The first level of actors is made up of focal points of conventions and initiatives related to desertification: UNCCD, LDN, Bonn Challenge/ AFR100, Great Green Wall. They play the role of intermediaries between the Ministry in charge of environment and partners. They regularly coordinate activities and monitor the implementation of programmes and projects to combat desertification. Sector ministries assist the Ministry in charge of environment in the implementation of the national environmental policy. As concerns the specific case of desertification and sustainable land and landscape management issues, all ministries of the rural sector and the ministry in charge of regional development are involved. The contribution of sector ministries is done within the framework of committees and working groups set up for this purpose:

Table 5: Involvement of sector ministries in the implementation of policies and initiatives to combat land and forest landscape degradations

	Cross-sectoral Committees/Working Groups/Working				
Initiatives/ Plans/Projects	PAN-LCD Aligned	Forest Landscape Restoration	Land Degradation Neutrality(LDN))	Great Green	FLR/Bamboo
Ministry of Environment, Protection of Nature and Sustainable Development	x	x	x	x	x
Ministry of Forestry and Wildlife	x	x	x	x	x
Ministry of Agriculture and Rural Development	x	x	x	x	
Ministry of Livestock, Fisheries and Animal Industries	x	x	x	x	
Ministry of Economy, Planning and Regional Development	x	x		x	
Ministry of Scientific Research and Innovation	x	x	x	x	
Ministry of State Property, Surveys and Land Tenure	x	x			
Ministry of Higher Education		x		x	

In addition to the existing institutional mechanism, cooperation actors through cooperation organisations make a remarkable contribution to supporting Cameroon in achieving its environmental protection objectives. To this end, the country has been benefiting from the support of technical and financial partners through bilateral and multilateral cooperation. In this order, German cooperation through KFW and GIZ is supporting Cameroon for combating land and forest landscape degradations. This support started from the support to Cameroon's adhesion to several initiatives that constituted opportunities for the country, until the operationalisation of projects and programmes. For KFW, this included the preparation of a feasibility study for the implementation of AFR100 projects and the development of a project to be implemented in the northern part of Cameroon, which is considered the most degraded part of the country (about 8 million hectares of degraded land and landscape).

GIZ, through the Pro-PFE programme, supported Cameroon's commitment by facilitating the country's presence at all the meetings that allow it to exchange and point out its concerns. GIZ also developed the first degradation findings through the testing of the Restoration Opportunities Assessment Methodology (ROAM), which contributed to develop the strategic framework for Forest Landscape Restoration (FLR) and to ensure capacity-building of Cameroon's FLR team through experience-sharing with other countries. This exercise led to the negotiation of a project supported by the World Bank, IUCN and WRI with the German Federal Ministry for the Environment through the IKI initiative. This project is expected to be implemented in the Monts-Bamboutos in the highlands of West Cameroon. Similarly, the United Nations Convention to Combat Desertification (UNCCD) has promoted the concept of «Land Degradation Neutrality (LDN)» in order to reduce the impact of desertification. To this end, it has accompanied Cameroon in defining its voluntary targets and identifying the axes for developing LDN transformative projects.

The diversification of actions to make more effective interventions in the field of landscape degradation has enabled Cameroon to benefit from the opportunity of enhancing and

promoting bamboo to test the contribution of this species to restore degraded areas. This is how the International Organization for Bamboo and Rattan (INBAR) gave us the opportunity through the TRI Project (The Restoration Initiative), to integrate the planting of bamboo in the Sudano-sahelian zone. This perspective seems to be effective and could contribute to taking into account this technique as an important complement to reforestation actions developed so far in this priority desertification intervention area.

- **Policy, strategic and operational framework**

In Cameroon, although environment issue was initially timid, it was a main concern for the Government. The issue of drought in the northern part of Cameroon was basically at the centre of more decisions. Indeed, the issue of drought in Cameroon, which is assimilated to the DLDD (Desertification, Land Degradation and Drought) approach, is developed as part of the country's commitment to the United Nations Convention to Combat Desertification. This issue integrates climatic constraint and is decisive for desertification issues and loss of biodiversity. Faced with this reality of degradation of natural resources, migratory movements of populations and disruption of economic activities, particularly agricultural activities, caused by drought, the Government of Cameroon, like the countries of the Sahel, has committed to defining a legal and specific framework to address drought issue. As such, the Provincial Committee for Drought Control was established in 1975. This body was re-organised in 2019 by Decree No.2019/166 of 2 April 2019 with new duties geared towards combating the effects of drought and desertification. This allows it to «carry out studies, (...) carry out surveys, (...) manage operations to combat drought», and develop direct actions to prepare ecosystems and bodies of drought control.

Since the advent of severe droughts, the decisive meeting that triggered the real consideration of environmental issues in Cameroon was the Earth Summit in Rio de Janeiro in 1992. At the end of this meeting, three conventions were developed, including: the convention on climate, the convention on biological diversity and the convention to combat desertification.

The implementation of these conventions in the signatory countries should be materialised by a number of actions, notably the production of national plans for the implementation of these conventions. Cameroon took this opportunity by marking its commitment by creating the Ministry of Environment and Forestry. This commitment also helped to strengthen environmental and forestry policy through the production of Law No. 94-01 of 20 January 1994 to lay down forestry, wildlife and fisheries regulations (1994) and Law No. 96/12 of 5 August 1996 relating to environmental management. The significant evolution of the institutional framework is marked by the transformation in 2004 of the Ministry of Environment and Forestry into two specific departments, namely the Ministry of Environment and Protection of Nature and the Ministry of Forestry and Wildlife. In 2012, the environment sub-sector was strengthened with the issue of sustainable development, and became the Ministry of Environment, Protection of Nature and Sustainable Development.

In this chronology, desertification and land management issue has also been marked by a significant evolution which helped to develop the National Action Plan to Combat Desertification (NAP-CD) which resulted in the development of two projects:

- **the Green Sahel operation;**
- **the development of the Benoue watershed;**

Later, this plan was updated through its alignment to the ten-year strategy of the Convention to Combat Desertification.

Another phase of the national policy is marked by the search for solutions on a global scale to better address issues on climate change. This is the logic behind the national choice based on Cameroon's commitment to restore 12 million hectares of degraded land and landscapes under the Bonn Challenge.

In addition, other actions from the rural sector are integrated into Cameroon's policy guidelines aimed at combating desertification and land degradation. These include actions to promote food security in the agriculture and livestock sub-sectors:

- **Fertiliser Sub-Sector Reform Programme (PRSSE);**
- **National Support Programme to the Maize Sector;**
- **Major Food Pests Control Programme (PLGFV);**
- **Inland Valley Extension Programme (PVBF);**
- **National Agricultural Extension and Research Programme**
- **(PNVRA);**
- **Support Project to Micro-finance and Development Institutions;**
- **National Programme for the Management of Obsolete Pesticides in Cameroon;**
- **Project to Relaunch rice production in the Logone Valley;**
- **National Food Security Programme (PNSA);**
- **Agriculture Productivity Improvement Programme (PAPA);**
- **Programme for the Renovation and Development of Vocational Training in Agriculture and Livestock sectors (AFOP) Pig Sector Development Programme (PDFP);**
- **Agricultural Competitiveness Improvement Project (PACA);**
- **Village Poultry Sector Development Project (PDFFAV);**
- **Aquaculture Entrepreneurship Promotion Project (PPEA);**
- **Livestock Development Project (PRODEL);**
- **Livestock and Fish Farming Value Chains Development Project (PDCVEP).**
- **National Strategy for the Development of Cashew Value Chains in Cameroon 2019-2023**

In addition to these programmes and projects, strategies for guiding actions are developed in the rural sector ministries.

These include:

- **National Biodiversity Strategy and Action Plan (NBSAP);**
- **National Waste Strategy;**
- **National Strategy for Sustainable Water and Soil Management (SNGDES);**
- **National Communications on Climate Change (NC1, NC2, NC3);**
- **The Great Green Wall Strategy;**
- **The strategic framework for landscape restoration.**

These strategies are complemented by implementation plans:

- **The National Action Plan to Combat Desertification (NAP/CD)**
- **The National Environmental Management Plan (NEMP)**
- **The National Action Plan for Integrated Water Resources Management**
- **The National Climate Change Adaptation Plan (NCCAP)**
- **Climate-Smart Agriculture Investment Plan in Cameroon (PIAIC)...**

2.METHODOLOGY: LITERATURE REVIEW AND ANALYSIS OF OPERATIONAL ACHIEVEMENTS

2.1. Review of strategic and operational guidance documents

Within the framework of this work, the methodology adopted for the collection of data included literature review (reports, studies, dissertations, theses...) on aspects related to desertification, land degradation and other related topics. Assessing land degradation was done through a reliable diagnosis based on the precise qualification of the types of degradation and the quantification of this phenomenon by focusing on the surface areas of degraded land, level of land degradation.

Before the field visit, a mapping of degraded land areas was necessary in order to detect signs of deterioration in land quality.

Specifically, as concerns the assessment of the level of land degradation in this study, an anthropocentric approach was conducted. Indeed, it refers to interviewing a sample of indigenous people, who had a good knowledge of the locality and were able to describe the changes observed over a few decades.

Satellite images and maps were used to identify signs of deterioration, denudation, erosion and desertification.

As concerns interviews with stakeholders, a mapping of all actors having an impact, more or less important, in the process of combating desertification was made. To do so, it was necessary to list all the stakeholders in a more or less exhaustive way, and then to rank them according to their level of influence.

Thus, regional and divisional delegates were consulted on behalf of the administration; sustainable development actors, including all natural and legal persons at the national level, were interviewed; associations and CSOs involved in sustainable development through their actions stemming from their ecological convictions and approaches were visited; research institutions (Higher institutions such as Universities, Research Centres, etc.) were selected in agro-ecological zones where the phenomenon of degradation is severe; Regional and Local Authorities at regional, divisional and sub-divisional level, which provide all local services, as well as development actions, were actively involved in this study.

2.2. Review of studies and expertise reports related to the implementation of Forest Landscape Restoration actions

2.2.1. Cameroon's commitment to the Forest Landscape Restoration Initiative

Cameroon officially joined the AFR100/ BONN CHALLENGE movement, following a commitment and declaration signed in 2017, jointly by the Minister of Forestry and Wildlife (MINFOF) and the Minister of Environment, Protection of Nature and Sustainable Development (MINEPDED) for an ambitious target of 12,062,768 hectares of degraded landscapes and land to be restored by 2030.

At the national level, priority interventions on Forest Landscape Restoration (FLR) are as follows:

- **Strengthening the policy agenda for forest landscape restoration with the objective of increasing capacity and resources to restore degraded and deforested landscapes;**
- **Transformation of deforested and degraded areas into resilient and multifunctional ecosystems with the objective of improving the local and national economy, focusing on the three regions of Northern Cameroon;**
- **Improvement of sustainable forest management and promotion of "2nd generation forestry" in deforested areas, and protection of biodiversity in forest ecosystems.**

FLR process is linked to Cameroon's commitment to the 2030 Agenda (SDGs) and the three Rio Conventions (UNFCCC, CBD, UNCCD), as well as to Cameroon's Nationally Determined Contributions (NDCs), which aim to reduce 35% of greenhouse gas (GHG) emissions by 2030 in addressing climate change. AFR100 falls within the framework of restoration and reforestation efforts identified as key areas of the national development strategy in reducing GHG emissions from deforestation and forest degradation (REDD+).

It is also in line with the Land Degradation Neutrality (LND) process, notably, at the level of the Voluntary Land Degradation Neutrality Target Setting Programme - Cameroon, 2017.

As part of its work, AFR100 in Cameroon adopted the IUCN definition as «the ongoing

process of regaining ecological functionality and enhancing human well-being across deforested or degraded forest landscapes».

Cameroon has added the restoration of some agricultural and pastoral lands to meet specific needs. FLR is more than just planting trees – it is restoring a whole landscape with all its functionalities to meet present and future needs of communities and to offer multiple benefits and land-uses over time.

2.2.2 Case studies prior to the implementation of forest landscape restoration actions

Case study 1: Feasibility study for the implementation of AFR100 projects in Cameroon

The African Forest Landscape Restoration Initiative (AFR100) was launched in 2015 by African countries on the side-lines of COP 21 in Paris. AFR100 is a country-led effort to restore 100 million hectares of deforested and degraded landscapes across Africa into by 2030. AFR100 aims to restore the ecological functionality of degraded landscapes and lands, with the aim of enhancing food security, increasing climate change resilience and mitigation, and combating rural poverty.

AFR100 is part of political declaration endorsed by the Africa Union in October 2015 for the creation of the umbrella Africa Resilient Landscapes Initiative (ARLI). It complements the African Landscapes Action Plan (ALAP) and the broader Climate Change, Biodiversity and Land Degradation (LDBA) programme of the African Union.

AFR100 contributes to the achievement of domestic restoration and sustainable development commitments, the Bonn Challenge and the New York Declaration on Forests, among many other targets. It also directly contributes to the Sustainable Development Goals (SDGs) and the Paris Climate Agreement. It builds on the experience and progress achieved through the Terr Africa partnership and related landscape restoration efforts.

Case study 2: Assessing the Forest Landscape Restoration Opportunities in the Adamawa, North and Far North Regions

a. Degradation factors identified in the Adamawa Region

Main degradation factors		
Factors	Manifestations	Conséquences
Agricultural practices	Low vegetation cover.	Water and wind erosion
Use of wood energy	Tree cutting (for cooking and charcoal making); Digging of pits and burying of wooden barrels.	Irreversible damage to soil and vegetation; Landscape characterized by pits
Breeding	Overgrazing	Acceleration of erosion

Bushfires	Limitation of soil cover by grasses	Reduction of litter and humus and exposure of soils to heavy erosion;
Sand and gravel mining	Opening of access roads to the watercourse for vehicles to collect sand from the banks	Destabilization of the structure of the soils formed on the sandstone base, making them less resistant to the assaults of floods which erode the banks
Mining and quarrying	Practice of artisanal mining and industrial prospecting	Soil and rock stripping; revegetation

b. Degradation factors identified in the North Region

Main degradation factors		
Factors	Manifestations	Consequences
Agricultural practices	Lack of vegetation; Clearing of vegetation; Intensive farming, excessive wood collection and excessive burning of savannahs and forests; Abuse of chemical inputs.	Water or wind erosion; Unavoidable increase in the risk of land degradation; Accelerated soil erosion and loss of productivity.
Clearing of vegetation;	Clearing of vegetation;	Dommages irréversibles pour les sols et la végétation ; Fragilisation du Paysage et prolifération des fosses
Intensive farming, excessive wood collection and excessive burning of savannahs and forests;	Intensive farming, excessive wood collection and excessive burning of savannahs and forests;	Erosions hydriques et éoliennes ; Dispartion de certaines espèces végétales Conflits
Abuse of chemical inputs.	Abuse of chemical inputs.	Water or wind erosion;
Unavoidable increase in the risk of land degradation;	Unavoidable increase in the risk of land degradation;	Déstabilisation de la structure des sols formés sur le socle de grès les rendant moins résistant aux assauts des crues qui érodent les berges
Accelerated soil erosion and loss of productivity.	Accelerated soil erosion and loss of productivity.	Bank erosion and silting of the bed, degradation of riparian ecosystems
Mining and quarrying	Laterite, rubble and sand quarrying	Modification of the natural drainage system, risk of desandrous erosion and sedimentation

c. Determining factors in the Far North Region

Main degradation factors		
Factors	Manifestations	Consequences
Crop system	Scanning of the fields; Short season crops (potato...); Use of herbicides and low fallow practice.	Limiting the organic recomposition of soils; Soil depletion; Proliferation of ryegrass (Striga)
Breeding system	Overpopulation of the cattle herd; Destruction of soil-protecting plants and livestock roaming	Fodder scarcity; Land degradation and exposure to erosion
Traditional natural resource exploitation practices	Inadequate irrigation and drainage; Deforestation.	Alteration of soil structure and texture; Accelerating decalcification and acidification rendering the soil reductive and slowing down biological life; Disappearance of forest galleries
Demography and uncontrolled urbanisation	High population densities on small areas of land; Anarchic occupation of populations on inappropriate sites; Lack of support or supervision of the population in rural areas (farm monitors....)	Accelerating land degradation; Strong erosion weakening the soil; Low yields

Agroforestry: Sweet potato and neem tree cultivation on the banks of the Benoue River/ PADESAR3C_ABIOGeT project (Photo Fongu N. Ndi)

Table 6: Objectives and guidelines for strategic and operational documents

Strategic/operational documents	Objectives	Specific objectives	Strategic guidelines
NAP/CD	Changing desertification/degradation trends to combat poverty and promote sustainable development	- Reversing desertification/land degradation trends through actions that improve the living environment and production bases for people; - Strengthening consultation and complementarity around actions to combat desertification and the sustainable management of natural resources; - Strengthening synergy with the major sectoral programmes and between the three UN Conventions (UNCCD, CBD, UNFCCC); - Improving the legal and institutional structure and financing mechanisms to combat desertification.	- Taking into account the cross-cutting (multi-sectoral and multidimensional) nature of the fight against desertification; - Strengthening the links between the fight against poverty and the fight against desertification; - Involvement and accountability of all stakeholders at all stages of the planning process and decentralization of the implementation and monitoring and evaluation of the NAP/CAD; - Establishing partnerships between, on the one hand, MINEP and, on the other hand, all actors and other sectors concerned by the efforts to combat desertification; - Using local knowledge and skills and capitalising acquired knowledge; - Strengthening synergies in the implementation of sustainable development conventions; - Search for co-funding.
UPDATED GREEN SAHEL PROJECT REFERNCE DOCUMENT	Restoring degraded land in areas affected by desertification by effectively combating land degradation and increasing soil fertility.	- Planting 480,000 seedlings on 3,000 ha of degraded land per year; - Extending at least 150,000 improved stoves to reduce pressure on vegetation (energy efficiency); - Raising awareness throughout the Sudano-Sahelian zone	- Taking into account past/and or ongoing changes and developments that may impact the efficient implementation of operational strategies to combat desertification and land degradation; - Ensuring that Cameroon, through the Ministry of the Environment and its partners, takes into account all factors (internal and external) in its decision making so as to maximise the potential strengths and opportunities and mitigate the effects of weaknesses and threats

Strategic/operational documents	Objectives	Specific objectives	Strategic guidelines
The 2020-2045 National Forest Plantation Development Programme (NFPDP)	Endowing Cameroon with a strategic steering instrument that facilitates the planning of the creation and development of forest plantations, harmonises the interventions of all stakeholders while contributing to the establishment of an institutional environment attractive to private investment, in line with other national initiatives within the framework of a value chain approach.	- Increasing timber and non-timber production, service and fuelwood production. - Adding value to wood products and developing - forestry value chains; - Providing eco-system services other than - supply (recreation, ...); - Restoring Degraded Landscapes; - Supporting research, innovation, training and capacity building; - Ensuring coherent implementation of the programme by including all social categories from decision-making to implementation. -	- Wood production and production other than timber, service and fuel wood, valorisation of wood products wood products and development of forestry value chains; - Protection and provision of ecosystem services other than provisioning (recreation, ...); - Restoration of Degraded Landscapes ; - Research - Innovation - Training and Capacity Building; - Institutional set-up, governance and gender decision-making processes.

