REPUBLIC OF CONGO

Unity * Work * Progress

MINISTRY OF THE ENVIRONMENT, SUSTAINABLE DEVELOPMENT AND THE CONGO BASIN

NATIONALLY DETERMINED CONTRIBUTION (NDC)

OF THE REPUBLIC OF THE CONGO

Brazzaville, Republic of Congo 2021

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LIST OF ABBREVIATIONS AND ACRONYMS

AFD	French Development Agency
BAU	Business as Usual
CONA-REDD	National REDD+ Committee
CAFI	Central African Forest Initiative
UNFCCC	United Nations Framework Convention on Climate Change
CDN	Contribution Determined at National Level
CAFI	Central African Forest Initiative/ Initiative des Forêts d'Afrique Centrale
CNIAF	Centre National d'Inventaire et d'Aménagement des Ressources Forestières et Fauniques (National Centre for the Inventory and Management of Forest and Wildlife Resources)
CNSEE	Centre National de la Statistique et des Etudes Economiques (National Centre for Statistics and Economic Studies)
CLPA	Local communities and indigenous peoples
COMIFAC	Central African Forests Commission
COP	Conference of the Parties
GHG	Greenhouse gases
FAT	Forestry and Other Land Use
IPCC	Intergovernmental Panel on Climate Change
IRA	Agricultural Research Institute
IGES	Greenhouse gas inventory
MW	Mega Watt
MRV/ MNV	Measurement, Reporting and Verification/ Measurement, Reporting and Verification
MTE	Minister for Tourism and the Environment
ODD	Sustainable Development Objectives
NGO	Non-Governmental Organisation
PND	National Development Plan
SMES	Small and Medium-sized Enterprises
PTF	Technical and Financial Partners
REDD+	Reducing Emissions from Deforestation and Forest Degradation, including Sustainable Forest Management, biodiversity conservation and increasing carbon stocks
teCO2	Tonnes of carbon dioxide equivalent or tonnes of CO2 equivalent
TCN	Third National Communication (TCN)
UCTAF	UCTAF: Land Use, Land Use Change and Forestry
EU	European Union
Units	
CO2	Carbon Dioxide
CH4	Methane
N2O	Nitrous oxide/ Nitrous oxide
HFC	Hydrofluorocarbon
PFC	Perfluorocarbon
SF6	Sulphur hexafluoride
Gg	Gigagram
KtCO2	Kilotonne $_{CO2}$ equivalent

SUMMARY

Type of conditional commitment by international means	Reduction compared to a conditional scenario and an unconditional scenario
Perimeter	Total GHG emissions
GHG	CO2, CH4, N2O, HFCs, PFCs and SF6
Reference year	2017
Period	2017-2025-2030
Level of emissions reduction	The level of emission reductions will be : ➢ 39.88% in the conditional scenario and 17.09% in the unconditional scenario in 2025; ➢ 32.19% in the conditional scenario and 21.46% in the unconditional scenario in 2030.
Sectors covered	Energy, Industrial Processes and Product Use (PIUP), Agriculture, forestry and other land use (AFAT), waste
Trend development no conditional	Projected GHG emissions for 2025 and 2030, based on for the reference year 2017
Development conditional and unconditional low-carbon development	Projection of GHG emissions to 2025 and 2030, starting from 2017, the reference year, on the basis of three scenarios: The baseline scenario (BAU), the conditional scenario and the scenario unconditional
Global Warming Potential (GWP)	The GWP values used are those used by the IPCC experts, in accordance with decision CP.8 of the UNFCCC for the preparation of national emission inventories: GWP $_{CO2}$ =1 (by convention), GWP $_{CH4}$ = 21 and GWP N2O = 310
Estimation methodologies emissions	The methodological approaches are based on the use of following methods: • The 2006 IPCC guidelines • The revised supplementary methods and good practice guide developed on the basis of the 2013 IPCC Kyoto Protocol

INTRODUCTION

Article 6(1) of the Paris Climate Agreement encourages countries to take voluntary action by
The Group is committed to working together to implement its nationally determined contributions (NDCs) to :
(i) raise the level of ambition of their mitigation and adaptation measures and (ii) promote the sustainable development and environmental integrity.

The Republic of Congo's revised NDC is based on its five (05) pillars: governance, mitigation, adaptation, MRV and financing, and was drawn up following an inclusive and transparent process.

The main strategic lines taken into account to update the initial 2015 NDC and raise the country's

ambitions in the fight against climate change relate to:

- strengthening the political will and commitment of national stakeholders and development partners;
- reviewing, aligning and updating climate and sustainable development objectives, policies and measures;
- the inclusion of new sectors and/or greenhouse gases in the revised NDC;
- an assessment of the costs and investment possibilities of the priority actions selected in the fields of climate and sustainable development;
- monitoring progress and increasing transparency.

I. BACKGROUND

The Republic of Congo covers an area of 342,000 km² in Central Africa, straddling the equator between Gabon, the Atlantic Ocean, Cameroon, the Central African Republic, the Democratic Republic of Congo and the Angolan enclave of Cabinda.

