DEMOCRATIC REPUBLIC OF THE CONGO

Deputy Prime Minister's Office
Ministry of the Environment and Sustainable Development

NATIONAL ADAPTATION PLAN TO CLIMATE CHANGE (2022-2026)

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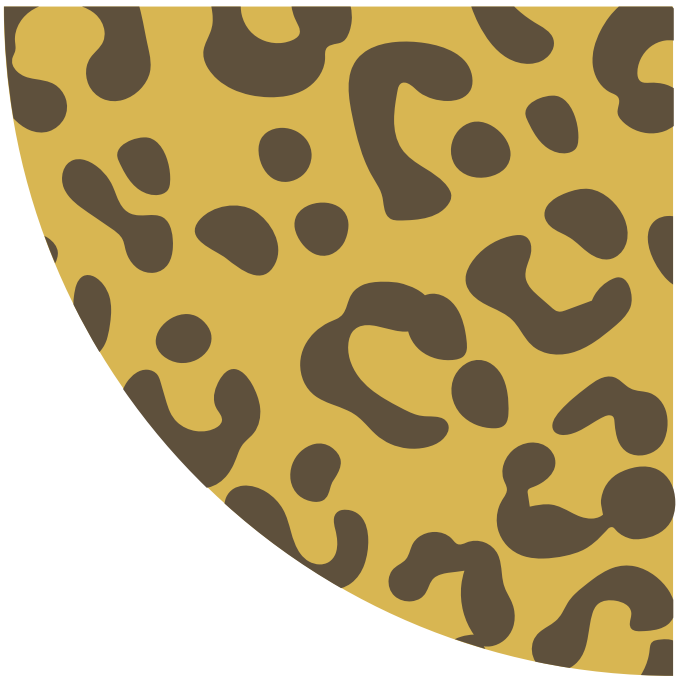

TABLE OF CONTENTS

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TABLES

FIGURES

ANNEXES

ACRONYMS AND ABBREVIATIONS

CCA	Climate change adaptation
COP	Conference of the Parties
DDD	Directorate of Sustainable Development
DIAF	Directorate of Forest Inventories and Management
DRC	Democratic Republic of the Congo
FEC	Federation des Entreprises du Congo (Federation of Businesses of the Congo)
GCF	Green Climate Fund
GEF	Global Environment Facility
INERA	Institut National d'Etudes et Recherches Agronomiques (Institute of the Environment and Agricultural Research)
LDC	Least developed country
LDCF	Least Developed Countries Fund
LEG	Least Developed Countries (LDC) Expert Group
MEDD	Ministry of the Environment and Sustainable Development
MettelSat	Agence Nationale de Météorologie et Télédétection par Satellite (National Agency of Meteorology and Teledetection by Satellite)
MGFE	Ministry of Gender, Family and Children
MINAT	Ministry of Territorial Administration
MINIDER	Ministry of Rural Development
NAP	National Adaptation Plan to Climate Change
NAPA	National Adaptation Programmes of Action
NAP-GSP	National Adaptation Plan Global Support Programme
NDC	Nationally determined contribution
ND-GAIN	Notre Dame Global Adaptation Initiative
NGO	Non-governmental organization
NTIC	New information and communication technologies
PDP	Provincial development plan
PNIA	National Agricultural Investment Plan
PNSD	National Strategic Development Plan
PSPA-CC	National Climate Change Policy, Strategy and Action Plan
SDG	Sustainable Development Goal
SENASEM	National Seed Service
SENEN	Service National des Energies Nouvelles (National Department of New Energy)
TNC	Third National Communication
UNDP	United Nations Development Programme
UNFCCC	United Nations Framework Convention on Climate Change
UNISDR	United Nations International Strategy for Disaster Reduction

FOREWORD

Climate change has adverse effects on the economic development of our country and may jeopardize the achievement of the objectives of the National Strategic Development Plan (PNSD) 2019–2023, which aims to create a prosperous, climate-resistant and low carbon emission nation. Since the economy of the Democratic Republic of the Congo (DRC) is heavily dependent on natural resources, recurrent droughts, erratic rains and floods will continue to negatively impact the livelihoods and assets of communities.

The Government of the DRC recognizes the threats posed by climate change and has taken action to address them. In this regard, my Ministry coordinated the development of the Climate Change Policy, Strategy and Action Plan (PSPA-CC) in 2015, and then its update in 2020. This first National Adaptation Plan to Climate Change (NAP) marks a new step in efforts to address the country's vulnerability and strengthen resilience to climate change.

The NAP was developed through a process of cooperation and consultation that included stakeholders from the Government, the private sector and civil society, with the support of international development agencies. I take this opportunity to once again reaffirm my sincere gratitude to the Green Climate Fund (GCF) and to the United Nations Development Programme (UNDP) for their financial and technical support necessary for the advancement of the national process of climate change adaptation (CCA). I would also like to express our gratitude to the Governors of the pilot provinces of the NAP Project, experts from different sectoral, national and provincial administrations, civil society organizations and indigenous peoples advocacy organizations, the *Federation des Entreprises du Congo* (FEC, Federation of Businesses of the Congo) and the Confederation of Small and Medium Enterprises (COPEMECO).

The Government of the DRC is fully committed to fighting climate change at the national level, as well as showing leadership in the global fight against climate change. The DRC demonstrated its ambition to reduce emissions through the submission of its Intended Nationally Determined Contributions (INDC) to the United Nations Framework Convention on Climate Change (UNFCCC) in 2015, which has become a National Determined Contribution (NDC) since the ratification of the Paris Agreement on climate. The NDC of the DRC is currently under review. The development of this timely NAP aims to align with the NDC cycle in order to meet our international commitments in a synergistic manner. Our NDC reiterates that adaptation is a priority response to climate change, and this NAP serves as the basis for the DRC's contribution to it.

This NAP demonstrates the DRC's commitment to the Paris Agreement and will help bring our essential responses to the impacts of climate change. Strengthening climate resilience will enable our country to contribute to the objectives of the Paris Agreement and the Sustainable Development Goals.

Mr. Claude Nyamugabo Bazibuhe
Minister of the Environment and Sustainable Development

EXECUTIVE SUMMARY

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The objective of this National Adaptation Plan to Climate Change (NAP) of the Democratic Republic of the Congo (DRC) is to guide initiatives for the management and reduction of long-term climate risks in the country. The NAP has been prepared in accordance with the National Climate Change Policy, Strategy and Action Plan (PSPA-CC), the National Strategic Development Plan of the DRC (PNSD), the Nationally Determined Contribution (NDC) and decisions on adaptation taken by the DRC in line with the Conference of the Parties (COP) on climate change.

The development of this first NAP by the Ministry of the Environment and Sustainable Development (MEDD) was largely based on available studies and analyses carried out as part of the NAP preparation project supported by the Green Climate Fund (GFC) and the United Nations Development Programme (UNDP). These studies and analyses received contributions from thematic networks composed of experts from various sectors, and included broad public participation through a call for contributions and a public consultation process. The Plan was validated during a national consultation workshop held in Kinshasa on 28 January 2021.

Reference documents representing the current state of knowledge were also taken into consideration, such as: the First, Second and Third National Communications to the United Nations Framework Convention on Climate Change (UNFCCC), the NDC, the PSPA-CC, the DRC Country Programme at the GCF, as well as the information and communication document on the process of climate change adaptation, etc.

The DRC is vulnerable to the effects of climate change. Indeed, in the Notre Dame Global Adaptation Initiative (ND-GAIN) Index, the country ranks 5th place in the world among the countries most vulnerable to climate change in terms of their adaptive capacity. The impacts of climate change are already perceptible across the country, in particular through the persistence of high temperatures, violent rains, land degradation, particularly by erosion, longer dry seasons, increased periods of drought during rainy seasons, and floods. Current global and regional studies show that these changes will unevenly affect the natural, human, infrastructural and productive systems of the DRC. These changes will have serious consequences for society, ecosystems and various sectors of the economy.

Managing the risks associated with climate change will require coordination and cooperation between different levels of government, sectors of the economy and civil society, since the impacts of climate change will occur locally but measures to mitigate them will depend on coordinated actions deployed through a variety of sectoral and thematic strategies.

This Plan proposes a first strategy to inform the development of actions, strategies and guidelines for the management and reduction of climate risk in the DRC, with a view to coping with the harmful effects of the social, economic and environmental dimensions of climate change. It also proposes to strengthen the current institutional mechanisms for a concerted deployment by the provinces, the economic sectors and the general public, and for the planned implementation of structural measures aimed at filling the gaps observed in the national context.

This Plan consists of the following chapters:

Chapter 1 presents the introduction, the objectives and the approach adopted for the NAP preparation.

Chapter 2 describes the national circumstances and the context for adaptation planning in the DRC. It includes an overview of the country's geographic, polar, socio-economic, environmental and cultural characteristics. These details are important because they describe the conditions under which adaptation is expected to take place in the DRC, as well as the societal characteristics that interact with climate variations exacerbating the vulnerabilities, but also providing opportunities to improve the country's resilience.

Chapter 3 focuses on the legal basis and institutional/administrative arrangements of the NAP process. It contains important information and recommendations for actions to ensure that it is relevant for sectoral agencies and that it is firmly anchored in the current legal and administrative frameworks in the DRC.

Chapter 4 discusses the availability of data on the impact of climate change, risks and vulnerability factors in the DRC. It provides most of the database to support climate-smart decision-making in the DRC. It also provides a general overview of the climate conditions observed in the country, and summarizes the basic conditions and the observed and possible impacts of climate change on priority sectors. The chapter also provides recommendations for improving the overall capacity of the DRC to generate and use climate data and information.

Chapter 5 describes the adaptation priorities for the NAP. It synthesizes the priorities previously identified from the strategies, policies and plans related to climate change, and groups them into adaptation plans according to the priority sector. In addition, this chapter lists the priority needs quantified in terms of individual and institutional capacities for adaptation planning. These priorities can serve as a basis for immediate action in the DRC.

Chapter 6 describes ongoing efforts to monitor and evaluate adaptation initiatives in the country as well as the NAP in the context of the GCF-funded NAP preparation project, and makes recommendations to further strengthen the monitoring framework.

Chapter 7 recommends several further steps that should be taken in the short term (2021–2024) to improve and move the NAP process forward. It is recommended that most of these next steps be included in the next phase of the proposal to support the preparation of the NAP for consideration by the GCF. It should be noted that the GCF has a funding window specifically to support the NAP process, and as one of the African least developed countries (LDCs), support to the DRC is a high priority for the Fund.

The Plan proposes the next steps towards a comprehensive and detailed NAP with guidelines to include the management of risks associated with climate change. This aims to increase the climate resilience of priority thematic sectors, namely agriculture, fisheries and livestock, energy and transportation, forestry, water resources, health and coastal zones.

CHAPTER 1.
INTRODUCTION

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1.1. BACKGROUND AND RATIONALE

The National Adaptation Plan (NAP) process was established during the Conference of the Parties (COP) at the UNFCCC in 2010 as part of the Cancun Adaptation Framework. The process enables Parties to the UNFCCC to formulate and implement NAPs to identify medium- and long-term adaptation needs, and to develop and implement strategies and programmes to meet them. It is an ongoing, gradual and iterative process that follows a national, gender-sensitive, participatory and fully transparent approach. The objectives of the NAP process are as follows:[1]

- "To reduce vulnerability to the impacts of climate change, by strengthening adaptive capacity and resilience.
- To facilitate the integration of climate change adaptation, in a coherent manner. into relevant new and existing policies, programmes and activities, in particular development planning processes and strategies, within all relevant sectors and at different levels, as appropriate ".

Concretely, these objectives cover not only specific projects and programmes aimed at reducing vulnerability, but also a broader development of governance so that climate change considerations would be mainstreamed into day-to-day governance processes.

The Conference of the Parties (COP) to the UNFCCC in 2001 established the Least Developed Countries' (LDCs) work programme, which includes National Adaptation Programmes of Action (NAPAs) to help LDCs meet the challenges of climate change given their particular vulnerability. NAPAs facilitate LDCs' identification of priority activities that meet their urgent and immediate climate change adaptation needs – those needs for which any further delay in response could increase vulnerability or result in increased costs at a later stage. The DRC launched its NAPA in 2006 with tn priority options, covering all vulnerable areas and sectors, including extreme events on the national territory.

Since 2012, the DRC has embarked on a process of integrating (in the medium and long term) the issue of climate change into sectoral policies and strategies as well as into national development planning. This approach builds on existing frameworks and measures to improve the country's resilience to climate change.

The advancement of the NAP process is therefore anchored in existing climate change adaptation strategies and projects as well as in the DRC's development planning and budgeting. It also relies on the support of UNDP and the United Nations Environment Programme (UNEP) through the NAP Global Support Programme (NAP-GSP),[2] financed by the Global Environment Facility (GEF). This Programme enabled the DRC to develop a roadmap (in 2015) and an inventory report describing existing plans, strategies and programmes (in November 2016) to allow the country to advance the process of developing its NAP. Subsequent support for the development of this Plan was provided by UNDP with financial support from the GCF.

Concretely, these objectives cover not only specific projects and programmes aimed at reducing vulnerability, but also a broader evolution of governance so that climate change considerations are mainstreamed into day-to-day governance processes.

The Government of the DRC identified climate change as a priority in its National Strategic Development Plan (PNSD) 2019–2023.

The NAP process helps the DRC continue to identify and address key issues, gaps, priorities and resource needs for adaptation planning, implementation and monitoring in support of the NDCs and the Paris Agreement. The DRC recognizes that establishing synergies and links, where possible, between

1 UNFCCC. Decision 5/CP.17, para. 1.

2 The funding of the NAP-GSP for the LDCs was assured by the LDCF.

the NAP and these other key processes is essential in order to:

- contribute to the achievement of the Global Goal on Adaptation by reducing the vulnerability factors through the mainstreaming of all adaptation considerations into the relevant plans, policies and programmes and through prioritization and adaptation planning measures;
- ensure that the adaptation component of the NDCs becomes a strategic and ambitious vehicle for consolidating, reporting and updating commitments and progress;
- align national long-term development priorities with the Sustainable Development Goal (SDG) framework.

1.2. THE APPROACH USED TO DEVELOP THE NAP

This initial document responds to the ambition of the LDC Expert Group (LEG): that all LDCs submit their NAPs to the UNFCCC by 2020. In addition, it follows the *Technical Guidelines for the NAP Process* made available by the LEG in 2012.

The preparation of this first Plan by the Ministry of the Environment and Sustainable Development (MEDD) was largely based on the existing studies and analyses carried out within the framework of the NAP preparation project supported by the GCF and UNDP. These studies and plans, carried out mainly in 2019 and 2020, received contributions from thematic networks composed of experts from various sectors, and included broad public participation through a call for contributions and a public consultation process. The Plan was validated during a national consultation workshop held in Kinshasa on 28 January 2021.

Reference documents representing the current state of knowledge were also taken into consideration, such as the First, Second and Third National Communications to the UNFCCC, the NDC, the PSPA-CC, and the DRC GCF Country Programme, as well as the information and communication report on the process of climate change adaptation (CCA) and other documents.

1.3. FUNDAMENTAL PRINCIPLES OF THE NAP

This NAP brings together many activities, plans and strategies in the DRC. It is aligned in particular with the PNSD (2019–2023) and its fifth pillar, *Protection of the environment, fight against climate change, and sustainable and balanced development"*, as well as with the DRC's NAPA, National Communications (NCs) to the UNFCCC, the National Agricultural Investment Plan (PNIA),[3] and the guides and plans recently developed to advance the NAP process.

Some fundamental principles of NAP are as follows:[4]

- *National ownership.* The NAP must be aligned with the PNSD 2019–2023 and will be integrated into sectoral policies and plans so that the entire government commits to and takes ownership of climate-resilient development.
- *Considerations on demography,* gender and social inclusion. The NAP and the recommended actions will take into account the differentiated impacts of climate change on men, women, indigenous peoples, children, the elderly, and other potentially vulnerable groups.
- *Climate measures that are suitable at the national level.* The NAP will facilitate meeting urgent climate adaptation needs and advancing medium- and long-term adaptation and resilience-building measures so that they are adapted to national conditions and needs.
- *The whole-of-government approach.* The NAP will identify financial packages and sustainable resources to ensure optimal implementation of the priorities identified by the relevant stakeholders.
- *A nexus between nation-building priorities and low-carbon growth pathways.* The medium- and long-term direction of the NAP, integrating the priorities of the PNSD 2019–2023, will contribute to a low-carbon and climate-resistant economic development path.
- *Integration of climate, resilience and livelihoods approaches.* The NAP will guide the implementation of CCA measures in an integrated manner in order to promote the effectiveness and efficiency of the plan's imple-

3 The National Agricutural Investment Plan (NPIA) is being revised.

4 Adapted from LEG, 2012.

mentation. By integrating climate resilience into livelihoods, integrated interventions contribute to economic growth and environmental and socio-economic benefits.

- *Climate-sensitive planning and budgeting.* The NAP will identify entry points and guide the integration of CCA considerations into sectoral planning and budgeting processes as part of the focus on mainstreaming CCA in day-to-day governance processes.
- *The community-based adaptation approach.* The NAP will identify and implement community-centred and -led approaches whereby communities are empowered to strengthen their adaptive capacity and improve coping mechanisms for long-term climate resilience.
- *The ecosystem-based adaptation approach.* The NAP will identify implementation pathways that strengthen the resilience of biodiversity and ecosystem resources, and take a systemic approach to adaptation with respect to natural capital.
- *The adaptation approach to reinforce the resilience of cities and municipalities to climate change.* With a large population concentrated in cities, climate change can have negative impacts on infrastructure and access to services for a large percentage of the population.
- *Innovation.* The NAP will provide innovative tools and techniques to improve efficiency and implementation in order to maximize the impact of priority actions.
- *Conflict sensitivity and social cohesion.* Priority actions of the NAP will be designed to bring people together, ensuring that all groups of the targeted communities are included in order to maintain and further enhance efforts to improve social cohesion. The selection of interventions and coordination in the planning, design and implementation of policy interventions will be carried out so as to take into account conflict sensitivity and promote long-term peace and prosperity.
- *The transfer and adoption of the most suitable technology.* The use of the best technologies that are suitable to the conditions under which adaptation measures are implemented will ensure a high return on investment as well as the sustainability of the interventions.

These basic principles will be integrated into each part of the NAP process and will serve as the basis for the ensuing recommendations.

1.4. OBJECTIVES OF THE DRC'S NAP

The NAP has two general objectives. The first objective is to provide a starting point and a general reference for CCA measures. Achieving this goal allows the NAP to build a first evidence base to inform decision-making and project development. It also synthesizes the vulnerabilities and adaptation priorities previously identified, grouping them into coherent action programmes.

The second general objective of the NAP is to provide guidelines or paths to explore in order to develop a more comprehensive and robust NAP in the future. This includes recommendations to improve the institutional conditions and human capacities to design and implement the DRC's response to climate change. To this end, each chapter includes a list of recommendations related to its topic.

CHAPTER 2.
COUNTRY BACKGROUND

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2.1. INTRODUCTION

This chapter provides general information on the socio-economic, political, environmental and cultural conditions in the DRC. It describes some of the challenges that the country faces as a least developed country (LDC), with the understanding that the NAP process must be coherent with the national and local conditions specific to the DRC and in tune with the aspirations of the people. The chapter provides a general overview of gender considerations that should be mainstreamed into the NAP process.

2.2. GEOGRAPHIC CONTEXT

With an area of 2,345,410 km2, the DRC is the largest country in Central Africa. It has a narrow opening to the Atlantic Ocean and is surrounded by nine neighbours: Angola (Cabinda enclave) and the Republic of the Congo to the west; Central African Republic and Sudan from south to north; Uganda, Rwanda, Burundi, United Republic of Tanzania and Zambia in the east; and Zambia and Angola to the south.

