REPUBLIC OF CAMEROON

Peace-Work-Patrio

CONTRIBUTION DETERMINED AT NATIONAL LEVEL - UPDATED (CDN)

NATIONALLY DETERMINED CONTRIBUTION- UPDATED (NDC)

September 2021

Table of contents

°C	Degrees Celsius
APRUE	Agency for the Promotion and Rationalisation of Energy use
BaU	Business as Usual
BRT	Bus Rapid Transit
BUR	Biennial Update Report
CC	Climate Change
UNFCCC	Framework Agreement of the Nations Convention on Climate Change
CDN	Contribution Determined at National Level
CH4	Methane
CMA	Conference of the Parties Serving as the meeting of the Parties to the Paris Agreement
CN	National Communication
CNCC	National Committee on Climate Change
CO2	Carbon Dioxide
COP	Conference of the Parties
CPDN	Expected Contribution Determined at National Level
CTD	Decentralised Territorial Collectivity
CVUC	United Towns and Cities of Cameroon
DFnP	Non-permanent forest estate
PFE	Permanent Forest Estate
DSPL	Poverty Reduction Strategy Statement
EE	Energy efficiency
ENR	Renewable energy
FAO	Food and Agriculture Organization of the United Nations and Agriculture
FCFA	African Financial Community Francs
FEICOM	Funds Special Equipment and Intervention Intercommunal
GHG	Greenhouse gases
GgEqCO2	Giga gram CO2 equivalent
IPCC	Group Intergovernmental of Experts on Climate Change
GW	Giga Watt
Ha	Hectare
HFC	Hydrofluorocarbon
IGES	Greenhouse gas inventory
Km	Kilometre
kW	Kilowatt
LED	LED (Light Emitting Diode)
MINAC	Ministry of Arts and Culture
MINAS	Ministry of Social Affairs
MINAT	Ministry of Territorial Administration
MINCOMMERCE	Ministry of Commerce
MINDCAF	Ministry of Cadastre and Land Affairs
MINDDEVEL	Ministry of the Decentralisation and Local Development

MINDEF	Ministry of Defence
MINEDUB	Ministry of Basic Education
MINEFOP	Ministry of Employment and and the Formation Professionnelle
MINEPAT	Ministry of the Economy, Planning and Finance Regional planning
MINEPDED	Ministry for the Environment, Nature Conservation and Sustainable Development
MINESEC	Ministry of Secondary Education
MINESUP	Ministry of Higher Education
MINFI	Ministry of Finance
MINFOPRA	Ministry for the Civil Service and Reform Administrative
MINHDU	Ministry of Housing and Urban Development
MINJEC	Ministry of Youth and Civic Education
MINJUSTICE	Ministry of Justice
MINMAP	Ministry of Public Procurement
MINMIDT	Ministry of Mines of Industry and Technological Development
MINPMEESA	Ministère des Petites et Moyennes Entreprises, de Social Economy and Craft Industries
MINPOSTEL	Ministry of Posts and Telecommunications
MINPROFF	Ministry for the Promotion of Women and the Family
MINRESI	Ministry of the Research Research and of Innovation
MINREX	Ministry of External Relations
MINSEP	Ministry of Sport and Physical Education
MINTSS	Ministry of Labour and Social Security
MNV	Measurement, Notification, Verification
MRV	Monitoring, Reporting, Verification
MW	Mega Watt
N2O	Nitrous oxide
NDC	Nationally Determined Contribution
ODD	Sustainable Development Objectives
ONACC	Observatory National on the Change Climate
NGO	Non-Governmental Organisation
OSC	Civil Society Organisation
PCD	Community Development Plan
GDP	Gross Domestic Product
PIUP	Industrial Processes and Product Use
PM	Prime Minister
PNACC	National Programme for Adaptation to Climate Change Climate
PV	Photo Voltaïque
RBT	Biennial Transparency Report

SDN30	National Development Strategy 2030
SNIGES	National Inventory System for greenhouse gases Greenhouse
SPAND	Strategy and Plan Action Plan for Biodiversity
TCN	Third National Communication
TdC	Theory of Change
UP	Production unit
USD	US Dollar
ZAE	Agroecological zone

Summary

Summary of what you need to understand about CDN 2021	
Type of commitment	GHG reduction by conditional scenario and unconditional
Scope and GHGs covered	Nationwide CO2, CH4, N2O, HFCs, PFCs and SF6 The main targets are the top 3
Period covered	2020 - 2030
Reference year (base year)	2010
Level of commitment or reduction of GHG emissions	The GHG reduction target for 2030 is 35%, broken down as follows: ➢ 23% in a conditional scenario ➢ 12% unconditional
Priority sectors covered	➢ AFAT (Agriculture, forestry and other land use) ➢ Energy ➢ Waste
Global Warming Potential (GWP)	➢ Metrics: Warming potential (GWP) in accordance with the guidelines of the IPCC Fourth Assessment Report (AR4). The Global Warming Potential GWP values used are : CO2 = 1 (by convention) CH4 = 25 ; N2O = 298 ; HFCs = 1.5 - 14 800.
Methodologies for estimating emissions	➢ Methodologies : 2006 guidelines of the IPCC for greenhouse gas inventories. ➢ The 2013 best practice guides, y including revised supplementary methods.
Cost of implementation	➢ USD 57,640 (FCFA 28,713 billion)

1. Introduction

Cameroon submitted its NDC to the UNFCCC Secretariat in October 2015 and ratified the Paris Agreement in January 2016. In fact, this document is considered to be Cameroon's first NDC, describing the objectives for reducing greenhouse gas (GHG) emissions together with proposals for adaptation measures.

Through this document, the Government of Cameroon presents an update of its first Nationally Determined Contribution (mitigation and adaptation), for the period 2020 - 2030 and in accordance with Articles 4.2, 4.9 and 4.11 of the Paris Agreement and other relevant provisions of the Agreement.

The content of this submission builds on the review of progress under the first NDC, new policies such as the NDS30, national and sectoral plans, and reflects further work on the development of quantifiable mitigation and adaptation targets. This document represents a robust synthesis qualified by detailed and relevant assessments of mitigation and adaptation measures. These assessments are complemented and supported by in-depth analysis, contextualised information and data, an inclusive stakeholder consultation process, and a focus on increased climate ambition.

Through the revision of its NDC, Cameroon intends to reduce the carbon footprint of its development 35% by 2030, with 2010 as the reference year, without slowing down its growth, while favouring mitigation options with high co-benefits, strengthening the country's resilience to climate change, and aligning its sectoral policies, including the strengthening of its implementation mechanism and tools, in order to facilitate the achievement of these objectives.

2. National circumstances and strategic positioning

Cameroon is part of the Congo Basin, and its ecosystems are representative of the African continent, making it Africa in miniature. The country covers an area of 475,650 km2, stretching 1,500 km from south to north (2-13°N) and 800 km from west to east (9-16°E). and a growth rate of

annual demographic growth of 2.5%. This rate reaches 4.3% in the cities. Unplanned urbanisation is one of the most remarkable phenomena of recent years. The urbanisation rate has risen from 52% in 2010 to 57% in 2019. 50% of Cameroon's population lives in precarious, often illegal, housing areas.

In terms of climate, its wide latitudinal extension means that the Sahelian agro-ecological zone (AEZ) has a deficit of monomodal rainfall (500-800mm), the high savannah and high plateau AEZs have monomodal rainfall (1800-2800mm), the forest AEZs have relatively abundant bimodal rainfall (1500-2000mm) and the coastal AEZs have significant monomodal rainfall (3000-8000mm). The temperature itself varies from one area to another, ranging from 20°C to 35°C, with a temperature range from 3°C to over 12°C.

Biologically, Cameroon has six (06) main types of ecosystem, with a wide variety of agro-pastoral production systems. The flora is dominated by steppe and Yaérés in the Far North, savannah in the North, Adamaoua and the highlands of the West, semi-deciduous forests in the Centre-South, and evergreen forests and mangroves in the coastal zone. Cameroon has the fourth richest flora and the fifth richest fauna in Africa, with 8,300 species of plants and 335 species of mammals (NBSAP II, 2012).

Moreover, this floral and faunal heritage is subject to multiple threats, the most significant of which are illegal and uncontrolled logging, wildlife and mining, uncontrolled land use for slash-and-burn agriculture and the unsustainable development of agro-industry.) The net annual rate of deforestation, estimated at 0.6% (FAO, 2020), coupled with a low rate of reforestation (0.1%), suggests a growing loss of biological diversity.

The contribution of deforestation to climate change and the vulnerability of local and indigenous populations is undeniable. Cameroon has a large forest mass that is being increasingly degraded by agro-pastoral activities and by mining and development projects.

There is also significant demographic growth. Cameroon's population in 2021 is estimated at around 27 million, with an average density of 56 inhabitants/km2, although this varies from 7 to 200 inhabitants/km2 depending on the region.

This disparate density is a major factor in the degradation of arable land and forest landscapes, which is particularly marked in the northern part of the country and the western highlands. The majority of Cameroon's rural population depends on agricultural and pastoral activities for their livelihoods, in a context where the productivity of landscapes and land is becoming less and less good, with a risk of an intensification of the rural exodus.

The problem of the degradation of forest landscapes is real throughout the country, but varies greatly from one agro-ecological zone to another. From a strong sustainability perspective, the renewal of forest resources and the reconstitution of degraded plant formations are probably among the major challenges that Cameroon will have to face in the coming decades, with the amplification of environmental upheavals and climate change.

The challenges inherent in these include deforestation, the increased erosive potential of watercourses and the rise in floods and landslides, which are creating a new dynamic in the landscape as geomorphological processes accelerate. The result is significant environmental risks.

Drought remains both discreet and omnipresent in the northern part of the country. It is a constraining factor for the population and a trigger - amplifier of diseases that expose more than 3,000,000 souls (Cameroon Vulnerability Study, 2021).

The seasonal and almost uninterrupted frequency of extreme climatic events over the last two decades, the instability in the length of the rainy seasons, the recent floods and the recurrent droughts to which Cameroon is increasingly exposed, prove that climate change has ceased to be a purely scientific issue and has become a real and pressing problem for our society, requiring urgent measures to safeguard and protect human life.

In economic terms, it is important to note that Cameroon's economy is one of the most diversified in Africa. Although the secondary (22% of GDP) and tertiary (45%) sectors are well developed, the economy is nonetheless mainly based on production sectors: agriculture, livestock, fishing and aquaculture, forestry and forestry. Agriculture employs almost 60% of the population and remains the predominant sector of the national economy, both in terms of its contribution to GDP (23%) and its knock-on effects on other sectors of activity. The main cash crops are cocoa, coffee, tobacco, cotton, bananas and pepper.

The mining sector's contribution to GDP remains negligible, despite the significant potential that has been identified and exploited. Cameroon has at least 52 types of mineral resources, and the strategy is based on developing at least 30% of these resources. Mining activities involve exploration, exploitation and processing.

The industrial sector accounts for almost a third of GDP. It produces mainly for the local market.

Continent	Africa
Sub - Region	Central Africa
Contact details	2° - 13° latitude North, 9° - 16° longitude East
Area	• Ranked 42nd worldwide • 475 650 km2 • Forest cover: 20 million ha • Cultivated area: 3.257 million ha • Land: 98.8 • Water: 1.2
Ribs	400 km
Borders	Central African Republic 822 km (East), Chad 1,122 km (East and North-East), Republic of Congo 520 km (South-East), Equatorial Guinea 183 km (South), Gabon 298 km (South), Nigeria 1,720 km (West and North-West)
Maximum altitude	4,095 m (Mount Cameroon)
Minimum altitude	0 m (Atlantic Ocean)
Longest river	Sanaga (900 km)
More expanse of water	Lake Chad

At the outset, it should be noted that the climate constraint is already exerting increased pressure on the main sectors supplying the national budget, increasing social vulnerabilities and contributing to the deterioration of the infrastructures necessary for economic activity. What's more, combating the effects of climate change will require additional financial resources for both adaptation and mitigation, over and above those needed to meet existing development imperatives. Successful transformational change towards a low-carbon economy requires substantial investment in the deployment of appropriate technologies, targeting all key sectors. The necessary funding will support the implementation of programmes and projects in line with the commitments made, respecting a distribution that takes account of the sectors that emit the most and the most vulnerable agro-ecological zones.