Strategic/operational documents	Objectives	Specific objectives	Strategic guidelines
NATIONAL LAND DEGRADATION NEUTRALITY TARGET SETTING PROGRAMME (LND-TSP)	In a view to making the goal of halting and reversing land degradation more tangible and setting a course for itself, Cameroon has voluntarily set the following LDN targets to be achieved by 2030:		- Integration of LDN into the national plan for sustainable land-use and development; - Taking into account the LDN in the design, implementation and monitoring of development policies, programmes and projects; - Coherence and synergy of the LDN with the Nationally Determined Contributions (NDCs) under the Paris Climate Agreement, the Reducing Emissions from Deforestation and Degradation (REDD+) process and Sustainable Land Management (SLM) - Implementing the national forest landscape restoration strategy within the framework of the (AFR 100/BONN Challenge) initiatives; - Definition and integration into the Communal Development Plans and Sustainable Use and Management Plans of the selected councils of the corresponding LDN targets; - Increasing productivity and carbon stocks on all agro-pastoral lands through the implementation of Second-Generation Agriculture continuing the promotion of improved stoves, solar cookers, methanisation and/or butanisation in rural areas; - Continuing implementing the priority options retained within the framework of the Master Plan for the development of mangroves in Cameroon

Strategic/operational documents	Objectives	Specific objectives	Strategic guidelines
NATIONAL ACTION PLAN FOR INTEGRATED WATER RESOURCES MANAGEMENT (PANGIRE)	The general objective is to make a diagnostic analysis of the water and environment in the various river basins of Cameroon	- Identifying and mapping wetlands and ecologically sensitive areas; - Identifying and analysing water-related challenges such as desertification and flooding; - Identifying and analysing the effects of human activities (urbanisation, industrialisation, mining, agriculture, deforestation, livestock farming, fishing, public works, energy, dams, armed conflicts and wars, roads and transport, the Pipe line, etc.) on water resources; - Identifying and examining the impact of climate variability and change on water resources; - Identifying and analysing the measures taken by the Cameroonian State in the face of water-related risks and climate change; - Identifying and prioritising problems related to the protection and conservation of water resources in Cameroon	

Strategic/operational documents	Objectives	Specific objectives	Strategic guidelines
DEGRADATION SURVEYS	Presenting the current situation of land degradation with a view to reforestation and, based on regional, national and international experience, defining restoration techniques and methods appropriate to each ecological zone in the region.	- Describing current actions in combating land degradation in Cameroon in general and in the Northern Region in particular; - Quantifying and determining the typology of groups vulnerable to land degradation constraints in the North Region of Cameroon; - Drafting a typology of land degradation (heavily degraded, under degradation, potentially degraded...); - Conducting a survey of land-use (by agricultural and pastoral activities and by human settlement); - Mapping out the status of degraded areas with a view to better planning land restoration interventions in the North Region; - Taking stock of the local knowledge and know-how of the populations in combating land degradation in the North Region of Cameroon; - Identifying the needs of all stakeholders involved in sustainable land management; - Proposing improvement measures with recommendations to effectively combat land degradation.	- Strengthening the knowledge base and developing information and monitoring systems for drought and desertification prone areas, including the economic and social aspects of these ecosystems; - Combating land degradation, in particular by intensifying soil conservation, afforestation and reforestation activities; - Developing and boosting integrated development programmes for poverty eradication and the promotion of alternative livelihood systems in desertification-prone areas; - Developing comprehensive programmes to combat desertification and integrate them into national development plans and national environmental planning; - Establishing comprehensive drought preparedness and relief plans, including self-help schemes, for areas at risk, and developing programmes for hosting environmental refugees; - Encouraging and promoting people participation and environmental education, with a focus on combating desertification and managing the consequences of drought

Strategic/operational documents	Objectives	Specific objectives	Strategic guidelines
GGW STRATEGY	Contributing to the reduction of land degradation in the agro-ecological zones concerned	- Promoting actions to conserve, restore and enhance biodiversity and soils; - Sustainable management of water resources; - Supporting local communities in the diversification and adoption of sustainable agroforestry systems; - Increasing incomes through the promotion of value chains; - Promoting clean technologies in the development of basic infrastructure for the restoration of degraded ecosystems; - building the capacity of the stakeholders involved	- Promoting actions for the conservation, restoration and enhancement of biodiversity and soils; - Integrated Water Resources Management; - Supporting local communities in the diversification and adoption of sustainable agroforestry systems; - Increasing income by promoting value chains; - Promoting clean technologies for basic infrastructure development in the restoration of degraded ecosystems; - Building stakeholders' capacity
FLR STRATEGIC FRAMEWORK	Conducting an analysis of the opportunities for forest and landscape restoration in Cameroon, developing a national FLR strategy and strengthening the integration of FLR into the country's policies, strategies and programmes, to make it a pillar for the implementation of integrated and sustainable economic development strategies	- Framing the degradation problem in Cameroon and the potentialities; - Analysing the institutional space and identifying relevant actors; - Identifying constraints and opportunities based on existing national policies and strategies in line with FLR; - Formulating the fields of action, priorities and options for the implementation of FLR; - Identifying and analysing funding mechanisms and opportunities as well as financial constraints; - Proposing methodological guidelines and key orientations for the development of the national FLR strategy; - Suggesting next steps for action.	- Putting in place elements to achieve the national FLR commitment; - Implementing a multi-sectoral approach to FLR; - Adopting and operationalising monitoring, evaluation and communication systems for landscape and forest restoration; - Developing sustainable funding mechanisms for FLR.

Strategic/operational documents	Objectives	Specific objectives	Strategic guidelines
FEASIBILITY STUDY ON AFR-100	Highlighting representative projects for the restoration of degraded forest landscapes and proposing mechanisms for their implementation that can lead to the production of project documents	- Taking stock of activities and work carried out; - Comparing the main existing initiatives and the most interesting opportunities, particularly with a view to scaling up; defining the criteria and conditions for eligibility of AFR 100 projects; - Confirming the regional focus; - Suggesting a project framework and indicators; - Making a comparative analysis with actions carried out in other similar countries; - Enhancing the database to propose projects for funding by KFW; - Formulating the project with different sub-projects and proposing an institutional, organisational and financial model integrating possible co-financing, assessing the impacts of the process based on the services generated and an appropriate monitoring-evaluation system, prioritising the actions according to the technical and financial possibilities.	- Strengthening the policy agenda for forest landscape restoration with the aim of increasing capacity and resources to restore degraded and deforested landscapes - Transforming deforested and degraded areas into resilient and multifunctional ecosystems with the objective of improving the local and national economy, focusing on the three northern regions of Cameroon - Improving sustainable forest management and promoting 2nd generation forestry in woodlands, and protecting biodiversity in forest ecosystems
ATLAS OF FOREST COVER LOSS IN CAMEROON 2010 - 2017	Mapping and quantifying forest cover losses from 2000 to 2017, with a view to estimating past losses in forest carbon stocks since 2000 (monitoring), and predicting, based on scenarios of future disturbance rates and management actions, losses in carbon stocks for the next decade (projection)	- Mapping the baseline status of national forest cover in 2000; - Mapping national forest cover losses between the periods 2000-2015 and 2015-2017; - Providing projections of losses up to 2030 based on the business as usual scenarios observed through the analysis of losses from 2000-2015 and 2015-2017; - Providing activity data for greenhouse gas emissions and forest carbon stock inventories.	
PLAN FOR POLITICAL INFLUENCE (PIP) ON FOREST LANDSCAPE RESTORATION (FLR) IN CAMEROON	Promoting an integrated approach to FLR from initial diagnosis to product valorisation	- Creating an appropriate environment to facilitate the adoption and integration of these policies to support restoration activities; - Strengthening institutional monitoring and coordination of operations; - Ensuring adequate participation and involvement of women, indigenous peoples and local decentralised structures in restoration	- Strengthening the legal and regulatory framework for FLR to encourage reforestation and restoration activities - Strengthening the institutional framework and complementarity of FLR with other national programmes and strategies - Strengthening the commitment of local actors to the promotion of NTFP restoration and value-added activities - Strengthening the effectiveness of funding mechanisms for FLR-related activities

2.3.1. Analysis of successful best practice cases from existing action plans

DPGT. The Farm Development and Land Management Project (DPGT) was created in response to the decline in soil fertility and the desire to improve the productivity of cotton plots. This project was carried out in two phases (November 1994 - October 1998 and November 1998 - June 2002). In both phases, the DPGT received funding from the French Development Agency (AFD) and the Cooperation and Cultural Action Service (SCAC).

MINAGRI, now MINADER, was the Contracting Authority and SODECOTON the project manager. It aimed to combat erosion, promote the use of organic manure, promote the establishment of agroforestry plantations and hedgerows around cultivated plots, and regenerate plots by establishing natural tree parks in the cotton zone..

Projet ESA/ SODECOTON. The Water-Soil-Tree project has contributed to the prevention of desertification and to the political and social stability of the North Region of Cameroon, through the preservation, replenishment and improved management of renewable natural resources. To this end, the ESA Project focuses on: (i) promotion and broad ownership enhancement by producers of sustainable management techniques for renewable resources, techniques developed within the framework of the Farm Development and Land Management Project (DPGT); (ii) experimentation and development in the farming environment of new techniques and actions contributing to land restoration; (iii) development of renewable resources through rational and concerted management to meet the needs of local populations; (iv) participation in the development of a legislative and/or regulatory framework for the implementation of an appropriate natural resource management policy; (v) contribution to the development of a coherent programme of interventions in the North Region of Cameroon, within the framework of a concerted land-use plan.

PASGIRAP. The Programme was financed for a five-year period (2015-2019) with a global envelope from the 2nd C2D. The programme was jointly managed by MINADER and MINEPIA. The steering committee, chaired by the Contracting Authority, brought together representatives of the technical ministries concerned, representatives of the professional associations concerned, the study missions (MEADEN and MIDIMA), as well as SODECOTON and AFD as observers.

The specific area of intervention of the project included the North Region; the cotton zone of the Far-North Region; the northern part of the Adamawa Region in the Vina, Faro and Deo (Tignere) Divisions and part of the Mbere Division.

The specific objective was to establish, under the supervision of councils, concerted, inclusive, sustainable and economically efficient management systems for agricultural and pastoral resources in the northern part of Cameroon.

There were three (3) technical components to this Programme, namely:

1.Support for spatial consultation bodies;

2.Sustainability and productivity improvement of cotton-based production systems;

3.Sustainability and productivity improvement of non-cotton production systems.

The Programme was aimed at covering some twenty councils (i.e. 1/3 of the councils in the area), selected at the beginning of the Programme based on an application from the municipal council and supported by the competent administrative and traditional authorities.

Green Sahel. The Green Sahel project was implemented in the Far-North Region by MINEPDED

with the Cameroon Government's own resources, through the public investment budget. It aims to restore degraded land through reforestation and reduce pressure on firewood. This project focuses on three major actions, namely:

- **establishment of woodland areas;**
- **extension of improved stoves;**
- **raising people's awareness on climate change.**

The project's actions were implemented under the aegis of MINEPDED's Divisional Delegates and the supervision of the Regional Delegate. Between 2008 and 2021, this project achieved 31,950 hectares restored in the target Divisions (Mayo Kani, Logone and Chari, Diamare, Mayo Sava, Mayo Danay and Mayo Tsanaga) for the planting of 4,570,000 seedlings on more than 90 sites. In addition, the project has provided poor households in the region with over 150,000 improved stoves.

Waza-Logone Project. After a study conducted in 1988 by a Dutch university (Leiden University), the project to conserve biodiversity and improve the living conditions of the people living in the Logone plain and near the Waza and Kalamaloué National Parks, was launched. Actions carried out within the framework of this project have resulted in:

- **the hydraulic and ecological rehabilitation of the floodplain over an area of 3,000 to 5,000 km2;**
- **the safeguarding of National Parks as important centres of biodiversity;**
- **the development of resource and biodiversity management systems within parks and in buffer zones;**
- **the capacity building of local people to maintain sustainable resource management and long-term development;**
- **the development of an eco-development strategy at EU level.**

GDT/PNDP. It is a multilateral funding programme (ADB, AFD, World Bank, KFW, Global Environment Facility (GEF) and Japan). Its objective was to provide support to local authorities and grassroots village communities in the development of local socio-economic infrastructure and facilities. This programme is also a tool of the Government's decentralisation policy.

The PNDP's role in this programme consisted in ensuring synergy between all stakeholders (grassroots communities, the Government, civil society, NGOs and donors) for the harmonious and sustainable development of the poor in rural and remote areas. This PNDP's support was provided through well thought-out micro-projects included in Communal Development Plans (CDPs)). One of the most significant examples in the North Region is the support to LAGDO and PITOA Councils by the PNDP, financed by the Global Environment Facility (GEF), in the implementation of actions to combat land and forest landscape degradations. In the field, the Study Mission for the Planning and Development of the North Region (MEADEN) conducted the following activities:

- **Reforestation of plots with fertilizer species;**
- **Construction and development of stone cordon plots;**
- **Compost production and spreading;**
- **Construction of diversion bays and dams;**
- **Construction of pastoral wells;**
- **Protecting or securing grazing areas and tracks.**

PADESAR3C Project. The project "Partnership in action: universities and local communities developing climate-resilient agroforestry systems in Cameroon" is an initiative covering a period of 35 months (2018 -2021), and is funded by the Government of Quebec within the framework of its International Climate Cooperation Program (PCCI). The project is implemented through a partnership between Laval University, the NGO ABIOGeT and the University of Dschang. This project is supported by MINEPDED through a partnership agreement signed in 2019 with ABIOGeT. The aim is to improve the socio-economic and environmental resilience of agroforestry population-landscape systems in the face of climate change in the Western Highlands, Adamawa (Sudan-Guinean) and North (Sudan-sahelian) Regions. The main results of the project are: (1) increased use of innovative and resilient agroforestry practices by women, men, young farmers and municipal authorities in the 3 agro-ecological zones; (2) increased use of agro-ecological soil amendment models and improved seeds in innovative agroforestry crop production systems; and (3) increased use by government authorities of the project's scientific data in implementing Cameroon's National REDD+ Strategy.

3 - IDENTIFYING IMPLEMENTING BODIES

Landscape and land degradation are phenomena that affect almost all sectors of activity, particularly the agricultural sector. Combating this scourge involves several actors, with the key ones presented per category in the tables below:

Table 7: Government institutions

Name of the institution	Missions	Main past and present activities undertaken	Strengths	Weaknesses
Prime Minister's Office	In the agro-pastoral field: Implementing an ambitious agricultural policy by boosting traditional production; Developing a new strategy to revitalise the animal industries, livestock and fisheries; Offering farmers new perspectives, in particular participation in the conversion of the plantain sector, the exploitation of swampy areas for off-season products	Coordinating and monitoring Government's activities		
Ministry of Environment, Protection of Nature and Sustainable Development (MINEPDED)	Developing and implementing Cameroon›s environmental policy	- Environmental management - Operation Green Sahel - Benoue watershed management - CILSN and ONACC are structures under tutelage	Legal framework for environmental management	Low funding for restoration initiatives
Ministry of Forestry and Wildlife (MINFOF)	Developing and implementing Cameroon›s forest and wildlife policy	- Forest management; - National Reforestation Programme - ANAFOR is a structure under tutelage	Existence du cadre juridique	Faible prise en compte de la question de restauration des paysages et terres dégradés
Ministry of Economy, Planning and Regional Development (MINEPAT)		Developing and implementing spatial planning policy. With regard to spatial planning, for example, the Ministry is responsible for: - Coordinating and implementing spatial planning studies - Drafting standards and rules for spatial planning and the control of their application - Monitoring and controlling the implementation of national, regional or local spatial planning programmes: - Supervising structures under tutelage, namely PNDP, NIS, and Planning Bodies	Existence of legal framework	Low consideration of restoration of degraded lands and landscapes
Ministry of State Property, Surveys and Land Tenure (MINDCAF)	Developing and implementing Cameroon's land policy	Gestion du domaine public et des personnes morales de droit public		
Ministry of Livestock, Fisheries and Animal Industries (MINEPIA)		- Managing the public domain and legal persons under public law		Low capacity and involvement of MINEPIA agents in landscape and degraded land restoration activities
Ministry of Agriculture and Rural Development (MINADER)	Developing and implementing Cameroon's agricultural and rural development policy	Supporting initiatives to restore degraded landscapes and land	Numerous programmes/projects	Low monitoring capacity
Ministry of Water Resources and Energy (MINEE)	programmes/projects	Low monitoring capacity	programmes/projects	Low monitoring capacity
Ministry of Public Works (MINTP)	Cameroon in urban and peri-urban areas	Carrying out road construction/development works	Road construction/development projects	Impacts of road construction on landscape and land
Ministry of Scientific Research and Innovation (MINRESI)	Developing and implementing Cameroon's scientific research policy	Supervising several research institutes under tutelage, notably IRAD,	L'IRAD mène des recherches spécifiques sur les questions de dégradation et de restauration des paysages et terres	
Ministry of Mines, Industry and Technological Development (MINIMIDT)	INC, and IRGM	IRAD conducts specific research on landscape and land degradation and restoration issues	Prescription of periodic inspections	Pollution from oil and other industries
Ministry of Territorial Administration (MINAT)	Administrative authorities	Representing the State; managing populations; ensuring security; etc.	All traditional chieftaincies are under tutelage	Poor contact with remote areas
Ministry of Decentralization and Local Development (MINDDEVEL)	Local and regional authorities FEICOM is a structure under the tutelage of MINDDEVEL		Supervision of all councils	
The Senate /National Assembly	Voting laws	Funding parliamentary micro-projects	Strong capacity to influence regulations on landscape management and degraded lands	