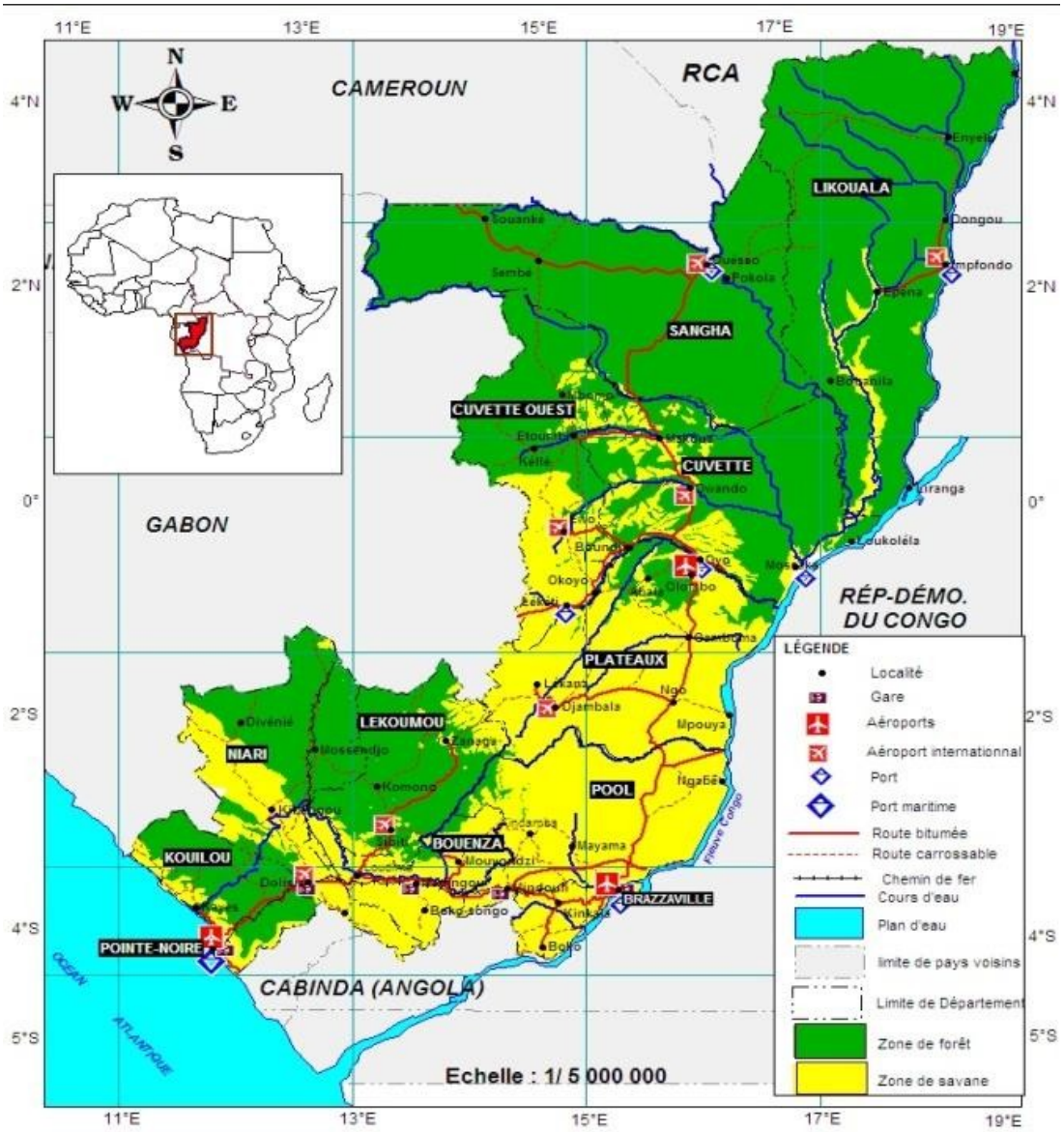

Figure 1: Administrative map of the Republic of Congo

The Congolese economy is mainly based on the mining and extractive industries (oil and gas) and the primary sector (agriculture, fishing and forestry). The population will increase from 3,697,490 in 2007 to 6,560,384 in 2030. Women, who make up 50.7% of the population (RGPH, 2007), will always be in the majority in terms of numbers. The population of the Republic of Congo is one of the most vulnerable, in that it has limited scope for adaptation, mainly because of poverty. Maintaining the services provided by the natural ecosystems (forests, savannahs, hydrological basins, etc.) is vital to ensure future development, limit the impact of climate change and offer adaptation opportunities to the most vulnerable groups, including women and young people from all socio-cultural categories in urban and rural centres. The economic sectors that serve as the foundation for the Republic of Congo's socio-economic development are: energy, transport, industry, mining, agriculture, forestry, water, tourism, trade; human settlements and health, the coastal landscape, waste, etc.

II. ATTENUATION

The greenhouse gases taken into account are :

- Carbon dioxide (CO2),
- Methane ($_{CH4)}$,
- Nitrous oxide ($_{N2O}$),
- F-gases such as Hydrofluorocarbons (HFCs), Perfluorocarbons (PFCs), Hexafluorocarbons (HFCs) and Perfluorocarbons (PFCs).
  Sulphur (SF6)

The GHG emitting sectors taken into account in the Republic of Congo's revised NDC are :

- **Energy**, for emissions from the energy industries, manufacturing and construction, transport, homes, commerce, solid fuels, oil and natural gas;
- **Agriculture, Forestry and Other Land Use (AFAT)** with emissions from enteric fermentation, manure management in livestock farming, rice cultivation, agricultural soils, burnt savannahs and burnt agricultural residues, emissions and absorptions from forests, etc. ;
- **Industrial Processes and Product Use (IPUP)**, for emissions from the mining industry (cement, lime, glass, etc.), the chemical industry (ammonia and other acids), the metallurgical industry (iron, steel, lead, aluminium, etc.) and other industrial production (electrical and power equipment, solvents, aerosols, etc.);
- **Waste**, with emissions of solid and liquid waste.

2.1- Emissions trends in the Republic of Congo

The Republic of Congo, which is aiming for emergence in the short term and development in the long term, is still counted among the group of developing countries with low greenhouse gas emissions. The evolution of emissions from 1994 to 2021 is as follows:

Table 1: Trends in Congo's GHG emissions and removals from 1994 to 2020

Designations	1994	2000	2015	2017	2020
Emissions (KtCO2e)	1.634,460	2.057,750	5.303	10.404,960	11.392,410
Absorptions (KtCO2e)	13.565,250	17.314,737	24.586,668	32.835,190	32.737,000

2.2-GHG emissions projections for the period 2017 to 2030

2.2.1- Projection of GHG emissions based on the Business as Usual (BAU) scenario

Table 2: Projection of emissions under the BAU scenario from 2017 to 2030 (emissions according to IPCC categories) - Emissions in ktCO2e/year - (emissions in ktCO2e/year)

UNFCCC sectors	2017	2020	2025	2030
Energy	6962,62	7608,25	8820,04	10224,85
Waste	334,98	376	411,34	467,67
Industry (PIUP)	107,11	126	135,68	154,26
Agriculture	53,22	63,39	84,83	113,52
Forestry (FAT)	2947,01	3218,77	3729,29	4319
Total	**10404,96**	**11392,42**	**13181,2**	**15279,32**

This table shows that the Republic of Congo's overall greenhouse gas emissions will be 13,181.2 ktCO2e in 2025 and 15,279.31 ktCO2e in 2030.

The figure below shows the trend in GHG emissions by sector according to the BAU scenario.