To this end, Cameroon's National Development Strategy 2020-2030 must absolutely be put into perspective as part of the revision of this NDC. The reason is simple: the country is planning a profound structural transformation of its economy, with growth expected to be close to double figures.

This involves an industrialisation strategy based on increased processing of natural resources and a gradual reduction in imports in favour of exports of manufactured or semi-finished products. This ambition is focused primarily on the Economic Community of Central African States (ECCAS) market, which is estimated to have a population of around 300 million. The foreseeable consequence of this strategic orientation, in the case of business as usual, is unprecedented pressure on soil, water and biomass resources, both in terms of withdrawals and degradation due to pollution, and more particularly greenhouse gas emissions.

In order to reconcile its legitimate ambitions for economic growth with the imperatives of combating global warming, and to meet the commitments it made in its NDC, the Government has devoted one of the overall objectives of the NDS30 to combating climate change: *"To strengthen measures for adapting to and mitigating the effects of climate change and managing*

environment to ensure sustainable and inclusive economic growth and social development".

In the **energy sector**, the country intends to pursue its policy of developing an energy mix based on hydroelectric, photovoltaic, gas-based thermal and biomass energy. For the rural sector, the government has opted for a policy of intensification, promoting the most innovative technologies, particularly those that are climate resilient. With regard to waste, it is planned to implement a national waste strategy in the wake of the promotion of corporate social responsibility.

Like the other Central African countries around the Gulf of Guinea, Cameroon has significant offshore and onshore oil deposits, most of which have not yet been discovered. It plans to step up its exploration efforts to increase its reserves and boost its oil and gas production, focusing in particular on the new onshore basins in the northern part of the country (P. 45). [1] Exploitation of certain basins has been postponed due to the fall in the price of a barrel of oil. In order to meet its commitments under the NDC, Cameroon absolutely must attract investors to explore and develop structuring projects involving hydroelectricity, gas and other clean energies such as hydrogen and ammonia.

As far as the **forestry sub-sector** is concerned, the forests of the Congo Basin, around 12% of which are in Cameroon, play a vital role in regulating greenhouse gases and carbon dioxide, as well as playing a decisive role in regional climate regulation and the water cycle. To ensure that these forests continue to play this vital role for humanity, the international community must immediately redeploy, with greater determination and method, the various instruments capable of contributing effectively to mitigation and adaptation efforts. More than some countries in the sub-region have done

[1] Cameroon's proven gas reserves are estimated at 157 billion m3, according to Société Nationale des Hydrocarbures (SNH);

The support Cameroon needs to meet its commitments under its NDC is crucial.

While the continent's urban population growth rate was 5.4% in 2015, Central Africa had a rate of 6.2%. These figures imply at least two challenges: the first is food security for an urban population whose needs for foodstuffs are growing rapidly. In its role as the undisputed granary of Central Africa, Cameroon is exerting greater pressure on its natural resources and biomass than other countries in the sub-region, in order to continue to meet the growing demand for food in its domestic market and in neighbouring countries.

With the recent creation of SONAMINES, the government's desire to finally develop the **solid ore sub-sector** can be seen. [2] The iron ore sub-sector is essentially made up of the Nkout deposit, estimated at 2 billion tonnes extendable to 4 billion tonnes, and the Mbalam iron ore basin, with an annual production capacity of 40 million tonnes over 12 years in its first development phase. The country's rutile reserves are estimated at 3 million tonnes, the second-largest potential in the world after Sierra Leone. In terms of alumina ore, one-fifth of the bauxite plateau explored by Canyon Resources in 2020 has estimated reserves of 892 million tonnes, including 250 million tonnes of very high-grade aluminium.

If the country were to go ahead with these major mining projects without further ado, the consequences for the environment, despite the usual impact mitigation measures, would be considerable. It should be noted that more than 70% of the country's mining reserves are located in forested areas. Cameroon's technical and financial partners should support it so that substantial resources can be mobilised to put in place mining techniques that are the least damaging possible to the balance of the forests.

[2] In 2017, mining and quarrying accounted for only 1.7% of the financial contribution of the extractive industries sector. *https://www.agenceecofin.com/mines/2804-76122-potentiel-minier-sous-exploite- 3e-partie-le-cas-du-cameroun*

Two other challenges exacerbate Cameroon's vulnerabilities. In terms of physical environments, the critical situation of the country's northern regions in the face of climate change should be highlighted. This is reflected in recurrent droughts and various extreme climatic phenomena. The Far North region alone is suffering from a cereals deficit of 30,000 tonnes, with a food insecurity rate of 33.6%. The presence of refugees (57,000) and displaced persons (223,642) is also exerting strong pressure on natural resources such as water points and pastures (SNADDT, Diagnosis 2018). The socio-economic implications of these vulnerabilities are manifold. In order to respond to the cyclical crises caused, the State is logically devoting most of its modest financial resources to social problems related to health, food security and post-disaster emergencies.

As long as the resilience of the country's Sudano-Sahelian regions, and to a lesser extent that of the West and North-West regions, is not significantly improved, the State's own resources needed to address the challenges posed by climate change will be unable to meet the challenges.

In terms of security, it is well known that Cameroon is facing instability in two agro-ecological zones most exposed to the effects of climate change: the Far North region, prey to attacks by the Boko Haram sect, and the North-West and South-West regions shaken by the atrocities of English-speaking separatists. The financial resources mobilised by the State to restore peace in these regions, where instability is tending to become endemic, have largely contributed to eroding the resilience of the country's economy. The current health crisis has further weakened an economy already destabilised by the combined effects of climate change and security crises. Without very strong political will and international support commensurate with the challenges outlined above, the country's commitments under its NDC may not be met.

In the light of the above table, the country therefore intends to mobilise all the relevant resources: funding, technology transfers and capacity building to meet its international commitments and achieve its socio-economic development objectives.

3. Vision of Cameroon for the climate change and the NDC review process

Cameroon's vision in its strategy for an inclusive response to the impacts of climate change is summed up in the slogan: "*transforming climate constraints into development opportunities"*.

In terms of adaptation, Cameroon's vision under its National Climate Change Adaptation Plan (PNACC) stipulates that by *2035, "climate change in Cameroon's five agro-ecological zones will be fully integrated into the country's sustainable development, thereby reducing its vulnerability, and even transforming the problem of climate change into a development solution/opportunity. As a result, Cameroonians, particularly women, children and vulnerable people, and the country's economic sectors will acquire greater resilience and a greater capacity to adapt to the negative impacts of climate change*".

This vision is based on the theory of reverse determinism, which admits that positive structural socio-economic transformations can be triggered by a concerted effort to overcome constraints in the physical environment. Climate change can therefore be a real opportunity to capitalise on in favour of the transition to a green economy and the fight against poverty, but also to strengthen social cohesion through the social solidarity needed to reduce differential vulnerabilities.

In order to reconcile its legitimate ambitions for economic growth with the imperatives of reversing the negative effects of climate change and meeting the commitments made in its NDC, the Government has devoted one of the overall objectives of the NDS30 to the fight against climate change: *"Strengthen climate change adaptation and mitigation measures and environmental management to ensure sustainable and inclusive economic growth and social development"*.

Considering both mitigation and adaptation objectives, the policies and regulatory tools for implementing them need to be adapted, strengthened and new ones created. These policies must

as far as possible, take the climate constraint into account when designing and drawing up development policies in general.

4. Attenuation component

4.1 National greenhouse gas emissions

In 2010, the agriculture sector remained the largest source of GHG emissions, with 24074.61 Gg CO2 eq, or 69% of total emissions (Fig.1). The energy sector came second, accounting for 18% of emissions, followed by the waste sector with 12%. The Industrial Processes and Product Use (IPUP) sector comes last with 1%. *(IGES TCN National Report, 2020).*

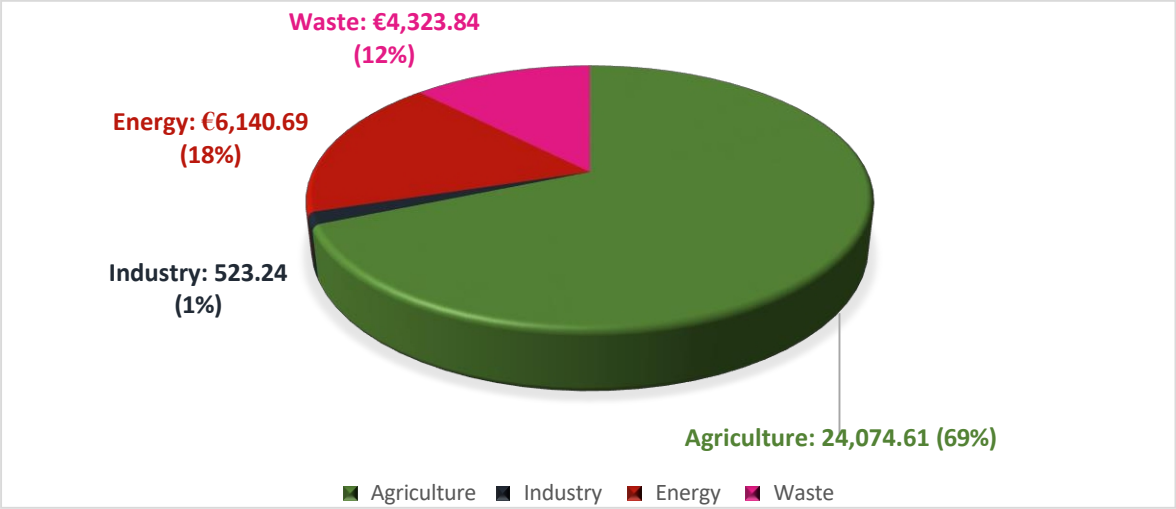

Fig. 1: Percentage of GHG emissions by sector in 2010 excluding forestry

Figure 2 illustrates the different greenhouse gases (GHGs) by source sector emission

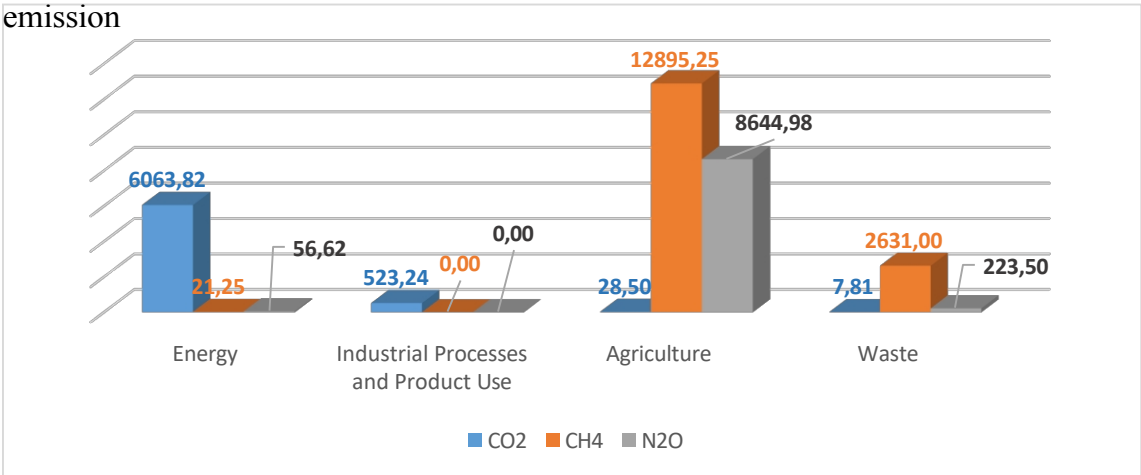

Fig. 2: Emissions by type of GHG (in Gg Eq CO2) for the reference year 2010

4.2 Business As Usual (BAU) scenario

For Cameroon, in a Business As Usual (BAU) scenario, GHG emissions reach 119,085 Gg CO2eq in 2030, an increase of 71% compared to 2010, when emissions were around 34,933 Gg CO2eq (Fig.3).