Table 8: Research, planning and training institutions

Name of the institution	Missions	Main past and present activities undertaken	Strengths	Weaknesses
National Observatory on Climate Change (ONACC)	Monitoring and evaluating the socio-economic and environmental impacts of climate change and proposing measures to prevent, mitigate and/or adapt to the adverse effects and risks associated with climate change.	- Establishing relevant climate indicators for monitoring environmental policy; - Conducting prospective analyses aimed at proposing a vision of climate change in the short, medium and long term; - Monitoring climate's trends, producing meteorological and climatological data for all sectors of human activity concerned and drawing up the annual climate report for Cameroon; - Conducting studies on the identification of climate change indicators, impacts and risks; - Collecting, analysing and making available to public and private decision-makers as well as to various national and international organisations, reference data on climate change in Cameroon	ONACC contributes to the low-carbon and climate-resilient socio-economic development of Cameroon	

Name of the institution	Missions	Main past and present activities undertaken	Strengths	Weaknesses
Inter-Regional Committee for Drought Control in the North (CILSN)	Combating the adverse effects of drought and desertification in the Adamawa, Far North and North Regions	- Conducting or subcontracting under its own responsibility, all studies and surveys enabling to endow the Government with appropriate measures to combat the adverse effects of drought and desertification; - As Cameroon's Government Contractor, managing specific operations to combat drought and desertification; - Ensuring synergy and coordination of all actions against drought and desertification in its area of competence; - Combating the abusive use of firewood through the promotion of alternative energies; - Developing reforested areas; - Restoring degraded or denuded areas through reforestation; - Contributing to the promotion of the implementation of the "Green Sahel" project; - Contributing to combating climate change	The Committee covers only the three northern regions of Cameroon	Weak coverage of the Committee at national level Low government funding for its activities Low openness to regional and global funding mechanisms

Name of the institution	Missions	Main past and present activities undertaken	Strengths	Weaknesses
National Forestry Development Agency. (ANAFOR)	- Supporting the implementation of the national programme for the development of private and community forest plantations by carrying out, with programme funding, the following tasks: - Carrying out studies, planning, programming and monitoring-evaluation of the programme, as well as coordinating, informing, promoting and seeking national and international funding; - Supplying private and community operators, at their request and with their funding, of seeds and seedlings as well as advisory support for their plantation projects	- Restoring and developing the above-mentioned forest heritage - Supporting local forestry plantation initiatives; - Significantly increasing the share of own revenues in its budget;	Strong nationwide deployment	Low government funding for its activities Low openness to regional and global funding mechanisms
Universities and training schools	Universities' missions consist in teaching, training and research	- Training - Teaching - Research		Poorly equipped laboratories

Name of the institution	Missions	Main past and present activities undertaken	Strengths	Weaknesses
Institute of Agricultural Research for Development (IRAD)	Ensuring scientific research and the promotion of agricultural development throughout the country, often in partnership with other State, regional and international institutions	This includes: - Ensuring the research, collection, processing, conservation and dissemination of scientific, technological and innovative knowledge, having an impact on the development of the sectors in its fields of competence; - Ensuring the use and popularisation of research results among development actors, in liaison with the ministries in charge of the rural sector (agriculture, animal industries, livestock, forestry, wildlife, environment and sustainable development);	Strong nationwide deployment	Low government funding for its activities
Institute of Geological and Mining Research (IRGM)	Designing, developing and implementing research programmes in geology and mineral resources, geophysics, hydrology and energy for development	- Geology and Mineral - Resources - Hydrology and Hydrogeology Energy - Image Processing and GIS		Low government funding for its activities
National Institute of Cartography (INC)	Executing works related to Cartography, (geodesy, photogrammetry, topography, cartographic drafting etc.) and remote sensing; but above all, establishing basic map of Cameroon, called the STATE'S MAP	- Demarcating international borders and administrative units: - Coordinating geographical research throughout the country; - Participating in the drafting of the Government's policy on environment; similarly, it is responsible for the study and mapping of natural risks		Low territorial coverage Low government funding for its activities

Name of the institution	Missions	Main past and present activities undertaken	Strengths	Weaknesses
Study Mission for the Planning and Development of the North (MEADEN)	MEADEN's mission is the harmonious development of the entire northern region	This includes: - Drafting the regional development plan and its sectoral components; - Monitoring the effective implementation of this plan and its continuous updating in conjunction with the various development partners; - Setting up the necessary documentation to create a database and a basic geographic information system for the whole Northern Region		Low government funding for its activities Lack of human resources
Mission of Integrated Development of the Mandara Mountains (MIDIMA)	The Mission's objective is to initiate, coordinate and carry out all planning and development actions in the Region concerned	- Identifying, defining and conducting general study of development projects in the region, as well as ensuring consistency with the Region›s sustainable development plan; - Carrying out all planning and development activities in the Region; - Developing and updating Geographic Information Systems (GIS) for spatial planning; - Coordinating development actions; - Providing advisory support to Regional and Local Authorities		Insufficient human resources Lack of funding

Table 9: International organisations

Name of the institution	Missions	Main past and present activities undertaken	Strengths	Weaknesses
World Wide Fund for Nature (WWF); INBAR; CIFOR – ICRAF; Bioversity International; Rainforest alliance; PNUD; PNUE; International Union for Conservation of Nature (IUCN); German Technical Cooperation (GIZ); Food and Agriculture Organization of the United Nations (FAO in Cameroun); World Resources Institute (WRI)	International conservation NGO	Financial and technical support for projects in nature protection, biodiversity conservation, protected area management, restoration, mapping, agriculture, forestry, agroforestry; environmental protection, sustainable development, etc.	Strong international base, large national base	Field actions on the restoration of degraded lands and landscapes

Table 10: Local actors (Councils, traditional authorities, village development committees)

Name of the institution	Missions	Main past and present activities undertaken	Strengths	Weaknesses
Local authorities (traditional authorities, religious authorities), Other associations	Community leadership	Voicing their concerns	Significant activities carried out in the area of land and landscape degradation	Low knowledge of land resources

Table 11: Civil society organisations

Name of the institution	Missions	Main past and present activities undertaken	Strengths	Weaknesses
ABIOGeT, ACEEN, SAILD, CADEPI, ENVIRONMENT AND SUSTAINABLE DEVELOPMENT ORGANISATION (OPED), CELDIE, GREEN SAFE, ENVIRO PROTECT, SANA LOGONE, GTE SAHEL, GREEN YOUTH ASSOCIATION OF CAMEROON (AVJC), ASSOCIATION ANDAL SKILLS, CAMEROON NETWORK FOR THE CONSERVATION OF MANGROVE AND WETLAND ECOSYSTEMS (RCM); WATERSHED TASK GROUP (WTG), CWCS, Cameroon ecology, FODER, WGT, AMCO, etc.	Organisations involved in environmental protection	Supervising, animating and disseminating information on all interventions that are aimed at restoring degraded lands and landscapes	Proximity to local communities and knowledge of local realities	Low intervention capacity due to insufficient financial means

Table 12: Private sector

Name of the institution	Missions	Main past and present activities undertaken	Strengths	Weaknesses
SODECOTON, CDC, HEVCAM, SABC, ORANGE, MTN, CIMENCAM, ROCAGLIA, GICAM, GUINESS CAMEROUN, GROUPE KADJI, DANGOTE, TOTAL, etc	Organisations involved in environmental protection	All interventions that are aimed at restoring degraded lands and landscapes	Proximity to local communities and knowledge of local realities	Low intervention capacity due to insufficient financial means

Tree nurseries at the Youth Training Centre of the National Civic Service Agency for Participation in Development (ASCNPD) in Langui/Pitoa (Photo_ Tapita Victoire)

4.2.3. Objectives of the Harmonised Action Plan with Strategies and Plans developed in Cameroon

Table 13: Objectives of the Harmonised Action Plan with Strategies and Plans developed in Cameroon

Specific objectives of the Harmonised Action Plan	Strategic documents taken into account in the HAP	Axes and specific objectives of the corresponding documents
O.S.1: Increasing restoration actions to improve ecological functions, biodiversity and ecosystem services	NAP/CD	Axis 2, O.S.1: Improving access to water in quantity and quality
		Axis 2, O.S. 2: Rationally managing ago-sylvo-pastoral and fisheries resources
		Axis 2, O.S. 3: Conserving and protecting areas with fragile ecosystems and animal biodiversity
		Axis 2, O.S.4: Promoting alternative energies and better managing the firewood sector
		Axis 3, O.S. 1: Improving the fertility of marginal lands and restoring degraded lands
	National Strategic Framework for RPFTD	Guideline 1, O.S.1: Developing a system for locating and classifying degraded and deforested land for restoration
		Guideline 1, O.S.2: Selecting the most appropriate restoration options for each priority area
		Guideline 1, O.S.3: Implementing measures to mitigate the causes of landscape and forest degradation and deforestation
	PND-PFNL	Action 2, O.S: Continuing the knowledge of resources, supporting sustainable management, developing emerging sectors and increasing production capital and productivity
		Action 3, O.S: Creating added value and decent jobs
	National Mangrove Strategy	Programme 1, O.S.1: Promoting good sustainable management practices
		Programme 1, O.S.2: Integrating mangroves and other associated coastal ecosystems into the protected area establishment process
		Programme 1, O.S.5: Promoting community forestry
		Programme 2, O.S.1: Planning for multi-resource management of mangroves and coastal ecosystems
		Programme 2, O.S.2: Conducting territorial planning of mangroves and other coastal ecosystems
		Programme 2, O.S.3: Rehabilitating and restoring degraded mangroves and modelling the effects of climate change on species distribution

		Programme 2, O.S.4: Planning for the conservation and protection of mangroves and other coastal ecosystems
		Programme 3, O.S.3: Promoting alternative activities and technologies in mangrove areas
		Programme 3, O.S.4: Ensuring the integrated development of mangrove areas and the coast (basic infrastructure)
	PNDPF	O.S.1: Increasing woody plantations and production other than timber, service and firewood. Adding value to products and developing forestry value chains
		O.S.2: Providing ecosystem services other than provisioning (recreation)
		O.S.3: Restoring degraded lands and landscapes
	Great Green Wall initiative	Axis 1, O.S.1: Facilitating the natural regeneration of deforested areas
		Axis 1, O.S.2: Reforesting sites in degraded areas using agroforestry techniques
		Axis 1, O.S.1: Developing water harvesting techniques used for the rehabilitation of severely degraded land
		Axis 2, O.S.2: Identifying, disseminating and scaling up best practices in water erosion control
		Axis 2, O.S.3: Improving the water balance and increasing the water supply from dams and developed watersheds
		Axis 3, O.S.2: Providing appropriate erosion control facilities for agricultural and pastoral production
		Axis 3, O.S.3: Assisting communities in the development of agriculture, particularly the sale of fodder legumes on large areas of land
		Axis 3, O.S.5: Revegetating the ecosystems of the intervention area through silvicultural operations and cultivation techniques used for the protection of woody species
		Axis 4, O.S.1: Analysing the VC of products (NTFPs, agricultural and livestock) exploited in the communities of the intervention zone
		Axis 3, O.S.2: Supporting associations to develop AGRs adapted to their communities
		Axis 5, O.S.1: Developing renewable energy infrastructure in the communities concerned in order to strengthen the resilience of the population to climate change
		Axis 5, O.S.2: Setting up drip irrigation sites

		Axis 5, O.S.3: Improving the resilience of ecosystems and people through solutions and approaches. The resilience of people and ecosystems is improved through a number of climate-smart approaches adapted to the intervention area.
		Axis 5, O.S.4: Identifying appropriate legume-cereal associations for extension
		Axis 6, O.S.3: Providing support and implementing the techniques learned by the target groups
	PND-FBC	Axis 1, O.S.1: Developing, managing sustainably and increasing production capacity to ensure a sustained supply of material (for industry) and environmental services)
		Axis 2, O.S.1: Creating wealth, jobs and organising the resource, village areas, as well as on family and individual farms/plots
	NBSAP	O.S.4: An environmentally sustainable production and consumption system is put in place based on practices with appropriate investments
		O.S.9: By 2020, degraded ecosystems/habitats should be restored to re-establish and/or recover extinct species and maintained at a level of conservation that ensures long-term sustainability
		O.S.13: By 2020, community-based approaches to biodiversity conservation and ecosystem management should be promoted
	LDN	Target: The 12,062,768 hectares of degraded land are restored Restoring 80% of critical areas Implementing the national forest landscape restoration strategy within the framework of AFR 100/BONN Challenge initiatives Continuing and intensifying the ongoing restoration projects-programmes (PAN, LCD/ Green Sahel, national reforestation programme...) Implementing transformative projects in prioritised watersheds

		Target: Fuelwood dependency of urban populations in the areas most affected by land degradation is reduced by 25%; Developing the production and supply of energy from renewable sources Continuing the promotion of improved stoves, solar cookers, methanisation and/or butanisation in rural areas
		Target: Forest and land degradation due to logging is reduced by 75%. Continuing the implementation of sectoral strategies (Forestry-Wildlife Strategy 2020, Environment Strategy, etc.)
		Target: Mangrove degradation is halved Continuing the implementation of priority options retained, within the framework of the Master Plan for the development of mangroves in Cameroon, for the sustainable development of each of the three Cameroonian mangrove zones: restoration of specific sites, protection and co-management of mangrove protected areas and sustainable management of wood energy
	SDSR-PNIA	O.S.1: Increasing sustainable production of plant, forestry, animal and fishery products in priority value chains
		O.S.2: Improving the collective infrastructure environment and access to factors of production and markets
		O.S.3: Building the capacity of production systems, sustainable management of natural resources, and food and nutrition security of populations vulnerable to climate change and other shocks
	National REDD+ Strategy	Cross-cutting policy options (axes) to address deforestation and forest degradation: Payments for environmental services (PES) that compensate for the conservation of forests and carbon stocks in councils

		Forestry sector strategic axis to address deforestation and forest degradation: Wood energy: formalization of the wood energy sector, promotion of sustainable wood energy production, efficient wood processing and use of wood waste and reduction of demand for fuelwood; Forest plantations: Promoting sustainable plantation management, processing, development and marketing of forest plantation products and derivatives
		Strategic axis development and mining: Integrating environmental criteria to reduce impacts on the forest during infrastructure development and mining operations, and designing a reforestation/afforestation compensation system to mitigate unavoidable damage (zero net loss: zero emissions)
		Resilience and adaptation to climate change in northern forests: Contributing to transforming deforested and degraded areas into resilient and multifunctional ecosystems, reducing communities' vulnerability to climate change and increasing carbon stocks, and strengthening multi-sectoral collaboration and governance in natural resource management
		Integrated watershed management in the western highlands:
	National Strategy for the Development of Cashew Value Chains in Cameroon	O.S.1: Increasing enhanced seeds production: Axis 1: Improving access to enhanced cashew seeds; Axis 2: Providing support to the professionalization of cashew nut plant material production units
		O.S.2: Improving cashew nut production Axis 3: Facilitating access to other cashew production factors Axis 4: Providing support to increased cashew nut production in well-managed agricultural and livestock lands
		O. S.3: Developing cashew nut and apple processing Axis 5: Technical and material capacity building for cashew nut and apple processing

O.S.2 : Improving women, youth, indigenous peoples and other stakeholders' knowledge and skills in research, innovation, and data sharing	NAP/CD	Axis 4, S.O. 1: Improving knowledge on the desertification process: degradation and dissemination of information to as many actors as possible. largest number of actors
		Axis 3, O.S.2: Intervention capacity building of the various stakeholders, in particular populations and decentralised institutions
	The National Strategic Framework for RPFTD	Guideline 3, O.S.3: Assessing needs according to challenges and technical capacity building for FLR
		Guideline 3, O.S.4: Developing an awareness raising mechanism on FLR for better knowledge sharing
		Guideline 5, O.S.1: Strengthening the integration of research and the use of local knowledge in FLR implementation
	PND-PFNL	Action 2, O.S : Pursuing knowledge of resources, supporting sustainable management, developing emerging sectors and increasing production capital and productivity
		Action 4, 0.S : Continuing grouping stakeholders (collectors, producers, processors, and traders) into categories with a view to facilitating capacity building and experience sharing; their participation in the formulation and implementation of policies and strategies for the development of commodity chains and enterprises, involving in sub-regional and regional green economy organisations and agendas, and taking advantage of all the opportunities offered by the sub-regional and regional environment in connection with the promotion of the green economy
	The National Mangrove Strategy	Programme 3, O.S.1:Organisational and operational capacity building of the sectors involved in the use of mangrove products (collection, processing and marketing)
		Programme 4, O.S.1: Harmonising data collection and presentation methods at national level
		Programme 4, O.S.2: Assessing the animal and plant potential of mangroves and coastal ecosystems, taking into account micro-organisms
		Programme 4, O.S.4: Trends in mangroves and coastal ecosystems (phenology, regeneration of degraded areas)
		Programme 4, O.S.5: Assessing the carbon storage potential of Cameroonian mangroves
		Programme 4, O.S.6: Improving knowledge on the resilience of mangroves and coastal ecosystems to the adverse effects of climate change

	NPFDP	O.S.4: Boosting research and innovation, training, and capacity building
	The Great Green Wall initiative	Axis 1, O.S.3: Making the various techniques to increase soil fertility known and accessible to all
		Axis 1, O.S.4: Capitalising and intensifying the best local know-how
		Axis 3: O.S.1: Training communities on agroforestry practices adapted to the intervention zone
		Axis 3: O.S.4: Raising community awareness on the merits of reforestation by private forests
		Axis 3: O.S. 6: Training communities on techniques to increase the presence and density of woody plants and fodder in grazed areas
		Axis 4: O.S. 4: Mitigating the adverse effects or carbon footprint of agroforestry practices in the communities concerned
		Axis 6: O.S. 1: Drafting a document on Sustainable Land Management techniques
		Axis 4: O.S.2: Raising awareness and training local communities, administrations and civil society on SLM
	NBSAP	O.S.6: By 2020, the rate of ecosystem degradation and fragmentation and habitat loss was significantly reduced by half
	LDN	Target: LDN is achieved with reference to 2015 (no net loss) and an additional 10% of the national territory is improved (net gain) Measures: Informing, raising awareness, educating, training, researching and building the capacities of all relevant actors on LDN; Securing land tenure throughout the country; Reporting on trends in LDN indicators
	The National REDD+ Strategy .	Strengthening land security, gender and social equity
		Integrated watersheds management in the western highlands: capacity building
	The National Strategy for the Development of Cashew Value Chains in Cameroon	O.S.2: Improving cashew nut production Axis 4: Supporting the increase of cashew nut production in well-managed lands for agriculture and livestock