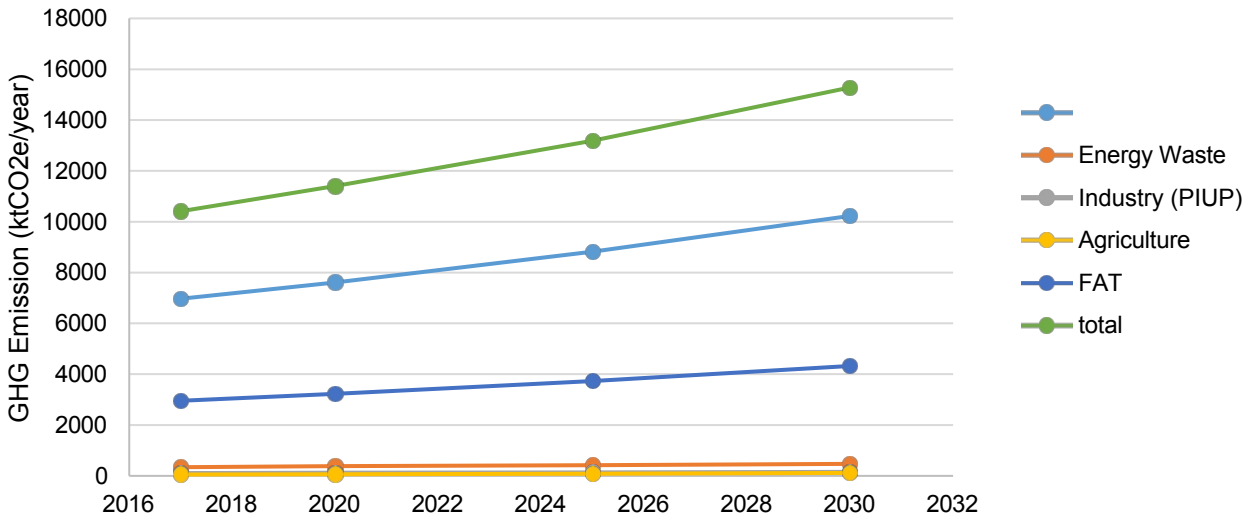

Figure 2: Projections of GHG emissions according to the BAU scenario for the UNFCCC sectors.

The energy sector will be the largest contributor to overall emissions in the BAU scenario in 2030, accounting for 66.9% of BAU emissions. It would be followed by the forestry sector with 28.3%, the waste sector with 3.1%, industry (IPPU) with 1.0%, and agriculture with 0.7%.

2.2.2- Projection of GHG emissions according to the unconditional scenario (without external support)

The unconditional scenario is the scenario in which the country reduces its GHG emissions relative to BAU without external financial support. The table below shows the level of GHG emissions in the Republic of Congo in 2025 and 2030 under the unconditional scenario.

Table 3: Level of sectoral GHG emissions under the unconditional scenario

Sectors (according to UNFCCC)	2017	2020	2025	2030
Energy	6962,628	7573,004	8411,720	9404,905
Waste	334,984	376,000	-496,104	-742,257
Industry (PIUP)	107,111	126,000	135,685	154,266
Agriculture	53,225	62,781	83,917	112,304
FAT	2947,014	3218,772	2793,249	3070,940
Total	**10404,960**	**11356,560**	**10928,470**	**12000,160**

GHG emissions will fall from 15279.3 ktCO2e in the BAU scenario in 2017 to 10928.47 ktCO2e. in 2025 and 12,000.16 ktCO2e in 2030 under an unconditional mitigation scenario.

2.2.3- Projected GHG emissions under the conditional scenario (with external support)

The conditional scenario is the scenario in which the country reduces its GHG emissions relative to the BAU on the basis of external financial support. The table below shows the level of GHG emissions in the Republic of Congo in 2025 and 2030 under the conditional scenario.

Table 4: Level of sectoral GHG emissions under the conditional scenario

UNFCCC sector	2017	2020	2025	2030
Energy	6962,62	7432,01	7458,95	8174,98
Waste	334,98	376	-2613,47	-2557,14
Industry (PIUP)	107,11	126	135,68	154,26
Agriculture	53,22	60,33	81,77	110,47
FAT	2947,01	3218,77	609,14	1198,84
Total	**10404,96**	**11213,12**	**5672,07**	**7081,41**

GHG emissions will rise from 15279.3 ktCO2e in the BAU scenario in 2017 to 5672.07 ktCO2e in 2025 and 7081.41 ktCO2e in 2030 under a conditional mitigation scenario.

2.3 Sectoral emissions according to IPCC categories

2.3.1- Energy sector

Emissions from the Energy sector, with its sub-sectors of Energy, Transport, Households and Services, in the "BAU", "Conditional" and "Unconditional" scenarios will evolve as shown in the table below.

Table 5: Energy sector

Year	BAU	Conditional	Unconditional
2017	6962,6281	6962,6281	6962,6281
2020	7608,25172	7432,0119	7573,00375
2025	8820,04897	7458,95183	8411,71983
2030	10224,8541	8174,98053	9404,90467

The trend in these emissions is shown in the graph below

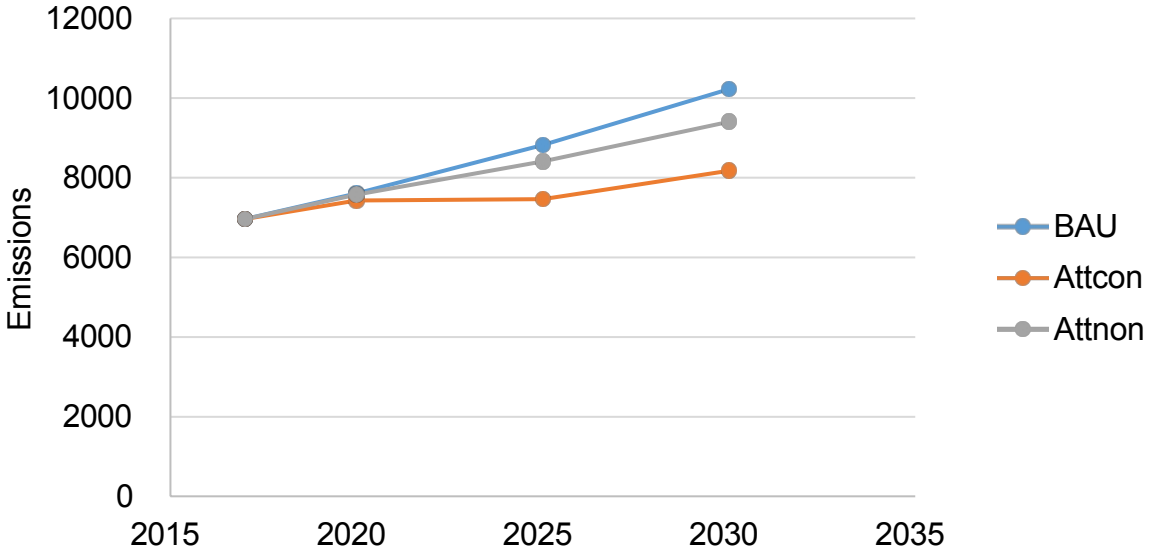

Figure 3: Emissions from the energy sector

2.3.2- waste sector

Table 6: Waste sector

Years	BAU	Conditional scenario	Unconditional scenario
2017	334,984	334,984	334,984
2020	376,000	376,000	376,000
2025	411,342	-2613,478	-496,104
2030	467,671	-2557,149	-742,257

The waste sector will no longer emit GHGs from 2025, regardless of the conditional or unconditional scenario (see table below). The strengthening of mitigation measures in this sector will enable this trend to be reinforced in 2030.