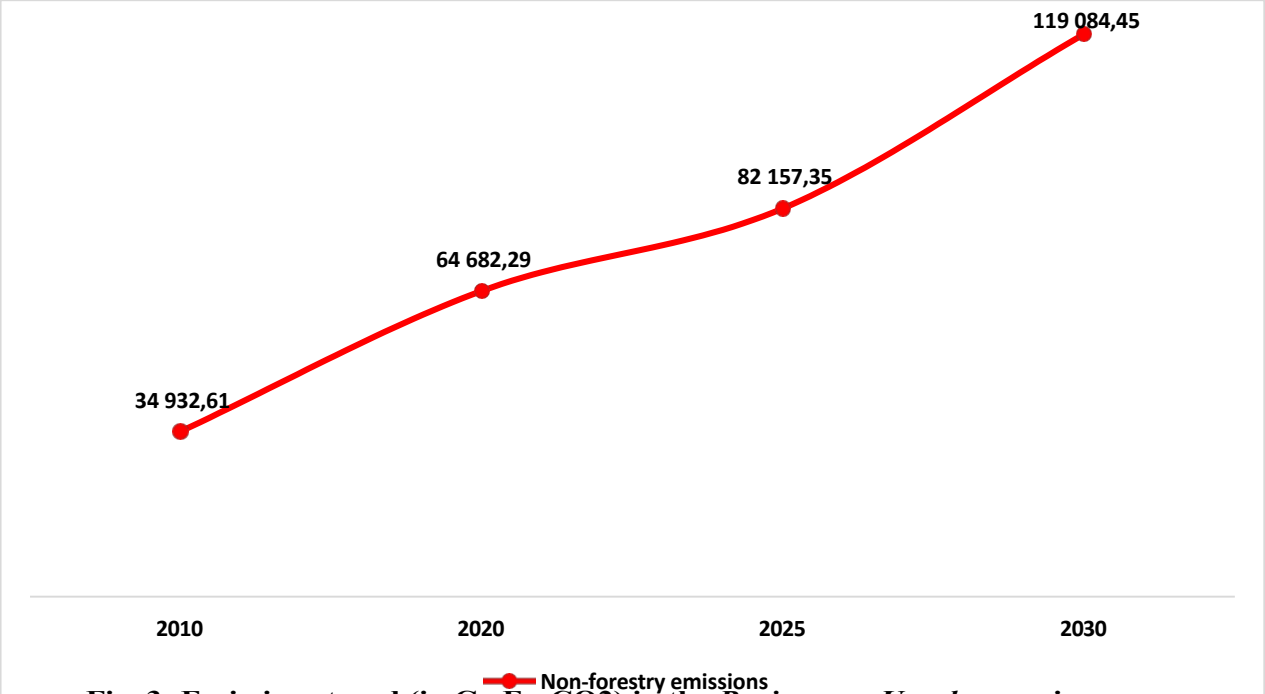

Fig. 3: Emissions trend (in Gg Eq CO2) in the *Business as Usual* scenario

4.3 Scope and coverage of mitigation actions

In the CDN scenario with the measures taken into account, the increase in emissions is contained at 104,187 Gg Eq CO2 in 2030, i.e. an increase of 66% compared with 2010 (34,933 Gg Eq CO2) and a reduction of 12% compared with the BAU scenario.

In this same scenario, but this time with additional measures, the increase in emissions is contained at 76,826 Gg CO2eq in 2030, i.e. an increase of 55% compared with 2010 and a reduction of 35% compared with the BAU scenario, which represents an absolute reduction of 42,259 Gg CO2eq (Fig.4).

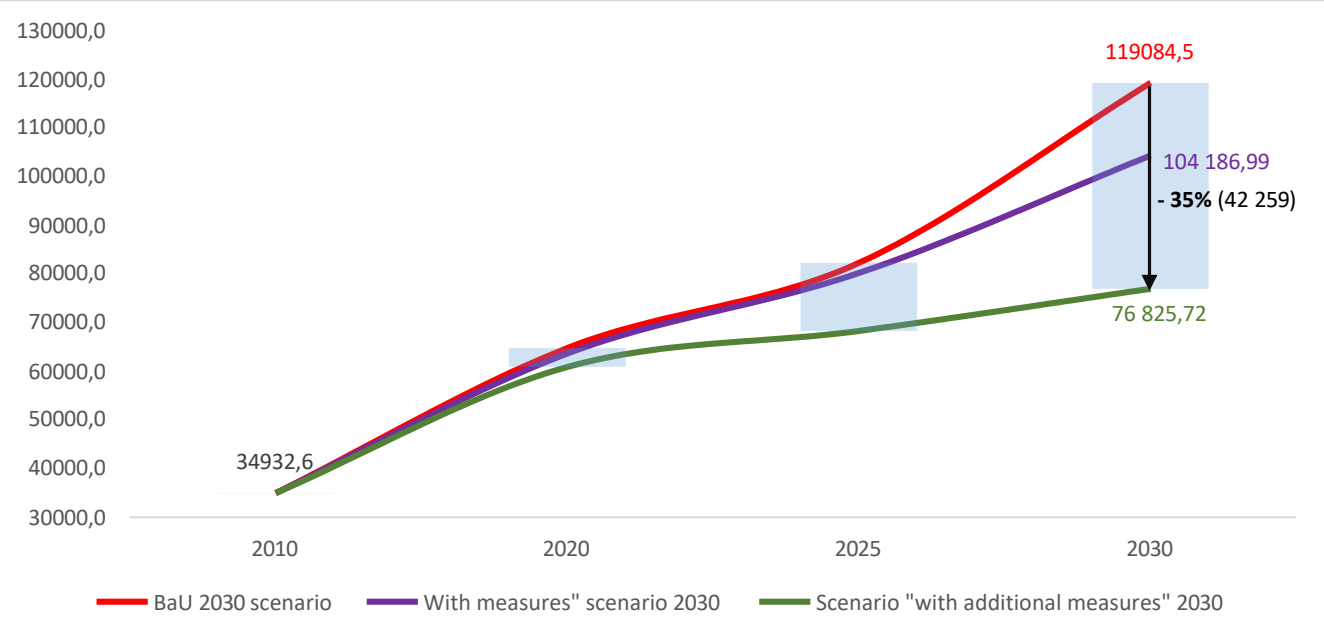

Fig.4: Evolution of GHG emissions (Gg Eq. CO2) in Cameroon as follows different scenarios

The reduction shares for each sector in 2030 are shown in the table below:

Table 1: Share of reduction by sector in 2030

Share of reduction by sector in 2030					
Sectors	**Agriculture**	**FAT**	**Energy**	**Waste**	**Totals**
Reduction in quantity (Gg Eq CO2)	6808.48	19378.63	13369.85	2701.78	**42258.73**
Share of each sector in total reduction (%.)	16.1%	45.9%	31.6%	6.4%	**100.0%**
Share of each sector to the percentage reduction (%.)	5.7%	16.3%	11.2%	2.3%	**35.5%**

In terms of reduction potential, the forestry sector leads the way, followed by Energy

4.4 Mitigation actions selected

Cameroon intends to implement the mitigation actions below, on the basis of reduction guidelines and options consistent with the pillars of its National Development Strategy 2020-2030 (NDS30) and the SDGs.

Agriculture/Fisheries/Livestock/Forestry

- **Key issues for the agriculture/livestock/fisheries sector**: (i) striving for self-sufficiency, food security, development of the agro-industry and (ii) improving productivity and competitiveness.
- **Key issues for the forestry sector**: (i) Sustainable forest management through the exploitation and development of productive forests within the framework of management plans, (ii) Contribution to economic growth and the fight against poverty through the retrocession of part of the tax revenue to local authorities, job creation, the creation of communal forests in the Permanent Forest Estate (DFP) and community forests in the Non-Permanent Forest Estate (DFnP) (iii) Biodiversity conservation by strengthening the national network of protected areas, (iv) Making the land tenure system consistent through zoning plans.
- **KEY MESSAGE**: ***"Agriculture has been and remains the pillar of the country's ambition to emerge, but it is possible and even necessary to limit its carbon impact. Sustainable forest management will make it possible to increase the carbon sink. This low-carbon growth will bring major co-benefits (economic and social development, job creation, improved environment and health, etc.).***

Orientations in relation to SND 30	Mitigation actions selected	Reduction options
1) Aligning planning and to develop agriculture while limiting deforestation/degradation	-Sustainable development of rural and urban areas; - Strengthening the sustainable management and enhancement of forests and biodiversity, in particular through spatial land monitoring; Rehabilitation of degraded land and reforestation of man-made savannahs, and	- Reforestation ; - Sustainable management and assisted regeneration of forests

	strengthening carbon sinks in degraded forests.	
2) Intensification of agricultural, livestock and fisheries production that respects the environment a nd limiting deforestation/degradation	- Sustainable improvement of agricultural productivity and sustainable management of livestock and fisheries production ; - Adaptation of cropping calendars and production techniques; - Limiting methane emissions from rice cultivation by reducing flooding as much as possible; -Strengthening partnerships and collaboration to improve the productivitý of soils, the implementation of agricultural innovations; developing integrated, conservation or sustainable agriculture	Reducing CH4 emissions from rice crops
3) Promoting practices that improve agricultural production capacity and make the most of local resources		- Use of nitrification inhibitors ; - Fat supplementation in ruminant feed (% of added DM fat)

Energy/Waste

- **Key energy issues**: (i) Improving access to electricity for the population and industry by quadrupling production capacity to 6 GW by 2035; (ii) increasing the use of renewable energies in production.
  electricity, especially in areas that are difficult to connect to the grid, and (iii) make energy efficiency a national priority.
- **Key waste issues**: Improving urban hygiene, in particular by turning waste into a resource for energy production
- **KEY MESSAGE**: ***"Increase the share of non-hydro renewables in the electricity mix to 25% by 2035".***

Orientations in relation to SND 30	Mitigation actions selected	Reduction options
4) Controlling the energy consumption of systems through a proactive energy efficiency efficiency policy.	- Promoting energy efficiency; - Introduction of regulations on energy efficiency (EE); - Creation and operation of the promotion and of rationalisation of energy use (APRUE); - Development of Economic incentives to promote and remove barriers to investment in EE; - Encouraging the purchase of low-polluting vehicles and scrapping vehicles	- Efficient lighting with compact fluorescent bulbs; - Efficient LED lighting; - Efficient LED lighting replaces compact fluorescent lamps; - Energy efficiency in industry; - Efficient office lighting with compact fluorescent bulbs: - Efficient LED office lighting; - Efficient street lighting; - Service energy efficiency ; - Efficient electrical networks ; - Off-grid mini hydro ;

	The aim is to reduce the most polluting pollutants through standards, incentives or obligations; - Promotion of low-energy modes of transport carbon emissions.	- Express bus services
5) Efficient use of resources to move towards a circular economy	- Sustainable and efficient waste management, - Strengthening waste management policies (by 2035, all major cities should have landfill sites with at least 70% methane capture); - Promoting the development of a economy ; - Recovery/use of agricultural and forestry waste; composting ; - Recovery/treatment of other waste (sewage treatment plant, sewage sludge, etc.).	- Biogas on rural farms to replace non-renewable firewood; - Biogas on large farms ; - Biogas from industrial wastewater ; - Plastics recycling ; - Fuels from municipal solid waste ; - Biogas from municipal solid waste ; - Composting municipal solid waste.