The country's main topographical features are as follows: a vast central forest-covered basin covered surrounded by plateaus rising in mountain ranges to the east, which form the western part of the great rift valley with the great lakes. The central basin was once an inland sea, the only vestiges of which are Lakes Tumba and Mai-Ndombe in the centre-west region.

The Congo River, with its 3,460,000 km2 basin, of which 61 percent (1,145,000 km2) is in the DRC, is the country's main drainage system. It originates in the highlands of Katanga and flows north and then south, forming a large arc, and crosses the equator twice. The lower river flows southwest to empty into the Atlantic Ocean downstream from Matadi. Along its course, the Congo flows through alluvial lands and swamps, and is fed by numerous tributaries, the main ones being the Lomami, Aruwimi, Ubangi and Kasaï. In addition, the Lukuga River connects the basin with the Western Rift Valley.

2.3. SOCIO-ECONOMIC CONTEXT

The Third National Communication (TCN) to the UNFCCC[5] highlights the current gaps in the DRC in coping with climate change and the dependence of the national economy on climate change-sensitive sectors and resources. A study on vulnerability to climate change carried out in 2011 for the Great Lakes region concluded that the DRC's vulnerability to climate change is low in terms of physical factors (climate risks and the environment) but high in terms of the vulnerability of households. and communities. Poor governance and high population density further increase climate vulnerability in the eastern region, mainly in the Great Lakes region, along the eastern border of the country.[6] The security and governance situation in the region has worsened in recent years of conflict. The United Nations estimates that there are around 7.7 million internally displaced people and refugees in the DRC and 524,000 DRC nationals living in refugee camps outside the country. By increasing poverty, displacement, immobility and eroding social networks, conflicts contribute to the vulnerability of marginalized populations. Moreover, climate change could be a contributing factor to future conflicts, especially with regard to the scarcity of productive land and the lack of water.

With respect to climate change, women are more seriously affected than men: they are more vulnerable to climate change because of their greater dependence on climate-related resources (due to their responsibility to provide or produce

5 Ministry of the Environment and Sustainable Development (MEDD) (2014). Third National Communication to the UNFCCC. www.pana.cd/wp-content/uploads/2017/05/DRC-3%C3%A8me-Comm-Nationale-sur-les-CC.pdf https://unfccc.int/sites/default/files/resource/codnc3_french.pdf (in French only)

6 Doty et al. 2011).

water and food). In addition, their adaptive capacity is low due to restricted mobility, limited access to education, credit and banking services, and provisions on land tenure, combined with the low employment of women in the formal sector (30 percent) and in political positions (20 percent).[7] The literacy rate of women among 15–24 year olds is significantly lower (59 percent) than that of men (86 percent),[8] which creates an imbalance in access to climate information and limits women's ability to adapt.

It has been reported that in the DRC, there is a limited participation of women in discussions on climate change issues,[9] resulting from a low rate of political representation; for example, only 12.8 percent of members of parliament are women.[10] The country has one of the highest population growth rates in the world: its population increased from 16 million in 1960 to over 82 million in 2017, and according to current estimates, it will reach nearly 200 million by 2050. The population density is highest in the east of the country, especially in the towns on the borders of Uganda and Rwanda (500 to 2,000 people per km2). Internal migration, in part due to ongoing conflicts, has resulted in land tenure issues, including fragmentation of agricultural land and the lack of measures to improve long-term soil quality. This decreases the capacity to adapt to climate change and increases vulnerability, especially for the agricultural sector and food security.

Although raw materials are the main source of export income (e.g. copper and cobalt provide 80 percent of export earnings), agriculture and animal husbandry, especially in the eastern region, are the main sources of income for the majority of Congolese, contributing 40 percent to the GDP and according to estimates, employing 70 percent of the population of the country.

The agricultural sector is one of the most vulnerable sectors to climate change, and smallholder farmers are among the most vulnerable to climate change in the country (after the urban poor). Even small changes in weather patterns are likely to have a major impact on agricultural GDP and economic growth.[11]
The main staple crops in DRC are, in order of importance, cassava (throughout the country), maize (mainly in the central region), as well as groundnuts and rice (both in smaller quantities). Cassava and maize have shown to be sensitive to variations in rainfall, suggesting that their yields will be affected by climate change. Coffee, which important in South Kivu, is also climate-sensitive.

In the DRC, yield losses in some regions can be offset by yield increases in other parts of the country. Even so, total yields will not be sufficient to feed the rapidly growing population of the country: the number of malnourished children will increase under all climate change scenarios.

Food security could also be affected by the effects of climate change on fisheries. According to the United Nations Office for the Coordination of Humanitarian Affairs (OCHA), the DRC is currently the first country in the world in terms of the number of people in acute food insecurity, with 21.8 million people affected. People in crisis and emergency situations (Integrated Phase Classification, or IPC)) are mainly found in areas affected by conflicts, population movements and epidemics. The number of people affected by hunger, according to this source, increased from **15.6 million** in 2019 to **21.8 million** in 2020. An increase in water temperature is reported for various lakes in the region of Great Lakes, including Kivu and Tanganyika on the eastern borders of the DRC. Small variations in climate can cause large fluctuations in the thermal dynamics of freshwater. For this reason, combined with the high reliance of poor segments of the population on fishing, the DRC has been identified as one of the four most vulnerable countries in the world in terms of the effects of climate change on fishing.[12]

The NAP process in the DRC is therefore an integral element in safeguarding not only food security, but also the livelihoods of its vulnerable and indigenous populations. As this process evolves, it will clearly highlight potential climate change affecting the agricultural sector and outline the

7 AfDB (2013).
8 Third National Communication (2014)
9 Peach Brown (2011 :163–176).
10 Union des parlementaires (2020).
11 Ministry of Foreign Affairs of the Netherlands (2018).
12 IPCC (2014).

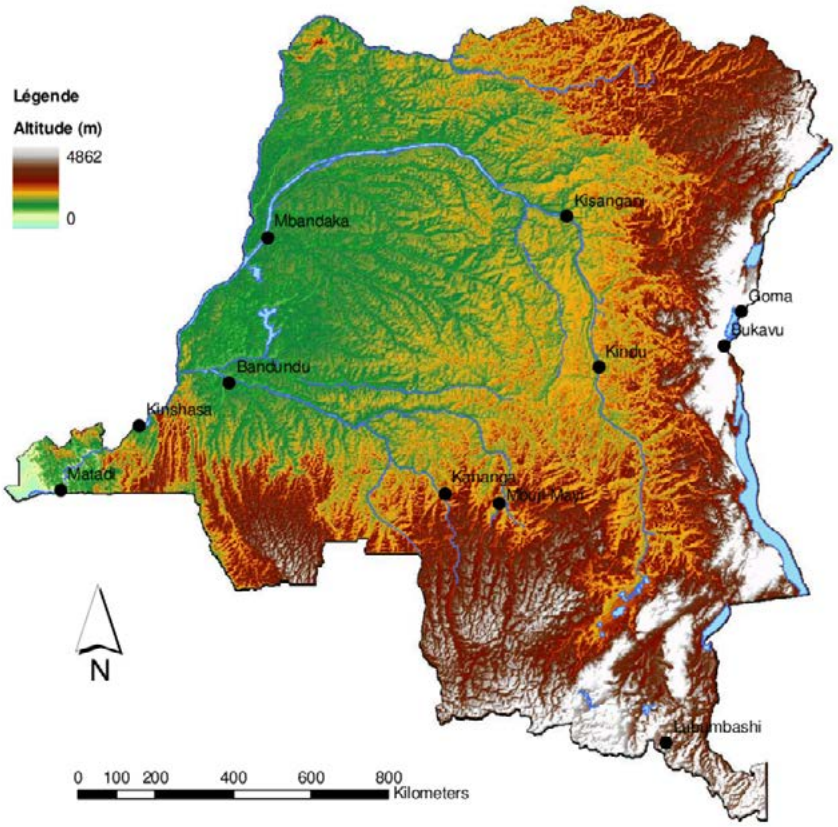

FIGURE 1: **RELIEF MAP OF THE DRC, SOURCE: U.S. GEOLOGICAL SURVEY**

potential vulnerabilities associated with it. It will also highlight priority adaptation measures that will help ensure that efforts by government and non-governmental organizations to diversify and develop agricultural production will continue to deliver the expected benefits, regardless of changing climate conditions.

2.4. CONSIDERATIONS ON GENDER AND INDIGENOUS PEOPLES

Men and women, boys and girls, and people with disabilities are disproportionately affected by climate change. For example, women and girls are more likely to be marginalized and disadvantaged in many countries, hence are more exposed to the consequences of climate phenomena since they are less able to protect themselves and will have more difficulty recovering.
Future generations will suffer the increasingly severe effects of climate change if governments do not take immediate action. However, children and young people already suffer from it due to their metabolic, physiological and developmental needs. This implies, for example, that forced displacement that affects a range of rights – from the right to water, sanitation and food, to the right to adequate housing, education and development – will probably affect children to a greater degree.

Indigenous peoples are among the populations most affected by climate change. They often live on marginal lands and in ecosystems that are particularly sensitive to environmental changes. They are very close to nature and to their ancestral lands on which their livelihoods and cultural identity are based.

Climate change is a human rights issue, not only because of its devastating consequences for the enjoyment of human rights, but also because it is a phenomenon caused by human activity and that governments can mitigate, especially for these marginalized people.

Taking gender considerations into account in the context of climate change risk management is an important issue in the DRC. In 2009, the Ministry of Gender, Family and Children (MGFE) published *Politique nationale d'intégration du genre, de promotion de la famille et de protection de l'enfant*, which specifically highlights the unbalanced impact of environmental factors on women. This guidance document in its second chapter provides a situational analysis of gender disparities and addresses environmental issues. As primary caregivers, rural women are disproportionately affected by the negative effects of climate change. The report also highlights the imbalance in women's involvement in environmental policy-making. Significant effort is needed to help the DRC mainstream gender dimensions in promoting risk-informed development and budget planning.

In a study, *Plan de renforcement de la résilience des femmes autochtones face aux effets des changements climatiques en RDC*, carried out in August 2019 as part of the project to support the process of implementing the NAP, it emerged that gender inequalities and violence are obvious sources of vulnerability for women among indigenous peoples as a result of the effects of climate change.[13]

Women are primarily responsible for providing for their household needs. They are the ones who feed their households, thus playing decisive roles in consumption patterns, natural resource management and sustainable production.

The degradation of the environment and ecological disturbance that could disrupt the agricultural seasons (rainfall and drought) do not affect all members of the community in the same way. Women are more vulnerable than men, and indigenous women are even more vulnerable due to the discrimination they face.

Indigenous women work more than men; with the risks of climate change, they will have to work even harder and spend more energy due to the consequences of these changes in terms of crop seasons, the distance to be travelled in search of non-wood forest products, water, etc.

The resilience plan that was proposed by the study is an integral part of the DRC's NAP with regard to the fight against gender inequalities among indigenous people and populations that are vulnerable to climate change.
The NAP process will further facilitate capacity building of stakeholders, and subsequent efforts to lead the integration of gender considerations into the DRC's adaptation response.

2.5. CONSIDERATIONS ON URBANIZATION

In its NDC, the DRC cited the main expected impacts of climate change that threaten «everyday life»: damage to infrastructure, destruction of habitats (especially in poor urban areas), increased water-borne diseases. and severe disruption of crop cycles due to seasonal droughts. For urban areas, increased population density combined with erratic rainfall can, in some cases, lead to water stress. In terms of vulnerability, even the agricultural sector comes second after the urban poor, who are the most vulnerable to climate hazards.[14] The DRC's cities are home to one of the largest poor urban populations in the world, and the urban poor are among the groups that are most vulnerable to climate change.

Although detailed analyses and adaptation options have not been carried out for cities and urban areas for this first NAP, they will have to be carried out, and priority actions and costs determined for the next update of the Plan.

2.6. RECOMMANDATIONS

Regarding the subject discussed in this chapter, several short-term actions must be prioritized. The following recommendations should be incorporated into requests for short-term financial and technical support:

- Strengthen key individual and institutional capacities for mainstreaming CCA into the national planning process in the 15 areas identified in the medium-term investment plan produced in 2020.
- Strngthen capacities and knowledge to adopt ecosystem-based adaptation approaches to maximize synergies between environmental conservation and rehabilitation efforts, and the NAP process.

13 UNDP (2019).

14 Sida (2008).

- Ensure that the NAP process is committed from the start in its efforts to develop the sectors of agriculture, fisheries, livestock and rural development, urban development, water and industry with a view to economic diversification in order to ensure that plans and investments are, as far as possible, climate-proof.
- Establish a research partnership to identify entry points for community-led climate change adaptation, based on the capacity development plan for PDPs produced in 2019.
- Establish and strengthen the capacities of local actors in the field of gender and climate change using the gender mainstreaming guide produced in 2019. Formulate principles to ensure that the gender dimension is taken into account in the NAP process as well as in sectoral and subnational policies, projects and programmes to advance CCA.
- Analyse, prioritize and cost the adaptation options for urban resilience in the short and medium term.

CHAPTER 3.

LEGAL AND INSTITUTIONAL PLANNING AND ADAPTATION FRAMEWORK

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3.1. INTRODUCTION

This chapter describes the regulatory and institutional frameworks and provisions that are relevant to the formulation and implementation of the NAP. It describes the steps that the DRC has already taken to develop its response to climate change, as well as additional strategies, plans and policies that are directly and indirectly linked to the formulation of a comprehensive NAP. The chapter provides brief information on the NAPA, the First, Second and Third National Communications to the UNFCCC, and the NDC, etc. The chapter also describes non-climate change policies and plans that are relevant to the NAP process and entry points, as well as additional political and administrative processes and paths, including decentralization, so that the NAP process can be aligned with them. Finally, the chapter describes a number of challenges, gaps and obstacles regarding alignment with the current strategic legal and regulatory framework.

3.2. INSTITUTIONAL FRAMEWORK

Several institutional actors are engaged in CCA in the DRC. Their classification reveals the presence of national and international actors. The former are either governmental or non-governmental: the latter are either international NGOs or inter-governmental organizations.

Climate change issues are managed by the MEDD, whose mandate is to ensure the coherence of the State's action on the management of the environment, water resources, forests and environmental sanitation.

The Directorate of Sustainable Development (DDD) within the MEDD is the government body responsible for coordinating and monitoring the implementation of the recommendations and decisions of the Rio Conventions (i.e. combating the effects of climate change on the environment, biodiversity, desertification), and for promoting environmental services and the green economy, coordinated with stakeholders, and thus ensuring their implementation.

The carrying out of vulnerability assessment studies and measures for adapting to the impacts of climate change in the DRC and their updates are based on data collected from the various national institutions, specifically the National Agency for Meteorology and Remote Sensing by Satellite (MettelSat), National Institute of Agronomic Studies and Research (INERA), the ministries responsible for energy, agriculture, rural and urban development, and regional planning, as well as scientific research, universities, and international, non-governmental and other related bodies, both public and private.

Public administrations are called on to share all data likely to contribute to carrying out vulnerability assessment studies. However, there are some shortcomings in the current framework, which are being gradually addressed. This framework should support the country in its efforts to sustainably manage this process. Organizations that may produce some relevant data and information do not have memoranda of understanding for data sharing with national institutions.

A provisional framework of organizations and institutions engaged in formulating and updating NDCs of the DRC, as illustrated in Figure 2, is also proposed for the NAP process in the country. Studies are currently underway to better define the roles and responsibilities of institutions and organizations that need to be engaged in the NAP process. This NAP document will be updated once the roles are better defined.

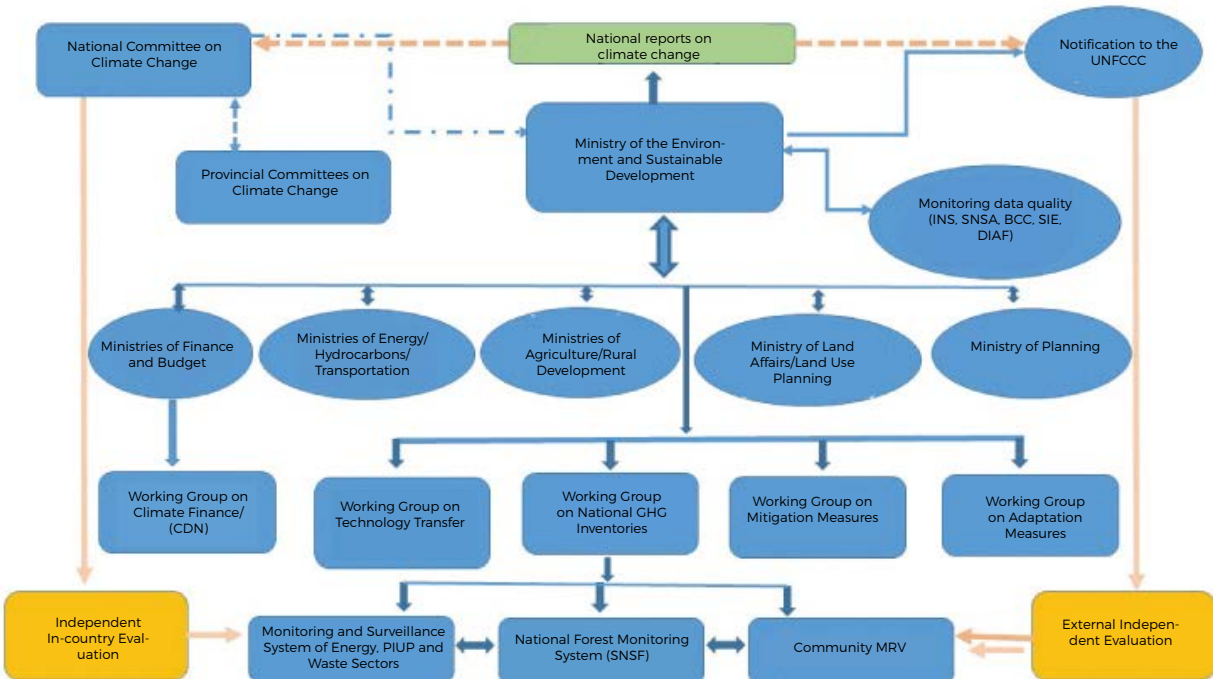


FIGURE 2: **THE INSTITUTIONAL PROVISIONS FOR MONITORING THE IMPLEMENTATION OF THE DRC'S NDC**

3.3. LEGAL FRAMEWORK

According to a recent report on information and communication on the process of CCA in the DRC, to date, climate change issues have not yet been sufficiently included in the DRC's legal framework: they are under the responsibility of the MEDD. [15]However, there are several regulatory texts that address issues related to climate change and other decisions relating to United Nations Conventions, including the UNFCCC, the Kyoto Protocol, the Paris Agreement on climate, United Nations Convention to Combat Desertification (UNCCD) and the Convention on Biological Diversity, etc.

Other relevant provisions on the fundamental principles on environmental protection, notably, the law on renewable energy, the Forestry Code and related laws and decrees, the law on water, the law on nature conservation, the law on sanitation, etc., are also taken into account in this initial framework. It should be noted that at the time of preparing this Plan, a process was underway to consider the introduction of a special law on climate change.

3.4. CLIMATE CHANGE AND RELATED ENVIRONMENTAL POLICIES

The DRC has demonstrated its commitment to address environmental and climate change issues, and is fully committed to the international frameworks governing them.

The DRC has ratified the United Nations Convention on Biological Diversity (CBD), the United Nations Convention to Combat Desertification (UNCCD), the UNFCCC and the Kyoto Protocol. The DRC signed the Paris Agreement on climate change in April 2016 and ratified it in December 2017; it entered into force in January 2018. It prepared its national First Communication on climate change in 2001, granting priority to agricultural production, rural development, the protection of natural resources, conservation and development. Although numerous activities were planned, political and economic difficulties initially prevented the implementation of all of the proposed activities except for two (the agricultural/rural sector recovery programme and the protected areas/national parks rehabilitation project). After preparing a national environmental action plan and a national biological diversity strategy (2002), the Government de-

15 UNDP, 2020a.

veloped the NAPA in 2006 and a Second National Communication on Climate Change in 2009.