The trend in these emissions is shown in the graph below

Figure 4: Emissions from the waste sector

2.3.3- Emissions from forestry

Emissions from the Energy sector, with its sub-sectors of Energy, Transport, Households and Services, in the "BAU", "Conditional" and "Unconditional" scenarios will evolve as shown in the table below.

Table 7: Emissions from the forestry sector

Years	BAU	Conditional	Unconditional
2017	2947,01	2947,01	2947,01
2020	3218,77	3218,77	3218,77
2025	3729,29	572,47	2782,24
2030	4319,00	1162,18	3056,27

The trend in these emissions is shown in the graph below

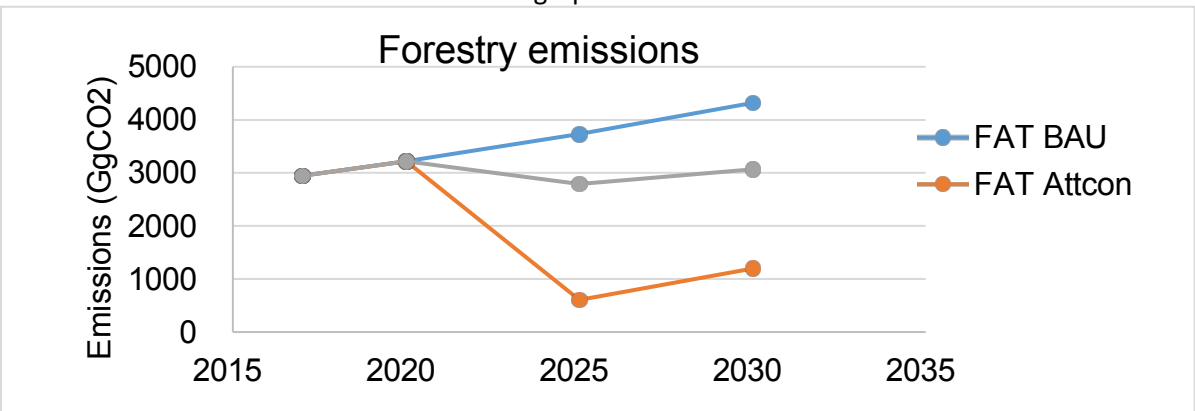

Figure 5: Forestry emissions

In any case, the Republic of Congo will remain a major source of energy for many years to come. as shown in the graph below.

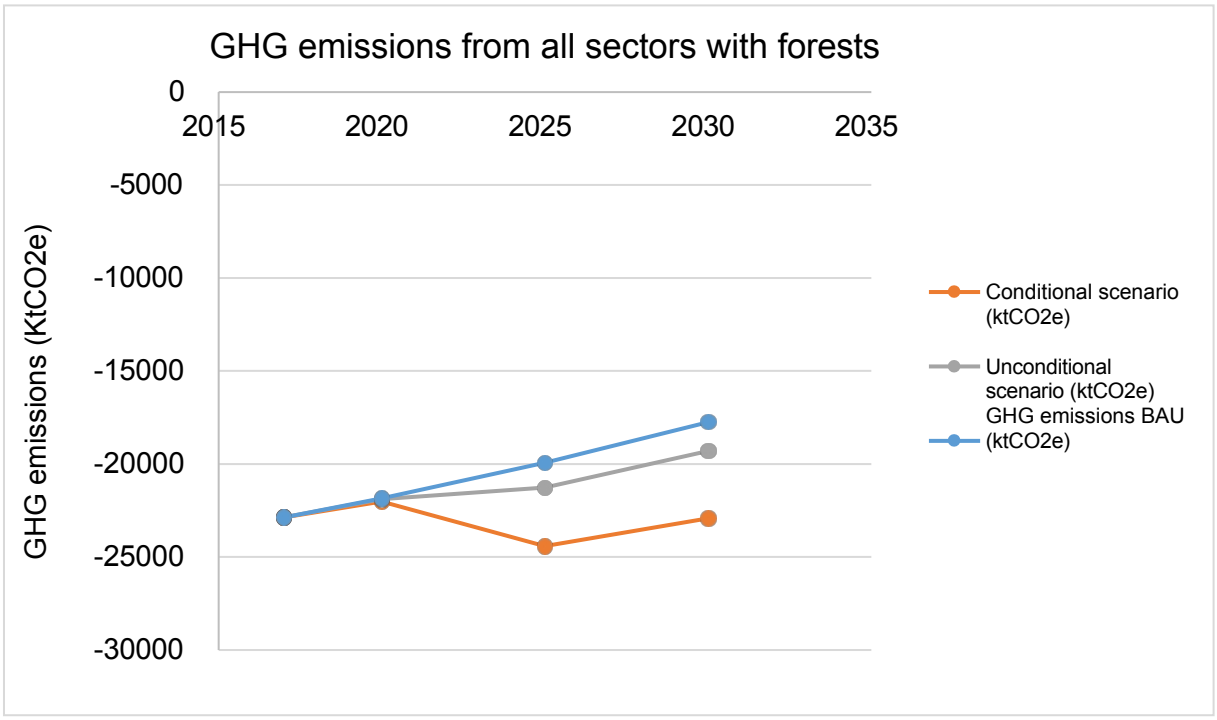

Figure 6: GHG absorption in the Forestry sector

The Republic of Congo will remain **a carbon sink** country **beyond 2030**, despite the implementation of the following measures
the socio-economic development plan.

Forests have a sequestration capacity that far exceeds emissions. However, they are losing around 17,000 hectares a year. The level of absorptions for the period from 2017 to 2030 is shown in the table below:

Table 8: Level of GHG emissions from 2017 to 2030 in the Republic of Congo.

Designation	2017	2020	2025	2030
Absorption ($_{GgCO2}$)	-32 835,19	-32 737	-32 573	-32 411

2.4. Level of GHG mitigation in the Republic of Congo in 2025 and 2030 GHG emission projections for the period 2017 to 2030

The Republic of Congo's mitigation efforts in 2025 and 2030 are summarised in the table below.

Table 9: Level of emissions reduction after implementation of mitigation measures.