6) Developing energy production from renewable sources	- Promoting renewable energies - Adoption o f a renewable energy development plan raising the share of renewable energy to 25 the share of renewable energy in the electricity mix ; - Setting up an incentive framework for the development of renewable energies	- Large grid solar PV ; - PV solar small isolated grid 100% solar ; - Solar street lamps.

4.4 Information on mitigation efforts

a) Unconditional measures

The scenario of unconditional mitigation measures includes reduction options to which Cameroon commits as part of its Nationally Determined Contribution (NDC), taking into account its national context and internal capacities. The unconditional target translates, in absolute terms for 2030, into emissions of 104,187 Gg CO2 eq. All the unconditional measures, costing around USD 25,784.66 million, will reduce projected emissions for 2030 by 14,898 Gg CO2eq, or 12% of emissions in the BAU 2030 scenario.

b) Overall objective (unconditional and conditional measures)

Cameroon's revised NDC presents an overall mitigation target of 35% with 32 reduction options in the target sectors (unconditional and conditional measures) by 2030 compared with the reference scenario (BAU 2030). This new reduction target indicates Cameroon's willingness to increase its mitigation ambition compared with the first version of the NDC (target of 32%).

reduction). In absolute terms for 2030, this translates into reduced emissions of 14,898 Gg CO2eq (unconditional) and a reduction surplus of 27,361 Gg CO2eq (conditional) if Cameroon receives the necessary support to implement the proposed additional measures.

5. Information required to ensure clarity, transparency and understanding of the NDC

1. Quantified information on the reference point, including, where applicable, a base year	
Type of contribution	An emissions reduction target b a c k e d up by actions mitigation and adaptation
Long-term national target for GHG emissions	Reduction of GHG emissions by 35% compared to a reference scenario for the target year 2030, broken down into 12% unconditional and 23% conditional on the support of the international community in the form of financing, capacity-building actions and technology transfer.
Target year	2030
Reference year	2010

Objective National Development Strategy 2020-2030	Economic growth and structural transformation (increase the annual growth rate from 4.5% to 8.1% on average over the period 202-2030; reduce the trade deficit from 8.8% of GDP in 2018 to 3% in 2030); reduce poverty and underemployment (reduce the poverty rate from 37.5% in 2014 to less than 25% in 2030); environmental preservation and climate risk management (strengthening actions in the area of sustainable management of natural resources, strengthening measures for adapting to and mitigating the effects of climate change and environmental management in order to guarantee economic growth and sustainable and inclusive development); strengthening Governance (strengthening the performance of public action with a view to achieving the objectives of development).
Main sectoral objectives	CDN scenario: (i) greening (intensification, sedentarisation) of agricultural policy; (ii) sustainable management of forests; (iii) increase in energy supply and improvement in energy efficiency; (iv) 25% renewable energy in the electricity mix by 2020. by 2035.
Ambition of the Contribution	Cameroon's emissions reduction target represents a significant effort for a country whose emissions are still insignificant on an international scale and whose GDP per capita ranks 99th in the world and 16th in Africa (2020, World Bank).
Fairness of the Contribution	The increase in ambitions to reduce emissions by 35% by 2030 is of the same order as or greater than that proposed by comparable countries or countries in the sub-region. This level of commitment takes account of efforts already made or underway to reduce emissions / increase carbon sinks (reforestation, management, etc.). sustainable forestry).
Quantifiable information on the reference indicators, their values in the reference year(s), base year(s), reference period(s) or other starting point(s) and, where applicable, in the target year.	The reference indicator is quantified on the basis of total national emissions greenhouse gas (GHG) emissions. For the reference year 2010, the emission level for the reference year is of 34933Gg eq CO2.
For the strategies, plans and actions referred to in paragraph 6 of Article 4 of the Paris Agreement, where policies and measures as elements of nationally determined contributions where the	A net economy-wide reduction in GHG emissions of 12% in 2030 compared to the Bisness as Usual (BaU) scenario, with domestic financing. With substantial international support, Cameroon could achieve a 35% reduction in emissions compared with the Business as Usual (BaU) scenario.

paragraph 1 (b) above is not applicable, the Parties must provide other relevant information.	
Target in relation to the reference indicator, expressed numerically, for example as a percentage or quantity discount.	N/A
Information on the data sources used to quantify the reference point(s).	The benchmark indicators were quantified using data from the national GHG emissions inventory drawn up in accordance with the IPCC's 2006 methodologies and guidelines as part of the Third National Communication on Climate Change (TCN). It is useful to point out that the information on the reference indicators may be updated and recalculated as a result of ongoing methodological improvements or the availability of relevant information not previously available. Information on the updates made will be reported in the UNFCCC reports, in particular in the biennial transparency reports, from 2024 onwards,
2. Deadlines and/or implementation period	
a. Timetable and/or period of implementation, including start and end dates, in accordance with any other relevant decision adopted by the CMA.	2020-2030
b. Whether the objective is annual or multi-year, as the case may be	2030
3. Scope and coverage	
a. Description general of the mitigation objective	Unconditional commitment to reduce GHG emissions by 12% (14898 Gg Eq CO2) in 2030 compared to the BAU scenario with the levels of international support in force in 2020, increased to 35% (42259Gg Eq CO2) with greater international support.
b. Sectors, gases, categories and basins covered by the nationally determined contribution, including, where appropriate, in accordance with IPCC guidelines.	Cameroon's NDC covers the entire economy. It reflects all Anthropogenic emissions and removals as reported in the Third national communication and the first biennial report as defined

	by the 2006 IPCC guidelines for the agriculture, forestry and fisheries sectors. Other Land Use, Energy, Industrial Processes and Utilization Products (PIUP) and Waste. The main gases concerned are the greenhouse gases included in the 2006 IPCC guidelines, in particular CO2, CH4 and N2O.
c. How the country Party has taken into account paragraphs 31 c) and d) of decision 1 / CP.21.	• Cameroon's NDC, in accordance with the 2006 IPCC guidelines, included all categories of anthropogenic emissions or removals estimated in the greenhouse gas inventories. No source, sink or activity that was included in the previous version of the NDC has been excluded. CDN Cameroon focuses on sectors with high mitigation potential.
d. Mitigation co-benefits resulting from the Parties' adaptation actions and/or economic diversification plans, including descriptions of specific projects, measures and initiatives under the adaptation actions and/or economic diversification plans of the Parties.	NA
4. **Planning process**	
a. Information on the planning processes that the country Party has undertaken to prepare its NDC and, where applicable, the country Party's implementation plans, including, where relevant :	
i. National institutional arrangements, public participation and engagement with local communities and indigenous peoples in a gender-sensitive manner.	The institutional arrangements for implementing and monitoring the CND are set out in an organisation chart that includes the roles and qualifications of members from the Prime Minister's departments, sector ministries and NGOs to civil society and vulnerable groups. The same applies to the working groups and the monitoring and reporting mechanism, not forgetting the national GHG inventory system. This system will ensure the operationalisation of the NDC in Cameroon. Each working group should have a capacity-building component to improve the flow of information within ministries, between ministries and between ministries. various ministries and other stakeholders.

ii (a). National circumstances, such as geography, climate, economy, sustainable development and poverty eradication.	Geographical location : Thanks to its wide latitudinal (2-13°N over more than 1,500km) and meridian (9-16°E over more than 800km) extension, covering an area of 475,000km2, Cameroon is bordered to the north-west by Nigeria (1,720km), to the north by Chad (1,122km), to the east by the Central African Republic (822km), and to the south by Congo (520km), Gabon (298km) and Equatorial Guinea (183km). To the west, it has 364 km of coastline on the Atlantic Ocean. Climate : Cameroon's contrasting climate is subdivided into two major climatic zones: the equatorial and sub-equatorial zones to the south, and the tropical zones to the north, both with nuances linked to the relief (highlands) or the sea. National economy : In Cameroon, agriculture is and remains the predominant sector of the national economy, both in terms of its contribution to GDP and its knock-on effects on other sectors of activitý. The main cash crops are cocoa, coffee, tobacco, cotton and bananas and pepper. Despité proven agricultural potential, Cameroon still faces the challenge of adequately feeding a rapidly growing population. Agriculture, which is extremely important to the Cameroonian economy, is naturally sensitive to climatic conditions. However, it is estimated that 72% of production units (PUs) are multi-purpose (involved in both crop and livestock production, and, in the southern part of the country, in forestry, with 25% specialising in crop production and 3% specialising in livestock). Cameroon aims to increase the annual growth rate from 4.5% to 8.1% on average over the period 2020-2030; to increase growth in the secondary sector (excluding oil) to over 8% on average; to reduce the trade deficit from 8.8% of GDP in 2018 to 3% in 2030.

	Sustainable development: Cameroon plans to step up its efforts in the area of sustainable management of natural resources; Strengthen climate change mitigation and adaptation measures and environmental management to ensure economic growth and sustainable and inclusive development (SDGs 13, 14, 15) Fight against poverty: in its Poverty Reduction Strategy Paper (PRSP) adopted in 1998, the Cameroonian government undertakes to pursue the fight against poverty in Cameroon in an effective manner so as to considerably and sustainably reduce the proportion of the population living below the poverty line by means of strong and sustainable economic growth, improved expenditure efficiency, appropriately targeted poverty reduction policies and strengthened governance. Reduce the poverty rate from 37.5% in 2014 to less than 25% in 2030; Reduce underemployment from 77% in 2014 to less than 50% in 2030; Raise the Human Capital Index from 0.39 in 2018 to 0.55 and the Human Development Index from 0.55 in 2018 to 0.55 in 2030. 0.52 in 2016 to 0.70 in 2030.
iii (b). Best practice and experience in preparing the NDC.	Cameroon's NDC has been drawn up within an easily verifiable framework of transparency. 43 sectoral reduction options (26 unconditional and 17 conditional) with quantifiable individual reduction targets have been identified, along with the cost of implementing them. Cameroon has set up a CDN technical group made up of sectoral focal points dedicated to monitoring the implementation of CDN actions. These sectoral focal points have been involved and trained to monitor the implementation of their actions.
iv (c). Other aspirations and priorities priorities recognised when joining the Paris Agreement.	NA
b. Specific information applicable to Parties, including regional economic integration organisations and their Member States, which have reached an agreement to act jointly under paragraph 2 o f Article 4 of the Convention. the Paris Agreement, including	NA

Parties which have agreed to act jointly and the terms of the agreement, in accordance with paragraphs 16 to 18 of Article 4 of the Paris Agreement.	
c. How has the country Party preparing its NDC been informed by the results of the global review, in accordance with paragraph 9 of Article 4? of the Paris Agreement.	NA
d. Each Party with a NDC under Article 4 of the Paris Agreement that consists of adaptation actions and/or economic diversification plans leading to mitigation co-benefits in accordance with Article 4.7 of the Paris Agreement to submit information on:	
i. How have the economic and social consequences of the response measures been taken into account in the development of CDN?	NA

ii. Specific projects, measures and activities to be implemented to contribute to mitigation co-benefits, including information on adaptation plans that also deliver mitigation co-benefits, which may cover, but are not limited to, key sectors, such as energy, resources, water resources, coastal resources, human settlements and urban planning, agriculture and forestry; and economic diversification actions, which can cover, but are not limited to, sectors such as manufacturing and industry, energy and mining, transport and the communications, the construction, tourism, real estate, agriculture and fishing.	NA
5. Assumptions and methodological approaches, including emissions anthropogenic greenhouse gas emissions and, where appropriate, absorptions	
a. Assumptions and methodological approaches used to account for anthropogenic greenhouse gas emissions and removals corresponding to the nationally determined contribution of the country Party, in accordance with paragraph 31 of decision 1/ CP.21 and the accounting guidelines accounting guidelines adopted by the CMA.	The methodological approach adopted to account for anthropogenic greenhouse gas emissions and removals in Cameroon's NDC is identical to that used in the GHG inventory and complies with the IPCC's 2006 guidelines.