The *NAPA* identifies five key priority areas: water resources, coastal zones, health, agriculture, and land and ecosystem degradation.[16] The activities planned under the NAPA were implemented between 2010 and 2015[17] with UNDP's support and through the financing of the Least Developed Countries Fund (LDCF). Specific activities that have been implemented include the improvement of weather monitoring and forecasting, and building resilience to climate change at the local level.

The *Second National Communication on Climate Change* (2009) mainly focuses on the coastal zone and certain vulnerable regions in the west. However, it also includes some national strategies on agriculture (including fisheries and livestock) and food security, with an emphasis on capacity building and improving technologies and infrastructure.[18] Climate change is also addressed in the country's Growth and Poverty Reduction Strategy (GPRS), in which the DRC states the objective of becoming a carbon sink by 2030.

The *Third National Communication* (TNC) (2015) is mainly focused on the opportunities provided by the Reducing Emissions from Deforestation and Forest Degradation (REDD+) programme and related forestry programmes, and clearly states that they are compatible with its objectives of an economic and social development that respects the environment. The geographic focus is mainly on the forests of the Congo Basin.

As indicated in its TNC to the UNFCCC, reducing deforestation is one of the main objectives of the DRC in its fight against climate change. The forests of the DRC, which constitute the largest stock of carbon in Africa, are of global importance, equal to 17 million tonnes. It has been estimated that, in a worst-case scenario, the complete deforestation of the country could result in the release of 140 billion tonnes of CO2, or the equivalent of almost three years of the current total greenhouse gas (GHG) emissions in the world. The Government aims to reduce GHG emissions by more than 18 million tonnes over 30 years.[19] In 2014, through the REDD + mechanism, the DRC launched a pilot programme aimed at safeguarding 12.3 million hectares (10 percent of the country's total forests) in Maï Ndombe province and on the Plateau. This programme combines enabling activities (strengthening governance, capacity building, land use planning at the local level, securing and modernizing land tenure) and sectoral activities (reducing the impact of logging, agroforestry, fire management) to reduce deforestation and emissions.

The PSPA-CC is the Congolese roadmap for all matters regarding climate change. As a reference framework on climate change, it aims to consolidate the various interventions in the areas of climate change, as identified in the DRC's NDC, on a five-year basis. The PSPA-CC (2016–2020)[20] presents a list of priority adaptation interventions, estimated to cost around $4.2 billion for the country, which focuses on four programmes in eight provinces. The priorities were selected in a participatory manner, in consultation with all stakeholders (central government institutions representing energy, health, land affairs, land use planning, planning and rural development: representatives of provincial governments of the former provinces of Kinshasa, Katanga, Kasaï Oriental, Easter Province (Province Orientale), and Kongo Central, financial and technical partners, civil society organizations, universities and research organizations, the media, the private sector, and representatives of local communities) and with the support of researchers involved in the process during the various workshops to validate the PSPA-CC document, both at the provincial level and in Kinshasa. The document serves as the basis for this NAP.

PNIA, established in 2013, is the national planning framework for national and external funds for the agriculture and rural development sector. It brings together all current and future programmes and projects of the sector, and focuses specifically on CCA. The results of projects on more resilient agricultural and forestry systems, watershed management and erosion control measures can serve as essential entry points for future PNIA projects. Since agriculture is one of the most important economic sec-

16 UNDP ALM website: www.adaptationlearning.net/ democratic-republic-congo-napa

17 GEF (2009): The Least Developed Countries Fund (LDCF). www. thegef.org/gef/sites/thegef.org/files/publication/LDCF-factsheets09_0.pdf

18 Second National Communication.

19 Gonzalez (2014).

20 Updated in 2020

tors that is vulnerable to climate change, this adaptation plan ensures complementarity with the PNIA.
The DRC presented its *Intended National Determined Contribution (INDC)* on 18 August 2015, in which it cites the main expected impacts of climate change that threaten daily life: damage to infrastructure, destruction of habitat (especially in poor urban areas), increased water-borne diseases, and severe disruption of crop cycles due to seasonal droughts. The first NDC (the slightly modified INDC) was submitted in December 2017. It sets a target of reducing emissions by 17 percent by 2030, compared to a business as usual scenario (BAU). This 17 percent target is conditional on adequate financial and technical support (e.g. financial resources, technology transfer and capacity building). The cost of implementing the NDC is estimated at US$21.64 billion, of which US$12.54 billion is earmarked for mitigation and US $ 9.1 billion for CCA.

The NDC specifies the following adaptation measures, by sector:

- *Agriculture, fishing and livestock:* Implementation of the adaptation component of the DRC's PNIA, integration of climate change resilience into development strategies and climate risk planning, investment in research and development, innovation, integration of early warning systems.
- *Energy, water and transport:* Improvement of access to drinking water, sanitation of wastewater, and sustainable waste management, improvement of infrastructure, and strengthening of institutional capacities.
- *Forestry/silviculture.*
- *Coastal management:* Erosion control, supporting income-generating activities, early warning systems and capacity building.

These priorities provide general guidelines that have been integrated into the specific actions covered by the priority actions/programmes of this NAP. And, over the next few years, they will be integrated into the financing, and monitoring and evaluation sections of a more comprehensive NAP.

3.5. OTHER RELEVANT POLICIES, PROCESSES AND PATHWAY

This section describes additional policies, strategies and plans that are relevant to the NAP process. Over the next two years, the NAP's steering and technical guidance mechanisms will establish clear links with each of them.

3.5.1. The Sustainable Development Goals

From 2016, all development plans in the DRC have been drafted in close alignment with the priority targets of the SDGs in the country. In addition to SDG 13 on climate change, this NAP also takes into consideration the targets in the DRC linked to SDGs 2, 3, 11, 14 and 15, among others. The Ministry of Planning, which leads the implementation of the SDGs in the country, is an essential partner for the NAP, not only in the coordination and monitoring and evaluation processes, but also in ensuring alignment with the prioritized targets of the DRC's SDGs.

3.5.2. Decentralization

The DRC is currently undergoing a decentralization process that would increase the competences and responsibilities of the provincial authorities in overall governance, including the prioritization, planning, budgeting, implementation and monitoring of development processes.

This ongoing process has important implications for many aspects of the adaptation planning at the national level in the DRC. These decentralization initiatives will be followed by further improvements, including a move towards programme-based budgeting and more participatory and consultative planning. In addition, administrative decentralization will be accompanied by fiscal decentralization policies. These initiatives create unique entry points for integrating CCA considerations into day-to-day governance processes, and the NAP process will guide this integration at the provincial level.

It should be noted here that, as part of a GCF-funded NAP project, a guide for integrating CCA into provincial development plans (PDPs) was developed in 2019. The NAP process in the DRC fully adopts the principles of this guide.

3.5.3. Emerging strategies on green growth, low emissions and clean energy

The strategic guidelines for building a green economy in the DRC is advancing and is based on the elements linked to sustainable environmental management, which favours a low-carbon emission and climate change-resilient development, as follows:

- sustainable environmental management, especially of forests;
- the development of an ecological agricultural production model;
- low-carbon energy development;
- integrated and inclusive water resources management;
- development of low-carbon transportation;
- development and implementation of land reform;
- the establishment of a regional planning policy;
- the development of low environmental impact extractive sectors;
- active management of the environmental dimension of health;
- the promotion of research on the green economy;
- the promotion of an environmental conscience;
- the establishment of an inter-ministerial consultative framework for any issue relating to rural development (adoption by the Council of Ministers, 2 October 2020);
- the creation of an anti-corruption agency (Presidency);
- the promulgation of the law on the free administration of the provinces.

In accordance with the UNFCCC, which DRC signed in 1993, the DRC established the *Service National des Energies Nouvelles* (SENEN) in the same year. The tasks of the SENEN are as follows:

- Define national policy and standards for non-traditional energy in rural areas, such as hydropower, wind energy, solar power, biomass energy and geothermal energy.
- Plan national objectives for the production and use of these energies.
- Ensure support of producers and users of these energies.
- Promote research on renewable energy.

3.5.4. DRC's National Strategy for Disaster Risk Reduction and Prevention

Developed in 2017 with its action plan for 2017–2023, the National Strategy for Disaster Risk Reduction and Prevention (UNISDR) seeks to achieve control over the current situation and optimize the implementation of disaster risk management in the country. It is the main instrument for implementing the country's vision and priorities for disaster risk management as part of a comprehensive approach covering all its components, including disaster risk prevention and reduction. It is divided into seven strategic intervention areas:

- promoting the effectiveness of disaster risk management of the decentralized authorities and the local communities;
- strengthening of institutional capacities at all levels as well as that of the populations for disaster risk management;
- strengthening of national coordination of disaster risk management and its key mechanisms;
- optimization of preparedness and strengthening of disaster response capacity at all levels;
- strengthening of risk assessment and monitoring, and early warning and risk information systems at the national level;
- optimization of the status of implementation and all sources of risk prevention and reduction practices at all levels;
- strengthening of regional, sub-regional and international cooperation.

Since numerous strategic intervention axes are closely linked with climate change, this adaption plan ensures complementary to the UNISDR.

3.6. IDENTIFIED GAPS AND BARRIERS

Although the DRC has made significant progress in terms of establishing an enabling environment for strengthening the resilience and adaptive capacity of the country, it is recommended that additional measures be taken to ensure that the NAP process is effectively implemented and that future versions of the NAP can continue to strengthen the country and its population in the face of changing environmental conditions. This section briefly describes a certain number of gaps, obstacles and barriers to climate change adaptation.

- Global awareness of the impacts of climate on development and of ways to take them into account in development planning at the national, sectoral and provincial levels is limited among key stakeholders, such as civil servants responsible for planning and budgeting.
- The dispersed policies and strategies are limited in their integration of climate change into development planning, implementation and monitoring. The adopted PSPA-CC still needs

implementation means and to be significantly aligned with the main strategic national development priorities.

- There is fragmentation and there are gaps in data records as well as observation and monitoring networks. The GEF-funded National Agency for Meteorology and Remote Sensing (MettelSat) project addresses some of these issues, but the limited climate knowledge base and information impede informed decision-making for adaptation priority setting.
- Additional capacities and human resources are needed at the provincial level to provide support to communities in the form of technical knowledge to identify hazards and vulnerabilities.
- There are low levels of public expenditure for climate change-related activities.
- There is a lack of specialized technical capacities needed for planning and implementation, and of stand-alone capacity-building programmes.
- There is weak/lack of monitoring and evaluation at the national level of progress made in building resilience and adapting to climate change.

Each of these weaknesses will be addressed through support in preparing subsequent NAPs over the next few years or will be addressed when implementing the priority adaptation programmes and actions described in Chapter 7 of this NAP.

3.7. RECOMMENDATIONS

In May 2020, as part of a UNDP-supported NAP preparation project in the DRC, a report was commissioned to examine institutional obstacles to effective adaptation planning in the country.

For the report, a survey was carried out among ten key institutions through the perspective of two essential foundations of the CCA integration into the national planning process, namely the individual level and the functional level. The institutions assessed included DDD, INERA, MettelSat, Ministry of Territorial Administration (MINAT), Ministry of Planning, FEC, National Seed Service (SENASEM), Directorate of Forest Inventories and Management (DIAF), Ministry of Fishing and Livestock (MINPE) and CONAFED.[21]

At the individual level, these obstacles particularly affect the following capacities:

- Assessment of the implementation of national policies, plans and strategies
- Familiarity with other CCA actors
- Familiarity with institutions and funding mechanisms
- Negotiation with national and international stakeholders
- Formulation and management of project cycles
- Information management and dissemination
- Use of IT tools
- Database management.

Regarding functional capacities, the obstacles relate in particular to the following factors:

- The ability to mobilize funding by the institution
- The financial capacity of the institution
- The logistics capacity of the institution
- The human resources capacity of the institution
- Gender mainstreaming in the institution's planning framework
- Definition of the institution's mandate
- Coherence of the institution's internal procedures.

On the basis of these obstacles, the following recommendations were formulated:

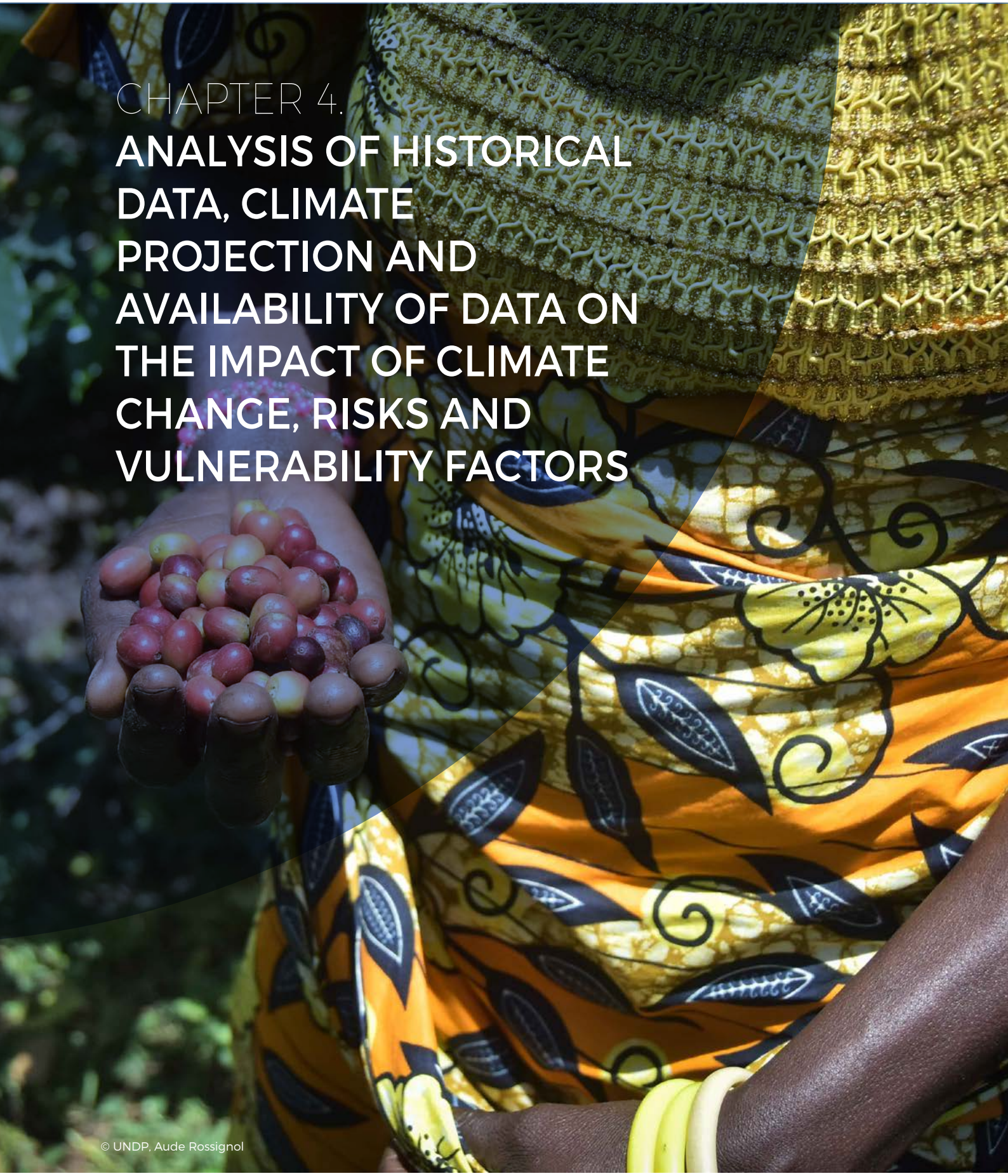
1. In order to ensure the successful integration of CCA into the national planning process, there is an urgent need to first develop individual and functional capacities of key institutions.
2. Capacity development should, as far as possible, be carried out following an integrated planning approach. First, each institution must develop its own capacity development plan, and then, the entire process will subsequently be combined to form an integrated institutional capacity development plan for CCA. The implementation of this integrated capacity development plan for the integration of CCA into the national planning process will reduce duplication and maximize the efficiency of the use of resources while contributing to the increasing the level of familiarity and partnerships between different institutions.

21 Note: At the time of preparing this report, only ten institutions were interviewed. However, the recommendations listed in this section concern all of the institutions in the DRC.

3. Capacity development should take a gender-sensitive approach, paying particular attention to the specific conditions and needs of women and indigenous peoples.

Recommendations for short-term actions to strengthen the NAP process include:

- Develop and disseminate awareness-raising materials for national agency staff as well as a range of sub-national stakeholders regarding the NAP process, the effects of climate change and the need to adapt.
- Conduct consultations in the 26 provinces to raise awareness and involve a range of subnational stakeholders in the NAP process.
- Establish clear links between the NAP process and the implementation of the NDC.
- Include the national laboratories and universities as part of capacity building for a second phase of the NAP project.
- Create procedures for updating CCA investment strategies, including the F national level, based on additional information and priorities emerging from the NAP process.



CHAPTER 4.
ANALYSIS OF HISTORICAL DATA, CLIMATE PROJECTION AND AVAILABILITY OF DATA ON THE IMPACT OF CLIMATE CHANGE, RISKS AND VULNERABILITY FACTORS

4.1. INTRODUCTION

This chapter provides a general overview of the DRC's climate, data availability, observed changes and future projections regarding the impact of climate change, risks and vulnerability factors. In addition, sector baselines in, and current and future vulnerabilities of six priority sectors are provided. This chapter aims to build the main evidence-based data to support climate-smart decision-making in the DRC. The information in this chapter is relevant to government and non-government stakeholders, and should contribute to policy formulation, the adaptation project design, and strategic processes for businesses, non-government organizations and development partners. It is expected that this chapter will be expanded over time as new data and information become available. It provides an overview of expected changes in temperature, precipitation, interannual variability patterns, etc. The chapter also describes the challenges related to data availability and provides recommendations to address them.

Among the most important elements of the NAP process is a rigorous assessment of risks and vulnerabilities at the national (sectoral) and subnational (generally geographic) levels. Risk and vulnerability assessments help build the evidence base to inform and prioritize adaptation actions. As the DRC's NAP process evolves and expands in the coming years, additional vulnerability and risk assessments will be carried out. This chapter also provides a baseline for future vulnerability and risk assessments by compiling the results of previously completed vulnerability and risk assessments. Furthermore, it identifies additional gaps that should be covered by future assessments. In general, climate risk and vulnerability assessments have been carried out on an ad hoc basis; this is an issue that will be addressed as part of the NAP process.

4.2. CLIMATE CHANGE OVERVIEW

The DRC is located in Inter-Tropical Convergence Zone, which affects the extent and timing of the dry season and the rainy season, creating extreme climate variability in the country. Rising temperatures are expected to have a dramatic impact on key economic sectors such as agriculture (including fishing and livestock farming) due to crop diseases and droughts, which will intensify food insecurity and poverty. Simulations conducted by the World Bank indicate that the heavy rains in this region will intensify further, leading to destruction by flooding, landslides and soil erosion (especially in the central Congo Basin). This was evident during the 2015–2016 floods, which affected around 550,000 people and resulted in a cholera epidemic. However, rainfall is expected to decrease in the south, where the dry savannah region supports 80 percent of the rural population.[22]

The dry seasons generally last from April to October in the south, and from November to March in the north, also depending on the distance from the equator. Along the west coast, a small area is characterized by an oceanic climate (Cfb) due to the cold Benguela current. Here, the temperature and rainfall (around 800 mm) are significantly lower than in the rest of the country. The highlands in the east of the country lie outside the path of the Inter-Tropical Convergence Zone (and are subject to the influence of the southeast trade winds. Here, too, temperate climates (Cf, Cw) predominate, with snow at the highest altitudes.