Years	Unit	Basic scenario (BAU)	Unconditional mitigation scenario	Scenario Mitigation Conditional
2025	KtCO2e	7.509	2.253	5.256
	%	17,09%	17,09%	39,88%
2030	KtCO2e	8.198	3.279	4.919
	%	21,46%	21,46%	32,19%

This can be seen in the graph below

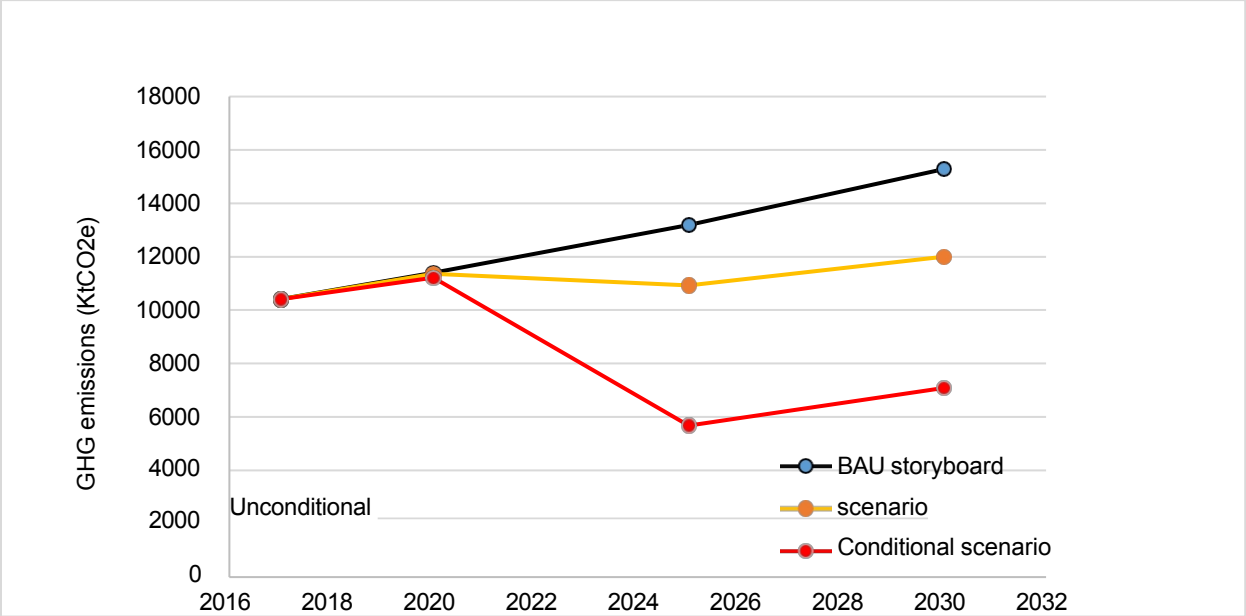

Figure 7: Level of GHG mitigation in 2025 and 2030 The

level of emissions reduction is :

- ✓ 39.88% in the conditional scenario, compared with 17.09% in the unconditional scenario in 2025 ;
- ✓ 32.19% in the conditional scenario, compared with 21.46% in the unconditional scenario in 2030.

Table 10: List of mitigation options by sector

Sectors	Mitigation measures	Unit of measurement	No.		Links with	
			2025	2030	The genre	The SDGs
Agriculture	Reducing CH4 emissions from rice crops	1000 ha	1	1	Taken into account	1; 2; 5; 12 and 13
Biomass energy	Electricity generation from biomass residues	1 MW cogeneration	12	12	Taken into account	5; 7 and 13
	Electricity generation from bagasse	100 kt sugar cane/year	1	2	Taken into account	5; 7 and 13
EE households	Lighting efficient with LED replacing compact fluorescent lamps	1000 Bulbs	350	450	Taken into account	5; 7 and 13
	Efficient wood stoves	1000 stoves	200	275	Taken into account	5; 7 and 13
	Efficient electric stoves	1000 stoves	75	100	Taken into account	5; 7 and 13
	Efficient refrigerators	1000 refrigerators	125	175	Taken into account	5; 7 and 13
	Efficient charcoal stoves	1000 stoves	0	0	Taken into account	5; 7 and 13
EE service	Efficient commercial dishwasher	1000 uses/day	0	0	Taken into account	5; 7 and 13
	Efficient hotel fridge	1 fridge	0	5	Taken into account	5; 7 and 13
	Efficient hotel washing machine	100 Nights customers (CN)	2	2	Taken into account	5; 7 and 13
	Energy efficiency in service	10% reduction from energy demand	0,5	0,5	Taken into account	5; 7 and 13
	New office building with central cooling	1000 m2	10	20	Taken into account	5; 9 and 13
Energy distribution	Efficient electricity networks	1 GWh avoided losses	25	30	Taken into	5; 7 and 13

					account	
Forestry	Reforestation	1000 ha of reforestation	6	6	Taken into account	1; 2; 5; 8; 12 and 13
	REDD+: avoided deforestation	1000 ha deforestation avoided	5	5	Taken into account	1; 2; 5; 8; 12; 13 and 15
	Assisted forest regeneration	1000 ha of regenerated land	4	4	Taken into account	5; 8; 13 and 15
Discharge	Incineration plant	200 t/day power station	1	1	Taken into account	5; 6; 9 and 13
	Solid waste composting municipal	1000 t/day power station	1	1	Taken into account	3; 5; 8; 12 and 13

Industry: Replacement Fossil fuels	Switching from heavy fuel oil to natural gas in the industry	100 TJ petrol used/year	4	4	Taken into account	5; 12 and 13
Fugitive emissions	Reducing field flaring oil	1 MMSCF/day	2	2	Taken into account	5; 8; 12 and 13
Hydro	Off-grid mini hydro	1 MW	5	10	Taken into account	5; 8; 12 and 13
Solar	Solar water heaters, residential	1000 rentals	0	100	Taken into account	5; 8; 12 and 13
	Solar PV, large grid	1 MW	600	625	Taken into account	5; 8; 12 and 13
	PV solar home	500 W	350	400	Taken into account	5; 8; 12 and 13
	Solar chalet PV	50 W	200	275	Taken into account	5; 8; 12 and 13
	Solar/diesel mini-grid	40 kW from solar power	400	450	Taken into account	5; 8; 12 and 13
	Solar street lamps	1000 lamps	5	8	Taken into account	5; 8; 12 and 13
Transport	Electric cars	1000 cars	0	8	Taken into account	5; 8; 12 and 13
	18m electric buses	1000 buses	2	10	Taken into account	5; 8; 12 and 13
Wind	Onshore wind turbines	1 MW	3	10	Taken into account	5; 8; 12 and 13
			2 388	2 991		

2.5 Information required for clarity, transparency and understanding (ICTC)

This information is presented in the table below.