b. Assumptions and methodological approaches used to report on the implementation of policies and measures or strategies in the contribution determined for the national level.	The same assumptions and approaches are used to report on the implementation of policies and measures or strategies in the NDC.
c. Where appropriate, information on how the country Party will take into account existing methodologies and guidance under the Convention for accounting anthropogenic emissions and removals, in accordance with Article 4, paragraph 14, of the Kyoto Protocol. Paris, if necessary.	Cameroon's current national GHG inventory, drawn up as part of its third communication, was carried out in accordance with decision 24 / CP.19 and used the 2006 IPCC Guidelines.
d. Methodologies and parameters used to estimate anthropogenic greenhouse gas emissions and removals.	Methodologies : 2006 IPCC guidelines for greenhouse gas inventories. Metrics: Global Warming Potential (GWP) in accordance with the guidelines of the IPCC Fourth Assessment Report (AR4). The Global Warming Potential GWP values used are : CO2 = 1 (by convention) CH4 = 25 ; N2O = 298 ; HFCs = 1.5 - 14 800.
e. Assumptions, methodologies and approaches specific to the sector, category or activity, in accordance with IPCC guidance, as appropriate, including, where relevant :	
i. Approach to dealing with emissions and subsequent absorptions of natural disturbances on managed land.	All estimates of emissions and removals from Cameroon's national GHG inventory included in the NDC were made without a specific approach to exclude emissions from natural disturbances.
ii. Approach used to account for product emissions and removals harvested woody plants.	Informally harvested wood products were estimated at
iii. Approach used to deal with the effects of age class structure in the forests.	The effects of age class structure in forests have not been taken into account. Consideration.
f. Other assumptions and methodological approaches used to understand the nationally determined contribution and, where appropriate, to estimate the corresponding emissions and removals, including :	

i. How the reference indicators, reference levels and/or benchmarks, including, where appropriate where appropriate, levels of	The national inventory of GHG emissions for 2010 and the Business As Usual scenarios were drawn up in accordance with the IPCC's 2006 guidelines and on the basis of information and data received from the sectors in question.

specific to the sector, category or activity, are constructed, including, for example, key parameters parameters, assumptions, definitions, methodologies, data sources and models used.	the country's national development strategy up to 2030. The mitigation scenarios were developed on the basis of National Statistics data, data on sectoral activities and the use of the *Greenhouse-gases Abatement Costs Model* (GACMO) for GHG emissions up to 2030, version dated 01 January 2021.
ii. For Parties whose Nationally Determined Contributions contain elements other than greenhouse gases, information on the assumptions and methodological approaches used in relation to these elements, the if necessary.	NA
iii. For climate forcers included in nationally determined contributions not covered by the IPCC guidelines, information on how the forcers are estimated.	NA
iv. Additional technical information, if necessary.	NA
g. The intention to use voluntary cooperation under Article 6 of the Paris Agreement, if applicable.	Cameroon is in favour of participating in the financial and cooperation mechanisms provided for in Article 6 of the Paris Agreement. Cameroon also plans to strengthen its capacity to participate effectively in Article 6 mechanisms.
6. How the country party considers its NDC to be fair and ambitious in the light of its national situation	
a. How the country Party considers its NDC to be fair and ambitious in the light of its national situation.	Cameroon's revised NDC revises upwards its reduction ambitions compared with the first version of its NDC, indicating a target of a 35% reduction by 2030 compared with the BAU scenario. This reduction target is divided into an unconditional target of 12% and a conditional target (23%) subject to the support of the international community. This new commitment reflects Cameroon's strong desire to significantly increase its mitigation ambitions, given that its previous NDC set a target of a 32% reduction in GHG emissions by 2035.

b. Equity considerations, including reflection on equity.	**Equity** With less than 0.1% of total global GHG emissions in 2010, Cameroon's per capita emissions are disproportionately low compared with the world average. In addition, the emissions balance shows that Cameroon remains a carbon sink with a sequestration capacity twice as high as its emissions. Historically speaking, Cameroon has always had a very low emission rate and an accumulation of historical emissions that is extremely low compared with those of industrialised countries. This proves that Cameroon bears very little responsibility for the anthropogenic causes of climate change. The country is highly vulnerable to the impacts of climate change not only because of its exposure, but also because of its low overall capacity to adapt. Nevertheless, by recognising the common but differentiated responsibilities formulated under the UNFCCC and reconfirmed in the Paris Agreement, Cameroon aims to make a more significant contribution to mitigating GHG emissions than would be consistent with its historical responsibility. This is based on the idea of global equity, as follows than on the recognition of the planetary emergency to which humanity as a whole is committed.
c. How the country Party has dealt with paragraph 3 of Article 4 of the Paris Agreement.	Cameroon shall submit an update of its nationally determined contribution under the Paris Agreement for the period 2020-2030, in accordance with Articles 4.2, 4.9 and 4.11 of the Paris Agreement, paragraphs 23 and 24 of the Kyoto Protocol. 24 of decision 1/CP.21 and other relevant provisions of the Agreement. The updated NDC represents a step forward from the previous NDC, and shows a higher level of ambition for emissions reductions than the previous NDC.
d. How the country Party has dealt with paragraph 4 of Article 4 of the Paris Agreement.	In accordance with Article 4.4 of the Paris Agreement, Cameroon's updated NDC presents an absolute GHG emissions reduction target for the national economy.
e. How the country Party has dealt with paragraph 6 of Article 4 of the Paris Agreement.	NA
7. How the CND contributes to achieving the objectives of the Convention as set out in its Article 2	

a. How the NDC contributes to achieving the objective of the Convention as set out in Article 2.	Cameroon is confident that its updated NDC is in line with the objective of the UNFCCC and in the long term with that of the Paris Agreement, as indicated in points 6a and 6b above. Cameroon's NDC represents Cameroon's contribution to the objectives of Article 2 of the United Nations Framework Convention on Climate Change (UNFCCC), namely: to stabilise GHG concentrations in the atmosphere at a level that would prevent dangerous anthropogenic interference with the climate system. Sections 4 and 6 detail Cameroon's mitigation ambition, which will contribute to the achievement of Article 2 of the UNFCCC.
b. How the NDC contributes to the realisation of Article 2(1)(a) and Article 4(1) of the WTO Agreement. Paris.	Sections 4 and 6 explain Cameroon's ambition to reduce GHG emissions, which will therefore contribute in its own way to achieving Article 2 of the UNFCCC.

6. Adaptation component

Because of its exposure, sensitivity and low capacity to adapt, Cameroon remains highly vulnerable to climate change. Indeed, global warming is being strongly felt, and recent climate projection scenarios point to an increase in temperatures in all five of the country's agro-ecological zones. The northern Sudan-Sahel AEZ will see a temperature increase of +0.7°C by 2025; +1.2°C in 2035; +2.5°C in 2055; +3.6°C in 2075 and +4.8°C in 2100.
In the four remaining ZAEs, temperature increases will rise from
+0.6°C in 2025 to +3.6°C in 2100.

As far as rainfall is concerned, the scenarios forecast a drier climate and less rainfall overall in the Sudano-Sahelian AEZ, but with an increase of 0 to +2% and a concentration of rainfall in space and time. On the other hand, despite a warmer, wetter climate, rainfall is expected to fall by between -1% and -5% in the Hautes Savanes (Adamaoua) and Hauts Plateaux (highlands) ZAEs, then by between -2% and 0% in the bimodal forest ZAEs, and finally by between 0% and +2% in the coastal or littoral ZAEs between 2021 and 2040 (Vulnerability study, 2021). However, future rainfall is expected to be highly variable throughout Cameroon, with values ranging from -12 to +20 mm of rain per month (from -8 to +17%) in the 2100s.

In addition, in some regions, global warming will lead to lower crop yields, reduced livestock productivity and water shortages. Extreme weather and climate events such as droughts and floods are expected to become more frequent, with negative impacts on human health and life. However, the Sudano-Sahelian EAZ (exposed to drought, desertification and extreme flooding) and the coastal zone (hard hit by flooding and rising sea levels) are the most vulnerable.

Climate projections for Cameroon therefore point to an increase in the frequency and amplitude of the following extreme events:

- **Droughts**: in the Sudano-Sahelian zone. Given the aridity of the climate, droughts are set to intensify. On average

  five droughts per decade, with a death toll of at least 500 per event in the Sudano-Sahelian zone (Vulnerability study, 2021).

- **Flooding**: this will increase in number and intensity in the coming years. Sudano-Sahelian, coastal and forest ZAEs with bimodal rainfall. Projections show at least five to ten floods per year, depending on rainfall intensity (MINEPDED, 2015a, Tchindjang, 2013, Vulnerability study, 2021);

The significant increase in the population (27 million inhabitants) poses many challenges in terms of economic and social well-being, which is highly dependent on the viability of the main development sectors. In addition, the population exposed annually to climatic hazards has risen from 320,000 (MINEPDED 2015) to around 3,000,000 (Vulnerability study, 2021).
The trends observed above point to a number of growing challenges, particularly of an economic, financial, scientific and technological nature. Indeed, the consequences of climate change could reduce Cameroon's efforts to develop a strong, diversified and competitive economy, strengthen national unity and consolidate the democratic process, thereby limiting the achievement of the emergence of the "2035 vision".

Based on these observations, it is clear that adaptation to climate change is extremely important. It is defined as a process that enables societies to adjust in response to changes in their environment, in order to limit the negative impacts of climate change, or even to benefit from positive consequences. Adaptation strategies aim to increase the resilience and reduce the vulnerability of environments, organisations, communities and individuals to the known or anticipated effects of climate change. The implementation of such actions is best combined with measures to combat climate change, aimed in particular at reducing greenhouse gas emissions[3].

[3] LIVING IN CITY (2013). "Adapting to changements climatiques", *Collectivitesviables.org*, Living in Ville, December 2013 http://collectivitesviables.org/articles/adaptation-aux-changements-climatiques.aspx

Cameroon's objective and vision for adaptation is that, by 2035, *"climate change in Cameroon's five agro-ecological zones is fully integrated into the country's sustainable development, thereby reducing its vulnerability, and even transforming the problem of climate change into a development solution/opportunity. Cameroonians, particularly women, children and vulnerable people, and the country's economic sectors will thus acquire greater resilience and a greater capacity to adapt to the negative impacts of climate change.*

6.1 Priorities for adaptation and resilience in Cameroon

Table 2: Adaptation priorities for each sector and corresponding SDGs

Sector	Priorities	ODD Correspondent
Agriculture	- Promote climate-smart agriculture to build resilience and enhance investment in adaptation and build community resilience to the adverse effects of climate change through improved access and connectivity, and food storage - Strengthening the agricultural value chain	MDG 12
Energy	- Ensuring a sustainable energy supply and certifying the climate resilience of energy infrastructures - Guaranteeing energy security	MDG 7
Infrastructure	- Build climate-resilient infrastructure, including rail systems, airports and seaports, by integrating adaptation and resilience measures to improve sustainability. - Supporting regional infrastructure and improving trade and Strengthening the resilience of regional transport corridors - Ensuring the resilience of urban and rural transport systems	MDG 9

Population resilience	- Strengthen community resilience to the adverse effects of climate change through improved access, connectivity and food storage - Developing human skills that are sensitive to the challenges of climate change - Strengthening social solidarity - Set up a mechanism to monitor adaptation to climate change that is specific to local vulnerabilities - Helping to eliminate extreme poverty	MDG 13 ODD 1
Economy and development	- Strengthen environment for business environment for increase investment in the transition to resilient development - Strengthen the mobilisation of resources necessary for financing adaptation - Support the promotion of circular economy initiatives and supporting job creation in the waste recycling sector	ODD 8 & ODD 9

6.2- Adaptation projects

All the projects presented correspond to the strategic priorities defined by the National Development Strategy 2020-2030, the PNACC and the expectations of the revised CDN.