		O.S.3: Developing cashew nut and apple processing Axis 5: Building technical and material capacities for cashew nut and apple processing
		O.S.5: Creating administrative and regulatory facilities for the development of the cashew nut sector Axis 9: Improving the business climate for the harmonious development of the cashew nut sector
R.O.S.3 : Strengthening coordination, communication, implementation, monitoring and evaluation of initiatives to combat land and forest landscape degradations	NAP/CD	Axis 1: O.S.3: Better managing bush fires
		Axis 3, S.O.3: Setting up platforms for consultation, partnership and synergy between all stakeholders
		Axis 3, O.S.4: Setting up and operationalising a database and a decentralised monitoring and evaluation system
	The National Strategic Framework for RPFTD	Guideline 1, O.S.5: Conducting a stakeholder analysis and typology of key actors of FLR
		Guideline 3, O.S.1: Developing effective structures and tools for monitoring and evaluation of FLR
		Guideline 3, O.S. 2: Owning a reporting and dissemination system for FLR data
		Guideline 3, O.S.4: Developing an awareness raising mechanism on FLR for better knowledge sharing
	PND-PFNL	Action 4, O.S : Continuing grouping stakeholders (collectors, producers, processors, and traders) into categories with a view to facilitate capacity building and experience sharing; their participation in the formulation and implementation of policies and strategies for the development of commodity chains and enterprises, involve in sub-regional and regional green economy organisations and agendas, and taking advantage of all the opportunities offered by the sub-regional and regional environment in connection with the promotion of the green economy
	The National Mangrove Strategy	Programme 4, O.S.3: Developing and using monitoring and decision-making tools for the sustainable management of mangroves and coastal ecosystems
		Programme 4, O.S.5: Assessing the carbon storage potential of Cameroonian mangroves

	NPFDP	O.S.5: Ensuring coherent implementation of the Programme through the inclusion of all social categories from decision-making to implementation
	The Great Green Wall initiative	Axis 2, O.S.4: Setting up water point management platforms at local level
		Axis 3, O.S.4: Raising community awareness on the merits of reforestation by private forests
	NDP-CBF	Axis 4, O.S.4: Planning and coordinating the implementation, seeking funding, monitoring and evaluating the execution of NDP-CBF activities
	NBSAP	O.SI 15: By 2020, the development and implementation of mechanisms for Payment for Ecosystem Services, including carbon stocks, generated increased revenues
		O.S. 19 : By 2020, the capacity of key actors is strengthened and gender mainstreaming is ensured for the effective achievement of biodiversity targets
	The National REDD+ Strategy	Cross-cutting strategy options to address deforestation and forest degradation: Strengthening governance, i.e. providing guidance for sectoral policy reforms, coherence, coordination, and ensuring participation of all stakeholders in land-use decision-making;
		Forest plantations: developing a proactive and inclusive policy for reforestation and (artificial) forest regeneration, coordinating efforts and establishing synergies of actions, coordinating plantation and regeneration development
		Resilience and adaptation to climate change in northern forests: Boosting multi-sectoral collaboration and governance in natural resource management
	The National Strategy for the Development of Cashew Value Chains in Cameroon	O.S.2: Improving cashew nut production Axis 4: Supporting the increase of cashew nut production in well-managed lands for agriculture and livestock S.3: Developing cashew nut and apple processing
		Axis 6: Improving access to finance, improved technologies, free zones and points for cashew nut and apple processing
		O.S.4: Developing cashew nut product marketing Axis 7: Establishing a cashew market communication mechanism

O.S.4: Improving the policy, legal and institutional framework for the implementation of initiatives to combat land and forest landscape degradations	NAP/CD	Axis 1: OS1: Improving the conditions of co-management of land by the various users and actors
		Axis 1: O.S.2 : Limiting land conflicts between land-users
		Axis 1: O.S. 4 : Controlling internal migration flows of goods and people
		Axis 3, O.S.1: Strengthening the regulations in force and better managing the movement of goods and people in the sub-region
	The National Strategic Framework for RPFTD	Guideline 1, O.S.4: Adopting land-use policies and land laws favourable to FLR
		Guideline 2, O.S.1: Ensuring coherence, inter-connectivity and complementarity of FLR with adopted development strategies and programmes
		Guideline 2, O.S.2: Developing and sustaining integrated and cross-sectoral FLR planning
		Guideline 2, O.S.3: Strengthening multi-sectoral platforms and involving marginalised groups in the implementation of FLR
		Guideline 2, O.S.3: Promoting equitable participation of stakeholders during the planning and implementation of FLR
		Guideline 5, O.S.2: Developing and operationalising procedures for accounting for the socio-economic impacts of FLR
	The National Mangrove Strategy	Programme 1, O.S.3: Strengthening the control of extractive, agro-industrial and other resource collection activities in mangroves
	NPFDP	O.S.5: Ensuring coherent implementation of the Programme by ensuring the inclusion of all social categories from decision-making to implementation
	NDP-CBF	Axis 3, O.S.3 : Developing legal and regulatory measures to facilitate access to the resource and defining management and valorisation standards
	NBSAP	O.S.5: By 2020, the legalization of biodiversity was strengthened and harmonised to avoid conflicts of use and combat illegal practices
	SDSR-PNIA	O.S.4 : Strengthening the governance and human capital of the Sector to increase its overall performance
	The National REDD+ Strategy	3.2: Cross-cutting strategy options to address deforestation and forest degradation: Strengthening governance, i.e. providing guidance for sectoral policy reforms, coherence, coordination, and ensuring participation of all stakeholders in land-use decision-making;

		3.2 : Options stratégiques transversales pour faire face à la déforestation et à la dégradation des forêts L'amélioration de la gestion des terres, c'est - à - dire, renforcer et promouvoir un cadre politique national, et l'aménagement des utilisations dans les paysages forestiers 3.2: Cross-cutting strategic options to address deforestation and forest degradation Improving land management, i.e. strengthening and promoting a national policy framework, and managing uses in forest landscapes
	The National Strategy for the Development of Cashew Value Chains in Cameroon	O.S.2: Improving cashew nut production Axis 3: Facilitating access to other cashew nut production factors (R.2.1.); Axis 4: Boosting the increase of cashew nut production in well-managed lands for agriculture and livestock (R.2.7).
		O.S.4: Developing cashew nut product marketing Axis 8: Drafting regulatory instruments necessary for the marketing of cashew nut products
		O.S.5: Creating administrative and regulatory facilities for the development of the cashew nut sector Axis 9: Improving the business climate for the harmonious development of the cashew nut sector
O.S.5 : Boosting the mobilisation of sustainable financing for initiatives to combat land and forest landscape degradation	The National Strategic Framework for RPFTD	Guideline 4, O.S.1: Increasing Government ministries' contribution in the scaling up of FLR
		Guideline 4, O.S.2: Raising support from bilateral and multilateral donors
		Guideline 4, O.S.3: Engaging the private sector and promoting the development of value chains involved in the use of catering products
		Guideline 4, O.S.4: Facilitating investment in FLR at the local level
	PND-PFNL	Action 1, O.S: Promoting sustainable management, equitable access, enhancement of the resource and improvement of living standards
	The National Mangrove Strategy	Programme 3, O.S.2: Setting up a support fund for local initiatives
	The Great Green Wall initiative	Implementing regulations on quality control of inputs for agroforestry use

	NDP-CBF	Axis 4, O.S.4 : Planning and coordinating the implementation, seeking funding, monitoring and evaluating the execution of NDP-CBF activities
	NBSAP	O.S. 20 : By 2020, partnership support and funding for biodiversity programmes increased
	The National REDD+ Strategy	3.2: Cross-cutting strategy options to address deforestation and forest degradation: Funding REDD+ implementation i.e. creating an enabling environment for mobilizing private and public sector financial resources
	The National Strategy for the Development of Cashew Value Chains in Cameroon	S.3: Developing cashew nut and apple processing Axis 6: Improving access to finance, improved technologies, free zones and points for cashew nut and apple processing
		O.S.5: Creating administrative and regulatory facilities for the development of the cashew nut sector Axis 9: Improving the business climate for the harmonious development of the cashew nut sector

4.2.4. Strategic areas

Strategic Area 1 : Restoring degraded lands and landscapes to improve ecological functions, enhance biodiversity and ecosystem services

Strategic Area 2: Research and innovation, and stakeholders' training and capacity building

Strategic Area 3: Institutional mechanism for coordination, monitoring and evaluation, taking into account gender and vulnerable groups

Strategic Area 4: Capacity building in mobilising funding and techniques for initiatives to combat land and forest landscape degradations

4.2.5. Selection and prioritisation of relevant and technically feasible soil remediation interventions

The selection and prioritisation of landscape and land restoration interventions depends on the practices already locally adopted and used and the land-use/land allocation pattern. Some interventions are carried out on a large scale (over 20 ha) while others are only carried out on small areas at the plot level (less than 20 ha). The National Strategic Restoration Framework (MINEPDED/MINFOF/GIZ, 2019) refers to "mosaic" restoration, where forests and trees coexist with agricultural crops, watercourses, protected areas and residential areas at the landscape scale, while other types of intervention lend themselves to larger-scale restoration, such as closed canopy forests. As concerns MINEPDED's Green Sahel Project, launched in 2008, for instance, 1,000 - 1,500 ha in a single block have been restored. This is the case of the Mada (1,500 ha) and Lera (1,000 ha) sites in 2008 using tree planting for enrichment. Under each land-use type, the following table presents the most common restoration options.

Table 14: Some activities illustrating options for restoring degraded landscapes and lands in the Sudano-Sahelian zone

Programmes/ Projects/Organisations	Area of intervention	Period	Period	Outcomes/Comments
Multi-resource inventory for the demonstration of biodiversity recovery in the Green Sahel sites of the Mayo-Kani and Mayo Danay Divisions/ ABIOGeT	Mayo-Kani and Mayo Danay Divisions	2014/2015	Reforestation; Beekeeping; Training of local residents; Repair and maintenance of boreholes; Multi-resource inventories..	The results of the multi-resource inventory carried out on the 2,000 ha of the project have shown that, from the third year onwards, the plant cover and biodiversity can be reconstituted..
Project entitled: "University-local community partnership for actions to develop agroforestry systems resilient to climate change in Cameroon"/ ABIOGeT	Adamawa, North and West Regions of Cameroon	July 2018 - August 2021	Reforestation; Agroforestry; Training of local communities; Training of students	In three years, the project has planted 452,253 trees in agroforestry and trained nearly 2,000 farmers on the best techniques and practices for land restoration.
Green Sahel Project/MINEPDED	Far North Region	Since 2008	- Large-scale reforestation - Training of local residents - Installation of boreholes - Creation of water retention basins - Creation of water points (boreholes) - Installation of firebreaks - Raising local residents and administrative, communal and traditional authorities' awareness - Promoting improved stoves/Training women in the use of improved stoves	Until 2020, the Green Sahel Project has restored 31,950 hectares and 4,470,000 seedlings have been planted. The extension of improved stoves has resulted in the distribution of more than 150,000 improved metal stoves and the training of more than 5,000 women in their use.
The Benoue Watershed Development project/MINEPDED	The Benoue Watershed	Since 2009	Protection of the banks of the Benoue River/Reforestation; Planting of Chinese bamboo	
The National Tree Planting Programme (NTPP)/MINFOF	Nationwide	2006-2008	Reforestation Awareness raising	
Forest/Environment Sector Programme (FESP)/MINFOF/ MINEPDED	Nationwide	Since 2003	- Forest management (reforestation, inventory) - Institutional strengthening, training and research - Local communities' capacity building	

Programmes/ Projects/Organisations	Area of intervention	Period	Period	Outcomes/Comments
Smallholder Farm Development and Land Management Project /DPGT/SODECOTON	Adamawa, Far North and North Regions	1994-2001	- Reforestation; Agroforestry - Soil and water conservation activities/combating water erosion (grass strips, stone barriers, etc.) - Promoting the installation of firebreaks; Creating water points (boreholes) - Promoting compost and organic manure; Fodder production - Improving grazing	
Water - Soil - Tree Project/ DPGT/SODECOTON	Adamawa, North and West Regions	2001- 2015	- Reforestation - Agroforestry - Soil and water conservation activities/combating water erosion (grass strips, stone barriers, etc.) - Promoting the establishment of firebreaks - Creating water points (boreholes) - Promoting compost and organic manure; - Producing fodder and improving grazing	
PRODEBALT/PRESIBALT - CBLT	Cameroonian part of the Lake Chad Basin (Far North Region) - Reforestation		- Reforestation - Agroforestry - Soil and water conservation activities/combating water erosion (grass strips, stone barriers, etc.) - Creating water points (boreholes) - Promoting the establishment of firebreaks	
PASGIRAP/MINEPIA/MINADER	Adamawa, Far North and North Regions		- Reforestation/ Agroforestry - Soil and water conservation activities/combating water erosion (grass strips, stone barriers, etc.) - Creating water points (boreholes) - Installing firebreaks - Creating consultation frameworks - Building agro-pastoralists' capacities - Improving grazing	

Programmes/ Projects/Organisations	Area of intervention	Period	Period	Outcomes/Comments
The Waza-Logone Project/ IUCN	The Waza-Logone Floodplain (Far North Region)		Hydraulic and ecological rehabilitation of the floodplain over an area of 3,000 to 5,000 km2 (Protection activities of the Waza National Park/Biodiversity conservation)	
Sustainable Land Management (SLM)/NDP	National level		- Reforestation/ Agroforestry - Promoting soil and water conservation activities - Community capacity building - Producing and spreading compost - Building pastoral wells - Protecting or securing grazing areas and tracks. .	
Livestock Development Project (PRODEL)/MINEPIA	National level		- Improving grazing - Fodder production - Building agro-pastoral boreholes - Building agro-pastoralists' capacities - Boosting the development of livestock value chains	

Programmes/ Projects/Organisations	Area of intervention	Period	Period	Outcomes/Comments
Chari-Logone Integrated Rural Development Project, Phase I & II (CL-IRDP)/MINEPAT	Logone and Chari Division	2008 - 2012	- Boosting livestock/agricultural activities - Rural infrastructure (construction of roads and boreholes, community shops and storage facilities, livestock markets, etc.) - Promoting improved poultry farming techniques - Improving fodder production (development of Bracharia and Stylosantes crops) in fodder fields - Promoting new cultivation techniques, improved seeds, agroforestry and market gardening; - Establishing rural development centres to take charge of infrastructure and equipment management and to remove the constraint of start-up capital for the campaign or any activity; - Various supports to producers' groups and more specifically to women and young people (GIC, associations, management committees, cooperatives, federations, umbrella structures, etc.); - Building producers and technical partners' capacities.	
Mounts Mandara Development Programme (PDRM)	Mounts Mandara (Mayo-Tsanaga and Mayo Sava Divisions)/Far-North Region	1996 – 2002	- Improving agricultural production (cereals and market gardening) - Intensifying livestock farming, - Crop management - Water supply - Education integrated into the environment - Improving health and income-generating activities	

4.2.4. Action guidelines for the restoration of degraded landscapes and lands

a.Reforestation/Silviculture

This involves the planting of trees on formerly wooded land that is now completely degraded (sometimes completely bare and indurated soil - e.g. hardpan). Often, the site is severely degraded and no longer able to fulfil its former function (e.g. agriculture or mining). Use of native or exotic species and for various purposes, firewood, timber or service wood, fruit production, etc.

b.Agroforestry

Agroforestry is the establishment and management of trees on active agricultural land (under changing agriculture), through planting or regeneration, to improve crop productivity, provide dry season fodder, increase soil fertility, improve water retention, etc.

c.Protecting or securing land

This is the practice of preserving or protecting a fragile, threatened or ecologically degraded unit of land or landscape without putting it into production or land-use. The objective of land reclamation is to improve the state of the vegetation cover; to restore lost fertility to the land; to protect fragile areas such as springheads, riverbanks; to conserve forests or forest relics; to protect endangered species of flora or fauna and their natural habitats, etc.

d. Assisted natural regeneration

The natural regeneration of formerly wooded land with a partially degraded but still existing cover. The presence of seedlings of the main species characteristic of local forest formations will allow the regeneration of the forest cover provided that it is protected from destructive events without further intervention.

Assisted natural regeneration requires human intervention whose only aim is to speed up the reconstitution of the vegetation cover, and consequently the ecological functions of the area.

e.Improved fallow land

Improved agroforestry fallow consists of planting fertilising trees, after a series of crops, with the aim of rapidly restoring soil fertility and increasing crop yields. Improved fallows that provide food and income (honey, caterpillars, timber, charcoal, etc.) are the most promising agroforestry technologies for providing ecosystem services and improving the living conditions of rural populations in tropical regions (e.g. improved fallows with multi-purpose woody legumes such as several acacia species). There are two types of improved fallows:

Short-term (1-2 years) improved shrub fallows consist of shrubs (one or more Cajanuscajan Sesbania Sesbania; Tephrosia; Calliandra calothyrsus, etc.) that are fast-growing nitrogen fixers and installed mainly to speed up the restoration of soil fertility, improve annual crop production and reduce the fallow period.