Table 11: Information required for clarity, transparency and understanding (ICTC)

Information required for clarity, transparency and understanding (ICTC)		
N°	Decision 4/CMA.1 guidelines	ICTC guidelines applicable to the revised CDN of Congo
1	***Quantifiable information on the reference point (including, where applicable, a year of reference) :***	
a)	Reference year(s), base year(s), reference period(s) or other starting point(s)	2017
b)	Quantifiable information on benchmark indicators and their values for the year(s) in question (s), base year(s), reference period(s) or other starting point(s) and, where applicable, in the target year	For the reference year 2017, total emissions excluding the *land use* sector are **10960.3 (ktCO2e/year)**. These emissions include the following sectors: Energy = **10224.9 ktCO2e/year,** Waste = **467.7 ktCO2e/year**; Industrial processes and product use (IPUP) = **154.3 ktCO2e/year;** Agriculture = **113.5 ktCO2e/year.**
c)	For the strategies, plans and actions referred to in paragraph 6 of Article 4 of the Paris Agreement, or the policies and measures as elements of nationally determined contributions where paragraph 1 (b) above does not apply, the Parties shall provide other relevant information	NA
d)	Target in relation to the benchmark, expressed numerically, for example as a percentage or an amount of reduction	GHG emissions will fall from **15279.3 ktCO2e** in the BAU scenario to **11246 ktCO2e** with the implementation of national mitigation measures and policies (unconditional), and to **5197ktCO2e** under a conditional mitigation scenario (conditional). Emissions are expected to be reduced by **8197.90 ktCO2e by** 2030. The different sectors of GHG emissions (IPCC) have different contributions to make between 2020 and 2030. The conditional share will be the most important in achieving the stated targets. In 2030, the share of the conditional in achieving the country's mitigation targets is 32.19% compared with 21.46% for the conditional. The total reduction in emissions is 53,65 %.
e)	Information on the data sources used to quantify the reference point(s)	The reference indicator is quantified on the basis of total national GHG emissions in 2017, as reported in the third annual report of the European Commission. national communication of the Republic of Congo.

f)	Information on the circumstances in which the Party may update the values of the benchmark indicators	The Republic of Congo has experience of updating its greenhouse gas inventories. Before the launch of the TCN, as part of the national self-assessment exercise, a review of its second national communication was carried out, which highlighted the weaknesses and strengths of the previous exercise. Total national GHG emissions in 2017 may be updated and recalculated due to ongoing methodological improvements. Information on the updates made will be included in the relevant UNFCCC reports (RBA/BUR 1) and, from 2024, in the biennial transparency reports. We tend to achieve : • improving data quality; • new inventories; • preparing national communications and updated BUR reports; • updating current NDCs.
2	***Deadlines and/or implementation deadlines :***	
a)	Timetable and/or implementation period, including start and end dates, in accordance with any other relevant decision adopted by the Conference of the Parties serving as the meeting of the Parties to the Convention. Paris Agreement (CMA)	From 1 January 2021 to 31 December 2030
b)	Whether a a objective annual or multiannual, as appropriate	Annual target
3	***Scope and coverage :***	
a)	General description of the target	The information is provided in this CDN.
b)	Sectors, gases, categories and pools covered by the nationally determined contribution, including, where appropriate, in accordance with the guidelines of the Intergovernmental Panel on Climate Change (IPCC)	The information provided in this CDN is : **Sectors** Energy, industrial processes and product use (PIUP), agriculture, forestry and other land uses (AFORÊT), and waste, **Gas** Carbon dioxide ($_{CO2)}$, methane ($_{CH4)}$, nitrous oxide ($_{N2O)}$, hydrofluorocarbons (HFCs), perfluorocarbons (PFCs), hydrochlorofluorocarbons (HCFCs), chlorofluorocarbons (CFCs). sulphur (SF6).

c)	How the Party has taken into account paragraph 31 c) and d) of decision 1 / CP.21	With this submission, the Republic of Congo improves its nationally determined contribution by broadening the scope of sectors subject to mitigation measures, adding the forestry sector which was not taken into account in the previous submission. The mitigation measures proposed in this NDC have covered all sectors (Energy, Industrial Processes and Product Use),
		agriculture, forestry and other land uses (AFORÊT), and waste).
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 Parties' adaptation actions and/or economic diversification plans	The Republic of Congo has identified a number of mitigation benefits arising from adaptation measures, particularly in the areas of agriculture, a highly vulnerable sector in the Republic of Congo. Adaptation techniques should make it possible to reduce emissions in this sector, particularly through intelligent agriculture. Implementing the climate-resilient agricultural project will generate mitigation and adaptation co-benefits. "This 5-year project will increase the yields of targeted crops, the resilience of farms and the mitigation of the effects of climate change, in particular through changes in land use and agricultural practices and the associated avoided deforestation". It will focus on : • Development of resilient agroforestry systems for cassava, maize and banana; • Improving soil fertility and crop fertilisation ; • Developing access to products, services and infrastructure for resilient food chains; • Improved productivity and resilience of savannah agriculture; ' " • Development of a climate information and agro-meteorological warning system Total Nature Based Solutions (TNBS), a subsidiary of the TOTAL Group, is setting up a pilot project to create forest and agroforestry plantations and a 70,000 ha carbon sink in the Plateaux department. Other programmes below: - The forestry management plan - Reducing flare gases - Reducing losses in the electricity transmission and distribution
4	***Planning process :***	

a)	Information on the planning processes that the Party has undertaken to prepare its contribution determined at national level and, where appropriate, on the Party's implementation plans, including, where applicable :	
(i)	National institutional arrangements, public participation and engagement with local communities and indigenous peoples in a gender-sensitive manner	Steering committee made up of delegates from the institutions (see list of institutions) that are being piloted. Particular emphasis has been placed on aligning the CDN with work in progress to prepare the
		National Communications (TCN and TBA1) to the UNFCCC
(ii)	Contextual issues, including other, if applicable :	
a.	National circumstances, such as geography, climate, economy, sustainable development and the elimination of the poverty	All this information is presented in chapter 1 of the third national communication to the UNFCCC, which is currently being drafted. finalisation.
b.	Best practice and experience in preparing nationally determined contributions	Congo's revised CDN has benefited from a very solid architecture under the supervision of the Ministry in charge of the Environment and Tourism. This facilitated : • data collection; • Organising consultations with stakeholders (public sector, private sector, civil society, CLPA) and TFPs; • field missions ; • The organisation of focus groups in departments of the country
c.	Other aspirations and contextual priorities recognised when joining the Paris Agreement	The Republic of Congo aspires to be an emerging country by 2025, and advocates development in line with the SDGs, as well as the African Union's Agenda 63. **The priorities are :** 1- Attenuation Low-carbon development strategy 2- In the field of Adaptation *;* • Drawing up a national adaptation plan ; • Plan of response plan and and management management. 3- Financing ; Setting up financial mechanisms ; 4- Capacity building and education; Capacity building strategy 5- Technology transfer; Assessing technology needs 6- Food safety ; 7- Gender equality ; 8- Youth initiatives ; 9- The Sustainable Development Goals (SDGs).