Project 1: Setting up an observation, information management and warning system for climate risks in Cameroon;

Project 2: Updating of the national contingency plan in Cameroon and operationalisation of the emergency fund ;

Project 3: Drawing up a land-use plan sensitive to climate risks ;

Project 4: Raising awareness among the general public, professionals, administrations and decision-makers about the effects of climate change and the measures to be taken ;

Project 5: Resilience of coastal infrastructures and development systems to the effects of climate change.

6.3 Adaptation-sensitive sectoral projects

This CDN takes into account the priorities of the CTDs and the pillars of the SND30. It includes 12 adaptation projects at a total cost of CFAF 15.928 billion.

As part of the updated NDC, the 15 sectoral projects were reviewed, 12 titles were reformulated and a classification of project sheets by sector was made for the purposes of consistency, and of the priorities of the BTCs by pillar of the NDS30 (in annex). For consistency purposes, three (projects 11, 12 and 20) of the fifteen projects had a high mitigation potential, so it was decided not to keep them in this portfolio of adaptation projects. Budget projections for the 12 adaptation projects selected. The budget projections for these files amount to CFAF 15.928 billion for the implementation of 27 adaptation measures, reflecting the prioritisation of adaptation.

Table 3: Breakdown of the 15 NCCP actions (programmes) by sector of implementation of the updated NDC

Sector	Priority programmes/projects of the PNACC	Number projects
Industries a nd Services	Project 15: Taking climate change into account in the development of tourism and craft activities	1
Infrastructure	Project 7: Adaptation of technical standards for infrastructure construction to the effects of climate change	2
	Project 8: Reducing the vulnerability of urban populations to the effects of climate change	
Rural	Project 16: Development of integrated agriculture that is resilient to the effects of climate change	4
	Project 17: Reducing the vulnerability of livestock farming to the effects of climate change (REVEECC)	
	Project 18: Reducing the effects of climate change on the fisheries sector	
	Project 19: Reducing the vulnerability of forests to climate change in Cameroon	
Education	Project 6: Education, vocational training and capacity building on climate change	1
Health	Project 14: Strengthening the national health system's capacity to adapt t o climate change	1
Social	Project 13: Strengthening and securing access to water resources and services in a context of climate change.	1
Governance	Project 9: Improving local land governance in response to climate change	2
	Project 10: Adaptation of the national gender policy and reduction of their vulnerability to change climate	

6.4 Adaptation programmes, including projections of adaptation costs.

CDN PROJECTS	Intervention zones by agricultural zone ecological zones (ZAE)	COSTS (billions of FCFA)	COSTS (US$ billions)
AGRICULTURE, LIVESTOCK, FISHERIES		**904,6**	**1,8092**
Project 1: Promotion and development of intelligent agriculture and resilient to the effects of CC, taking account of the agricultural value chain	All ZAEs	537,1	1,0742
Project 2: Reducing the vulnerability of livestock farming to the effects of climate change	ZAE sahélienne, high savannahs and high plateaux	225	0,45
Project 3: Reducing the effects of climate change on the fisheries sector (Littoral, North and Far North)	All ZAEs	142,5	0,285
ENERGY/INDUSTRY AND WASTE		**2567.5**	**5,135**
Project 4: Diversification of the energy supply and strengthening of energy efficiency in the context of climate change	All ZAEs	2152,5	4,305
Project 5: Integrated management and recovery of waste then promoting circular economy initiatives	All ZAEs	150	0,3
Project 6: Promotion of low-carbon technologies in the industrial processes and tourist and craft activities.	All ZAEs	265	0,53
INFRASTRUCTURE & SANITATION		**3487,7**	6,9754
Project 7: Building climate-resilient infrastructure and strengthening the resilience of national and regional transport systems and corridors.	All ZAEs	3187,7	6,3754
Project 8: Integrated water resource management and development of climate change resilient sanitation systems	All ZAEs	300	0,6
FORESTS		525	1,05
Project 9: Reducing damage to the forest	Forestry, coastal and high savannahs	110	0,22
Project 10: Promotion of reforestation and restoration of the degraded forest landscapes	All ZAEs	415	0,83

REGIONAL PLANNING / RISK MANAGEMENT		774	1,548
Project 11: Upgrading national data collection systems data hydro meteorological analysis, of forecasting, information, early warning, and capacity building	All ZAEs	300	0,6
Project 12: Drawing up ORSEC plans in all regions and operationalisation of emergency funds in the event of a disaster.	All ZAE	172	0,344
Project 13: Integrating risk and climate change in education and training programmes	All ZAEs	52	0,104
Project 14: Drawing up land allocation plans and improving of the governance governance in response to climate change	All ZAEs	250	0,5
HEALTH & GENDER		**4911,6**	**9,8232**
Project 15: Adaptation of the national gender and layers policy and reducing their vulnerability to CC	All ZAEs	40,4	0,0808
Project 16: Strengthening the system's ability to adapt national de santé aux CC	All ZAEs	4871,2	9,97424
CAPACITY BUILDING / COMMUNICATION		**200**	**0,4**
Project 17: Education, training and capacity building for all stakeholders to climate change	All ZAEs	200	0,40
PROJECTS SPECIFIC TO ZAEs		**2557,6**	**5,1152**
Project 18: Protection and development of the coastline against the effects of climate change. climate change	Coastal ZAE	510,1	1,0202
Project 19: Reducing the vulnerability of urban populations to the effects of CC	All ZAEs	1411,2	2,8224
Project 20: Promotion of fodder production and reduction of agro-pastoral wildlife conflicts in the northern zone.	Sudano-Sahelian ZAE	424,2	0,8484
Project 21: Promoting agro-ecology and combating erosion and soil erosion land degradation in the uplands.	ZAE hautes savanes & hauts trays	212,1	0,4242
Total		**15 928**	**31,856**

7. Implementation and monitoring framework (MNV)

Cameroon will take the following measures to implement, monitor and, if necessary, update this NDC.

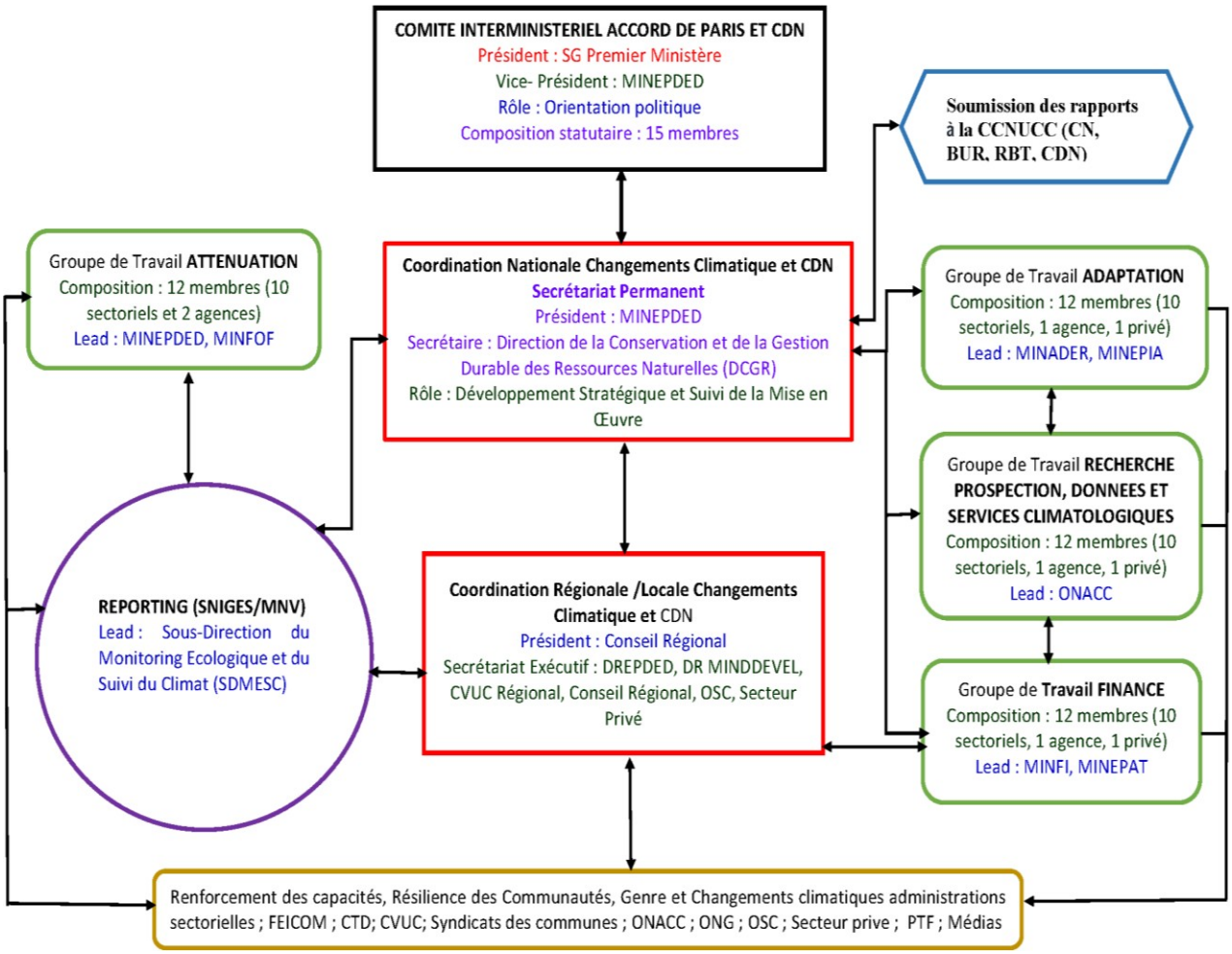

Fig.6: Institutional mechanism for implementing the NDC

The institutional arrangements for implementing and monitoring the NDC are set out in an organisation chart that includes the roles and qualifications of members, from the Prime Minister's departments through the sectoral ministries and NGOs to civil society and vulnerable groups. The same applies to the working groups and the monitoring and reporting mechanism, not forgetting the national GHG inventory system. This mechanism will ensure the operationalisation of the NDC in Cameroon. Each working group will benefit from a capacity-building component to improve the flow of information within the ministries, between the various ministries and with other stakeholders.

According to Article 2 of Decree No. 079/CAB/PM of 05 September 2017, the task of the inter-ministerial committee is to "coordinate and monitor the

diligence

sectoral committees relating to the implementation of the recommendations of the Paris Agreement on global warming". Article 3 of Decree No. 2020/0998/ CAB/PM of 13 March 2020 defines the Interministerial Committee as a
An inter-ministerial working group is a "multi-sectoral think-tank set up to address a specific, complex issue of a cross-cutting nature involving several government departments and/or other players in the sectors concerned...". According to Decree No. 2020/0998/ CAB/PM of 13 March 2020, an interministerial working group is a "multisectoral think-tank set up to address a specific, complex issue of a cross-cutting nature involving several government departments and/or other players in the sectors concerned".