Improved tree fallows are fallows in which one or more nitrogen-fixing tree species are introduced to speed up the restoration of soil fertility, to control erosion and/or to obtain various products such as wood and non-wood forest products. They are of medium (4-6 years) or long duration (10-15 years). The legumes generally encouraged for improved fallows are: Faidherbia albida, Acacia senegal, Acacia nilotica, Acacia polyacantha, Cassia siamea, Leucaena leucocephala, Prosopis africana, Albizia lebbeck, Parkiabiglobosa, Tamarindus

indica; etc., or non-legumes: Azadirachta indica, Moringa oleifera, Anacardium occidentale, Khaya senegalensis, Gmelinaarborea, Tectona grandis, etc.

f. Mangrove restoration

Restoration is the establishment or enhancement of mangrove ecosystems along coastal areas and in estuaries.

g. Watershed protection

Watershed protection involves the establishment and enhancement of forests and steeply sloping lands along rivers, in areas that flood naturally and around critical water bodies.

h. Home garden

This is another practice of the agri-silvicultural system by families near dwelling houses, sometimes in cohabitation with traditional livestock (agro-silvo-pastoral system). Home gardens are agroforestry micro-ecosystems located near houses and managed by the family labour force, where many planted or spontaneous plant species (cereals, tubers, spices, fruit and forest trees, etc.) cohabit or not with domestic animals in traditional breeding. They contribute to the improvement of the nutritional and socio-economic level of the farmer, and participate in the protection of the environment.

i. Alley cropping

Alley cropping (or intercropping) is a technique that aims to intercrop annual crops with shrubs or trees on the same plot in order to promote soil fertility, without going through a fallow phase. The woody plants selected in this system are generally fertilising and nitrogen-fixing leguminous plants, with deep roots, which act as nutrient pumps. They are planted as hedges. Periodic pruning is carried out at a time when agricultural work occupies the labour force. The Biomass from pruning is used as mulch to maintain soil fertility and weed control but also as fodder for animals. Several species are used for alley cropping, namely Leucaena leucocephala, Gliricidia sepium, Cassia siamea, Cajanuscajan; Sesbani Sesbania; Tephrosia; Calliandra calothyrsus, etc.

j. Agroforestry strips

In the TATP system, annual and perennial plants are grown in strips of 4-5 m, between rows of trees and shrubs, arranged along the contour lines in the strips to control water erosion and ensure soil conservation; these trees are planted hard, in double rows, to produce the hedge effect. Among the species generally used are Flemingia macrophylla, Desmodium rensonii, Calliandra calothyrsus, Leucaena diversifolia, L. leucocephala, Gliricidia sepium and Sesbania sesban. When a hedge reaches the height of 1.5-2 m, it is trimmed to 40 cm, and the pruned branches are placed in the paths between the hedges, as a moisture preserving mulch and as an organic fertilizer (green manure).

Wooded strips are copses with a rural feel on the edge of market gardens that help prevent or combat water and wind erosion. They are also used for the production of fuelwood, timber, service wood and non-timber forest products.

k. Faidherbia parks

Faidherbia parks are traditional agroforestry systems that combine this tree with food crops. Called 'Faidherbia albida' or formerly 'Acacia albida', it is a tree species traditionally kept by farmers. It is a leguminous tree that displays its leaves in the dry season and sheds them in the

rainy season. This phenological characteristic has been used for many generations by Sahelian farmers who associate it with crops, particularly cereals (sorghum, maize, millet) and others (vigna, sesame, groundnuts, cotton, etc.), but also with livestock. The tree does not compete with the associated crops in the rainy season. Complementarily and very interestingly in the dry season, Faidherbia albida is a fodder species whose leaves and pods have a high nutritional value for ruminants (a small amount of fresh fodder, rich in protein, allows the animal to digest a large quantity of dry matter).

l. Hedgerows

A hedgerow is an agri-silvicultural (woody with crops) or silvopastoral (woody with pasture and animals) technique. A hedgerow is defined as a fence of aligned shrubs or trees that marks the boundary between two plots or between two properties. Others define it as a narrow line of shrubs installed for defensive purposes. The hedgerow meets the three main agroforestry challenges, namely: conservation, production and protection. There are several types of hedgerow, namely: i) hedgerows for protection against animal raiding (defensive hedges) and against erosion (anti-erosion hedges); ii) production hedges; iii) hedgerows for land delimitation; iv) ornamental hedges.

m.Fodder crops

In the Northern Regions of Cameroon, livestock farming is second to agriculture in the region's economy. Due to the insufficiency or lack of grazing land, livestock farmers engage in tree felling and bush fires, which destroy the environment and degrade the land and forest. Thus, it is important to promote the cultivation of protein-rich fodder legumes to feed their livestock.

n.Compost production and use

Composting (converting organic household waste into an organic soil) is a great way to obtain quality green manure for market gardening and soil health. It is a biological process of recycling organic matter using aerobic bacteria into a stabilised, hygienic, soil-like product rich in humic and mineral compounds called compost. Composting can be carried out in composters on the scale of a household or a few households. On a larger scale, it is done on agricultural plots to convert manures, or in platforms to convert household waste and Biomass offcuts. Composting can serve as a means to treat all or part of the bio-waste in a city.

o.Production and use of organic manure

Organic manure is a natural fertiliser. It is especially animal and human manure used for market gardening and greenhouse cultivation. Provided it does not contain phytotoxic residues and synthetic products, organic manure is highly demanded for organic agriculture, particularly in market gardening and greenhouse cultivation. Majority of fertilisers used in agriculture today are mineral (e.g. phosphate) or derived from industrial chemistry (e.g. ammonia) which is harmful to human and animal health.

p.p) Productive agro-systems mimicking natural ecosystems

Mycorrhizae

A mycorrhiza is the result of the symbiotic association between fungi and plant roots. This symbiosis, which is essential for the development of mycorrhizal fungi, also offers a wider range of services to plants, including increased water and mineral absorption, mainly phosphorus, nitrogen and zinc.

Rhizobium spp. Rhizobia are aerobic soil bacteria belonging to the Rhizobiaceae family. They have the ability to enter into symbiosis with plants of the Fabaceae family by forming root nodules, which are found specifically in herbaceous legumes (e.g. peanut, pea, bean, soybean, clover, alfalfa) and woody legumes (e.g. Acacia spp., Leucaena spp.). Some Sudanese-Sahelian woody legumes such as Sesbania rostrata form stem nodules.

Frankia spp. Casuarinas (filaos) of the Casuarinaceae family are associated with actinomycetes of the genus Frankia that form root nodules that fix atmospheric nitrogen. These mycorrhizae, rhizobia, and Frankia increase the absorption of mineral elements and water, the biological fixation of nitrogen from the air, the ability to combat certain pathogens and the health of plants. Organic food produced in this way is balanced in nutrients and free from pollutants that can harm human health as well as that of our environment.

q.Biochar

Biochar is a charcoal-like substance made by burning organic matter biomass and used as soil amendment. Although closely related, biochar differs from charcoal in its use (as a fertiliser rather than fuel) and therefore in its environmental impact. It is used in agriculture to increase soil productivity. Soils enriched with biochar naturally grow deeper, and are on average more than twice as deep as the surrounding soils. Biochar acts to rewet soils, improve water retention and stimulate the immune system of plants. Biochar, when produced from renewable biomass, offsets greenhouse gas emissions by storing in the soil, in its stable elemental form, carbon from the Earth's CO2. In this light, it acts as a carbon sink rather than releasing CO2 into the atmosphere during combustion. Also, in combination with terra preta (black earth), it can contribute to carbon sequestration in vegetated soils (cultivated or forest) for hundreds of thousands of years.

r.Firebreaks

Firebreaks are a preventive means of protecting certain areas by means of corridors prepared by denuding the soil and installed perpendicular to the prevailing winds. This method prevents the progression of fire in that direction. Firebreaks are often used to protect young tree plantations.

There are four types of firebreaks: 1) Bare firebreaks (completely cleared to a width of at least 2 m) for small areas; 2) Firebreaks under natural vegetation (burnt annually by early fire in a 5 m strip); 3) Cultivated firebreaks (burns areas to be cultivated in 30-40 m strips); 4) Treed firebreaks (recommended on small-leafed species) in order to create a permanent and dense cover that prevents grass from growing.

The choice of the type of firebreak depends on the soil, the means that can be invested and the desiderata of the people. The establishment and maintenance work interferes with the period of intense work in the fields, which means that the villagers are not always available, which is always the stumbling block in dry tropical regions, if mechanical means are excluded.

s.Half-moons

Half-moons (agricultural, pastoral or forestry) are used to reclaim degraded, bare and encrusted land for agricultural, pastoral or forestry purposes. This technique (compacted earth or stonework in the shape of a semicircle) is carried out on degraded glacis and plateaus, to retain rainwater and improve crop soils. Half-moons are semi-circular in shape with openings perpendiculars to the direction of water flow and staggered. It is commonly used for growing cereals and herbaceous species. Thus, half-moons reduce the loss of water and fertile soil layers. Depending on their vocation, the land inside half-moons, enriched with organic fertiliser, is used for the cultivation of cereals (agricultural half-moons), the planting of woody species and or the sowing of herbaceous plants (silvopastoral half-moons).

t.Trenches

Natural trenches used to reclaim degraded, denuded and encrusted land for agricultural, pastoral or forestry purposes. The trenches used in the planting of young trees reduce water runoff, soil degradation, and slow down the formation of gullies. They are dug by hand between 3-4 m long and 0.5-0.7 m deep, staggered at 4-5 m intervals. One hectare can contain 625 trench units, each containing a sapling fed with water collected by the trench.

u.Bunds

Agricultural and silvo-pastoral bunds are used to reclaim degraded, bare and corroded land. They allow water to be retained to feed the water table and improve soil fertility. The use of bunds upstream of watersheds reduces the risk of gullying and silting of land downstream. Depending on their usefulness, there are two types of bunds:

Agricultural bunds. These are rectangular structures built of compacted earth, stones or a mixture of both. The main embankment of the structure is up to 80 m long. The "arms" on both sides are up to 15 m wide. They are built in a staggered pattern according to the contour lines and have an upstream opening. The distance between the bunds is about 6 m on a single line and, depending on the slope, which is about 25 m between the lines on the downstream side of the structure, a water reception ditch of 0.50 m wide and 0.30 m deep is dug. The excavated and rammed soil is used for the building of the main dike. The area inside the embankments is subsoiled to one third of the total area. Two thirds of the surface remains unworked and is used as an impluvium for rainwater collection. The volume of water available to the crops is thus increased by a factor of 2 to 3.

Silvopastoral bunds. They are installed using the same technique as agricultural bunds, but with a slightly different dimensioning. The main dike of an agro-sylvo-pastoral bund can be up to 100 m long and the distance between the bunds can be up to 30 m. With a view to managing the watershed, the bunds on the plateaus protect downstream areas from runoff. Trees are planted along the embankment to stabilise it.

v. Stone barriers

Stone barriers are used to reclaim degraded, denuded and encrusted land for agricultural, pastoral and forestry purposes. They are anti-erosion structures composed of blocks of rubble or pebbles arranged in series of two to three to reclaim degraded land, combat water erosion, improve water infiltration and fertilise agricultural soils. They are built in lines along a contour line after stripping 10 to 15 cm of soil along the line. The tops of the stones have as height of 20-30 cm from the ground. The distance between the stone rows is 20-50 m depending on the slope of the land. Stone barriers work best when combined with biological measures (grassing, hedging, tree planting), organic manure and mulching.

w. Filter bunds

Filter bunds are used to reclaim degraded, bare and encrusted land for agricultural, pastoral and forestry purposes. Installed to reclaim degraded, denuded and encrusted land for agricultural, pastoral and forestry purposes, filter bunds are anti-erosion devices built along contour lines that are 30 to 50 cm high and extend over a width of two to three times the height. They are assembled with rubble or stones of different sizes. There are two types of filter bunds: filter bunds without a mat for flat land without gullies and bunds with a mat for land with high runoff.

The filter bund is often placed upstream of the cordons to first break the force of the water running off the plateaus and slopes.

x. Planting for bank fixation: Bamboo

Bamboo is also used to protect the banks by spreading its roots. The picture shows students on a tour of this technique.

y. Zai

Zai are used to reclaim degraded, denuded and encrusted land for agricultural, pastoral and forestry purposes. Zai are holes of 30-40 cm in diameter and 10-15 cm deep, dug on marginal or degraded land that is no longer cultivated (e.g. glacis land). The distance between the holes is 70-80 cm, which gives about 10,000 holes per ha for maize cultivation, for example. These holes are dug perpendicular to the slope and staggered.

z. Grass strips

Grass strips are installed along smoothed contours to combat erosion and the loss of fertility of agricultural land. They are 80 cm wide and 1 m long dispositive on low slope faults are installed along agricultural plots or watercourses. The main objective is to control or prevent water erosion. They promote soil fertility by retaining moisture and organic matter. They are useful for farmers in terms of straw, hay, mats, hut roofing, brooms, and granaries.

Local herbaceous species (e.g. Andropogon gayanus, Cymbopogonschoenateus, Vetiver anigritiana) are sown or stumps (seedlings) are planted at the beginning of the rainy season. The strips grow with sedimentation, which maintains the water retention effect in contrast to mechanical structures such as cordons and bunds. In pastoral areas, vegetation of the strips with fodder plants can increase the interest and acceptance of the technique. It is recommended to combine grass strips with natural regeneration of woody plants or with planted trees.

aa.Micro-irrigation

Micro-irrigation basins are used to reclaim degraded, bare and encrusted land for agricultural, pastoral and forestry purposes. Micro-irrigations are micro-dams built in the lowlands with cut stones that retain part of the rainwater and improve soil fertility for market gardening. Their length often varies between 100 and 200 m and the height of the wall or dam between 2 and 4 m. Micro-irrigations create permanent or temporary water reservoirs upstream, often ranging from 5 to 15 hectares in size. They are equipped with buttresses and a dissipation basin. Depending on local conditions, they are built with cut stones grouted with mortar or with concrete. Dams can be made of rammed earth or reinforced with stones. Some dams are built as dam bridges to allow the crossing of a lowland. The effect on the groundwater table depends on the depth at which the structure is anchored. The deeper the foundation, the more groundwater is retained.

4.2.5. Selection and prioritisation of relevant and technically feasible soil remediation interventions

The selection and prioritisation of landscape and land restoration interventions depends on the practices already locally adopted and used and the land-use/land allocation pattern. Some interventions are carried out on a large scale (over 20 ha) while others are only carried out on small areas at the plot level (less than 20 ha). The National Strategic Restoration Framework (MINEPDED/MINFOF/GIZ, 2019) refers to “mosaic” restoration, where forests and trees coexist with agricultural crops, watercourses, protected areas and residential areas at the landscape scale, while other types of intervention lend themselves to larger-scale restoration, such as closed canopy forests. As concerns MINEPDED’s Green Sahel Project, launched in 2008, for instance, 1,000 - 1,500 ha in a single block have been restored. This is the case of the Mada (1,500 ha) and Lera (1,000 ha) sites in 2008 using tree planting for enrichment. Under each land-use type, the following table presents the most common restoration options.

Table 15: Potential interventions or restoration options per agro-ecological zone

Land type (agro-ecological zone)	Proposed interventions or restoration options
- Entirely or partially denuded dryland/landscapes - Sahelian zone: Far North, North and part of Adamawa Regions) - Lowland savannah zone: Adamawa Plateau and part of the Centre Region -	- Reforestation or forestry - Agroforestry - Protecting or securing land - Assisted natural regeneration - Improved fallow land (improved fallow) - Watershed protection - Home gardens - Alley cropping - Agroforestry strips - Faidherbia parks - Hedgerows - Fodder crops and grazing management - Compost production and use - Production and use of organic manure - Productive systems mimicking natural ecosystems - Firebreaks - Half-moons - Trenches - Bunds - Stone barriers - Filter bunds - Planting to fix the banks: Chinese bamboo - Zaï - Grassed strips - Micro-irrigation - Dissemination of improved stoves
- Forest land - Forest area : Centre, South, and East Regions	- Reforestation/Silviculture; Fencing and natural regeneration; Assisted natural regeneration (silviculture); Watershed protection; Fodder cultivation/ Grazing management; Compost or organic manure production / Chinese bamboo
- Landscapes/wetlands fully or partially denuded - Highland wet savannah area (West and North West Regions)	- Assisted natural regeneration; Improvement of fallow land; Alley cropping; Watershed protection; Fodder crops/grazing management; Compost or organic manure production/ Chinese bamboo/ Dissemination of improved stoves

Land type (agro-ecological zone)	Proposed interventions or restoration options
- Mangrove area (Littoral and South West Regions)	- Mangrove restoration; Watershed protection; Compost or organic manure production / China bamboo / Improved stoves dissemination

4.2.6. Identifying priority areas through strategic guidelines

Owing to its geographical position and its North-South stretching, Cameroon is endowed with a great ecological and cultural diversity. With a view to taking into account regional specificities and environmental issues related to desertification, and for the sake of efficiency and operationality, it was decided during the national workshop to launch the project that emphasis would be laid on priority areas, which are more directly affected by the desertification process.

According to the NAP/CAD, the FLR Strategic Framework and Cameroon's Great Green Wall initiative, the choice of priority areas was based on the following criteria:

1. Consideration of the importance of the desertification and land degradation phenomenon;

2. Analysis of the phenomenon per ecological sub-zone within regions and large eco-climatic zones; and

3. Similarity of the effects of the phenomenon, including a common understanding of desertification and its effects, manifestations on natural resources and the living environment. This division takes into account the division of Cameroon into major agro-ecological zones, while providing a specific perspective on desertification.

From the point of view of "agro-ecological zones", the three priority zones for land degradation delimited are presented in figure 7 below.

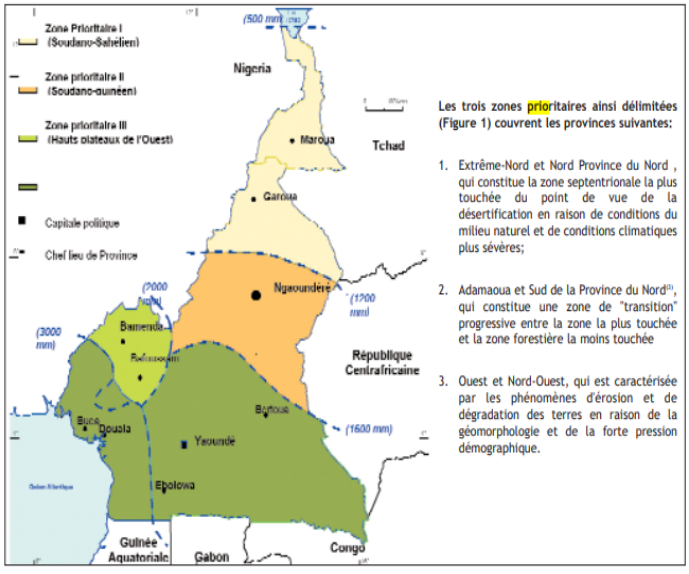


Figure 7: Priority intervention areas

The rainforest areas with monomodal rainfall dominated by mangrove ecosystems have also been experiencing very strong degradation since 2016, marked by the start of the crisis in the North-West and South-West English-speaking Regions. Because of this crisis, the population of Douala and its surroundings has increased due to massive arrival of internally

displaced persons (IDPs), victims of the so-called "Anglophone crisis", who are looking for wood and agricultural land for their livelihood. This situation comes on top of the degradation of mangroves already caused by the industrialization of the city of Douala and its marked spread. The national strategy for the sustainable management of mangroves and other coastal ecosystems in Cameroon (2018) mentions that mangrove ecosystems are also considered degraded forest landscapes and their area is estimated at 20-25% in the Cameroon Estuary, which corresponds to 68,730 ha.