b)	How the Party preparing its nationally determined contribution has been informed by the results of the global stocktaking, in accordance with Article 4, paragraph 9 of the Paris Agreement	As part of the TALANOA dialogue, instituted at COP 22 in Marrakech, Morocco in December 2017, the Republic of Congo reaffirmed its firm commitment to increasing its ambition. Stakeholders were made aware of the content of the Paris Agreement, the IPCC's special report on the 1.5 degree and the CAFI letter of commitment during the sectoral workshops. These documents enabled different stakeholders to understand the
		issues related to the revision of the CDN to enhance Congo's ambition However, the country can specify whether its ambitions have been revised upwards, in comparison with the previous NDC and the conclusions of the last COP, which called for more... reduction ambitions on the part of countries
c)	Each Party with a nationally determined contribution under Article 4 of the Paris Agreement that consists of adaptation measures and/or economic diversification plans leading to co-benefits co-benefits mitigation in accordance with Article 4, paragraph 7, of the Paris Agreement to submit information on :	The Republic of Congo must clearly express the measures planned in its NDC for adaptation and how these will co-benefit mitigation.
(i)	How have the economic and social consequences of the response measures been taken into account in drawing up the contribution determined at national level?	The main socio-economic sectors identified as being the most vulnerable to the impacts of climate change are: agriculture (forestry, fish farming), water resources, forest resources, energy, infrastructure, human settlements and health. Most of these sectoral adaptation actions have strong synergies and co-benefits with mitigation. These co-benefits are : - Reducing emissions ; - Elimination of diseases ;
(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 may cover, but are not limited to, sectors such as manufacturing and industry, energy and mining, transport and communications, construction, tourism, real estate, agriculture and fisheries	The information is contained in the NDC (list of projects and social and economic co-benefits of mitigation and adaptation measures). The revised 2021 NDC also sets out how it will contribute to achieving the SDGs.

5	***Assumptions and methodological approaches, including those used to estimate and account for anthropogenic greenhouse gas emissions and, where appropriate, removals :***	
a)	Assumptions and methodological approaches used to account for anthropogenic greenhouse gas emissions and removals corresponding to the Party's nationally determined contribution, in accordance with paragraph 31 of the decision	The IPCC's 2006 guidelines and software are the basic document that enabled us to become familiar with the GHG emissions accounting methodology during data collection, the processing of results and the drafting of the report. third national communication.
	1 / CP.21 and the accounting guidelines adopted by the CMA	The emission factors in the IPCC's database of all the sectors are those that have been used. Activity data comes from the following institutions in charge of national statistics. Sector-by-sector assumptions for emissions accounting. The proposed measures are based on the reduction options proposed in the GACMO model, adjusted to national conditions following consultation with stakeholders. Only the Forestry sub-sector was subject to special treatment with the FAO Exact tool.
b)	*Assumptions and methodological approaches used to report on the implementation of* policies and measures or strategies in the contribution determined at national level	Conduct periodic surveys or align with the national statistical institution for the collection of activity data in the various IPCC GHG emission sectors; Establish monitoring indicators and set up a reporting system on the implementation of measures and strategies; Socio-economic survey of the population of the use of equipment, devices and technologies directly related to the implementation of the CDN.
c)	Where appropriate, information on how the Party will take into account existing methodologies and guidance under the Convention for accounting for anthropogenic emissions and removals, in accordance with Article 4, paragraph 14 of the Paris Agreement, where relevant	The current GHG inventory for Congo's third national communication was carried out in accordance with the guidelines set out in the 2006 guidelines and its software. The inventory teams have put in place mechanisms to control the quality of the basic data used to calculate emissions and removals. Explanation of the data quality process
d)	IPCC methodologies and parameters used to estimate anthropogenic greenhouse gas emissions and removals	The methodology covers : • 2006 guidelines • best practice guide • the IPCC database. These tools were used to estimate GHG emissions and removals during the Third National Communication (TCN) Congo. Global warming potentials for a 100-year time horizon, taken from the IPCC's Second Assessment Report, were used to calculate the equivalents of CO_2.

e)	Assumptions, methodologies and approaches specific to the sector, category or activity, in accordance with IPCC guidance, where relevant, including, where appropriate :	
(i)	Approach for dealing with emissions and subsequent absorptions of natural disturbances on managed land	**FORESTRY :** Natural disturbances in the forestry sector were taken into account and a rate of 0.07% was adopted.
(ii)	Approach used to take account of product emissions and removals harvested timber	These data have been capitalised in the calculation of forestry emissions in the TCN Congo. This has
		Because of the scale of logging in the Republic of Congo
(ii)	Approach used to deal with the effects of age class structure in forests	NA, Because the 2006 software does not offer windows to account for GHG emissions from forestry as a function of forest structure.
f)	Other assumptions and methodological approaches used to understand the contribution determined at national level and, where appropriate, to estimate emissions and removals including :	
(i)	How the reference indicators, reference levels, including, where appropriate, sector, category or activity specific reference levels, are constructed, including, for example, key parameters, assumptions, definitions, methodologies, sources of data, etc., and how they are used. data and models used	The methodology applied for emissions following the Tier 1 method was used for all emission and absorption sectors during the TCN. GACMO software was used to carry out mitigation simulations.
(ii)	For Parties whose Nationally Determined Contributions contain components other than greenhouse gases, information on the assumptions and methodological approaches used in the preparation of their Nationally Determined Contributions. relationship with these components, where applicable	NA
(ii)	For the climate forcing factors included in nationally determined contributions not covered by the IPCC guidelines, information on how the climate forcings are estimated	NA
(iii)	Other information techniques, as required	NA
g)	The intention to have recourse to voluntary cooperation under Article 6 of the Agreement of Paris, where applicable	Although not an LDC, the Republic of Congo intends to use voluntary cooperation.
6	***How the Party considers that its nationally determined contribution is fair and equitable ambitious in the light of its national situation:***	

a)	How the Party considers that its nationally determined contribution is fair and ambitious in the light of its national situation	The Republic of Congo considers that its revised NDC is fair and sufficiently ambitious to contribute to the fight against climate change by 2030, taking into account its social and economic situation. As a low contributor to global greenhouse gas emissions, the country is keen to stay the course in developing its economy while using low-carbon tools and technologies. Congo's revised NDC is driven by the desire to combat poverty (MDG1), to achieve a low-carbon economy that is resilient to climate change, to achieve sustainable development by moving towards
		energy transition and the use of renewable energies green. • Responsibility for past and future emissions ; • Ability to invest in policies mitigation
b)	Equity considerations, including reflection on equity	For more than three decades, the Republic of Congo has been making real progress in forest governance and the effective implementation of actions on the ground for the conservation and sustainable management of its forests, as well as for nearly five years in the sustainable management of its peatlands; Congo is making enormous efforts to conserve and sustainably manage its forest ecosystems. Stakeholders at the national level consider these efforts to be enormous and are calling on the international community not only to recognise their efforts, but also to reward them. efforts.