The annual mean temperature has slightly increased at a rate of + 0.17°C per decade over the past 30 years. Looking ahead, projections from global climate models suggest a sharp average increase in temperature. By the end of the century, it is likely that temperatures will rise by 1.7°C to 4.5°C (compared to the baseline period from 1981 to 2010). In addition, a sharp increase in the duration of heat waves is predicted as well as a sharp reduction in the duration of cold spells.

22 https://climateknowledgeportal.worldbank.org/country/congo-democratic-republic/climate-data-projections

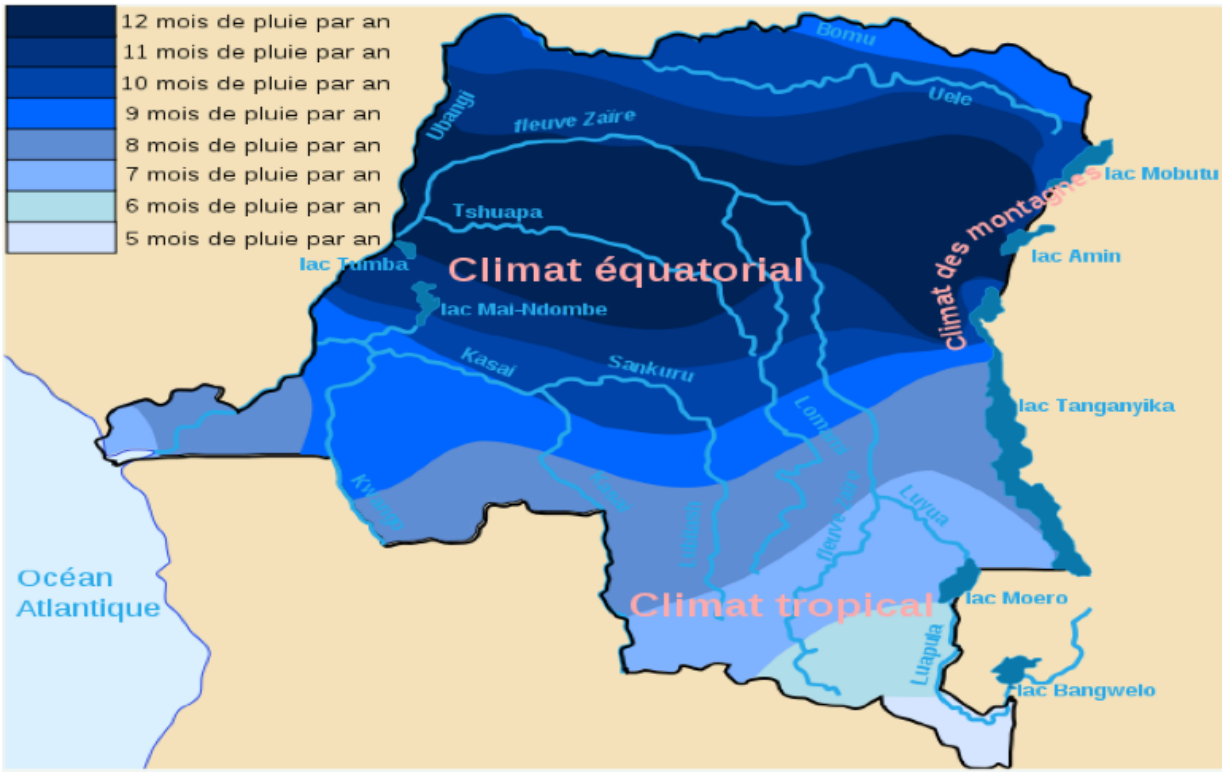


FIGURE 3 : **CLIMATE ZONES OF THE DRC, SOURCE : PNIA, 2013**

Regarding the total amount of annual precipitation, no substantial change has been observed over the past 30 years. Looking ahead, most climate models predict a trend of a slight increase in annual total precipitation. By the end of the century, it is likely that there will be a change in total annual precipitation of 0 to +8 percent (compared to the 1981 to 2010 baseline period). In addition, projections suggest a trend of more intense and considerably more frequent precipitation, while no clear trend is expected for the duration of drought spells.

Regarding the climate water balance, no clear trend is foreseen in the future. With regard to solar irradiation and annual mean wind speed, projections of global climate models show a slight positive trend over the 21st century. However, the ability of global models to reproduce average wind speed and solar irradiation is limited.

Relevant historical data on sea level are scarce for the DRC. A tide gauge was installed in 2017 at Muanda as part of the NAPA-Coastal Zone Project, which is currently managed by the *Congolese des Voies* Maritimes (CVM). Projections of future mean sea level changes from atmosphere-ocean general circulation model simulations at a global level suggest a sea level rise near Muanda in the range of +0.43 m to +0.99 m by 2090 for the high emissions scenario.[23]

Such extreme variations forces the DRC to take into account variations in different parts of the country in its approach of adaptation planning processes for more effective adaptation planning.

Most of the economic sectors in the DRC are highly sensitive to climate (such as agriculture, forests, the coastal zone, energy, etc.). Agriculture is the main source of income for 90 percent of the population of the DRC and continues to be almost exclusively rainfed. With the change in rainfall, especially due to the shortening of the rainy seasons and their variability, or the increase in average soil temperature, which affects crop growth, harvests will be unreliable and the people who rely on rainfed agriculture will be extremely vulnerable. This

23 GERICS (2015).

growing uncertainty threatens the food security and social development of poor and vulnerable communities.

This explains why agriculture and rural development, in addition to energy, transportation, water and sanitation, the conservation of ecosystems, forests and biodiversity, and the management of coastal zones are considered absolute priorities in the national programmes for the adaptation planning process in the DRC.

In addition, extensive decentralization is underway, and reorganization of the country into 26 provinces instead of the original 11 has been completed; hence, there is a need for all provinces to prepare their development plans while granting increased autonomy.

Figures 3 and 4, respectively, show the change annual rainfall (mm) (season) and annual mean maximum temperature (˚C) in the four climate zones in the DRC (NAPA, 2006).

Historical data analysis [24]

Figures 5 to 10 show the changes of temperatures and precipitation from 1980 to 2017 for Kinshasa. The figures clearly show erratic trends from 1995 onwards in both temperature and precipitation. A general trend can also be observed in increasing drought periods and a reverse trend for consecutive rainy days, while the frequency of heatwaves and days of rainfall over 10 mm (although erratic) has increased. Similarly, the monthly difference between daily maximum and minimum temperatures has decreased.

24 Shown at a reduced scale for eight key climate indicators from RCP 4.5 and 8.5 for Kinshasa. Source: Swedish Meteorological and Hydrological Institute (SMHI), World Meteorological Organization, Green Climate Fund.

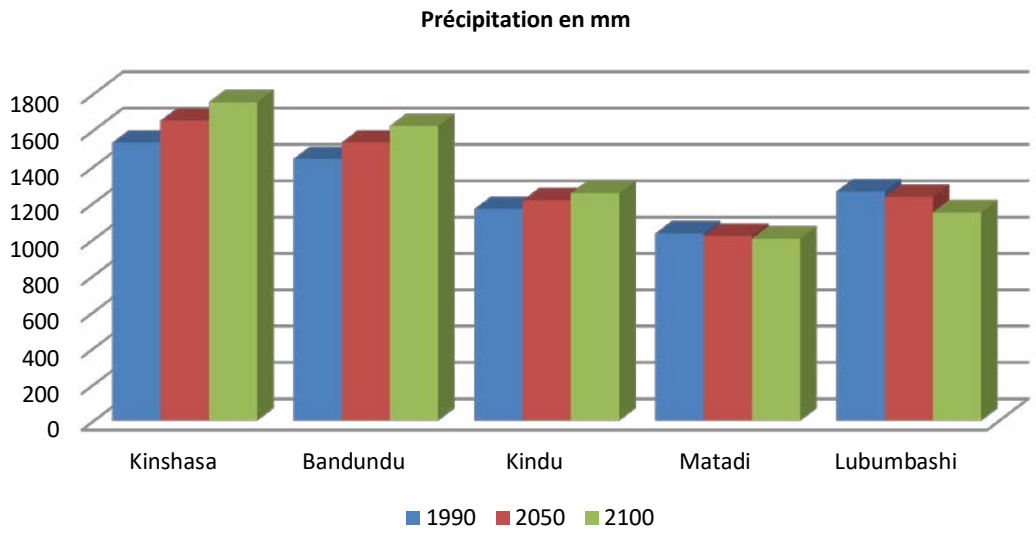


FIGURE 4: **CHANGE IN RAINFALL (MM) IN 4 CLIMATE ZONES OF THE DRC IN 1990 (P1), 2050 (P2) AND 2100 (P3), SOURCE: NAPA 2006.**