According to the PDC/NDT and from the point of view of trends in land degradation in 2000-2010 period, the sensitive and priority areas for the implementation of LDN in Cameroon are watersheds. Among the 38 watersheds listed in Cameroon, five (5) have been identified and considered very sensitive to degradation. They include Logone, Djerem II, Nyong, Mbam, and Katina Ala. These watersheds are presented in figure 8 below:

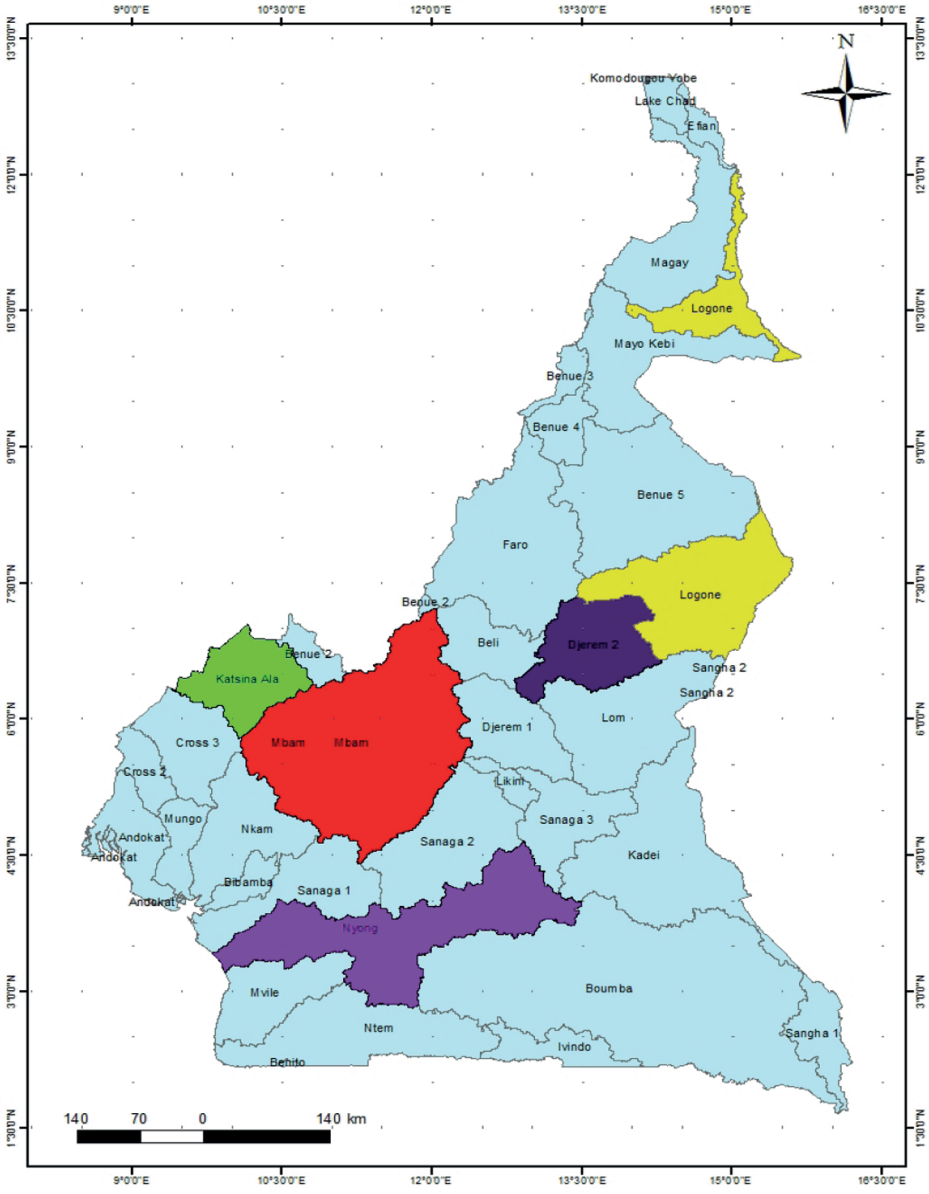


Figure 8: The five watersheds considered critical for land degradation in Cameroon between 2000 and 2010 (source: MM data)

in the Guide to the Restoration Opportunities Assessment Methodology (IUCN and WRI (2014)). This model quantifies the expected additional benefits of a restoration activity and the additional costs incurred by implementing the restoration. It is an incremental analysis approach that avoids having to account for all the existing values within a landscape and all the investments made to maintain its values. Generally, in order to carry out an assessment of the costs and benefits of restoration interventions, the model distinguishes four essential steps that can be summarised as follows:

1. **Clearly agree with stakeholders on the main restoration interventions to be considered by agro-ecological zone and implementation conditions;**

2. **Making a reliable estimate of the various technical specifics of each intervention and the incremental benefits (or changes) that are expected to be produced; Assessing the additional or incremental ecosystem goods and services for the restoration interventions or options, and their associated costs and benefits, and then developing a model. The parameters for making this assessment generally depend on: i) estimating the values of wood and non-wood products, including carbon for example; ii) estimating additional contributions to soil conservation and erosion reduction; iii) estimating improvements**

in agroforestry and agricultural yields; and iv) estimating additional costs based on contributions from forest landscape restoration.

3. Conducting a sensitivity and uncertainty analysis and assess the sensitivity of the results of the cost-benefit analysis changes in key variables such as prices, interest rates and biological assumptions. The revenue streams and non-monetary benefits of restoration depend on random ecological parameters, including tree growth rates and rainfall. However, the uncertainty in the values of these parameters introduces an element of risk into the analysis.

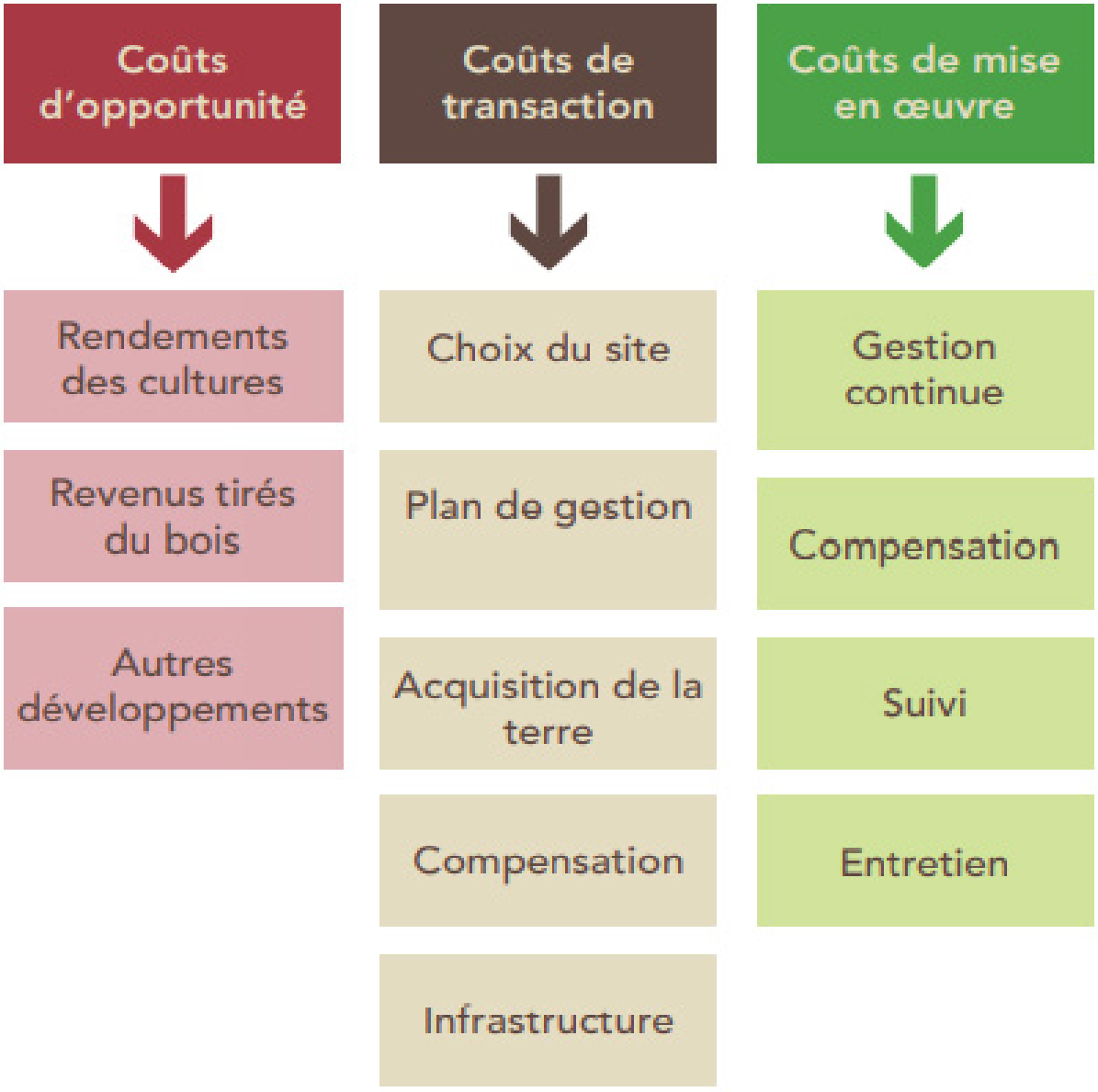


Figure 9: Costs of landscape restoration (Source: IUCN and WRI (2014))

4.2.7.2. How to model the carbon benefit-cost ratio of restoration?

Generally, for each restoration intervention, it is useful to carry out a thorough analysis of the objectives to be met in terms of potential carbon costs and benefits, which leads to an estimate of the costs and benefits of restoration. To this end, there are some guidelines that describe the techniques available and illustrate the types of outputs that can be provided by

an estimate.

Using the Good Practice Guidance (GPG) estimation methods set out in the 2003 Intergovernmental Panel on Climate Change (IPCC) recommendations, carbon sequestration values can be calculated for each landscape restoration intervention. According to ROAM, three types of carbon sequestration calculation approaches are proposed by the IPCC, namely: i) the basic or "Tier 1" approach, which is simple and requires less information. It follows the evolution of carbon stored in the biomass, using default values; ii) the more advanced or refined methods, also known as "Tier 2" and "Tier 3" approaches, which are more complex, but produce more detailed and accurate results. These methods are appropriate for a lower scale of analysis or where more precise figures are required. Generally, the Tier 1 approach appears sufficient for most national analyses of the carbon sequestration potential of restoration.

Box 1 below provides recommendations on the use of the Tier 1 approach for estimating carbon sequestration benefits according to the IPCC Tier 1 approach

Box 1: The estimated benefits of using carbon sequestration with regards to the IPCC Tier 1 approach

In order to apply the Tier 1 approach, it is important to know how much carbon is stored above- and below-ground Biomass for different types of degraded land and how this will change if the land is restored. Biomass estimated especially in forests, are often expressed in terms of standing volume (cubic meters), but since carbon is considered as weight (expressed in tonnes), standing volume estimates must be converted. Firstly, standing volume (cubic meters) is converted to weight (kg) using a Biomass conversion expansion factor which is suitable for climate zone and forest type:

Above-ground Biomass (BA)=M^3 * FECBi [1]

Where it represents the growing stock level and FECB is the Biomass Expansion and Conversion Factor.

The IPCC standard for the Biomass Expansion and Conversion Factors is seen in Table 10 below:

Table16. Biomass Conversion and Expansion Factors (FECB) for the growing stock (source: IPCC, 2003)

Zone climatique	Type de forêt	FECB	Niveau de stock en croissance (en m3)							
			<10	11-20	21-40	41-60	61-80	81-120	121-200	>200
Tropiques humides	conifères	FECB	**4.0** (3.0-6.0)	**1.75** (1.4-2.4)	**1.25** (1.0-1.5)	**1.0** (0.8-1.2)	**0.8** (0.7-1.2)	**0.76** (0.6-1.0)	**0.7** (0.6-0.9)	**0.7** (0.6-0.9)
		$FECB_A$	2.5	0.95	0.65	0.55	0.53	0.58	0.66	0.70
		$FECB_E$	4.44	1.94	1.39	1.11	0.89	0.84	0.77	0.77
	forêts naturelles	FECB	**9.0** (4.0-12.0)	**4.0** (2.5-4.5)	**2.8** (1.4-3.4)	**2.05** (1.2-2.5)	**1.7** (1.2-2.2)	**1.5** (1.0-1.8)	**1.3** (0.9-1.6)	**0.95** (0.7-1.1)
		$FECB_A$	4.5	1.6	1.1	0.93	0.9	0.87	0.86	0.85
		$FECB_E$	10.0	4.44	3.11	2.28	1.89	1.67	1.44	1.05

Source : GIEC (2006),
Notes:
FECB: Facteur d'expansion et de conversion de la biomasse pour la biomasse aérienne
$FECB_A$: Facteur d'expansion et de conversion de la biomasse pour l'accroissement annuel net
$FECB_E$: Facteur d'expansion de la biomasse pour l'extraction de biomasse aérienne

Illustration 18.
Estimation du potentiel de carbone séquestré par les différentes interventions de RPF (millions de tonnes d'équivalent CO_2) à partir de l'évaluation du Ghana

Figure 10: Example of estimated carbon sequestration potential of different FLR interventions in Ghana (per million tonnes of CO2 equivalent) (Source: IUCN and WRI (2014))

Bamboo nursery at the University of Dschang (July 2021)

4.2.8. SWOT Analysis: Strengths, weaknesses, opportunities and threats

Table 17. SWOT Analysis: Strengths, weaknesses, opportunities and threats

SWOT ANALYSIS OF LAND AND LANDSCAPE RESTORATION MECHANISMS	
STRENGTHS - Government political will - Increase awareness on challenges, actors potentials and national institutions in the restoration of degraded land and landscapes - Existence of a legal framework 96 - Existence of the forest law - Existence of strategic documents (for example the National Strategic Restoration Framework) - Cumulative lessons learned from the management of restoration projects - Existence of political institutions that are specialised in restoration	WEAKNESSES - Low literacy level of the populations - Poor monitoring of the dynamics of landscape and land degradation in Cameroon; - Strong dependence on external support for FLR funding; - Very expensive cost on restoration operations - Lack of verification on the presence of the FLR line in the budgets; Regional, communal and development investment plan - Insufficient participation of civil society organisations in defining orientations, monitoring and evaluation of interventions; - Weak human, financial and technical capacities of institutional response; - Poor awareness-raising and information activities on FLR - Poor integration of the FLR issue in regional development policies and programmes; - Legal and regulatory framework to be revised which will take into consideration, the political and technical developments problem of landscape and land degradation; - Poor organisation and supervision of actors involved in the restoration of landscapes and lands degraded; - Lack of zoning of degraded landscapes and lands in the country; - Insufficient and sometimes unsuitable material and technological capacities; - Insufficient budgetary resources; - Lack of consultation frameworks for the actors involved in FLR; - Inadequate information and communication technology tools
OPPORTUNITIES - The presence of many actors in FLR - National and regional awareness on FLR issues - Existence of several FLR funding niches at the international level - Increase marked interest from partners who are signatories or non-signatories of the Conventions related to landscapes and land restoration	THREATS - Security context, persistent terrorism, conflicts in neighbouring countries - Population movements - Irregularity of rains - Overgrazing - Bush fires

44.2.9. Logical framework of strategic choices by 2030

Table 18: Prioritisation and ten-year planning (2020-2030)

Specific objectives/indicators	Prioritised actions	Expected results	Indicators:	Activities:
Axis 1: Restoration of degraded lands and landscapes with a view to improving ecological functionality, enhance biodiversity and ecosystem services				
Specific objectives: Increase restoration actions to improve ecological functions, enhance biodiversity and ecosystem services Indicators: Surface areas of lands and landscapes restored (ha)	Intensify actions to restore degraded lands and forest landscapes	Biodiversity flora and fauna is improved Ecosystems are restored Integrated water resources management programmes are implemented Green infrastructures are created Early warning systems are developed and implemented Local land allocation plans are developed	% of flora and fauna species Ton of carbon sequestered	Keep stock of restoration initiatives in Cameroon Develop and implement reforestation projects, forestry, cultivation and the enrichment of species Promote Agroforestry Promote Improved Defences/Fallows Promote Assisted Natural Regeneration Support the implementation of Integrated Water Resources Management programmes Support programmes for the development of initiatives to combat desertification Develop early warning systems to deal with climate shocks Develop and implement in consultation with the targets of ecosystem rehabilitation projects; (forests, mangroves, etc.) Support the creation of green infrastructure; (gene bank, pollination reservoir, improved seeds, etc.) To monitor by remote sensing the trend of pastures and trans-human corridors Develop prevention and prediction tools to deal with climate shocks Develop a land-use plan Develop a community-based monitoring and evaluation system in all the sub-divisions of the towns located in the community zones Establish ecological monitoring and alert systems,

		Restored fragile ecological areas	Restored surface areas (ha) Ton of carbon sequestered	Promote reforestation, forestry, cultivation, and the enrichment of spaces, etc. Promote Improved Defences/Fallows Promote Assisted Natural Regeneration Develop a protection plan for sites with fragile ecology Develop initiatives to combat water erosion Develop watershed management projects Map out ecologically fragile areas Develop initiatives to control invasive plants and water hyacinth Promote good agro-ecological practices Promote the conservation and restoration of mangrove ecosystems Develop and implement a silting plan for waterways Support the development of REDD+ projects Develop and implement programmes to reduce greenhouse gas emissions Develop and implement carbon credit mechanisms
		Alternative energy sources and energy efficiency are promoted	The number and type of alternative energies and efficiency promoted	Produce and disseminate improved stoves Promote Biogas and other renewable energies (solar, wind, etc.) Build and install fish drying ovens; (improved smoke houses) to reduce post-harvest losses Reforestation of high energy yielding species (Acacia, Margousier, etc.) Inform, educate and communicate for the popularization of renewable energy sources