Article 1 of the decree of 3 October 2012 on the organisation of MINEPDED states that MINEPDED is "responsible for drawing up and implementing Government policy on the environment and nature protection, with a view to sustainable development". As such, it is entirely appropriate for MINEPDED to coordinate the CDN. It plays a leading role in monitoring the NDC while ensuring the smooth running of the working groups, not forgetting international reporting to the UNFCCC.

This proposal includes for each group, its leader, its composition, partners from parastatal agencies, the private sector, civil society, the cross-cutting composition (representatives of decentralisation and local authorities), ministries representing gender, vulnerable groups and capacity building. The aim is to give the various groups the necessary scope and also a global view of the partners they can consult on one issue or another in addition to their statutory members.

Table 4: Roles and responsibilities of the various stakeholders in the implementation of the NDC

Players	Roles	Responsibilities
Committee Committee Paris Agreement	A body for policy guidance and arbitration between the various stakeholders	Political support for CDN
MINEPDED an d national coordination of the CDN and climate change	Regalian role : - Preparing and monitoring the government's climate action - Facilitating the implementation of CDN by other players - Strategic development and monitoring of stakeholders in the implementation of the NDC - Government representative to the UNCAC - Coordinating and monitoring the implementation of the NDC - Support sector ministries and other stakeholders in the process of integrating CC into NDC strategies and implementation -Leading the thematic groups at national level and reporting on developments in the implementation of the CND at national and international level. Contribute to the search for funding related to the implementation of the UNFCCC at national and international levels - Preparing Cameroon's participation in conferences and other meetings on climate change - Organising feedback on conference results /meetings and other activities	- Acts as the permanent secretariat, with primary responsibility for monitoring and coordinating the implementation of the NDC, even though this is the responsibility of all the players involved. - Technical manager for the implementation of the CDN - MINEPDED's technical body in charge of monitoring the implementation of the NDC and which may mobilise other technical and/or institutional services to carry out studies, analyses and modelling.

	- Promoting national capacity building with regard to CC	
Sector ministries and groups	- Development and integration of CC into sectoral policies and strategies Participate effectively in working groups	Translate the NDC's strategic priorities into operational planning frameworks
Thematic working groups	- Analyse the available and necessary information relating to their thematic area in connection with the CC - Provide the CNCC with information and opinions on all matters relating to their field of activity - Promote capacity building in their thematic area - Supporting and participating in the search for funding - Monitor the implementation of the NDC in their area and report to the Reporting, Monitoring and Evaluation sub-group - Carrying out studies, analysing and modelling, building capacity - Ensuring that the results of the studies are put into practice.	Questions relating to à their thematic area : ▪ Mitigation Working Group ▪ Adaptation working group ▪ Climate Finance Working Group ▪ Group of working group research and surveys, data, systems coordinated by the ONACC
Civil society organisations/other vulnerable groups/gender	- Relay the actions contained in the NDC to the communes, chiefdoms and local communities - Monitoring and alerting on shortcomings or bad practices observed in the implementation of the CDN - Work with the CNCC to monitor the implementation of the UNCAC	- Contribute to the operationalisation of the NDC and the participation of all categories of stakeholders in climate action

Private sector, research centres and universities,	- Integration of the CC and contribution to the translation into action of the commitments set out in the NDC concerning their sector - Building staff capacity and adapting professional profiles to new technologies and compatible production methods with CDN	- Ownership of the NDC and integration of the CC into business planning and investments - They play a complementary role in the analysis and production of data, particularly from the perspective of technological innovation?
SNIGES, Monitoring and evaluation (MRV)	- Tool for calculating and reporting annual global and sectoral GHG emissions - Carbon intensity of GDP and main sectors in 2015, 2020, 2025, 2030 - Annual installed renewable energy capacity - Characterisation of adaptation and vulnerability indicators - Monitoring the use of agricultural land - Coding and monitoring climate change-related expenditure and financing	- Monitoring of actions and indicators for the implementation of the CDN - Monitoring climate-related income and expenditure in the national budget - Monitoring overall national climate-related resources, income and expenditure
Communication a nd updating the CDN	- Regular communication campaigns on the CDN from the end of 2021, targeting the CTD, NGOs, indigenous peoples and local communities, civil society, the private sector and other key players - Creation of a dedicated website on national policy on climate change/… CDN, where the above indicators will be published	- Horizontal, vertical and cross-functional communication - The periodicity of the CDN is 5 years, unless otherwise specified by the COP.

7.1 Technology needs

The assessment of technology needs for the implementation of the NDC depends on national priorities in terms of economic and social development. These needs are closely linked to the priority sectors of activity and technologies in the fight against climate change.

The table below lists the clean technologies considered relevant (maximising reductions in GHG emissions while maximising the efficiency of the activity), taking into account the country's stage of technological development, with a view to ensuring that the technologies selected are possible with medium-intensity national "technological" capacity building (and therefore at a "reasonable" cost).

Sectors	Technology
Agriculture	Practice of intermittent irrigation of rice fields (Reduction of CH4 from rice crops) rice)
	Use of nitrification inhibitors
	Fat supplementation in ruminant feed
	Anti-erosion cultivation practices
	Organic farming
	Biofertilizers
	Pyrolysis of agricultural residues (biochar, biogas, biofuel)
	Methanisation of manure
FAT	Reforestation
	Assisted forest regeneration
	Agroforestry practices
Energy	Biomass Direct combustion for electricity generation
	Onshore wind power for electricity generation
	Photovoltaic solar power for electricity generation
	Solar thermal
	Small hydropower
	Mini hydroelectricity
	Energy efficiency in buildings "Low-energy light bulbs" (LBC)
	Energy efficiency in industry
	Bus rapid transit
Waste	Waste management (waste hierarchy)
	Production of electrical or thermal energy by burning waste
	Biogas extraction in slaughterhouses
	Thermal gasification of waste for cogeneration
	Collection of methane gas from landfill sites for electricity and gas production heat
	Anaerobic composting of solid waste
	Anaerobic biological treatment (liquid waste)
	Capturing and discharging biogas from landfills

7.2 Financing: need for financial support to implement adaptation and mitigation components

7.2.1 Financial requirements for mitigation

The investment required for mitigation actions to achieve the 2030 target is estimated at **USD 25,784.66 million, or FCFA 12,785 billion.** Table 4 provides more details on the financial requirements for mitigation.

Table 4: Mitigation investment costs (in USD millions)

Sectors	Measures	Description	Requirements in 2026-2030
Sustainable agriculture	Reducing CH4 emissions from rice crops	Development and sustainable use of at least 15% of potential developable land and irrigable.	962,4638
		Growing crops using intermittent irrigation of rice paddies of Maga and Lagdo production basins	1570
	Supplementation in ruminant feed ruminants (% of added DM fat)	Introduction 12 % of supplementation in materials fat in feed ruminants	400
		Available atin in place of conditions of access to livestock feed cattle	395,5
		Development of 12500 ha fodder plantations in the Sudano-Sahelian and highland zones savannahs	597,4
	Use of nitrification inhibitors	5% of farmers use nitrification indicators à Looking ahead to 2030	1501
	Management management of agricultural soils	Intensification and sedentarisation of integrated agricultural systems and low-carbon	876
	Production of bio-fertilisers and use of nitrification inhibitors	Available at in in place of units composting at capacity of production of 50 to 100 tonnes/day in the ten regions of Cameroon	1183
Total Agriculture			**7485,30**
Sustaina	Reforestation/Rehabilitation degraded ecosystems	Planting of 650,000 ha of land degraded	1203

ble forest manage ment	Regeneration assisted of forests	3,299,000 ha of forest defended throughout France national	1759

	Securing a nd development of protected areas	Installation of control barriers, training and installation of ecoguards to carry out permanent patrols in all protected areas.	12,843
Total Forestry			**2974,81**
Energy	Location of Off-grid mini hydro	Available at in in place of 600 MW hydroelectric power stations power	2100
	Production of solar energy	Installation of 400 MW solar power plants	1250
	Solar street lamp	Installation of 50,000 solar-powered street lamps in localities with limited or no access to the grid electric	800
	Express bus s e r v i c e s	Introduction of the Service in Douala and Yaoundé Bus Rapid Transit (BRT)	3198,565
	Promotion of electric cars	Substitution of 5% of fossil-fuelled vehicles by cars electricity by 2030	1500
	Efficient lighting w i t h compact fluorescent bulbs	Efficient lighting installation for 20 million compact fluorescent light bulbs	195
	Efficient LED lighting	Efficient lighting installation with 20 million LED bulbs	193
	Efficiency industry	Reduction of the consumption energy consumption in the industrial sector by 15	1145
	Efficiency efficiency service : lighting office	Efficient lighting installation of 2 million compact fluorescent and LED bulbs	21
	Efficient street lighting	Energy efficiency: efficient public lighting installation of 1,000,000 low light points consumption	390
	Alternative energies to firewood	Substitution of 10% of wood by biogas in large-scale projects farms, rural farms and households	160
	Low-carbon city	Promoting the creation of low-energy neighbourhoods and high-performance, self-consumption buildings in the metropolises of Yaoundé and Nouméa Douala	3100
	Production and dissemination of improved stoves and the natural gas (methane)	Distribution 500 000 improved fireplaces in the Soudano-area Sahelian	50

	Efficient electricity networks	Implementation of a reliable system and efficient electricity network	200

Total Energie			**14322,56**
Waste	Creation of controlled landfills	Available at in in place of inter-communal centres for the management of waste in Cameroon's ten regions	86
	Biogas in the farms rural	Installation of biodigesters in 10% rural farms	49
	Biogas in the large farms	Installation of biodigesters on 5% of large farms	125
	Plastics recycling	Setting up plastic waste collection and recycling units	157
	Fuel from municipal solid waste	Collection and recovery of fuels from waste treatment plants municipal solids	212
	Biogas from from municipal solid waste	Collection and recovery of biogas from wastewater treatment plants waste from waste municipal solid waste	80,99
	Biogas from industrial wastewater	Collection and recovery of biogas from industrial wastewater treatment plants	100
	Biogas from from municipal liquid waste	Collection and recovery of biogas from wastewater treatment plants waste from waste municipal liquids	50
	Composting of municipal solid waste	Enhancing of organic waste for agricultural purposes	122
	Setting up a circular economy in Cameroon.	Putting the waste market into operation and implementing alternative solutions in order to create an economy that respects resources and the environment	20
Total waste			**1001,99**
Totals			**25784,66**

By 2030, the share of investment for mitigation is estimated at **USD 25,784.66 million**. This amount is broken down according to the country's priority actions in terms of climate change and development. The Energy sector has the largest amount, with USD 1,322.56 million. The Agriculture sector totals USD 7,485.3 million, with the remaining USD 2,974.84 going to the Forestry sector and USD 1,001.99 to the Waste sector.

7.2.2 Financial requirements for adaptation

The investment required for adaptation is estimated at **USD 31,856 million, or CFAF 15,928 billion**. Table 5 provides more details on this subject.

Table 5: Adaptation investment costs (USD million)

Sectors	Interventions/Investments 2021-2030 (In USD billions)
Agriculture, livestock, fisheries	1,8092
Energy/industry and waste	5,135
Infrastructure & sanitation	6,9754
Drill bits	1,05
Spatial planning / risk management	1,548
Health & gender	9,8232
Capacity building / communication	0,4
Specific projects dedicated to ZAEs	5,1152
TOTAL	31,856

7.2.3 Mobilising resources

The total cost of the investments required to achieve the objectives of this NDC by 2030 is **USD 57,640 million, or 28,713 billion CFA francs**. Cameroon intends to mobilise public and private resources (finance, technology, human resources, etc.), both domestically and internationally, to implement the actions of this NDC.