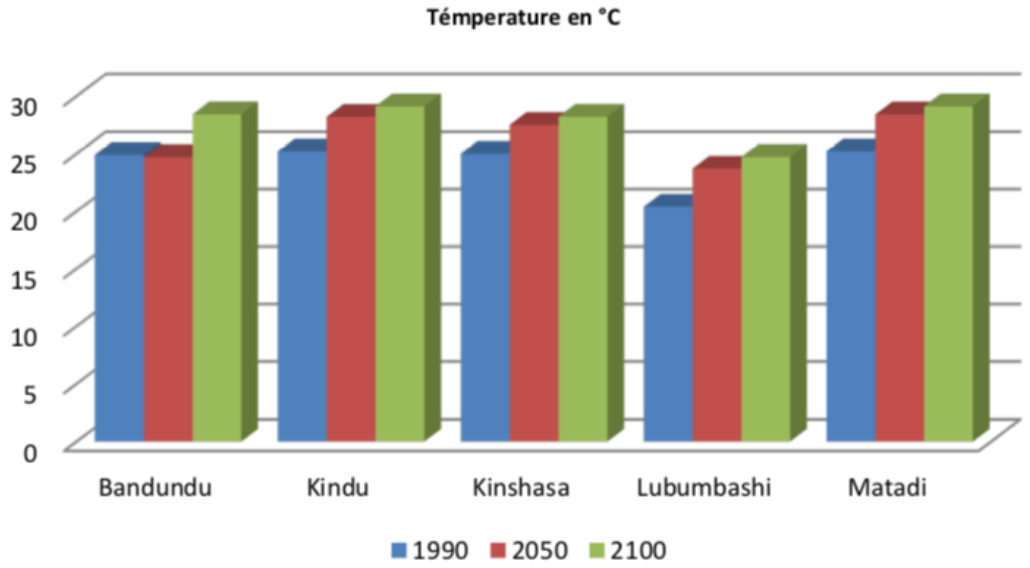


FIGURE 5: **TEMPERATURE CHANGES IN THE CLIMATE ZONES OF THE DRC IN 1990, 2050 AND 2010 SOURCE: NAPA, 2006.**

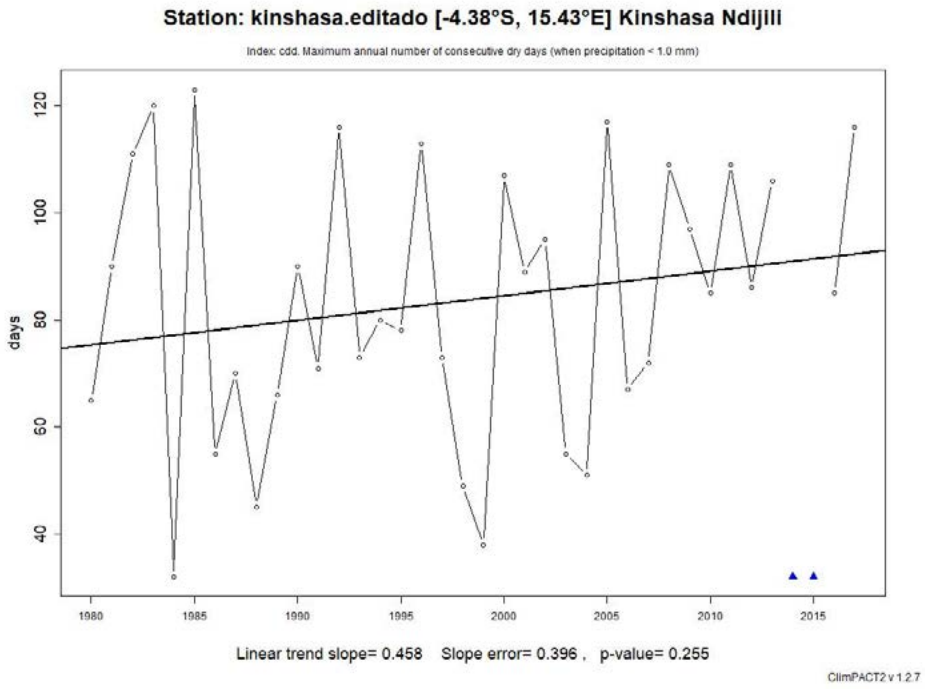


FIGURE 6: **ANNUAL MAXIMUM NUMBER OF CONSECUTIVE DRY DAYS (WHEN PRECIPITATION IS OVER 1.0 MM)**

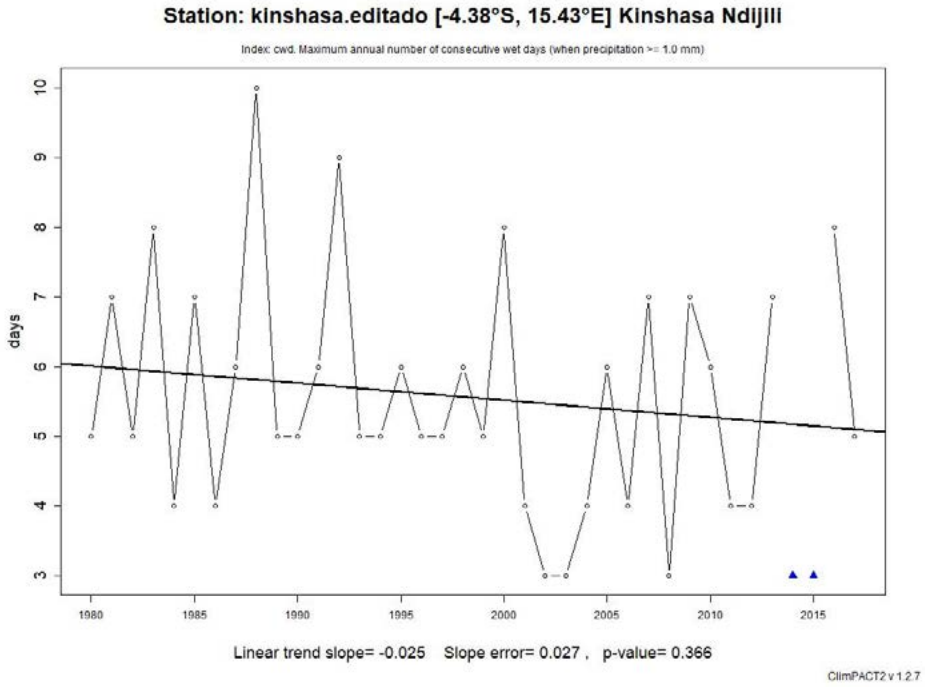


FIGURE 7: **MAXIMUM ANNUAL NUMBER OF CONSECUTIVE WET DAYS (WHEN PRECIPITATION IS ≥ 1.0 MM)**

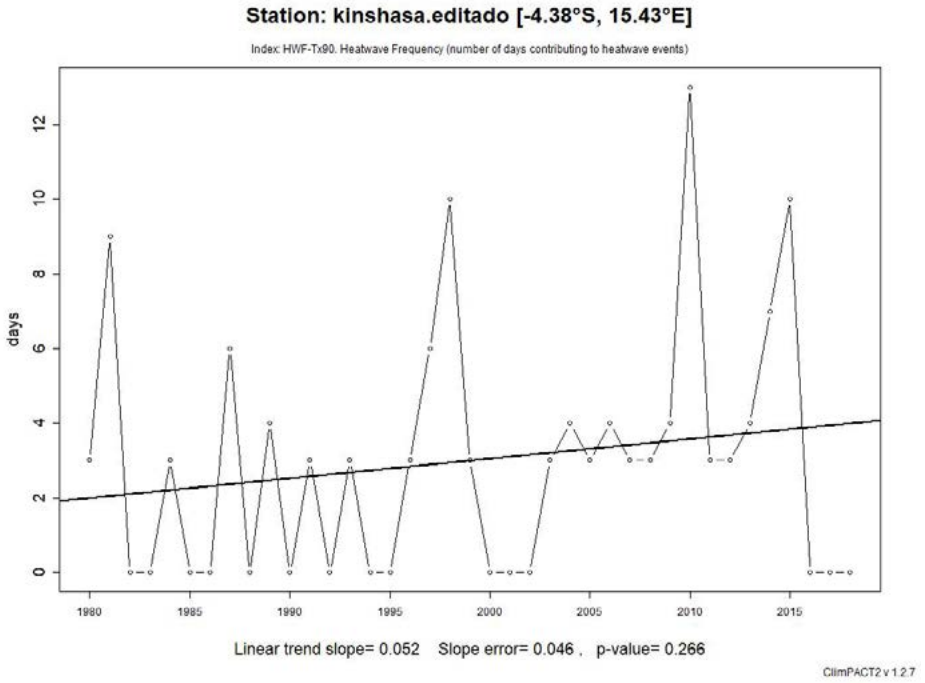


FIGURE 8: **HEATWAVE FREQUENCY (NUMBER OF DAYS CONTRIBUTING TO HEATWAVE EVENTS)**

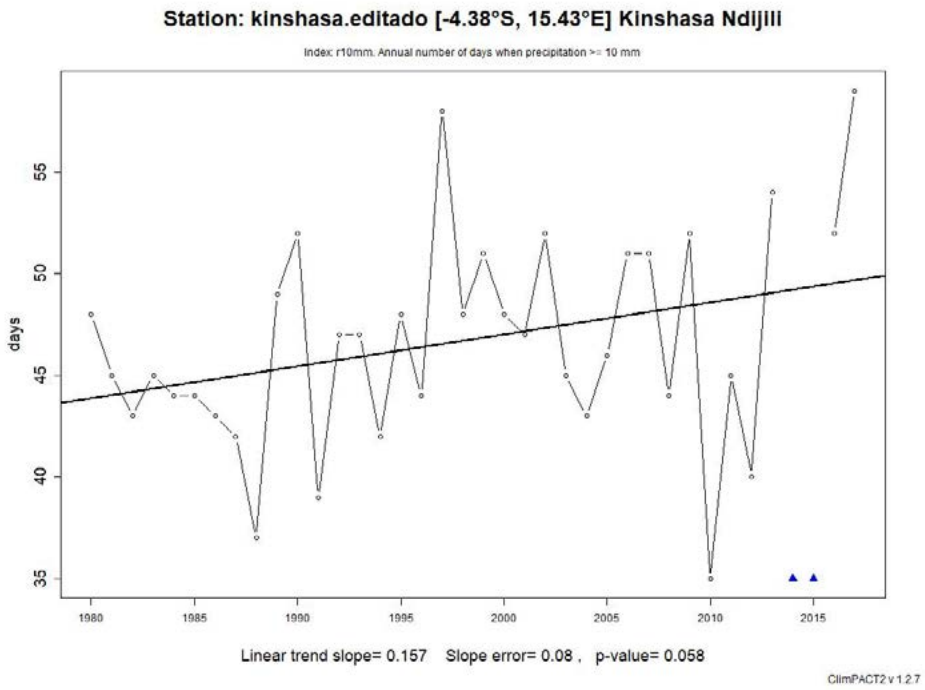


FIGURE 9: **ANNUAL NUMBER OF DAYS WHEN PRECIPITATION IS ≥ 10 MM**

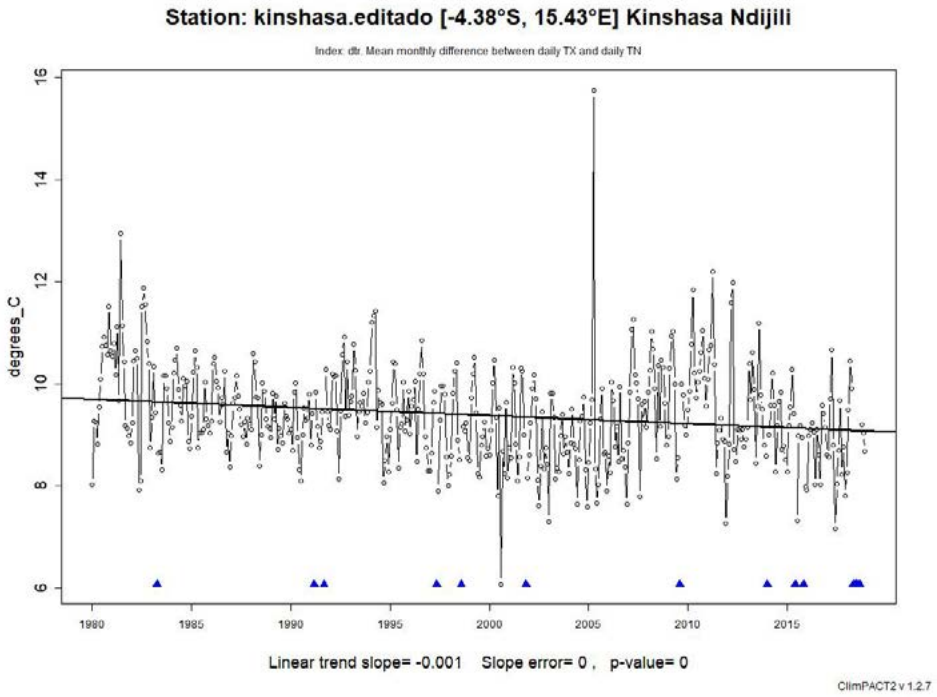


FIGURE 10: **MEAN MONTHLY DIFFERENCE BETWEEN THE MAXIMUM AND MINIMUM DAILY TEMPERATURE**

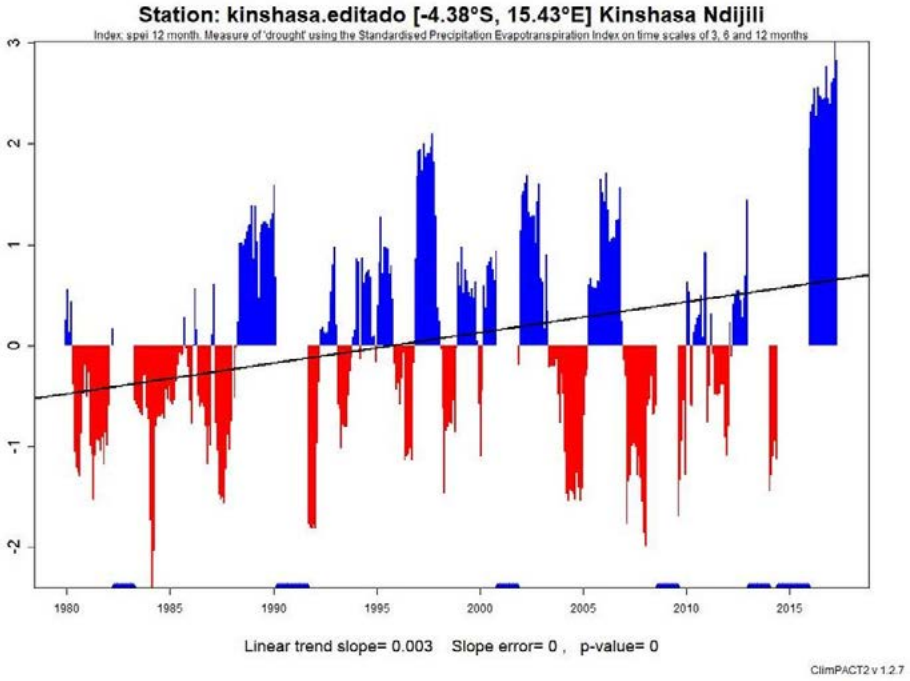


FIGURE 11: **DROUGHT ANALYSIS BASED ON THE STANDARDISED PRECIPITATION-EVAPOTRANSPIRATION INDEX (SPEI) OVER 12 MONTHS**

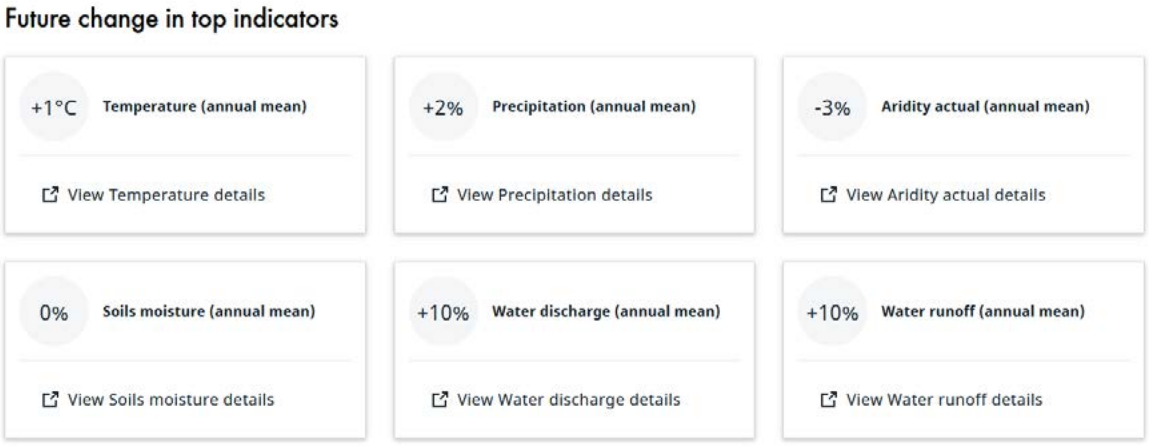


FIGURE 12 : **RCP4.5 FOR THE 2041–2070 PERIOD**

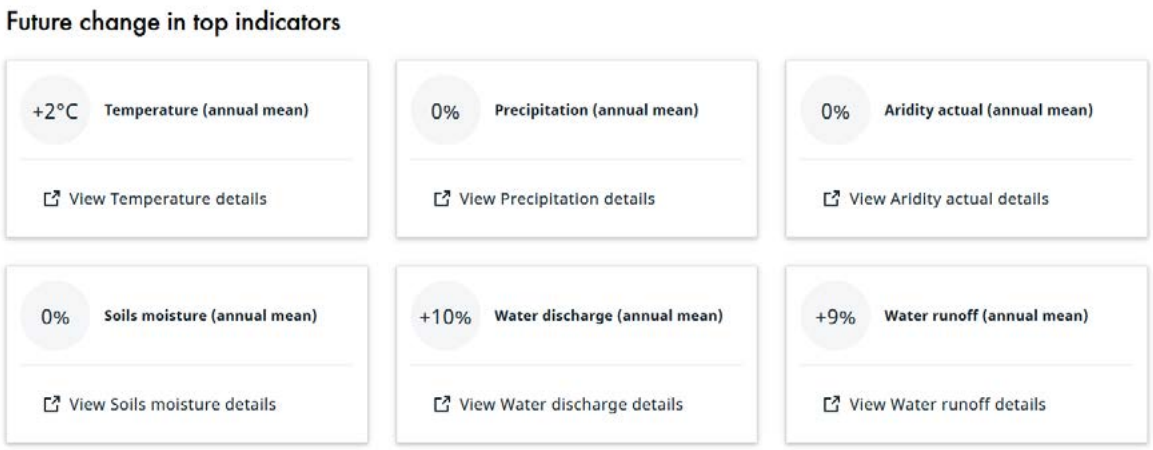


FIGURE 13 : **RCP4.5 FOR THE 2071–2100 PERIOD**

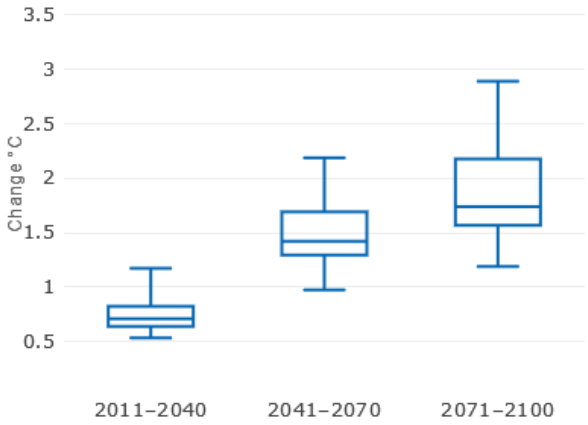


FIGURE 14: **THE TEMPERATURE INDICATOR (ANNUAL MEAN)**

Temperature: Description of the temperature indicator (annual mean)

Calculated as the annual mean values of the average daily temperature over a 30-year period. This index is given in absolute variation with respect to the baseline period of 1981–2010 (future period minus baseline period). Here, the ensemble mean value is given, calculated on the models listed in the model attribute.

Key message for temperature (annual mean)
For the **2041–2070** period compared to the **1981–2010** period (RCP 4.5)

- The median change is 1.4˚C (ensemble mean)
- 50 percent of ensemble members (interquartile interval) agree that the change is between 1.3˚C and 1.7 ˚C.

For the **2071–2100** period compared to the **1981–2010** period (RCP 4.5)

- The median change is 1.7˚C (ensemble mean)
- 50 percent of the ensemble members (interquartile interval) agree that the change is between 1.6˚C and 2.2˚C.

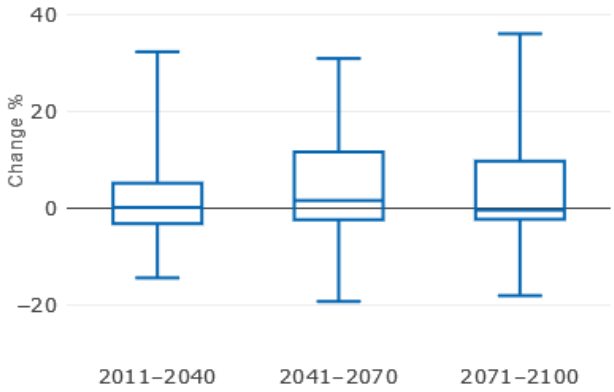


FIGURE 15 : **PRECIPITATION INDICATOR (ANNUAL MEAN)**

Precipitation: Description of the precipitation indicator (annual mean)

Calculated as the annual mean value of daily precipitation averaged over a 30-year period. This index is expressed in relative variation: 100 * (future period – baseline period) / baseline period. The values of the future and baseline period less than 0.1 mm/day were set to 0, which resulted in missing values in relative change. Here, the mean ensemble value is provided, calculated on the models listed in the model attribute.

Key message for temperature (annual mean)
Key message for precipitation (annual mean)
For the **2041–2070** period compared to the **1981–2010** period (RCP 4.5)

The median change is 1.8 percent (overall mean)
50 percent of the ensemble members (interquartile interval) agree that the change is between -2.2 percent and 12 percent.

For the **2071–2100** period compared to the **1981–2010** period (RCP 4.5)

- The median change is -0.21 percent (mean ensemble)
- 50 percent of the ensemble members (interquartile interval) agree that the change is between -2.1 percent and 9.9 percent.

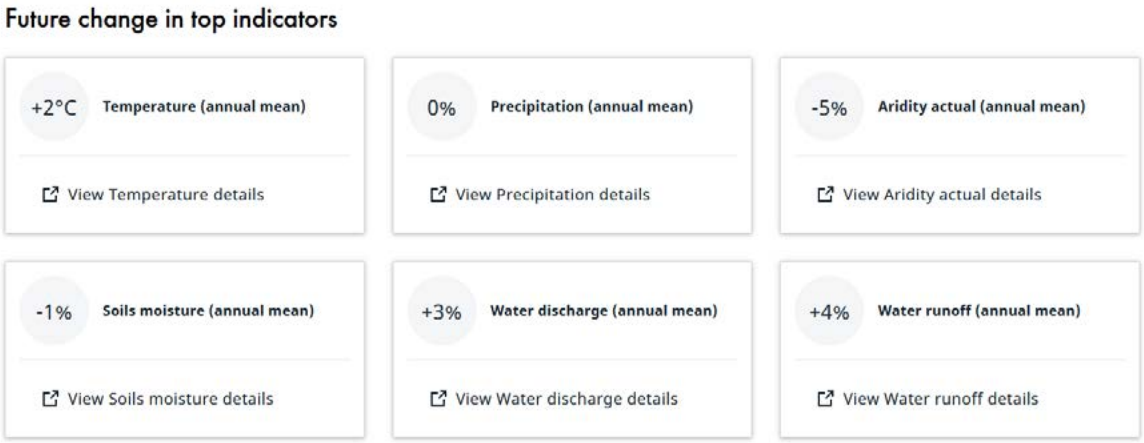


FIGURE 16: **RCP 8.5 FOR THE 2041–2070 PERIOD**

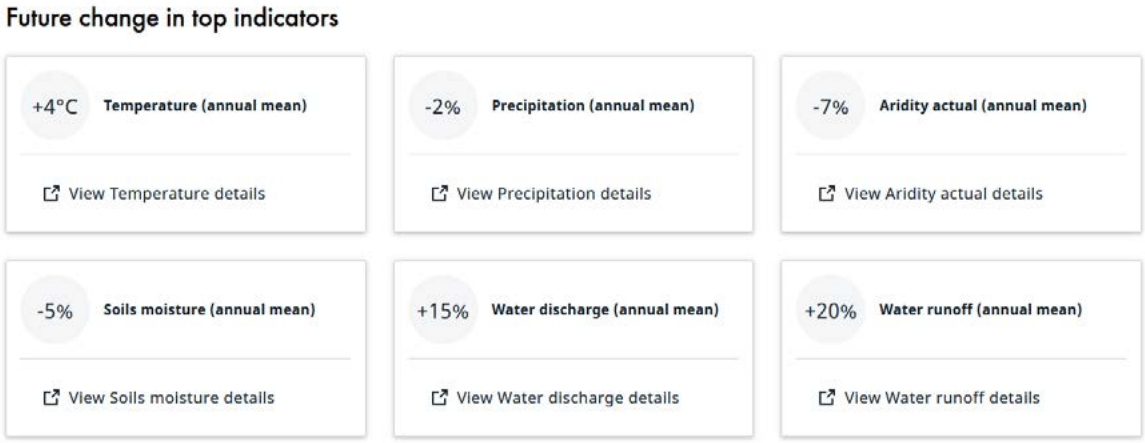


FIGURE 17: **RCP 8.5 POUR LA PÉRIODE 2071-2100**

Temperature :

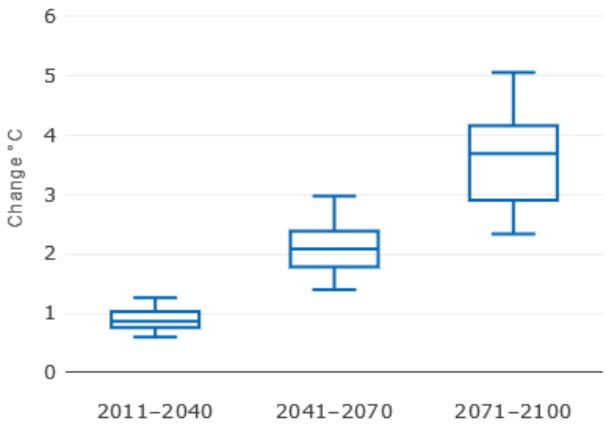


FIGURE 18: **THE TEMPERATURE INDICATOR (ANNUAL MEAN)**

Key message for temperature (annual mean)
For the **2041–2070** period compared to **1981–2010** period (RCP 8.5)

- The median change is 2.1˚C (ensemble mean)
- 50 percent of the ensemble members (interquartile interval) agree that the change is between 1.8˚C and 2.4˚C.

For the **2071–2100** period compared to **1981–2010** period (RCP 8.5)

- The median change is 3.7˚C (ensemble mean)
- 50 percent of the ensemble (interquartile interval) agree that the change is between 2.9˚C and 4.2˚C.

Precipitation :

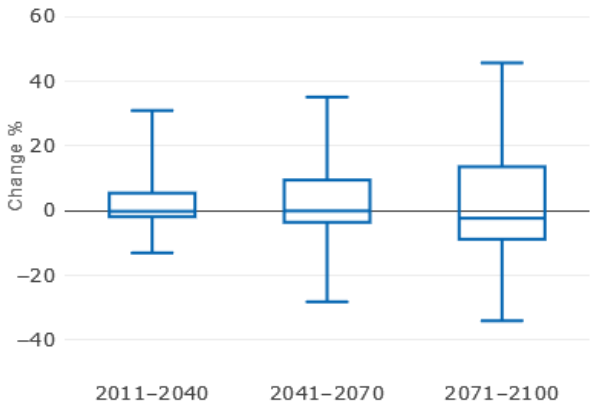


FIGURE 19: **THE PRECIPITATION INDICATOR (ANNUAL MEAN)**

Key message for precipitation (annual mean)
For the **2041–2070** period compared to the **1981–2010** period (RCP 8.5)

- The median change is -0.047 percent (overall mean)
- 50 percent of the ensemble members (interquartile interval) agree that the change is between -3.6 percent and 9.5 percent.

For the **2071–2100** period with respect to the **1981–2010** period (RCP 8.5)

- The median change is -2.3 percent (ensemble mean)
- 50 percent of the ensemble (interquartile interval) agree that the change is between -8.8 percent and 14 percent.

It can be predicted from annual trends that there will be an increase in rain, especially in the central basin (Kinshasa, Bandundu and Kindu) and a decrease in the South Plateau (Lubumbashi / Haut Katanga) and in most of the Kongo Central province (Matadi), especially the coastal zone. The perceived from the monthly totals clearly show a shortening of the duration of the rainy season gradually as one moves towards the extreme south (South Plateau).

The historical climate trends on which the above data are based and which are used in many scientific publications in the DRC are derived from the global data set from the Climate Research Unit (CRU) at the University of East Anglia, which are also dated. The NDC and PSPA-CC on which this document is based depend on the TCN, which was produced in 2015. Although these may be sufficient in the short term to guide priority actions in terms of adaptation, more updated and better targeted studies and projections would make it possible to carry out concrete actions in the medium and long term in order to have a positive impact in the future.

4.3. SUMMARY OF THE RESULTS OF THE VULNERABILITY ANALYSIS

DHere, the focus will be placed more specifically on several large-scale vulnerability assessments that are relevant to the sectors described above, and on their conclusions. This NAP is based on existing risk and vulnerability analyses, especially those conducted for the National Communications to the UNFCCC), and more detailed vulnerability and risk assessments will be carried out during the implementation period of the first NAP.

In recent years, the National Communications (NCs) to the UNFCCC have been the main instruments used in the DRC to conduct climate vulnerability assessments. The TNC, produced in 2014, lists agriculture, water resources, health, coastal zones and energy as the most vulnerable sectors, just as in the NAPA.