		Wood and NTFP value chains are improved	The number of wood and NTFP value chains are developed	Promote research on NTFP management and cultivation; Consolidate the directory of SMEs involved in NTFP processing and trade Organise the wood and NTFP markets Promote environmentally friendly technologies and techniques for wood and NTFP processing Develop Income Generating Activities (IGA) Develop and implement a promotion and production plan for major NTFPs Support the processing and marketing of NTFPs Contribute to the improvement of the NTFP legislative framework
		Fertility of marginal lands and agro-pastoral productivity are improved	Surface areas restored (ha) Improved agro-pastoral yields	Promote good agroforestry practices (reforestation, soil and water conservation techniques, etc.) Support target groups in carrying out good agroforestry practices Recycle and or compose agricultural waste at the local level Sensitise and train target groups like (farmers, livestock breeders and the local populations) on the methods of treatment and how to reuse agricultural and livestock waste Establish conservational methods and hay stocks Promote the development of biological control and capacity building of actors on the rational use of pesticides. Facilitate access to inputs for the target actors

Axis 2: Research - innovation, training and capacity building of actors				
Objectif spécifique lié à l'axe 2 : Améliorer les connaissances et les compétences des femmes, des jeunes, des peuples autochtones et des autres parties prenantes, en matière de recherche, d'innovation, de partage des données, d'informations et d'expériences Indicateurs : Nombre de documents de bonnes pratiques intégrant la gestion des connaissances et de l'innovation pour l'amélioration des mécanismes de valorisation des services environnementaux, de la biodiversité et des écosystèmes Pourcentage des groupes cibles aptes pour la mise en œuvre les bonnes pratiques de restauration		Number of good practice documents integrating knowledge management and innovation for the improvement of mechanisms, for the valorisation of environmental services, biodiversity and ecosystems are produced and disseminated Forest and agroforestry techniques, transformation and valorisation of wood and NTFPs are known	A number of good practice documents integrating knowledge management and innovation for the improvement of mechanisms, for the valorisation of environmental services, biodiversity and ecosystems are produced and disseminated Number of good practices reinforced and adopted	A number of good practice documents integrating knowledge management and innovation for the improvement of mechanisms, for the valorisation of environmental services, biodiversity and ecosystems are produced and disseminated Support knowledge enhancement in forestry and the development of wood and NTFP sectors; Support projects and forestry research Organise experience sharing session Conduct studies on NTFPs with high economic value that can be integrated into the APA process Promote the establishment of pilot NTFP processing units (Gnetum and baobab fruit) following a PPP approach Promote techniques of adaptation to climate change and the implementation of agroecological measures Develop and disseminate technical sheets of good practice schedules for the restoration of degraded lands and landscapes Promote the ecological monitoring systems that was put in place

		Local communities, vulnerable groups (IDPs, refugees, women, youth and the disabled) including volunteers, are equipped with technical and or professional skills to carry out restoration activities for their empowerment	Proportion of target groups that apply good practices	Support target groups in carrying out good practices for the restoration of degraded lands and forest landscapes Encourage and support stakeholders to develop and implement advocacy strategies to address their concerns Strengthen the capacity of structures in charge of collecting, analysing and disseminating data on restoration of degraded lands and landscapes Promote the growth of autonomous youth and women's structures and strengthen their capacities in the implementation, execution and monitoring of the DAP

Axis 3: Institutional mechanism for the coordination, monitoring, evaluation and consideration of gender and vulnerable groups				
Specific objective 3: Reinforce communication, monitor and evaluate the implementation of initiatives to combat land and forest landscape degradations; Specific objective 4: Improve on the political, legal and institutional frameworks aim at the realization of initiatives to combat land and forest landscape degradations	Capacity building of stakeholders, innovation and research Reinforce communication, monitor and evaluate the implementation of these initiatives Improve policy, legislative and institutional framework	reinforce communication	Number of consultation frameworks and reinforced exchange platforms	Establish control, inspection and evaluation mechanisms for the exploitation and management of natural resources. Facilitate the establishment of a framework on exchange between the various stakeholders; Create a platform to inform and an education mechanism on the actors of the sector on global and national news related to land and landscape restoration, climate change and its effects, agricultural calendar and good practices, etc. Support the integration of women, young indigenous peoples in restoration programmes and projects Develop local communication plans on the restoration of degraded lands and landscapes Develop and disseminate communication tools for behaviour change of target actors Popularise the implementation of agro-ecological measures meant to provide advice on good practices, which helps to improve sustainable yields and reduce deforestation Develop and disseminate technical data sheets for the production of quality plant material in priority sectors

		The monitoring and evaluation system are set up and is operational	An operational monitoring and evaluation system	Support the implementation of a monitoring and evaluation system that takes into account gender, youth and vulnerable social groups Put in place a satellite monitoring system for the activities of these actors in order to combat deforestation, preserve the natural ecosystems including those with high conservation and carbon value Elaborate an inclusive charter of good conduct to identify all actors and their roles, as well as their fields of competence Strengthen the development of local mechanisms for securing the rights of use and access to land ownership of different groups of actors, including vulnerable groups and minorities (especially indigenous peoples and rural women) Strengthen synergies of action between private and public partners
		Improve policy, legislative and institutional framework	Number of policy, legislative and institutional framework strengthened	Improve local land governance in response to degraded land and landscape restoration initiatives Create a favourable environment to facilitate the adoption and integration of these policies to support restoration activities Develop a policy and legal framework for environmental mitigation/carbon offsets for woodland investment projects Develop a procedures manual for Fund intervention; Strengthen the institutional framework on Free and Prior Informed Consent approach Support the establishment of a legal framework for the restoration of degraded lands and landscapes Strengthen existing coordination frameworks between actors

	Enforcement of existing laws related to land and forest landscape degradation and the NTFP valuation is improved	The document in force on land and forest landscape degradation restoration	Revise legal provisions to improve the involvement of the various actors in land governance Guarantee land and forest security through multi-sectoral land-use policies and effective local governance;

Axis 4: Strengthening the capacity to mobilise funding and techniques for initiatives to combat land and forest landscape degradations.				
Specific objective 5: To strengthen the mobilisation of sustainable funding for initiatives to combat land and forest landscape degradations Indicators: Implementation of a sustainable funding mechanism Amount of funding to be mobilised	The quest for funding Strengthened National capacity to mobilise funding and technical resources Facilitate access to funding for the various actors Encourage national and or international financial institutions to set up appropriate financing lines, to ensure the technical follow-up of project achievements	Strengths, weaknesses, opportunities and threats of national capacities to develop bankable projects, with regards to regional and international funds for financing restoration initiatives	Report of the evaluation of the capacities of the actors	To evaluate the national capacities to develop bankable projects with regards to the requirements of the regional and international funds for financing restoration initiatives.

		Trained actors that master the techniques for developing bankable projects Implementation of a functional and financial mechanism	Development of a number of bankable projects An operational financing mechanism A functional financing mechanism	Develop and implement capacity building programmes for public and private experts and civil society for the development of bankable projects. Evaluate and capitalize on existing financing mechanisms for degraded land and landscape restoration initiatives; Develop tools for mobilising financial resources Strengthen the capacity of beneficiaries in tools mobilisation Support the implementation of a financing mechanism for degraded land and landscape initiatives; Strengthen public-private partnerships for effective mobilization of funding

2017, The banks of Lake Maga in the Far-North Region are being restored thanks to revegetation of Vétiver and Ipomea. @ABIOGeT

4.2.10. Financing mechanisms (internal, external, opportunities, and constraints)

The National Strategic Framework for Forest Landscape and Degraded Land Restoration in Cameroon has developed sustainable financing mechanisms for forest landscape restoration. The National Strategic Framework identifies potential funding sources and mechanisms such as; (local, national, international, and private investors) that can support national restoration activities. In view of the diagnosis made on the financing of restoration activities in Cameroon, it is certain that most of the sources of financing for restoration activities come from public funds, but these are very small. In addition to insufficient funding, the actors involved have difficulties in accessing funds to carry out their projects. It is therefore urgent to improve the contributions of financial and technical partners, bilateral donors and more especially, involve the private sector in the mobilization of resources. In this context, there are three main sources of funding: internal, private sector and external funding.

a.Internal funding

At the moment, most of the projects related to the restoration of degraded landscapes and lands are supported by public funds. Several programmes and projects belonging to the ranges of several Ministries in the rural sector, carry out activities to restore degraded landscapes and lands. However, it should be noted that the envelopes allocated to the beneficiary Ministries do not clearly specify the orientations related to landscape and land restoration. There are also mechanisms or funds at the national level, such as the National Environmental and Sustainable Development Fund (FNEDD) and the Special Forestry Development Fund (FSDF), both of which are already existing. Regional and local authorities and NGOs are also involved to varying degrees in landscape and land restoration activities.

b.Funding from the private sector

It should be noted that some private actors like SODECOTON, CDC, HEVCAM, SABC, ORANGE, MTN, CIMENCAM, ROCAGLIA, etc. are carrying out actions that are sometimes prompt in terms of soil protection and restoration.

c.External funding

Cameroon needs to mobilize additional financial resources to support its landscape and land restoration projects. There exist several external funding opportunities. An example is the Global Environment Facility (GEF) which is part of the funding for Global Environmental Conservation. This fund is a

projects. In the same context, the Global Mechanism has the mission to facilitate the search for financing the implementation of the NAP/CD and, as such, should be used to seek the necessary funds. Development partners are also committed in working with the Government of Cameroon to implement its sustainable development, poverty reduction policies and strategies, and more specifically, to implement the NEMP, whose Harmonised Action Plan can be considered a major component, in the same way as the PSFE. It should also be noted that the three Rio Conventions (UNCCD, CBD, UNFCCC) and the various agreements and mechanisms that flow from them constitute a great opportunity to finance projects for the restoration of degraded landscapes and lands. The Clean Development Mechanism (CDM) of the UNFCCC, for example, through its Kyoto Protocol, is an excellent opportunity to finance tree planting activities.

External funding can be supported for example by donors like (World Bank, AfDB (African Climate Fund), KFW, Green Climate technical partners like (FAO, IFAD, etc.), bilateral partners (GIZ/KFW, JICA, KOICA, AFD, DFID, etc.), Foundations and NGOs like IUCN, WWF, BILL GATES FOUNDATION, CLINTON FOUNDATION, etc.

Voluntary funding. This financing involves, among other things: the practice of corporate social responsibility of private and public institutions, payments for ecosystem services, carbon-based payments, trust fund holders (government, private sectors and communities), donor funds (e.g. Foundations), etc.

Environmental taxation. The legal framework on environmental management on Article 9 refers to principles in favour of environmental and natural resources management, namely: a) the precautionary principle; b) the principle of preventive and corrective action; c) the polluter-pays principle; d) the principle of responsibility; and e) the principle of participation

4.2.11. Financing plan for priority actions of the Harmonised Action Plan

Table 19: Financing plan for priority actions of the Harmonised Action Plan

Actions	Objectives:	IIndicators:	Expected results	Main actors involved	Method of verification	Potential partners	Achieved	Estimated cost (Million CFA F)
Intensify actions to restore degraded lands and forest landscapes	Increase restoration actions to improve ecological functionality, enhance biodiversity and ecosystem services	Surface areas of lands and landscapes restored (ha)	Biodiversity flora and fauna is improved	MINEPDED, MINFOF/ CTD, MINADER, MINEPAT, MINEPIA, MINMIDT, CILSN, ANAFOR, ONACC, OSC, Private Sector etc.	Activity reports on field visits	GEF, UNDP, UNEP, WWF, FAO, GIZ, INBAR, IUCN, UNESCO, ICRAF, PROFOREST, WB, AfDB, JICA, AFD, USAID/US Forest; etc.	Existence of spaces, policies and strategies, availability of human resources and expertise	2000
			Ecosystems are restored	MINEPDED, MINFOF/ CTD, MINADER, MINEPAT, MINEPIA, MINMIDT, CILSN, ANAFOR, ONACC, OSC, Private Sector etc.	Activity reports on field visits	GEF, UNDP, UNEP, WWF, FAO, GIZ, INBAR, IUCN, UNESCO, ICRAF, PROFOREST WB, AfDB, JICA, AFD, USAID/US Forest etc.	Existence of spaces, policies and strategies,	600
			Creation of green infrastructures	MINEPDED, MINFOF/ CTD, MINADER, MINEPAT, MINEPIA, MINMIDT, CILSN, ANAFOR, ONACC, OSC, Private Sector etc.	Activity reports	GEF, UNDP, UNEP, WWF, FAO, GIZ, INBAR, IUCN, UNESCO, ICRAF, PROFOREST WB, AfDB, JICA, AFD, USAID/US Forest etc.	Existence of spaces, human resources and expertise	500

			Integrated water resources management programmes are implemented	MINEPDED, MINFOF/ CTD, MINADER, MINEPAT, MINEPIA, MINMIDT, CILSN, ANAFOR, ONACC, OSC, Private Sector etc.	Activity reports on field visits Reception report	GEF, UNDP, UNEP, WWF, FAO, GIZ, INBAR, IUCN, UNESCO, ICRAF, WB, JICA, AfDB, AFD, USAID/US Forest etc.	Existence of spaces, human resources and expertise	2000
			Restored fragile ecological areas	MINEPDED, MINFOF/ CTD, MINADER, MINEPAT, MINEPIA, MINMIDT, CILSN, ANAFOR, ONACC, OSC, Private Sector etc.	Activity reports on field visits Reception report	GEF, UNDP, UNEP, WWF, FAO, GIZ, INBAR, IUCN, UNESCO, ICRAF, WB, AfDB, JICA, AFD, USAID/US Forest etc.	Existence of spaces, policies and strategies, availability of human resources and expertise	1000
			Alternative energy sources and energy efficiency are promoted	MINEPDED, MINFOF/ CTD, MINADER, MINEPAT, MINEPIA, MINMIDT, CILSN, ANAFOR, ONACC, OSC, Private Sector etc.	Activity reports on field visits Reception report	GEF, PNUD, PNUE, WWF, FAO, GIZ, INBAR, UICN, UNESCO, ICRAF, BM, BAD, JICA, AFD, USAID/US Forest ; etc.,	Available inputs Human resources Expertise partnerships	250
			Value chains of timber and NTFP sector are improved	MINFOF, MINEPDED, CTD, MINADER, MINEPAT, MINEPIA, MINMIDT, CILSN, ANAFOR, ONACC, OSC, Private Sector etc.	Activity reports on field visits Reception report	GEF, PNUD, PNUE, WWF, FAO, GIZ, INBAR, UICN, UNESCO, ICRAF, BM, BAD, JICA, AFD, USAID/US Forest ; etc.	Available inputs Human resources Expertise Human partnerships, availability of improved plant material in research institutes (IRAD, IITA, CIRAD)	250

			Fertility of marginal lands and agro-pastoral productivity are improved	MINEPDED, MINFOF/ CTD, MINADER, MINEPAT, MINEPIA, MINMIDT, CILSN, ANAFOR, ONACC, OSC, Private Sector etc.	Activity reports on field visits Reception report	GEF, UNDP, UNEP, WWF, FAO, GIZ, INBAR, IUCN, UNESCO, ICRAF, WB, AfDB, JICA, AFD, USAID/US Forest etc	- Availability of plantations, - Availability of qualified human resources; availability of spaces for the practical phases; - Existence of quality plant material	200
Capacity building of stakeholders, innovation and research	Improve knowledge and skills of women, youth, indigenous peoples and other stakeholders in research, innovation, data sharing, information and experiences	A number of good practice documents integrating knowledge management and innovation for the improvement of mechanisms, the valorisation of environmental services, biodiversity and ecosystems are produced and disseminated Percentage of target groups which are able to implement good restoration practices	Number of good practice documents integrating knowledge management and innovation for the improvement of mechanisms, the valuation of environmental services, biodiversity and ecosystems are produced and disseminated	MINEPDED, MINFOF/ CTD, MINRESI, MINADER, MINEPAT, MINEPIA, MINMIDT, CILSN, ANAFOR, ONACC, OSC, Private Sector etc.	Activity reports on field visits Reception report	UNEP, EU, UNDP GEF, UNDP, UNEP, WWF, FAO, GIZ, INBAR, IUCN, UNESCO, ICRAF, WB, AfDB, JICA, AFD, USAID/US Forest etc.	-Availability of plantations, -Availability of qualified human resources; availability of spaces for the practical phases; -Existence of quality plant material	100

			Forest and agroforestry techniques, transformation and valorisation of wood and NTFPs are known	MINEPDED, MINFOF/ CTD, MINRESI, MINADER, MINEPAT, MINEPIA, MINMIDT, CILSN, ANAFOR, ONACC, OSC, Private Sector etc.	Activity reports on field visits Reception report	GEF, UNDP, UNEP, WWF, FAO, GIZ, INBAR, IUCN, UNESCO, ICRAF, WB, AfDB, JICA, AFD, USAID/US Forest etc.	- Availability of plantations, - Availability of qualified human resources; availability of spaces for the practical phases; - Existence of quality plant material	100
			Local communities, vulnerable groups (IDPs, refugees, women, youth and the disabled) including volunteers, are equipped with technical and or vocational skills to carry out restoration activities for their empowerment	MINEPDED, MINFOF, MINADER, MINEE, CTD	Activity reports on field visits Reception report	GEF, UNDP, UNEP, WWF, FAO, GIZ, INBAR, IUCN, UNESCO, ICRAF, WB, AfDB, JICA, AFD, USAID/US Forest etc.	-Availability of plantations, -Availability of qualified human resources; availability of spaces for the practical phases; -Existence of quality plant material	500

Reinforce communication, coordination, monitoring and evaluation in the implementation of these initiatives Indicator: Functional coordination mechanism	Strengthen coordination, communication, monitoring and evaluation in the implementation of initiatives to combat land and forest landscape degradations; To improve on the political, legal and institutional frameworks aim at the realization of initiatives to combat land and forest landscape degradations To improve on the political, legal and institutional frameworks aim at the realization of initiatives to combat land and forest landscape degradations	Functional coordination mechanism	Reinforced communication	MINEPDED, MINFOF, MINRESI, MINFOF/CTD, MINRESI, MINADER, MINEPAT, MINEPIA, MINMIDT, CILSN, ANAFOR, ONACC, OSC, Private Sector etc.	Activity reports on field visits Reception report	UNEP, EU, UNDP, GIZ, WWF, FAO, INBAR, IUCN, Rain Forest Alliance, PROFOREST, UNESCO, Tropical Forest etc	-Available media -Human resources	100