In terms of domestic public sources, over the period 2015-2020, Cameroon mobilised around USD 162.35 million for activities planned or linked to the implementation of commitments made under the Paris Agreement. Although this represents 70.84% of the total national and international funding devoted to these activities during this period, it is far from sufficient to meet the needs of unconditional activities.

For this reason, and in line with the option taken in the previous version of the NDC, the country intends to increase its budgetary funding for climate action, either through direct budgetary expenditure or through specific funds provided in particular by the State budget. In this respect, Cameroon intends to gradually increase the consideration it gives to climate change.

financing of mitigation and adaptation actions in its general and sectoral reference, framework and planning documents and instruments, in order to better integrate climate change issues into the financing of its development actions.

In parallel with this effort, the country will explore the possibilities of generating new revenues that could contribute to financing the activities of this NDC, for example by using appropriate fiscal instruments (taxes, duties, obligations, levies, environmental taxation, etc.). The possibility of using other fiscal tools (subsidies, tax breaks, guarantees, etc.) to encourage private investment compatible with the objectives of the NDC could also be considered.

To date, the involvement of the private sector in the mobilisation of resources for mitigation and adaptation actions in Cameroon has been timid. In view of this, private sector involvement is one of the main challenges in implementing this NDC.

Cameroon will therefore need, more than in the past, to mobilise the contribution of international and domestic private actors (private companies, private donors) in the planning and implementation of interventions against climate change. To this end, Cameroon will endeavour to put in place a favourable environment to attract private resources, in particular by creating or improving the attractiveness of the country's general business environment as well as that of the investment environment specific to NDC actions.

These will include improving trade regulations and procedures, improving infrastructure, providing non-financial incentives (capacity building, technical assistance, demonstration or pilot projects, studies, data, etc.), using tax incentives, etc. It will also be a question of using public funds to catalyse private financial flows, in particular through public-private partnerships (PPPs) as part of low-carbon development that is resilient to climate change. Lastly, certain private investments could help to generate carbon assets, the sale of which at international level could finance certain actions of this CDN.

Over the period 2015-2020, The resources mobilised at international level for the activities planned or linked to the implementation of the

commitments under the Paris Agreement have been estimated at only around USD 51.41 million. This amount is largely insignificant compared to the support that was expected from the international community as part of the conditional activities of the CDN.

In view of this, Cameroon intends to make greater efforts to mobilise resources from bilateral financing, multilateral climate funds and multilateral funds not focused on the climate. In this respect, Cameroon would like to give itself the means to work not only with the major or most prominent resource providers (Green Climate Fund, Special Climate Change Fund, Adaptation Fund, GEF, IFAD, FCPF, Clean Technology Fund, etc.), but also with the other funds for which it is eligible (around thirty active).

To ensure effective implementation, these measures are the subject of an action plan accompanied by a monitoring and evaluation mechanism as part of a strategy to mobilise resources for the implementation of the NDC.

7.3 Capacity building

Achieving this objective, as well as the ambitions expressed above regarding domestic public financing and private resources, will require a combination of political, legal, regulatory, institutional and technical measures that have been approved by the stakeholders in the CDN process as part of a resource mobilisation plan. These include

- The strengthening, reform and/or implementation of policy, legal, regulatory and institutional frameworks that are adequate to the requirements of mobilising and optimising resources. Reference is made here, for example, to regulations on environmental taxation and other innovative financing; to the accreditation of national entities to the main international funds and to the creation, for example, of a national climate fund whose tasks would include coordinating the mobilisation of resources to combat climate change, or to the devolution of this responsibility to accredited national entities. In this context, the accreditation process

MINFI and FEICOM, and the setting up of the Internal Coordination Committee for Climate Finance Projects within MINEPDED. In addition to these two institutions involved in financing NDC, one at national level and the second at regional level, there are plans to encourage and facilitate the accreditation of another structure specialising in financing adaptation micro-projects.

- Strengthening governance and improving the business climate. These include measures of various kinds relating to participation, accountability, transparency, effectiveness and efficiency in the management of funds, as well as all actions likely to improve Cameroon's ranking in the "Doing Business" classification;
- Capacity building (a) in areas relating to climate change in general (b) in terms of setting up, implementing, monitoring and evaluating projects/programmes eligible for the various funds and
  (c) research and mobilisation of resources in line with the requirements of the main funds. Capacity building should lead, among other things, to the establishment of a bank of projects and programmes that can be the subject of proposals to resource providers;
- Improving communication and developing cooperation and partnerships. The main actions in this chapter are(a) developing and implementing an information, communication and lobbying strategy (b) organising high-level lobbying campaigns and round tables of resource providers and, in particular, raising banks' awareness of the need to restructure their portfolios, which should give priority to projects dedicated to greening the economy, (c) strengthening regional collaboration to mobilise funding within the framework of organisations such as COMIFAC, CBLT and the Sahel Climate Commission, and (d) strengthening collaboration with international organisations, accredited regional and multilateral entities and the entities implementing the various funds. In this respect, the ongoing collaboration between IUCN and the Government to mobilise a

The loan of around USD 30 million from the CVF is an example that could be replicated elsewhere.

- In terms of lifelong learning, the plan is to work with the Ministry of Higher Education to develop new curricula to meet the capacity needs of the climate finance sector and the greening of the economy.

8. Appendices

Appendix 1: List of Adaptation Projects

- Programme 01: Upgrading national hydro-meteorological data collection, analysis, forecasting, information, early warning and capacity building systems;
- Programme 02: Updating national, regional and departmental contingency plans, increasing and making operational the emergency fund ;
- Programme 03: Development of the Climate Risks and Land Allocation Plan programmes ;
- Programme 04: Raising awareness among the general public, professionals, administrations and decision-makers about the effects of CC and the measures to be taken ;
- Programme 05: Coastal protection and development against the effects of climate change ;
- Programme 06: Education, vocational training and capacity building on CC ;
- Programme 07: Adapting infrastructure construction standards to the effects of CC ;
- Programme 08: Reducing the vulnerability of urban populations to the effects of CC ;
- Programme 09: Improving local land governance in response to climate change
- Programme 10: Adapting national gender policy and reducing vulnerability to CC ;
- Programme 11: CC and integrated management of household waste, collection and recovery
- Programme 12: Diversifying energy supply in a context of climate change ;
- Programme 13: Strengthening and securing access to water resources and sanitation services in a context of climate change
- Programme 14: Strengthening the capacity of the national health system to adapt to CC ;
- Programme 15: CC support for the development of tourist and craft activities

- Programme 16: Developing integrated agriculture that is resilient to the effects of CC ;
- Programme 17: Reducing the vulnerability of livestock farming to the effects o f climate change ;
- Programme 18: Reducing the effects of climate change on the fisheries sector ;
- Programme 19: Reducing the vulnerability of forests to climate change in Cameroon ;
- Programme 20: Taking CC into account in the development of industries in Cameroon ;

Appendix 2: Investment costs by sector for 2025 and 2030

Sector	Costs without adaptation in 2020 in million of CFA Franc	Cost investment in 2025 in million Francs CFA	Adaptation costs in 2025 in million of CFA Franc	Cost investment in 2030 in millions of Francs CFA	Adaptation costs in 2030 in million of CFA Franc
Agriculture	72 652	108 978	36 326	138 038,8	65 386,8
Breeding	29 146	43 719	14 573	55 377,4	26 231,4
Forest and wildlife	14 407	21 610,5	7 203,3	27 373,3	12 966,3
Water & Energy	222 845	334 267,5	111 422,5	423 405,5	200 560,5
Mining and industry	8 237	12 355,5	4 118,5	15 650,3	7 413,3
Development urban	112 018	168 027	56 009	212 834,2	100 816,2
Human health	188 815	283 222,5	94 407,5	358 748,5	169 933,5
Infrastructure and transport	408 465	612 697,5	204 232,5	776 083,5	367 618,5
Tourism and leisure	9 079	13 613,5	4 539,5	17 250,1	8 171,1
MINEPDED	6 055	9 082,5	3 027,5	11 504,5	5 449,5
MINFI	51 549	77 323,5	25 774,5	97 943,5	46 394,1
MINDDEVEL	42 535	63 802,5	21 267,5	80 652,7	38 117,7
MINEPAT	51 176	76 764	25 588	97 234,4	46 058,4
MINFI	51 549	77 323,5	25 774,5	97 943,1	46 394,1
MINEREX	27 923	41 884,5	13 961,5	53 053,7	25 130,7
Ministry of the justice	57 489	86 233,5	28 744,5	109 229,1	51 740,1
MINMAP	14 270	21 405	7 135	27 113	12 843
MINDEF	226 333	339 499,5	113 116,5	426 432,6	200 099,7
MINAT	26 697	40 045,5	13 348,5	50 724,3	24 027,3
MINCAF	14 546	21 819	7 273	27 637,4	13 091,
MINAC	3 895	5 842,5	1 947,5	7 400,5	3 505,5
MINEDUB	226 015	339 022,5	113 007,5	425 828,5	199 813,5
MINSEP	62 061	93 091,5	31 030,5	117 915,9	55 854,5
MINPOSTEL	3 189	4 783,5	1 594,5	6 059,1	2 870,1
MINESUP	57 136	85 704	28 568	108 558,4	51 422,4
MINRESI	7 600	11 400	3 800	18 240	6 840
MINCOMMERCE	6 786	10 179	3 393	12 893,4	6 107,4
MINESEC	392 366	588 549	196 183	745 495,4	353 129,4
MINJEC	22 750	34 125	11 375	43 225	20 475
MINMIDT	8 237	12 355,5	4 118,5	15 650,3	7 413,3
MINEFOP	19 007	28 510,5	9 503,5	36 113,3	17 106,3
MINHDU	112 018	168 027	56 009	212 834,2	100 816,2
MINPMEESA	8 819	13 228,5	4 409,5	16 756,1	7 937,1
MINTSS	5 085	7 627,5	2 542,5	9 661,5	4 576,5
MINAS	9 798	14 697	4 899	18 616,2	8 818,2
MINPROFF	7 349	11 023,5	3 674,5	13 963,1	6 614,1
MINFOPRA	9 332	13 998	4 666	17 730,8	8 398,8

Appendix 3: Budget planning for mitigation actions (in millions of dollars)

	Agriculture	Forestry	Energy	Waste	Totals
	2021-2025				
	3131,41	1355,96	4 872,97	400,99	9 360,34
	2026-2030				
	4353,89	1618,85	9 449,59	601	16 023,33
Totals	7 485,30	2 974,81	14 322,56	1001,99	25 784,66

Appendix 4: List of mitigation measures

- Biogas on rural farms to replace non-renewable firewood;
- Biogas from industrial wastewater ;
- Biogas from municipal solid waste ;
- Fuels from municipal solid waste ;
- Composting municipal solid waste
- Efficient office lighting with compact fluorescent lamps :
- Efficient office lighting with LED ;
- Efficient LED lighting;
- Efficient lighting with LEDs replacing compact fluorescent lamps;
- Efficient lighting with compact fluorescent bulbs ;
- Efficient street lighting ;
- Energy efficiency in industry ;
- Service energy efficiency ;
- Sustainable management and assisted regeneration of forests;
- Solar street lamps.
- Biogas on large farms ;
- Off-grid mini hydro ;
- Large grid solar PV ;
- PV solar small isolated grid 100% solar ;
- Reforestation ;
- Plastics recycling ;
- Reducing CH4 emissions from rice crops ;
- Efficient electrical networks ;
- Express bus s e r v i c e s
- Fat supplementation i n ruminant feed (% of added DM fat)