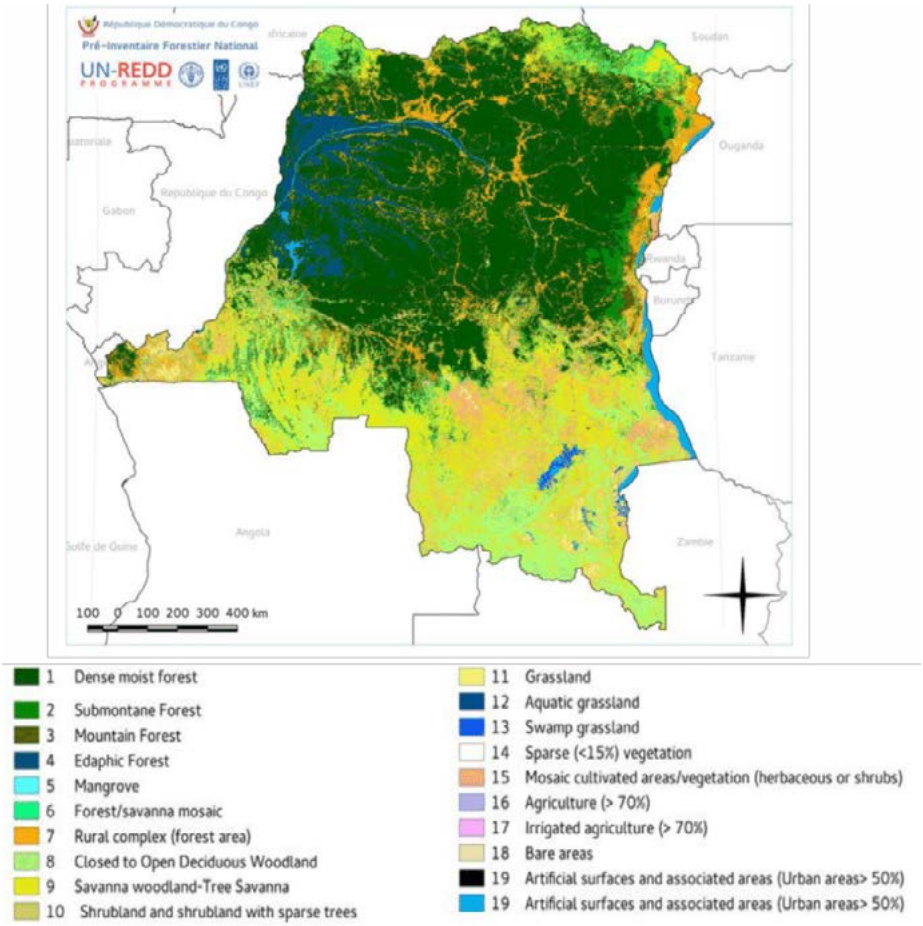


FIGURE 20: **MAP OF FOREST STRATIFICATION OF THE DRC SOURCE: REDD+**

The DRC is vulnerable to the effects of climate change and does not have adequate and sufficient capacities to cope with them. Indeed, the DRC is ranked 5th in the world in the Notre Dame Global Adaptation Initiative (ND-GAIN) Index of countries most vulnerable to climate change in terms of their adaptive capacity. The effects of climate change are already being felt across the country, in particular, the persistence of high temperatures, violent rains, land degradation, particularly by erosion, the disruption of the seasons, the increase in drought sequences during the rainy seasons and flooding.

Climate projections for the coming decades predict an increase in temperatures of 3oC to 5oC, a decrease in precipitation, and an increase in its variability, as well as an increase in extreme events. These climate variations will have a significant impact on the main climate-sensitive, socio-economic sectors. Indeed, in 2006, NAPA identified the sectors of water resources, forestry, agriculture and the coastal zone as the most vulnerable to the effects of climate change. In the agricultural sector, for example, climate change will lead to a reduction in the overall productivity yield due to the degradation of the conditions needed for optimal plant growth (e.g. soil degradation due to erosion, floods and more intense insolation destroying humus, increased evaporation rate due to the temperature increase, and the proliferation of weeds and harmful insects).

Table 1 summarizes the climate risks, vulnerability, potential impacts and proposed adaptation measures.

TABLE 1: **CLIMATE RISKS, VULNERABILITY, POTENTIAL IMPACTS AND PROPOSED ADAPTATION MEASURES**

Climate risks	Vulnerability	Potential impacts	Adaptation measures
Abundant rainfall	Lack of communication and information on hydro-climate risks Failure of the level of urbanization Insufficient risk transfer mechanisms Low level of education and education of the population Poor governance of the territorial space	Floods, erosion Landslides Road and drainage overflows Inaccessibility of communication channels Destruction of basic social infrastructure	Public awareness Erosion control, reforestation Environmental sanitation Public awareness Strengthening of early and rapid warning capacity: Development of various contingency plans Organization of simulation exercises.
Increase in temperature	Habitats not adapted to climate conditions Agricultural lands	Risk of food insecurity Proliferation of water-borne diseases Increased mortality and morbidity rate in women and children from 0 to 5	Promotion of diversity and crop rotation Adoption of climate-smart agriculture: improve irrigation systems Reforestation Improved treatment and distribution of water Public health services targeting populations at risk
Landslide	Lack of hydro-climate risk assessment Self-occupancy of land Poverty Population growth Overcrowding Low level of education Sandy soil	Destruction of basic infrastructure and housing Destruction of fauna and flora Population displacement	Preparation of various contingency plans Development of a new resilient development plan Organization of simulation exercises Erosion control Rehabilitation of infrastructure Protection of flora and fauna Reforestation Development and application of laws and regulations

contd. TABLE 1: **CLIMATE RISKS, VULNERABILITY, POTENTIAL IMPACTS AND PROPOSED ADAPTATION MEASURES**

Climate risks	Vulnerability	Potential impacts	Adaptation measures
Erosion	Disorganized do-it-yourself-construction (non-compliance with urban planning standards) Poverty Population growth Overcrowding Low level of education Sandy soil Extensive agriculture.	Destruction of homes, infrastructure, soil, crops, fauna and flora Displacement of the population	Development of various contingency plans Development of a new resilient development plan Organization of simulation exercises Erosion control Rehabilitation of infrastructure Protection of flora and fauna Reforestation Development and application of laws and regulations
Drought	Deforestation Poor farming techniques Fire recurrence	Reduction of agricultural production Malfunction of hydropower dams Challenges in river and lake transportation Challenges in the supply of drinking water Epidemics Drop in water level Massive displacement of the population.	Reforestation Adequate treatment of diseases Installation of irrigation systems Development and application of laws and regulations on land occupation

4.4. RECOMMENDATIONS

The following are some actions regarding data and information that should be prioritized in the short term to improve the NAP process in the DRC:

- Update this chapter as new information becomes available.
- Develop a strategy to strengthen human and institutional capacities to support research, data analysis and other aspects of data and information management to support the NAP and related processes in the future (using the medium-term investment plan produced in 2020).
- Collect, organize, harmonize data and information and identify the gaps in the historical data register.
- Improve and standardize the collection of climatological, hydrological and geospatial data, and coordinate them with vulnerability assessments that will be conducted in the future as part of the NAP process.
- Give priority to geographic areas to expand the monitoring network of hydrometeorological stations in the country in order to improve early warning systems, and establish a comprehensive 30-year hydrometeorological data registry to facilitate an improved downscaling of global projections for the future.
- Establish knowledge co-production agreements between relevant government bodies and academic and research institutions in order to provide useful information for decision-making to inform the NAP process.
- Develop uniform methodologies and conduct expanded vulnerability assessments for priority sectors, including a comprehensive study of climate risks for infrastructure.

A fundamental priority in the short term consists in carrying out additional risk and vulnerability assessments in a uniform and coordinated manner in order to inform the NAP process and improve the database. The recommended short-term actions are as follows:

- Establish a centralized database of vulnerability and risk assessments as well as CCA projects carried out by development partners, NGOs, local communities and other stakeholders.
- Establish standard methodologies and carry out further vulnerability/risk assessments for key areas at the national level (e.g. agriculture, fisheries, livestock, water and sanitation, health, land and ecosystem degradation).
- Standardize and organize training on vulnerability assessment methodology and provide technical and financial assistance so that the provincial authorities can conduct their own vulnerability assessments.
- Put in place a mechanism to consolidate the results of the vulnerability assessments at the provincial level and integrate them effectively into the NAP process and the priorities deriving from them. Also, integrate them into the PDPs and investment budgets.
- Formalize a rigorous process in order to shift from assessing sector and subnational vulnerability and risk to identifying adaptation priorities for the NAP process.

CHAPTER 5.
NATIONAL ADAPTATION PRIORITIES

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5.1. INTRODUCTION

This chapter presents the adaptation priorities for the DRC's NAP. These priorities have been compiled from the existing strategies and plans related to CCA, which have been described in Chapter 5, including the NAPA, the NDC, the National Communications and the PSPA-CC, etc. The priorities were validated during the first NAP stakeholder consultation workshop, which took place in Kinshasa in January 2021. The priority actions were classified by sector. These priorities are expected to be developed or modified as the NAP process evolves, and as additional vulnerability and risk assessments are completed and new information becomes available. In addition to the priorities listed in this chapter, special attention should also be paid to urban resilience. Urban areas/cities are high concentrations of financial, infrastructural and human activities that are vulnerable to the impacts of climate change. This is particularly significant for the DRC, where there are some of the most populous cities in Africa.

5.2. PRIORITY ADAPTATION PROGRAMMES

The priority actions listed below are based on the priority areas of the PSPA-CC and the NDC, and also rely on, *inter alia:* (i) *Plan d'actions pour l'intégration de l'adaptation aux changements climatiques dans le processus de planification* (Plan of action for integrating climate change adaption in the planning process) and (ii) *Plan d'action pour l'intégration des priorités d'adaptation des Peuples Autochtones dans le Plan National d'Investissement Agricole* (Plan of Action for integrating the adaptation priorities of indigenous peoples into the PNIA).

The DRC prepared a country programme for the GCF in 2018, which presents a number of priority adaptation actions in the short, medium and long term in four multi-year programmes, with a total budget estimated at around US$4.8 billion. These programmes are presented in the Annex 3 table.

In addition, a number of costed individual and institutional capacity development plans to advance the NAP process in the DRC was also drawn up in early 2020, as shown in the Annex 2 table.

Together, they make up the immediate next steps and the medium-term investment plan for the DRC's NAP process.

5.2.1. Conservation of forest ecosystems and biodiversity

Adapting forest management to climate change will ensure energy supply and livelihoods. It is impossible to manage a system whose condition, strengths and weaknesses are unknown. In addition, the extent of the forest can pose a constraint on management. Therefore, a balanced and well thought out plan should be designed. This will make it possible to carry a more efficient inventory and monitoring of forests, taking into account the available capacities. Various monitoring systems have already been developed, which should, however, be improved, taking into account the potential impacts of climate change.

Conservation measures should be put in place in specific sites where ecosystems present risks of degradation. According to these simulations, large-scale degradation of tropical rainforests due to climate change should not be expected.

Particularly for indigenous peoples, specific actions can be taken, in particular:

- involving indigenous peoples in negotiations of social clauses with forest and mining operators;
- raising awareness among the various actors involved in logging on violence and human rights of male and indigenous women;
- initiating pilot projects on NWFP sectors with indigenous peoples;
- promoting programmes on reforestation and domesticating species of high ancestral value for indigenous peoples:
- implementating sustainable fishing and fish farming programmes.

5.2.2. Integrated agriculture, fishing, livestock farming and rural development

The agricultural sector is considered flexible, providing many opportunities for CCA. As explained, not all of the proposed measures present risks or a high financial cost; however, their implementation requires in-depth preliminary studies. If the least expensive option is chosen in order to reduce expenses, it might, however, ultimately obtain the opposite result, because of the losses and damages that would have been avoided by other more expensive options. It should, however, be understood that situations vary from one context to another, hence the importance of conducting detailed studies to determine the best options depending on the site. When choosing adaptation options, the free choice of farmers to adapt or not should not be overlooked. Indeed, most farmers are reluctant to apply adaptation measures on their farms if they are not informed of climate change and its future dangers, and if they were not consulted during the selection of the adaptation measures. By taking into account their knowledge of the land and their agricultural practices, it is possible to considerably enhance the process of selecting adaptation measures and to encourage the support and participation of farmers in the implementation of the measures selected.

These measures should be reinforced by the State, the technical partners in the agricultural sector, and by indigenous peoples.

The State

- the strengthening of individual and collective prevention efforts in agricultural and technological research, the alignment of public support with investments in prevention, and the development of tools and procedures for managing agricultural climate crisis situations;
- the creation of capacity to share risks, in time and in space, with a possible large number of indigenous peoples and others who adhere to the pooling;
- the increase in the number of meteorological observation stations;
- the involvement of the State, in the name of national solidarity, in the event of exceptional climate events, to ensure compensation for risks:
- subsidizing of small and increasingly vulnerable rural producers aimed at adopting new agro-ecological practices capable of sustaining their farms.

The technical partners in the agricultural sector

The technical partners of the agricultural sector are universities, agricultural research centres, international technical and financial partners, and civil society organizations in the agricultural sector.

- the selection of resilient varieties at the agricultural research centres and universities;
- the set-up a dynamic crop calendar for each crop with the involvement of agro-meteorologists and agronomists;
- the formulation of technical sheets and the setting up of field schools for training indigenous peoples and other farmers;
- the training of extension agent-journalists in rural radio stations on climate risk warning;
- the use of agro-meteorology to prevent climate risks.

5.2.3. Water and sanitation

In order to strengthen the resilience of rivers, streams and dredges with high flow rates, they may be further dredged and widened so that the excess water will flow freely. River systems are expected to drain more water during peak flows. Thus, the subsequent minimum flow periods will be longer. In areas at risk, river stabilization techniques can be used (e.g. the development of the river banks and the construction of dikes, dams, spillways, etc.). For urban areas in eastern DRC, increasing population density combined with erratic rainfall can, in some cases, lead to severe water scarcity. Particular emphasis must be placed on human safety and on taking into account the dynamics of the river in the years to come.

In addition, the following should be considered:

- improving the prevention of extreme weather events and floods such as through early warning systems:
- strengthening the resilience of the water resources through innovations and by modifying water resources management, for example, the construction of water supply systems in villages, and rapidly expanding urban areas (wells, rehabilitation of spring sources, river diversions, urban water-rural water interface, governance and regulation of urban water, etc.)

5.2.4. Action plan and associated costs – strategic plan for the implementation of recommended actions

The DRC's NDC estimates the cost of adaptation at US$9,082,000,000. A review by the NDC is currently underway, and costs are expected to have increased since 2015. However, the estimated costs refer to the agriculture, energy and transportation, forestry and coastal sectors.

These costs were communicated as follows:

- Agricultural sector: US$1,563,900,000
- Energy and transportation sector: US$7,350,000,000
- Forestry sector: US$50,000,000
- Coastal and littoral sector (the vulnerable area of Banana-Nsianfumu, 26 km): US$118,000,000.

The specific adaptation measures and their implementation strategy should be based on the PS-PA-CC 2020–2024, and will be the object of a second phase of the GCF preparation project on the NAP.

In addition to these costs, as part of the project, "Moving the NAP Process Forward", an action plan that included specific capacity needs at the individual and functional level was produced in March 2020. This analysis assesses the initial cost of these activities at US$121 million.

The next step will be to develop implementation plans for each of these priority activities. These plans will include specific measures to achieve the priority actions. These steps can then be linked to a monitoring and evaluation framework and to a budget plan that identifies sources of funding for implementation.

5.2.5 Private sector engagement

When approaching climate change, in particular adaptation, it is important to recognize the crucial role that the private sectors plays in ensuring the livelihoods and security of a vast percentage of the population

Just as it is the role of the Government of the DRC to establish guidelines for the country's CCA through this NAP and subsequent ones, it is the role of the private sector, through corporate social responsibility, to promulgate and finance any new policies emerging from the NAP that are relevant to their business practices.

During a second phase of the NAP project, a public-private partnership, as well as tools, methodologies and approaches for the private sector should be developed, and the sector should also be encouraged to participate in the consultations while preparing successive NAPs.

5.3. RECOMMENDATIONS

In the short term, there are a number of tasks to facilitate the implementation of these priorities. These first steps can be supported by a second phase of the GCF Readiness Grant and/or by other support from development partners. These steps are:

- Carry out analyses, establish priorities and quantify adaptation options for urban resilience in the short and medium term.
- Build capacities within the MEDD to coordinate the implementation of priorities.
- Further validate the priorities identified with the designated lead agencies.
- Break down priorities into achievable steps and develop draft work plans.
- Identify existing programmes and expenditures within priority sector agencies that could serve as entry points for identified priorities and work plans.
- Identify the sources of technical support within the community of development partners to implement the applicable priorities.
- Set up monitoring and evaluation frameworks and detailed implementation modalities for each priority.
- Develop cost estimates for implementing priorities.
- Develop a strategy to engage the private sector in CCA.
- Develop a financing framework to support the NAP process.
- Identify internal and external sources of funding to support implementation.

CHAPTER 6.
MONITORING AND EVALUATION

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6.1. INTRODUCTION

A monitoring and evaluation plan, mainly based on the results of the analysis of institutional barriers to integrating CCA into the national planning process, was developed in March 2020.

As regards provincial and regional plans, different provinces of the DRC have initiated the preparation of development plans. They include the five-year vision of their respective entities, set the objectives and general guidelines for public action, and decide on concrete actions to be implemented. To ensure its operationalization, each development plan is supported by a Priority Action Programme, which indicates the actions to be implemented associated with objectively verifiable indicators as well as the responsible bodies.

6.2. THE MONITORING AND EVALUATION PLAN OF THE ACTION PLAN FOR INTEGRATING ADAPTATION INTO THE NAP PROCESS

As part of the GCF NAP project, and in accordance with the outcomes of the analysis of institutional obstacles, a monitoring and evaluation plan was developed, as indicated below. The results of these findings are also classified in two levels (as with institutional obstacles), individual and functional.

At the individual level, the expected outcomes of the monitoring and evaluation plan include:

- staff capacities to assess the implementation of national policies, plans and strategies are strengthened;
- the level of the collaboration of the institution's staff with the other CCA stakeholders is strengthened;
- the level of collaboration of the institution's staff with multilateral and bilateral institutions and funding mechanisms is strengthened;
- the capacities of the institution's staff to negotiate with national and international stakeholders are strengthened;
- the capacities of the institution's staff in the formulation, management, and monitoring and evaluation of projects/programmes are strengthened;
- the capacities for collecting, managing and disseminating information by the institution's staff are strengthened;
- the capacities for using of new information and communication technologies (NICT) by the institution's staff are strengthened;
- the capacities in managing project and programme database by institution's staff are strengthened.

At the functional level, the expected outcomes include:

- the institution's capacities to mobilize financial resources are strengthened;
- the current financial capacities (state budget allocation, donations, etc.) of the institution are strengthened;
- the institution's current logistic capacities (e.g. office equipment, IT tools) are strengthened;
- the institution's current human resources capacities are strengthened in quantity and quality;
- gender mainstreaming in the institution's planning framework (e.g. policy, strategy, action plan) is ensured;
- the definition of the institution's mandate is clarified;
- the coherence of the institution's internal procedures for decision-making improved.

The complete monitoring and evaluation plan is shown in Annex 4. In addition to the outcomes, the developed plan also includes monitoring indicators, means of verification, the institutions responsible for the tasks, as well as objectives with measurable activities.

Similarly, a monitoring and evaluation plan for integrating adaptation into gender-sensitive PDPs was also prepared in November 2019. This plan has the advantage of monitoring in real time the state of progress of local action plans, continuously impro-

ving the work carried out in order to optimize the chances of achieving various expected outcomes.

In order for the monitoring and evaluation plan to produce the expected outcomes in terms of evaluating the effectiveness of adaptation measures, monitoring the adequacy of the financing of these measures and informing future political decisions, it is imperative that all key actors, in particular, the Ministry of Planning and the MEDD, work closely together in all aspects of the NAP process.

6.3. RECOMMENDATIONS

For the second phase of the project, this plan will be refined and integrated into DRC's monitoring framework. In the short term, the following tasks could be undertaken:

- Develop a strategy document for mobilizing funding in support of the framework;
- Build the capacities of university laboratories and national institutions, including MEDD, INERA, MettelSat, MINAT, Ministry of Planning, Federation des Entreprises du Congo (FEC, Federation of Businesses of the Congo), National Seed Service (SENASEM), DIAF, Ministry of Fishing and Livestock (MINPE), CONAFED, and carry out the activities described in the plan.
- Carry out a detailed needs assessment and develop a strategy to advance the monitoring and evaluation framework.

Similarly, effective and efficient implementation of a monitoring and evaluation system of PDPs requires:

- managers and technicians with adequate training in specific areas of data collection and analysis;
- provincial and local functional coordination and monitoring bodies by integrating the main divisions representing the sectoral ministries: forestry, health, agriculture, energy, transportation, water, sanitation, among others, and development partners;
- a monitoring and evaluation department with competent managers and technicians with a strong technical capacity for planning and management.