			The monitoring and evaluation system has been set up and its functioning Improve political, legislative and institutional frameworks	MINEPDED, MINFOF, MINRESI, MINFOF/CTD, MINADER, MINEPAT, MINEPIA, MINMIDT, CILSN, ANAFOR, ONACC, OSC, Private Sector etc.	Activity reports on field visits	GEF, UNDP, UNEP, WWF, FAO, GIZ, INBAR, IUCN, UNESCO, ICRAF, WB, AfDB, JICA, AFD, USAID/US Forest etc.	- Availability of actors to cooperate	100
			Enforcement of existing laws related to land and forest landscape degradation and the NTFP valorisation is improved	MINEPDED, MINFOF/ CTD, MINRESI, MINADER, MINEPAT, MINEPIA, MINMIDT, CILSN, ANAFOR, ONACC, OSC, Private Sector etc.	Activity reports on field visits	GEF, UNDP, UNEP, WWF, FAO, GIZ, INBAR, IUCN, UNESCO, ICRAF, WB, AfDB, JICA, AFD, USAID/US Forest etc.	- The existence of a legal and institutional framework - Available resource persons	200
The quest for funding	To strengthen the mobilisation of sustainable funding for initiatives to combat land and forest landscape degradations	Indicators: Implementation of a sustainable funding mechanism Amount of funding to be mobilised	Strengths, weaknesses, opportunities and threats of national capacities to develop bankable projects, with regards to regional and international funds for financing restoration initiatives	MINEPDED,MINEPAT,MINFI MINFOF,MINADER,MINEPIA, MINDCAF, MINPROF MINEE, OSC, CTD, etc.	Activity reports	GEF, UNDP, UNEP, WWF, FAO, GIZ, INBAR, IUCN, UNESCO, ICRAF, WB, AfDB, JICA, AFD, HDI, PROFOREST, Rain Forest Alliance, USAID/US Forest etc.	- Availability of actors; -Availability of financial institutions (banks - Government support to projects and programmes	100

			Trained actors that master the techniques for developing bankable projects	MINEPAT, MINFI, MINEPDED MINFOF, MINADER, MINEPIA, MINDCAF, MINPROF MINEE, OSC, CTD etc.	Activity reports	GEF, UNDP, UNEP, WWF, FAO, GIZ, INBAR, IUCN, UNESCO, ICRAF, WB, AfDB, JICA, AFD, USAID/US Forest etc.	-Availability of actors; -Availability of financial institutions (banks -Government support to projects and programmes -SME banks, micro finance, working capital, etc	500
			Implementation of a functional and financial mechanism	MINEPAT,MINFI, MINEPDED MINFOF,MINADER,MINEPIA,MINEE, MINDCAF, MINPROF MINEE, OSC, CTD etc.	Activity reports	GEF, UNDP, UNEP, WWF, FAO, GIZ, INBAR, IUCN, UNESCO, ICRAF, WB, JICA, AfDB, AFD, Rain Forest Alliance, USAID/US Forest etc.	-Availability of actors; -Availability of financial institutions (banks -Government support to projects and programmes -SME banks, micro finance, working capital, etc.	300
TOTAL	8 800							

4.2.12. Monitoring and evaluation of the implementation of the Harmonised Action Plan

a. Monitoring and evaluation of the Harmonised Action Plan

Until 2030, the HAP will be at the centre of the implementation of AFR100 in Cameroon. Monitoring its impact on the priority intervention area remains an essential mission for MINEPDED thanks to the tools that will be put in place in the first year of its implementation. With the technical and financial support from partners, MINEPDED is coordinating the collection and supply of a database of aggravated, moderately or slightly degraded landscapes and lands to users and is promoting a data exchange mechanism between the various actors involved. At the operational level, the AFR100 Focal Points of MINEPDED and MINFOF, the Department of Conservation and Management of Natural Resources of MINEPDED with its three Sub-Departments, the Monitoring Unit of Regeneration, Reforestation and Forestry Extension of MINFOF, the Inter-regional Committee for Drought Control in the North, the National Agency for Support to Forestry Development and three (3) representatives of civil society organizations which constitute the functional committee for the monitoring and evaluation of interventions for the restoration of degraded landscapes and lands. It will be the responsibility of this monitoring committee to maintain close and permanent contact with MINEPDED and other data-producing organisations so as to optimize information collection and analysis. Data collection will cover all types of landscapes and will focus on the trend of landscape and land degradation, monitoring of the dynamics of vegetation reconstitution of landscapes and lands, restoration interventions of projects implemented in all agro-ecological zones and by all actors involved

MINEPDED will put in place a mechanism for periodic reporting on the state of degraded landscapes and lands. This mechanism will make it possible to produce the Annual Monitoring Report (RAS) and the report on the state of degraded, deteriorating or threatened landscapes and lands.

Through the monitoring-evaluation committee, MINEPDED should seek to progressively put in place a mechanism where essential data that characterise the landscapes and lands are updated in real time, with the possibility of producing at any time a synthesis of the main trends the state of the landscapes. Basically, this information should be available on line on the web.

b.Monitoring and evaluation indicators for HAP

There are three types of HAP monitoring and evaluation indicators: i) performance indicators for HAP as a whole; ii) result indicators for the HAP actions; iii) effect indicators.

The result indicators deal more specifically to the priority actions or activities proposed in the HAP. They should measure the specific level of achievement of each action through its results, and as such, they are also indicators of the level of implementation of the HAP, on a more detailed level.

Impact indicators are indicators that are at a much broader level: aim at presenting how the implementation of the HAP as a whole will contribute to improve the situation of landscape and land degradation. It is therefore a measure to achieve the overall objective of the HAP.

4.2.1.3. Risks analysis and implementation factors

a.Risk analysis

The success of the implementation of the HAP will depend on a certain number of factors, namely the level of involvement of the institutions and structures concerned, living standard of the populations, governance of landscape and land restoration initiatives, political will, level of involvement and participation of the populations and difficulties related to the funding of activities.

* *Risks on institution, organisation and governance*

A weakness for the success of the HAP is poor organisation and limited presence of competent technical services in the field. To a larger extent, success will depend on, the availability and qualification of the managers who must understand and implement the proposed approach. Interventions could be compromised if: i) collaboration between stakeholders is difficult to establish, ii) towns, in the context of decentralisation, do not manage to take ownership of and implement the actions proposed in the HAP.

Also, the poor implementation of a multi-sectoral governance structure could negatively impact the results of landscape and land restoration projects.

Mitigation measures:

The proposed response to mitigate this risk is the establishment through the creation of a monitoring and evaluation framework for the Harmonised Action Plan, the composition and operation of which are described in the section "Monitoring and Evaluation on the Implementation of the Harmonised Action Plan».

* *Poverty-related risks*

Poverty has always been identified as one of the main causes of pressure on natural resources. The impact of poverty on the population, especially in rural areas and in the most affected zones, greatly hinders the restoration efforts carried out in Cameroon.

Mitigation measures

Each intervention aimed at protecting or conserving natural resources by taking into considerations, the direct needs of the population in terms of increasing their income through income-generating activities or entrepreneurship. Interventions related to the development of livelihoods such as fuel wood, service wood, agrarian land, water resources, pastures, non-timber forest products, etc.) should enable an increase in the living standard of the populations. The use of environmental friendly land-use practices and techniques should be encouraged to ensure the sustainable preservation of resources. It would also be important for the committee in charge of monitoring and evaluation to ensure local monitoring in the field, especially in a decentralised context, thereby encouraging the effective participation of the local population. In addition, lack of resources and, at the same time, the importance of needs related to socio-economic development can be an obstacle to restoration actions

For an efficient implementation of the HAP, institutional arrangements should be favourable for the mobilisation of all stakeholders and their required needs. Thus, the major risk of poor understanding of issues related to landscape and land restoration by stakeholders and the consideration of short-term interests of populations which is a detriment at the long run should be monitored.

* *Environmental risks*

The major risks related to environmental protection can be disasters, climatic disturbances of the seasons leading to drought or floods, landslides, or anthropic activities related to the handling of toxic or dangerous products, its consequences, among others, land pollution and water sources which are harmful to humans and animals. Risks related to rainfall, for example, concern the great variability of rainfall in space and time

Mitigation measures

The National Observatory on Climate Change whose mission is to monitor and evaluate the socio-economic and environmental impacts on climate change should be given an important role and propose measures for prevention, mitigation and or adaptation to the adverse effects and risks related to activities on landscapes and lands. degradation

* *Legal risks*

Poor knowledge and lack of control of

the legal framework related to landscape management could hinder the achievement of the objectives set for the restoration of landscape interventions. Indeed, most of the documents are incomplete and are often not sufficiently promoted. Other conditions for success of the HAP could be the adaptation of the institutional, legal and policy framework to the requirements of sustainable landscape and land restoration activities.

Mitigation measures:

The monitoring and evaluation committee, through MINEPDED, will have to propose an update of the related legal documents.

* *Financial risks*

Any viable political will should be supported by adequate financial means. The success of the HAP will depend surely on the capacity to mobilize internal and external financial resources and the willingness of the international community to make greater efforts in supporting to combat desertification and the restoration of landscapes and land. To this end, the programmes and actions proposed by HAP would only see their realisation through the mobilisation and adequate orientation of funding towards the identified objectives

Mitigation measures:

In order to adequately implement the HAP, the implementation monitoring and implementation committee will have to seize all funding opportunities, both internal and external. To this end, all regional and global funding mechanisms should be exploited. Also, in the context of decentralization in Cameroon, collaboration with the councils should make it possible to improve funding sources and make links between HAP activities and those of the local development plans.

b.Success factors

HAP Success factors are as follows:

- **implement the documents resulting from the institutional reforms**
- **greater involvement of local populations in discussions, decisions and actions**
- **strengthen multi-faceted support for income-generating activities**
- **increase protection of ecosystems and habitats with high biodiversity;**
- **capacity building of all actors involved in the restoration of landscapes and lands;**
- **Strengthen HAP implementation actions; (reforestation, soil fertility restoration, multi-sectoral research, rehabilitation of degraded lands, change in energy consumption patterns, etc.);**
- **consider the gender aspect in the implementation of the HAP;**
- **establish a national observatory committee to monitor and coordinate land and landscape restoration initiatives;**
- **establish sustainable financing mechanisms for landscape and land restoration projects;**
- **information, education, communication and awareness raising of the stakeholders.**

CONCLUSION

The Harmonised Action Plan (2020-2030) to combat landscape and land degradation in Cameroon is the result of a participatory process that allowed us to receive the opinions of all stakeholders and partners, through consultations and discussions which were conducted at local, regional and national levels on landscape and land degradation in Cameroon. Indeed, the different perceptions of landscape and land degradation reflect the diverse nature of the geographical area of the national triangle. This geographical variability is marked by the aridification phenomenon, which is at the origin of landscape and land degradation in the Northern Regions of Cameroon, with the situation becoming more pronounced in the Far-North and North Regions. The West and North-West Regions are exposed to soil erosion phenomena, while mangrove degradation is increasing in the coastal Regions.

The document presented the factors of landscape and land degradation is divided into two categories; i) natural factors that cause desertification and land degradation, ii) anthropogenic factors which are subdivided into factors related to production activities, socio-economic factors and institutional factors. All of these factors are mainly related to climate, human activities which causes enormous pressure on natural resources through pastoral and cultivation practices, that do not respect the environment such as (bush fires, overgrazing, abusive and anarchic exploitation of wood resources, use of herbicides and pesticides, etc.)

Faced with these phenomena, Cameroon has put in place institutional and political mechanisms and has made a number of commitments to the international community to reverse the trend of landscape and land degradation. Thus, the overall objective of the Harmonised Action Plan 2020-2030 is to combat land and forest landscape degradations in Cameroon, to join all the reflections and efforts of actors involved in combating land and forest landscape degradations in Cameroon, which is based on achieving the objective of restoring 12 million hectares of degraded forests and landscapes by 2030. This objective is divided into seven (7) actions with the aim to: i) Reverse the course of land and forest landscape degradations, through actions of restoration, enhancement and conservation of soils and biodiversity; ii) Improve knowledge with regards to restoration of degraded landscapes and lands in Cameroon; iii) Increase complementarity and consultation of stakeholders and their actions on initiatives to combat climate change and desertification, as well as biodiversity preservation; iv) strengthen capacity building of stakeholders involved in combating land and forest landscape degradations in Cameroon, while informing, educating and mobilizing the population; v) promote the participation of women, youth and vulnerable people in initiatives to restore degraded landscapes and lands; vi) harmonise mechanisms for sustainable financing of initiatives to combat land and forest landscape degradations; and lastly, vii) integrate the restoration of degraded landscapes and lands into national strategies and sectoral policies.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Annexe 1 : List of persons contacted

TYPE OF ORGANISATION	STRUCTURE	POSITION HELD	NAMES AND SURNAMES
ADMINISTRATION	MINEPDED	Adamawa Regional Delegate	SAIDOU SIDIKI
		Far-North Regional Delegate	DJINGUI TCHILDA
		Regional Delegate	AYISSI BARNABE
		Vina Divisional Delegate	SINGDIE BOUBA MARIUS
		Diamaré Divisional Delegate	DJEBBA
		Benoue Divisional Delegate	MANOU GODJE
	MINEPAT	Sub-Director	MAHAMAT ABICHO
PRIVATE COMPANY	SODECOTON	DAG	SADOU FERNAND
REGIONAL AND LOCAL AUTHORITHIES	PITOA Community	Development framework	ADAMA BOUBA
	LAGDO Community	Development framework	YANNICK PLOMB
	Bibemi Community	Development framework	DEZOUMBE
EPA	MEADEN	Directeur	ABOUBAKAR MOUSSA
	CILSN	Secrétaire Exécutif	SIDI BARE
CIVIL SOCIETY ORGANISATION	Association Green Safe	Director	DIDJIA DJAILLI GARGA
RESOURCE PERSONS		Expert in forest management	ZROUMBA JULIER
		Forest expert	MANA JUSTIN
	GIC DJILTOU	Secretary	GABSOUBOA PAUL
	GIC AGSYLSA	Delegate	ZEUDEBYA SABELLE
	GIC FADEDU	Delegate	FOUDEUHBA SIM-JUDE
		Lagdo Dame	MAHAMAT ABAKAI

Annexe 2 : Some international conventions signed by Cameroon

CONVENTIONS	RATIFICATION FOR	COMMENTS	STRENGTHS	AND WEAKNESSES	RECOMMENDATIONS
The United Nations Convention to Combat Desertification in these countries experience serious drought and or desertification, especially in Africa	29 May 1997	It deals with desertification which is defined as "land degradation in arid, semi-arid and dry sub-humid areas resulting from various factors, like climatic variations and human activities" and combating it: "integrated land-use planning in arid, semi-arid and dry sub-humid areas, with a view to sustainable development aimed at: preventing and or reducing land degradation, rehabilitate partially degraded land, and restore desertified land."	The Convention emphasises the restoration of arid, semi-arid and dry sub-humid lands The convention requires each country to develop its National Action Plan to Combat Desertification, in its region every 5 years	The National Action Plan to Combat Desertification as a tool for implementing the Convention which is not yet revised	Revise the National Action Plan to Combat Desertification
United Nations Framework Convention on Climate Change (UNFCCC)	1994	It aims to stabilize greenhouse gas emissions at a level that prevents dangerous anthropogenic interference with the climate system	Combat increase effect related to human activities	Poor knowledge on the resilience of arid and semi-arid lands ecosystems to climate changes	Research needed
Paris Climate Agreement	2016		related to human		
Kyoto Protocol which was adopted on 11 December, 1997	1983	Regional concentration on the sharing of responsibilities for pollution. Monitoring of emergency plans	Emphasis on the protection of marine biodiversity and marine protected areas and sensitive zones.	These are almost not applicable in Cameroon's mangroves Limited civil society accountability	Strengthen civil society involvement

Convention on Cooperation for the Protection, Management and Development of the Marine and Coastal Environment of the West African Region or Abidjan Convention, 1981	1983	Regional concentration on the sharing of responsibilities for pollution. Monitoring of emergency plans	Emphasis on the protection of marine biodiversity and marine protected areas and sensitive zones.	These are almost not applicable in Cameroon's mangroves Limited civil society accountability	Strengthen civil society involvement
Convention on Wetlands of International Importance (RAMSAR) (1971)	2006	Stop the degradation and loss of wetlands, recognise their fundamental ecological functions, their economic, cultural, scientific and recreational value	The commitment of parties to the conservation of wetlands, are require to consider the elaboration of management plans, obligation to designate at least one wetland of international importance	No mangroves in Cameroon are attached to a RAMSAR site	The need for further studies
Convention on Biological Diversity (CBD) or Rio Convention of 1992	1994	Global agreement on the conservation and sustainable use of biological diversity (covering all ecosystems, species and genetic resources)	Emphasis on fair and equitable sharing of benefits that arise from the use of genetic resources Legally binding convention	Fragmentation of the sector due to the non ratification of the Agreement by the United States	RAS

Convention sur les zones humides d'importance internationale (RAMSAR) (1971)	2002	Reduction or limitation of greenhouse gas emissions between 1990 and the year between 2008-2012.	Definition of obligations for the post-2000 period.	The United States of America signed the protocol without ratifying it.	RAS
International Plant Protection Convention (IPPC), adopted in Rome in 1951	Accession on 5 April 2006	Ensure joint action to prevent the spread and the introduction of plant pests and the control of invasive alien species.	Multilateral treaty for international cooperation in the field of plant protection. Development of phytosanitary standards	Crop protection products are diverted from their intended use by some fishermen who use them as pesticide for fishing	RAS
Stockholm Convention on Persistent Organic Pollutants (POPs), 2001		The aim is to protect human health and the environment from harmful effects of toxic substances	Integration of the polluter pays principle, and the precautionary principle as a basis	Crop protection products are diverted from their intended use by some fishermen who use them as pesticide for fishing	Strengthen EIA to monitor for possible polluting industries
Done in Yaoundé on 1999 and the Convergence Plan	1999	Convergence Plan	Prescription priority to the development of trans-boundary conservation	No trans-boundary initiatives affecting arid and semi-arid areas	Feasibility analysis with neighbouring countries