CHAPTER 7.
CONCLUSIONS AND WAY FORWARD TO ADVANCE THE DRC'S NAP

7.1. INTRODUCTION

The DRC has made enormous progress since the NAPAs in 2006, as evidenced by this plan. Today, with the support of the GEF, GCF, UNDP and other technical and financial partners, considerable progress has been made in advancing the NAP process, including the recent development of:

a) A gender mainstreaming plan;
b) A monitoring and evaluation plan;
c) An evaluation and capacity-building plan;
d) An institutional review for the advancement of the NAP process;
e) A plan for integrating adaptation into the PDPs;
f) An action plan for the integration of the adaptation priorities of indigenous peoples into the PNIA;
g) A plan to strengthen the resilience of indigenous women to the effects of climate change in the DRC;
h) An action plan relating to the integration of indigenous peoples in CCA planning in the DRC.

However, greater efforts are needed to make these plans systematically operational and integrate adaptation priorities into development plans and implement them in an iterative and sustainable manner, together with other interrelated strategies and actions.

7.2. NEXT STEPS

This document represents the beginning of the NAP process for the DRC. After the approval of this document by the Government and its submission to the UNFCCC, it is expected that several steps will follow, including:

- Design and implement a second phase of the GCF-funded readiness project to support the NAP process in the DRC.
- Carry out comprehensive vulnerability assessments in priority sectors and key geographic areas.
- Identify and validate additional priority adaptation measures based on vulnerability assessments.
- Develop a financing plan for implementing the plan for the integration of CCA into the PDPs.
- Develop proposals for multilateral donors to finance priority actions.
- Formulate a monitoring, evaluation and learning (MEL) framework.
- Strengthen close collaboration with the Ministry of Planning (through an inter-ministerial agreement) to ensure transparency, and promote and adequately finance adaptation priorities.
- Develop the roadmap for implementing and updating the NAP.

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ANNEX 1 : RISKS AND VULNERABILITY OF INDIGENOUS WOMEN IDENTIFIED DURING SURVEYS

Activity sectors	Climate change-related risks	Vulnerability of indigenous women
Agriculture	Disturbances in the crop seasons (the rainy season begins October–November, rather than in September)	- Problem of access to cropland - The very low agricultural production worsens the situation of women, who have to work hard for the Bantu in order to provided for the household needs.
	Disturbance of rainfall events (rainfall concentration per frequency in time)	- Women lose the seeds and waste time. - Reduced fallow time, in search of fertile land - Poverty of indigenous women.
	Threat of droughts	- Rarity of agricultural products - Ravaged crops
	Small dry season spells during the rainy season	- Loss of quality of crop products and their market value - Burdensome work of women in search of water for crop irrigation - Low agricultural income
Rural development	Strong winds and bush fires in rural areas, for example, in Pueto, where there were losses of houses of indigenous peoples in the event of disasters	- With houses built in a haphazard and artisanal manner, the slightest gust of wind or fires can cause the collapse of the houses of the indigenous peoples. This makes indigenous men and women vulnerable since they would be without shelter in an era when housing is an indicator of development.
	Expansion of rural life (high literacy observed among the indigenous people	- The rate of natural disasters caused by climate change leaves the populations without access to education. - Illiteracy observed among indigenous women exacerbates their rural and poverty conditions - Bantu women exploit indigenous peoples due of their ignorance.
	Increased temperatures during the rainy season, which slows down development due to diseases	- Exposure of populations, men, women and children, to diseases, particularly cholera, malaria, typhoid fevers, and measles.
	Diseases due to field work, at times excessive, for the local communities as well as at times, due to difficult tasks carried out on behalf of Bantu women	- Indigenous women, forced to work for the Bantu in order to meet their needs, are prone to diseases that can be associated with climate change; they work hard very hard and travel long distances to work or to have access to land.
	Poverty due to lack of knowledge	- Female indigenous peoples do not know the economic value of their products and often sell at a low price. This would not improve their situation of poverty given the continuous change in the crop seasons. - The women are not accepted by the Bantu women in accessing social infrastructure (maternity units, health centres). - They are rejected.

Activity sectors	Climate change-related risks	Vulnerability of indigenous women
Biodiversity	Destruction of the homes of indigenous people subsequent to mining or forestry activities	- Instability of the life of indigenous women and their activities due to having to move unexpectedly from their destroyed homes.
	Logging and mining	- Workers in mining or logging companies located near indigenous peoples' camps steal their livelihoods and rape the indigenous women - The presence of mining or logging companies destabilizes the households of indigenous peoples. An increase in prostitution of these women is also observed.
	Loss of specific non-wood forest products	- Due to this loss, women must travel very long distances in search of consumer products. - Indigenous women and girls become farm or domestic workers-
	Loss of inedible plants	- Loss of endogenous knowledge on pharmacopoeias, which women used to possess.
	Rarity of substitute food products	- Women are beginning to farm, under yield conditions influenced by climate change, which causes crop disruptions.
Energy	Lost or reduction of wood for cooking	- Attacks against girls who go to the forest to collect wood; - Difficulty in harvesting firewood alongside Bantu women; - Wood chores and woodcutting by women - Insecurity and violence against women (rape, theft).
	Loss of non-wood forest products to conserve indigenous people's culture	- Women and children are fragile due to lack of access to traditional products that would make them resistant.
Water and sanitation	Reduction in water resources (dying up of drinking water sources)	- The burden of women increases, and there are greater distance to cover.
	Lack of drinking water infrastructures	- Women and children are exposed to water-borne diseases (intestinal worms); - Use of traditional water supply system by women - Water chores persist in seeking water in water farther away
	Drying up of fishing water (drop in fish production)	- Women recur to small fish and fry. - Lack of animal protein and of diversification.
	Lack of fishery products and therefore sources of animal protein	- Instability in the household: conflicts in the household due to lack of food.

ANNEX 2 : STRATEGIC PLAN FOR THE IMPLEMENTATION OF RECOMMENDED ACTIONS, THE ACTION PLAN AND ASSOCIATED COSTS

Level	Barrier	Priority action	Institution concerned	Timeframe	Estimated costs (US$)
Individual	BI.1. Assessment of the implementation of national policies, plans and strategies	• Provide the Ministry of Planning with appropriate tools to assess national policies, plans and strategies. • Develop staff capacities to own of tools through continuing training and practical exercises. (Train/initiate at least three agents with at least one woman) in the techniques of monitoring and evaluation of policies/plans/strategies, especially in terms of climate change adaptation [CCA]. • Involve at least three Ministry of Planning staff (including one CCA Focal Point and one woman) in the preparation, implementation and monitoring of national CCA policies/plans/ strategies.	Ministry of Planning	(1–6 years) Short-/medium-term (1–6 years)	4M
	BI.2. Collaboration with the other CCA stakeholders	• Carry out a gender-sensitive institutional analysis of CCA stakeholders (identification of actors /entities, roles/ responsibilities, power relationships, etc.). • Establish a collaboration platform for the various key CCA actors within the Directorate of Sustainable Development (DDD) and strengthen the access and sharing of CCA-related information between the various CCA actors. • Promote the establishment of structured dialogues, meetings on lessons learned (workshops, study trips, etc.) and consultation and awareness meetings.	DDD, National Institute of Agronomic Studies and Research (INERA), Directorate of Forest Inventories and Management (DIAF), MINPE, Ministry of Rural Development (MINIDER)	Short-/medium-term (1–6 years)	6M
	BI.3. Collaboration with institutions and financing mechanisms	• Develop and disseminate a national financing mobilization strategy for participatory and gender-sensitive CCA. • Set up a centralized information-sharing platform (e.g. an email group, a WhatsApp group) on financing opportunities / mechanisms of CCA, including all of the key CCA stakeholders and development partners in the Democratic Republic of the Congo (DRC). • Organize regular meetings and information exchanges on the financing mechanisms.	DDD, Ministry of Territorial Administration (MINAT), National Seed Service (SENASEM, DIAF, MINPE, CONAFED	Short-/medium-term (0–6 years)	10M

Level	Barrier	Priority action	Institution concerned	Timeframe	Estimated costs (US$)
Individual	BI.4. Negotiation with the national and international stakeholders	• Integrate training on negotiation skills into school curricula, • Integrate training in negotiation skills into the capacity development strategies of projects, in particular, those for implementing the integrated CCA plan, with a particular emphasis on gender. • Train at least three agents (including at least one woman) from the institutions concerned in various negotiation skills. • Facilitate the participation of at least two agents (including at least one woman) of the institutions concerned in the various negotiations relating to climate change, and more specifically, CCA.	DDD, INERA, Ministry of Planning, Federation des Entreprises du Congo (FEC), DIAF, CONAFED	Short-/medium-term (1–6 years)	8M
	BI.5. Formulation, management and monitoring and evaluation of projects/ programmes	• Integrate the dimension of capacity development in gender-sensitive project management into the integrated CCA planning. • Prepare gender-sensitive capacity development strategies integrating the project cycle management in the institutions concerned. • Train at least three staff members (including at least one woman) of the institutions concerned in the project cycle/ programme operational procedures of the main financial partners of the DRC. • Involve at least one staff member from the institutions concerned in the management /steering /technical committees of CCA projects.	INERA, MettelSat, FEC, MINAT, MINIDER	Short-/medium-term (1–6 years)	8M
	BI.6. Information management and dissemination	• Equip the institutions concerned with an adequate institutional information management framework such as a management and information dissemination unit with adequate tools. • Put in place a gender-sensitive capacity development plan that includes information management and dissemination as an essential element.	DDD, MettelSat, Ministry of Planning, FEC, SENASEM, MINAT MINPE, CONAFED, MINIDER	Short-/medium-term (1–6 years)	6M
	BI.7. Use of new information and communication technologies (NTIC)	• Raise awareness among MINPE decision-makers on the need to digitalize procedures and train staff in the effective use of these tools. • Organize continuous training on the use of different IT tools (e.g. Microsoft Office Suite). • Train 15 MINPE agents (30 percent women) in the use of the various tools of the Microsoft Office Suite (Word, Excel, PowerPoint, etc.). • Facilitate access by MINPE staff to Microsoft Office software (e.g. by subsidizing software purchases, group purchases).	MINPE	Short-/Medium-term (1-6 years)	6M

Level	Barrier	Priority action	Institution concerned	Timeframe	Estimated costs (US$)
Individual	BI.8. Manage the database of programmes and projects	• Develop a gender-sensitive capacity development plan/strategy with a particular emphasis on database management. • Train 15 MettelSat agents (30 percent women) on project and programme database management. • Equip MettelSat with database management software as well as a user guide.	MettelSat: MINIDER	Short-/medium-term (1–6 years)	6M
	Total 1 :				**54M**
Functional	BF.1. Capacity of mobilizing the institution's funding	• Develop an internal fund mobilization strategy, particularly for CCA. • Set up an interinstitutional coordination and information -sharing platform for the funding mobilization. • Train the staff of the institutions concerned on the formulation and management of projects, as well as different donor procedures with a particular emphasis on gender.	DDD, INERA, MettelSat, MINAT, SENASEM, CONAFED	Short-/medium term (1–6 years)	8M
	BF.2. Financial capacity of the institution	• Carry out an exhaustive study on the opportunities (mapping of internal and external donors) and the climate funding mechanisms for mobilizing available climate funds. • Encourage the participation of the institution's staff (at least 30 percent of women) in various national and international dialogues with donors. • Develop an internal strategy for mobilizing non-state funding (e.g. partnerships with the national and international private sector, sponsorship by foreign sister delegations, etc.). • Strengthen the implementation of the new public finance law (Law No. 11/011 of 13 July 2011 on public finance), in particular the modalities of budget management through multi-year programme budgets. • Strengthen the participation of state financial decision-makers (ministry responsible for the budget, members of parliament, etc.) in the institution's activities and raise their awareness of financial needs. • Establish/strengthen partnerships with international financial partners and inform them on the financial needs.	DDD, INERA, MettelSat, MINAT Ministry of Planning, FEC, SENASEM, DIAF, MINPE, CONAFED	Short-/medium term (4–6 years)	12M

Level	Barrier	Priority action	Institution concerned	Timeframe	Estimated costs (US$)
Fonctionnal	BF.3. Logistics capacity of the institution	• Carry out an assessment of logistics needs specific to the institution. • Develop a logistic capacity-building strategy (e.g. integrate the institution's logistic support as an essential element in implementing projects financed by financial partners (e.g. purchase of logistic equipment during project implementation or transferring at the end of the project) logistics equipment to the institutions concerned.	DDD, MINAT, Ministry of Planning, FEC, SENASEM, DIAF, MINPE, CONAFED	Short-/medium--term (1–6 years)	20M
	BF.4. Human resources capacity of the institution	• Develop an internal human capacity development strategy that specifies for each level of responsibility the number and/or type of training required per year. • Organize human resources management training for the designated staff. • Recruit staff for vacant positions or those positions that will be filled to the extent of the resources available; otherwise, assign additional responsibilities to the existing staff to meet strategic needs	INERA, MettelSat, FEC, MINPE, CONAFED, INERA, MettelSat, MINPE, MINIDER	Short-/medium-term (1–6 years)	12M
	BF.5. Capacity to mainstream gender in the planning framework of the institution	• Develop a gender strategy and / or action plan for the institution. • Set up a platform for inter-institutional and multi-stakeholder exchange and dialogue on gender. • Train the institution's staff of the institutions concerned in gender mainstreaming techniques in the planning framework and popularize training manuals to this end.	DDD, INERA, MettelSat, MINAT, FEC, SENASEM, DIAF, MINPE	Short-/medium-term (1–6 years)	10M
	BF.6. Definition of the mandate of the institution	• Revise the regulatory framework relating to INERA's mandate in order to entrust INERA with its devolved missions in terms of CCA within its competence. • Proceed with an immediate arbitration of the conflict between MettelSat and the Régie des Voies Aériennes, and, if necessary, revise their regulatory frameworks in order to clarify the gray areas.	INERA, MettelSat	Short-term (1–3 year)	3M
	BF.7. Coherence of internal procedures of the institution	• Carry out an assessment of the institution's internal procedures aimed at removing bottlenecks in a robust manner and adopt appropriate solutions.	INERA	Short-term (1–3 years)	2M
	Total 2 :				**67M**
	Total 1 + Total 2 :				**121M**

ANNEX 3 : THE GREEN CLIMATE FUND'S DRC COUNTRY PROGRAMME – ADAPTATION PROGRAMME HTTPS://WWW.GREENCLIMATE.FUND/SITES/DEFAULT/FILES/DOCUMENT/CONGO-COUNTRY-PROGRAMME.PDF (VOIR PP. 78-87)

Adaptation Programmes			
Programme 1	**Description**	**Accredited entity**	**Submission deadline**
		FAO (Potential)	
		Total funding:	**Status**
		GCF: Other:	
Programme 1	**Description**		**Budget $US**
Adaptation programme for the agricultural sector and sustainable rural development in the DRC	Climate change affects seasonal cycles and other agro-climate parameters, and directly threatens the production of basic foodstuffs for rural communities. This has, by extension, serious potential implications for the already precarious food security of the entire Congolese population. Congolese agriculture, which is the source of income for 90 percent of the country's population, continues to be exclusively rainfed and/or transhumant. With the change in rainfall, especially through shortened rainy seasons, pronounced variability during rainy seasons, or with increasing average soil temperature (thus affecting crop growth), crops are threatened, as well as the populations who depend almost exclusively on rainfed agriculture, are rendered vulnerable, both in cities and in the countryside. This growing uncertainty, combined with the weak capacity to manage climate risks and the limited number of adaptation mechanisms available, could be a further obstacle to achieving food security and social development among the poor populations, particularly in the poorest rural communities.		900,660,000
Planned activities		**Budget US$**	**Deadline**
Support programme for resilient economic growth in the agricultural sector and sustainable rural development in the DRC		97,000,000	
Promote in a sustainable manner the agricultural value chain, above all, the food crop chains		70,000,000	
Develop agribusiness in order to increase rural farmers' income and those of other operators in the sector		10,000,000	
Develop and disseminate research products among users		17,000,000	
The Adaptation Programme of the NPIA of the DRC		66,000,000	
Institutional and regulatory strengthening of the agricultural sector		5,000,000	
Sustainable and integrated natural resources development: biodiversity, sustainable land management, and integrated water resources management (IWRM)		5,000,000	
Rehabilitation and strengthening of basic rural infrastructures and opening up of rural areas		50,000,000	
Dissemination of quality seeds and brood stock, and adapted crop techniques		5,000,000	
Promotion of by-products (animal feed and compost)		1,000,000	
Programme for organizing rural populations and basic development in the provinces of Bandundu, Katanga, Kinshasa, Équateur and Orientale.		95,000,000	

Organization of rural communities and improvement of agricultural governance	70,000,000	
Promotion of the gender approach mainstreaming	5,000,000	
Capacity building in management and technical support to community organizations	10,000,000	
Strengthening of the capacities of rural organizations: set-up, management and planning	10,000,000	
Support programme for integrating climate change resilience into development strategies and climate risk planning	240,000,000	
Support for the adaptation of the agricultural, agro-pastoral and agroforestry sector within the institutional and regulatory framework	15,000,000	
Support technology transfer and management and organizational know-how at the decentralized level	15,000,000	
Support in preparing the national land use scheme through the development of a GIS on land use	10,000,000	
Support for small and medium-sized enterprises (SMEs) or other local bodies for agricultural production, processing and packaging of agricultural products	70,000,000	
Promotion of means of transportation in rural areas	40,000,000	
Support for crops techniques and rationalization of agricultural mechanization in rural areas	20,000,000	
Establishment of financing and micro-financing mechanisms	40,000,000	
Programme for the promoting agricultural research and building innovative capacity as part of the DRC's resilience to climate change	45,000,000	
Strengthening of the human and material capacities of research, extension and of technical support institutions and centres	10,000,000	
Development and promotion of technologies likely to increase agricultural, agro-pastoral and agroforestry productivity	10,000,000	
Promotion of appropriate technologies for processing and packaging agricultural products	5,000,000	
Support for scientific research into climate data management and climate change monitoring	5,000,000	
Support to agricultural research/ action	15,500,000	
Strategic coordination of programmes, plans and initiatives in adaptation and knowledge management	510,000,000	
Strategic coordination of programmes, plans and initiatives in adaptation	460,000,000	
Design and implementation of a knowledge management database	50,000,000	
Project for designing, equipping and implementing an integrated early warning climate system for agriculture	100,000,000	
Total	**900,660,000**	

Programme 2	Description	Accredited entity	Deadline
		World Bank (Potential)	
		Total funding:	**Status**
		GCF:	
		Other:	

Programme 2	Description	Budget US$
Adaptation programme for the energy and transportation sector and improvement of the quality of life in the DRC	The energy sector in the DRC is divided into two categories: electric power and domestic energy. The first is marked by a very poor access of the populations to electric power (electrification rate of 11 percent in 2015), and its relationship with climate change is insufficiently mentioned in the documents related to energy management in the country. Domestic energy is characterized by a high use of wood energy by 99 percent of the rural population of the DRC, both for cooking and for making charcoal. In addition, many people derive direct and indirect benefits from the production and marketing of fuelwood, which constitutes a true value chain. Indeed, beyond removing the forest cover for the production of this type of wood, the spaces freed up are used for subsistence agricultural activities. This dynamic of production, use and marketing of wood energy is important for the socio-economic development of the rural populations who depend on it. Like the electric power sector, the wood energy sector does not benefit from any specific policy, except indirectly from the forest management policy from which the necessary resources to feed this sector are drawn. However, unlike the electric power sector, which relies on the country's hydrological potential, domestic energy, which relies on forest resources, is vulnerable to climate change and the resulting political dynamics both nationally and internationally. On the one hand, climate change affects forests and calls for measures to be taken to protect them. On the other hand, the heavy dependence on the forest resource, which is becoming increasingly scarce, affects the lifestyles of rural populations. The risks of inadequate adaptation must therefore be considered.	3,483,491,000

Planned actions/projects	Budget (US$)	Délai de soumission
An adaptation programme supporting the energy and transportation sector and improving the quality of life	3,491,000,000	
Improved access to drinking water	1,067,000,000	
Improving access to wastewater treatment and sustainable waste management	1,274,000,000	
Improving access to communication (roads and ICT) and opening up areas that are vulnerable to climate change	500,000,000	
Improved access to health services by poor populations that are vulnerable to climate change	500,000,000	
Strengthening governmental and non-governmental institutional capacities	150,000,000	
Total	**3,491,000,000**	

Programme 3	Description	Accredited entity	Délai de soumission
		United Nations organization-Environment (Potential)	
		Total funding:	Status
		FVC:	Other:

Programme 3	Description	Budget US$
Programme for the conservation of forest biodiversity and strengthening the value chain of non-wood forest products in the DRC	The DRC is one of the 16 countries in the world qualified as having mega biodiversity (high rate of endemism). This situation is also related to both to the vastness of its territory (234.5 million ha) and variety of physical and climatic conditions that influences biological wealth. With a forest cover of over 128 million ha, the DRC is home to about 10 percent of the world's forests and over 47 percent of Africa's forests. Its significant biodiversity consists of an impressive plant complex of varied features, ranging from dense forest type to more or less wooded savannas and open forests; habitats of an equally diverse fauna, made up of endemic, rare or unique species in the world. The inland water bodies occupy 3.5 percent of the national territory. and its potential represents more than 50 percent of the continent's fresh water. In addition to being an immense source of drinking water, it shelters a rich and varied ichthyological fauna and represents, in some of its non-navigable reaches, a potential source of hydroelectric power. Out of more than 50,000 known plant species in Africa, the DRC has the greatest number of local floral species. The national flora, with remarkable originality, counts around 10,531 species, all major groups combined including algae: 249 species; fungi (basidiomycetes): 582 species; bryophytes: 154 species; pteridophytes: 383 species; and spermatophytes: 9,142 species with 275 exotic species. The specific endemism rate of this flora, which is very high, shows more than 952 endemic phanerogams, 10 pteridophytes, 28 bryophytes, 1 lichen, 386 endemic fungi, i.e. 1,377 endemic species for the entire flora. The fauna is also abundant and above all, highly varied given the variability of the habitat.	100,000,000

Planned actions/Projects	Budget US$	Deadline
Programme on the conservation of biological diversity and strengthening the value chains of non-wood forest products in the DRC	50,000.000	
Conservation of biological diversity of forest ecosystems: regulatory and institutional framework	20,000,000	
Assessing the potential of non-wood forest products and determination of its economic value	10,000,000	
- Encouraging the communication initiatives of strengthening the value chains of the NWFPs	20,000,000	
Total	**100,000,000**	

Programme 4	Description	Accredited entity	Deadline
		UNDP (Potential)	
		Total funding:	Status
		GCF: Other:	

Programme 4	Description	Budget US$
Adaptation programme supporting the energy and transportation sector and improving the quality of life Programme for adapting the Banana-Nsiamfumu coastal zone (26 km) to the rising sea level	At the coastline with low topography located between Moanda-ville and Banana, the sea has, over 26 years, encroached on nearly 27 m of the mainland, i.e. an erosion rate of around 1.03 m/year. The damage caused by this withdrawal of the shore line is spectacular: the Maray-Maray Hotel, has already been destroyed and carried into the depths of the ocean. The Mangrove hotel is now only about 30 m from the sea and may disappear in less than 15 years if nothing is done to stop this erosion. At the point of the coastline where its topography is uneven (Moanda cliff), the situation is much more worrying because over the 40 years, constantly agitated oceanic waters (relatively more intense wave and tidal regime) at this level have encroached the line by around 80 m. Hence, the estimated erosion rate is 2 m/year, which seriously threatens Nsiamfumu, a city of fishers, as well as the city of Vista, where a row of residential houses has already been ripped down and engulfed in the ocean (MECN-EF, 2001; Musibono, 2006). The causes of coastal erosion are both natural and manmade: Natural causes: · the very low coastal topography of the portion of the coastline between the town of Moanda and Banana, i.e. 10 km (nearly 27 percent of the DRC coastline); · soil and rock in place that are very vulnerable to hydrodynamic actions at the level of the portion of the coastal line constituting the cliff; or 27 km (nearly 73 percent of the coastline); · a regime of relatively intense waves and tides (during certain high tides, the ocean water level reaches 2 m or even 3 m); · flooding caused by high tides. All adjacent lands of the portion of the coastline with low topography are generally flooded during high tides. Ocean waters flood the Moanda–Banana road, and invade the mangroves as well as the inhabited lands, with the following consequences: an increase in the salinity of the water and the soil of the mangroves, as well as numerous material and agricultural losses, etc. This situation is particularly critical for the extreme point of Banana. High tides, like the historic ones of 1915 that raised the sea level by 2 m for a period of 3 months, flooded Camp Quadrature and the Régie des Voies Maritimes / Banana facilities located at an altitude of only 0.96 m; · the low coastal topography of the portion of the coastline between the town of Muanda and Banana, over 10 kilometres (nearly 27% of the DRC coastline), which makes this area vulnerable to flooding; · a type of soil and rock that is very vulnerable to hydrodynamic actions at the level of the coastline constituting the cliff; i.e. 27 km (nearly 73% of the coastline), which makes the coast vulnerable to erosion; · flooding due to river inundation and precipitation. In the coastal region, many areas are located very slightly above the river level hence, are inundated during the flood period. Among these areas, it should be noted that all of the low islands of the maritime channel, some of which (such as the island of Mateba) are of undeniable socio-economic importance	236,000,000

Planned activities	Budget (US$)	Deadline
Coastal adaptation measures (Banana-Nsiamfumu vulnerable area, 26 km) to climate change	118,000,000	Short-term
Coastal erosion control: coastal rehabilitation and development	5,800,000	
Support for income-generating activities	5,000,000	
Strengthening of the early warning system for coastal zones and capacity building	1,000,000	
Studies, technical assistance, and coastal erosion control works in the Banana-Nsiamfumu zone (26 km)	5,900,000	
Coastal erosion control works in the Banana-Nsiamfumu zone (26 km)	82,600,000	
Early warning system for sea level rise in the zone	11,800,000	
Environmental and social assessment and implementation of the Plan de Gestion Environnementale et Social (PGES, Environmental and Social Management Plan)	3,540,000	
Project management	2,360,000	
Total	**236,000,000**	

ANNEX 4 : MONITORING AND EVALUATION PLAN

Level	Expected outcome	Monitoring indicator	Means of verification	Institutions	Outputs
Individual	1. The capacities of staff to assess the implementation of national policies, plans and strategies are strengthened	1.1. Number of people involved in the assessment of policies/plans 1.2. Number of people trained in assessment techniques 1.3. Number of monitoring and evaluation tools learned	1.1 Evaluation report (list of participants) 1.2 Training report 1.3 List of tools learned	Ministry of Planning (MINP), Ministry of Rural Development (MINIDER)	1.1 Three people (at least one woman) involved per year 1.2 Three people (at least one woman) trained per year 1.3 At least two monitoring and evaluation tools learned
	2. Staff capacities to assess the implementation of national policies, plans and strategies are strengthen 2. The level of collaboration of the institution's staff with the other CCA stakeholders is strengthened	2.1. Number of experience sharing/consultation/ awareness-raising meetings organized 2.2. Number of centralized sharing platforms set up 2.3. Number of gender-sensitive institutional analyses carried out	2.1. Annual activity report 2.2. Annual activity report 2.3. Institutional analysis report	DDD, INERA, DIAF, MINPE	2.1 Two meetings organized/year 2.2. One centralized platform set up 2.3 One analysis report
	3. The level of collaboration of the institution's staff with multilateral and bilateral institutions and financing mechanisms is enhanced	3.1. Number of exchange and information platforms set up 3.2. Number of meetings/ structured dialogues/ information- sharing meetings organized 3.3. Number of national strategies for mobilizing participatory and gender-sensitive CCA funding developed and disseminated	3.1. Information sharing platforms/ tools 3.2. Meeting reports 3.3. National strategy document on mobilizing CCA funding	DDD, MINAT, SENASEM, DIAF, MINPE, CONAFED	3.1 Two platforms set up 3.2 Two structured dialogues organizations/year 3.3. One national strategy for mobilizing CCA funding developed
	4. The negotiation capacities of the institution's staff with national and international stakeholders are strengthened	4.1. Number of school programmes integrating negotiation skills training 4.2. Number of capacity development strategies integrating negotiation skills training 4.3. Number of people trained in negotiation skills 4.4. Number of people who participated in climate negotiations	4.1. Course of study 4.2. Capacity development strategy 4.3. Training report 4.4. Mission report	DDD, INERA, Ministry of Planning, FEC, DIAF, CONAFED	4.1 At least two school programmes per year 4.2 One development strategy per institution 4.3 Three people trained (at least one woman) per institution 4.4 Three participants (at least one woman) per institution

Level	Expected outcome	Monitoring indicator	Means of verification	Institutions	Outputs
Individual	5. The capacities of the institution's staff in formulating, managing and monitoring and evaluation of projects and programmes are strengthened	5.1. Number of training sessions on the formulation, management, monitoring and evaluation of projects integrated into the CCA plan 5..2. Number of gender-sensitive capacity development strategies integrating training in formulation, monitoring and evaluation of projects 5.3. Number of people trained in the project/ programme management cycle 5.4. Number of people involved in project management/steering committees	5.1. Integrated CCA plan 5.2. Capacity-building strategies 5.3. Training report 5.4. Project report (organizational chart)	INERA, MettelSat, FEC, MINAT, MINIDER	5.1. At least two training sessions per year 5.2. At least one strategy per institution 5.3. Three people trained (at least one woman) per institution 5.4. Three people involved (at least one woman) per project
	6. The capacities to collect, manage and disseminate information by the institution's staff are strengthened	6.1. Number of institutional frameworks established for information management and dissemination 6.2. Number of people trained in information management and dissemination techniques 6.3. Number of practical tools provided for collecting, managing and disseminating information	6.1. Professional staff/ organizational chart 6.2. Training report 6.3. List of equipment and materials	DDD, MettelSat, Ministry of Planning, FEC, SENASEM, MINAT, MINPE, CONAFED, MINIDER	6.1. One institutional framework set up per institution 6.2. Three people trained (at least one woman) per institution 6.3. To be determined according to needs
	7. The capacities to use new information and comm-unication technologies (NTIC) by the institution's staff are strengthened	7.1. Number of awareness-raising activities carried out 7.2. Number of training sessions organized 7.3. Number of people trained in using NTIC 7.4. Number of NTIC tools provided to staff	7.1. Annual report on awareness-raising activities 7.2. Annual training report 7.3. List of people trained 7.4. List of annual purchases	MINPE	7.1 At least two awareness raising activities carried out per year 7.2 At least 2 training sessions held per year 7.3 At least five people trained (at least 2 women) per year 7.1. To be determined based on a prior needs assessment

Level	Expected outcome	Monitoring indicator	Means of verification	Institutions	Outputs
Individual	8. The capacities to manage databases of programmes and project by institution's staff are strengthened	8.1. Number of capacity development plans integrating capacity building in managing databases 8.2. Number of people trained in the techniques of managing databases 8.3. Number of database management software programmes provided	8.1. Capacity development plan 8.2. Training report 8.3. List of database management software provided	MettelSat, MINIDER	8.1 One capacity development plan 8.2 At least 5 people trained (at least 2 women) per year 8.3. To be determined on the basis of a needs assessment
Functional	9. The capacities of the institution to mobilize financial resources are strengthened	9.1. A strategy on financial mobilization is adopted 9.2. An inter-institutional coordination platform for mobilizing funds is operational 9.3. Number of people trained in project formulation and management, as well as the various donor procedures with a particular emphasis on gender	9.1. The fund mobilization strategy document 9.2. Physical/material elements of the inter-institutional coordination platform 9.3. List of people trained	DDD, INERA, MettelSat, MINAT, SENASEM, CONAFED, MINIDER	9.1. One fundraising strategy document 9.2. One inter-institutional coordination platform 9.3. At least 5 people trained (at least 2 women) per institution per year
	10. The current financial capacities (state budget allocation, grants, etc.) of the institution are strengthened	10.1. Number of studies on financial opportunities carried out 10.2. Number of people who have participated in dialogues structures with financial partners 10.3. Number of internal strategies 10.4. Number of studies on financing opportunities carried out 10.5. Number of people who participated in structured dialogues with financial partners 10.6. Number of internal financing mobilization strategies developed 10.7. Number of state financial decision-makers who participated in the institution's activities 10.8. Number of partnerships established/ strengthened with financial partners	10.1. Analysis study report 10.2. Structured dialogue report (list of participants) 10.3. Internal strategy for mobilizing funding 10.4. Activities report of the institution 10.5. Partnership agreement	DDD; INERA, MettelSat, MINAT, Ministry of Planning, FEC, SENASEM, DIAF, MINPE, CONAFED	10.1. One analysis study 10.2. At least two People participating (at least 1 woman) per institution per year 10.3. At least one strategy per institution 10.4. At least two decision-makers per institution per year 10.5. At least one partnership established/strengthened per institution per year

Level	Expected outcome	Monitoring indicator	Means of verification	Institutions	Outputs
Functional	11. The institution's current logistic capacities (e.g., office, IT tools, etc.) are strengthened	11.1. Number of studies carried out on the assessment of the logistic needs of the institution 11.2. Number of logistic capacity-building strategies developed and implemented	11.1. Assessment report on logistic needs 11.2. Logistic capacity building strategy document	DDD, MINAT, Ministry of Planning, FEC, SENASEM, DIAF, MINPE, CONAFED	11.1. One study on the assessment of the logistics needs of each institution is carried out 11.2. One logistic capacity-building strategy developed and implemented
	12. The institution's current capacities in terms of human resources (in quantity and quality) are strengthened	12.1. Number of internal human capacity development strategies developed and implemented 12.2. Number of training sessions organized 12.3. Number of people recruited	12.1 Internal strategy paper on human capacity development 12.2 List of training sessions organized 12.3 Annual report on human resources	INERA, MettelSat, FEC, MINPE, CONAFED	12.1. One strategy paper on human capacity development 12.2. Three training sessions per year per institution 12.3. To be determined on the basis of a needs assessment of the institution
	13. Gender mainstreaming in the institution's planning framework (e.g. policy, strategy, action plan) is ensured	13.1 Number of gender strategy and/or action plan developed and implemented 13.2 Number of operational platforms for sharing information for and inter-institutional and multi-stakeholder dialogue on gender 13.3 Number of people trained in gender mainstreaming techniques in the CCA planning framework	13.1 Gender strategy document and /or action plan 13.2 Physical/ material elements of the information exchange and dialogue platform 13.3 List of people trained	DDD, INERA, MettelSat, MINAT: FEC, SENASEM, DIAF, MINPE	13.1. One Gender Strategy Paper and/or Action Plan developed 13.2. One platform for sharing information and for dialogue developed and functional 13.3. At least five people trained (at least 2 women) per institution per year
	14. The definition of the institution's mandate is clarified	14.1. Number of regulatory texts on the institution's mandate revised	14.1. Regulatory texts	INERA, MettelSat	14.1. One regulatory text per institution
	15. The coherence of internal decision-making procedures of the institution is improved	15.1. Number of internal procedures assessed and revised 15.2 Number of people trained in standards and procedures	15.1. Administrative, financial and accounting procedures 15.2. Training report	INERA	15.1. One Administrative, financial and accounting procedures per institution revised 15.2. At least 5 people trained per year (at least 2 women)

ANNEX 5 : CLIMATE CHANGE ADAPTATION INITIATIVES FUNDED IN THE DRC

Projects
Resilience of Muanda's communities from coastal erosion in the Kongo Central (formally Bas-Congo), US$5,355,000, 2015–2020, LDCF. The project made it possible to prepare coastal erosion risk profiles, raise awareness and provide integration tools to the provincial government.
Improving Women's and Children's Resilience and Capacity to Adapt to Climate Change in the DRC, US$4.725.000, 2014–2019, LDCF. The project was implemented in 5 municipalities of Kwilu (formerly Bandududu), Kongo Central, Lumumbashi (formerly Katanga) and Kasaï Oriental. Although it focuses on livelihood activities, it provides additional information on the impacts of climate change on women and vulnerable groups, and on adaptation options.
Strengthening Hydro-Meteorological and Climate Services, US$5.329.452, 2014–2016, LDCF. The project aims to strengthen the Meteorological services through institutional and regulatory capacity building, and implementation support: to modernize the basic observation and forecasting equipment, installations and infrastructures, and improve the performance of hydro-metrological information departments.
National Adaptation Programme of Action, US$200.000, 2004–2008
Medium-term investment planning for adaptation in climate-sensitive sectors in the Democratic Republic of Congo: Advancing the NAP process, US$1.270.000, 2018–2020, GCF. The objective of the project is to advance the process of adaptation planning for the climate-sensitive priority sectors and regions in the DRC.
Building the resilience and ability to adapt of women and children to changing climate in Democratic Republic of Congo, US$4,725,000, 2015–2020, LDCF. The project has two components: Component 1: Diversifying sustainable household practices, under which diversified agricultural practices (integrated fish farming, cattle and goat farming, irrigated agriculture, etc.) and the processing of agricultural production are supported, with the additional support of agrometeorological information; and Component 2: Building key capacities to carry out climate change-resilient activities, within the framework of which capacity-building actions are supported, in particular by improving the production of adapted seeds, technology transfers, and the training of women who process agricultural products (including fish farming products), and the training of community radio operators.
Accès aux finances climatiques, 2019, FAO. The project aims to: set up an adequate monitoring system to assess the financing flows of the Green Climate Fund (GCF) in the DRC; develop the climate finance strategy; strengthen dialogue on accessing climate finance by the inter-ministerial committee; set up a national strategic team to improve and share knowledge related to climate finance; and carry out a strategic analysis on the DRC investments for climate finance.
Workshops
Enhancing the Climate Science Basis of GCF-Funded Activities in the Democratic Republic of the Congo, 2018, WMO/GCF.

THE PROCESS OF DEVELOPING THE NATIONAL ADAPTATION PLAN TO CLIMATE CHANGE

The National Adaptation Plan to Climate Change (NAP) of the Democratic Republic of Congo was developed with technical support from the United Nations Development Programme (UNDP) and financial support from the Green Climate Fund (GCF).

Representatives of the ministries responsible for planning, agriculture, energy, gender, environment, health, regional planning, transportation, rural Development, scientific research, budget, and the economy, as well as academia, civil society and the private sector have participated in the development of the NAP.

Consultations were organized in the pilot provinces of the NAP project (Kinshasa, Kongo-Central, Kwilu, Haut-Katanga and Tshopo) before its adoption during a national workshop.

This work was carried out under the supervision of the Directorate of Sustainable Development, in collaboration with the National Designated Authority of the GCF and UNDP, in particular the Country Office and the Support Programme for National Adaptation Plans,

This work benefited from the contributions of the multidisciplinary team of national experts who are members of the technical committees. The main contributors were, in particular: Mr. Godefroid Ndaukila, Head of the Directorate for Sustainable Development; Mr. Aimé Mbuyi Kalombo, Chief, Division of Climate Change, Mr. Hans André Djamba, Coordinator of the Green Climate Fund for the DRC and all of his team, Mr. Arsène Byaene, Expert at the Directorate of Sustainable Development, Mr. Prakash BISTA; Ms. Julie Teng, Mr. Etienne De Souza, Mr. Charles Wasikama, Prof. Kamathe Katsongo, Ms. Yvette Nguela, Mr. Doudou Kajangu, Ms. Rita Bisimwa and Mr. Neddy Mukongo