c)	How the Party has dealt with paragraph 3 of Article 4 of the Paris Agreement	• Congo's updated and strengthened Nationally Determined Contribution represents a step forward from its Nationally Determined Contribution communicated in 2015, as it expands the scope of sectors targeted for mitigation by including the forestry sector. • The contribution determined at the current level has benefited from broad stakeholder participation (NGOs, key ministries, experts from different sectors). • The CND also incorporates gender issues and the participation of women in the fight against climate change. • The NDC benefited from the expertise of local consultants in its preparation and drafting. • The CND has taken F-gases into account.
d)	How the Party has dealt with Article 4, Paragraph 4, of the Paris Agreement	In particular, the REDD+ strategy has proposed low-carbon development activities for the long term. In addition to the forestry sector, the oil and gas sector has proposed the elimination of flaring by 2030.
e)	How the Party has dealt with Article 4, Paragraph 6, of the Paris Agreement	Although it is not an LDC, the Republic of Congo plans to draw up and communicate development strategies, plans and measures to low greenhouse gas emissions.
7	***How the contribution determined at national level contributes to achieving the objective of the Convention as set out in Article 2:***	
a)	How the nationally determined contribution contributes to the achievement of the objective of the Convention as set out in its Article 2	The proposed measures are based on the policies, measures, strategies and plans in force in the Republic of Congo. The measures proposed in the revised NDC should not jeopardise the country's socio-economic development. They should not jeopardise natural ecosystems or food production. Furthermore, as regards the mitigation options in the conditional, their implementation is dependent on partner contributions.
b)	How the contribution determined at national level contributes to the achievement of Article 2, paragraph 1 a), and Article 4, paragraph 1, of the Paris Agreement	Yes, the Congo's efforts in its NDC aim to contribute to achieving the global objective of not reaching 2 degrees Celsius.

III. ADAPTATION

In accordance with Articles 7.10 and 7.11 of the Paris Agreement, the Republic of Congo has chosen to include an adaptation component, which will include its priorities, implementation and support

needs, plans and actions.

3.1- Impacts, risks and vulnerabilities

The current NDC aims to accelerate Congo's socio-economic growth by comprehensively addressing the sector's specific vulnerabilities and by unlocking and channelling national and external investment towards adaptation for effective climate action.

3.1.1- Energy sector

a)- Wood-energy sub-sector

The impacts of climate change on the biomass-energy sub-sector identified by local people include the depletion of wood-energy resources, the remoteness of wood-energy collection areas, and the increase in the price of wood-energy. In the future, if nothing is done and considering the impact of climate change according to the RCP6.0 scenario, the overall vulnerability index of this sub-sector will increase slightly because of the increasingly high demand, the dwindling resources and its exposure.

b)- Sub-sector of hydroelectricity

The potential for hydroelectricity is closely linked to the availability of water resources, especially surface water, and their inflow into the basins where the dams are installed. Water resources are one of the sectors most exposed to climate change because of their dependence on the climate, particularly variations in several climatic parameters, including rainfall, evaporation and temperature. Analysis shows that

that the hydroelectricity sub-sector is moderately exposed to climatic hazards. The
The main hazards are poor rainfall distribution and drought.

c) - Hydrocarbons subsector

The reduction in the supply of biomass and hydroelectricity is likely to increase hydrocarbon consumption. As the trend of rising hydrocarbon consumption can be predicted on a large scale (sub-region, continent, etc.), a growing imbalance between supply and demand should lead to a rise in the price of petroleum products on the world market. The marked increase in the consumption of hydrocarbons (petrol, diesel) in the Congo in response to the energy crisis from 98 onwards (the start of the years of extreme drought), is a situation which justifies the tendency to resort to petroleum products in the event of a major shortage of hydroelectric power in the Congo.

3.1.2- Agriculture, forestry and other land uses sector (AFAT)

a) Vulnerability and impacts of climate change on the agriculture sub-sector

Climate change is impacting the Congolese agricultural sub-sector to varying degrees, depending on the region under consideration. However, certain climatic factors such as the increase in the extent of dry spells, the disruption of the seasons, the irregularity of rainfall, the drop in annual rainfall, flooding, rising temperatures, etc., pose a serious threat to this sub-sector in the Congo.

b) Vulnerability and impacts of climate change on the forestry and other land use sub-sector

The following climatic factors pose a serious threat to the forestry sub-sector in the Republic of Congo. These include: an increase in the extent of dry spells, seasonal disruption, seasonal shifts, irregular rainfall, intense drought, decreases in annual rainfall and rising temperatures.

3.1.3- Water Resources sector

The most vulnerable groundwater resources are those in the coastal basin, as they are used to supply drinking water to the urban area of Pointe-Noire, which is constantly undergoing rapid economic development and strong population growth. The surface water table is fed by average effective infiltration and is heavily used by drilling and numerous undeclared traditional wells.

The increasingly severe low-water levels over the past 25 years (the average minimum water level has fallen by 157%), combined with the worsening silting-up phenomenon, have had serious consequences for biodiversity, fishing and shipping, with a marked decline in traffic in the port of Brazzaville.

3.1.4- Human settlements and health

By 2020, 2050, 2080 and 2100, with the combination of soil modification by paving and thermal activities (power stations, transport, etc.), we can expect an artificial warming of cities of this size. The reduction in green spaces (increase in the albedo effect and the absence of water bodies) will also contribute to the modification of the thermal and rainfall balance.

The Congo's demographic and health indicators highlight the worrying state of the population's health. This situation is characterised by high maternal, neonatal and infant/juvenile mortality and morbidity.

The climate projections as forecast will increase these endemic situations with the weak sanitation and chronic malnutrition.

3.1.5- Coastal zone

The relevant hazards identified in the coastal zone of the Congo are: coastal erosion, flooding and flooding, marine submersion, late rains, pockets of drought, sea level rise, strong winds, salinisation and degradation of wetlands in the lagoon system. Marine erosion, which is characterised by a retreat of the coastline, is the main factor affecting the Congolese coast. The rise in sea level is still barely perceptible.

3.1.6- Tourism

In the tourism sector, the increase in temperature could lead to the migration and/or destruction of fauna, resulting in a drop in tourist activity (visitor numbers). Rainfall variability would lead to seasonal unavailability and a reduction in tourist activity.

3.2- Type of adaptation objective

To strengthen resilience in the face of the adverse effects of climate change, the following measures are envisaged:

- Protecting the population ;
- Protecting our natural heritage, biodiversity, forests and fisheries resources;
- Buildings ;
- Protecting production systems that are sensitive to climate change, such as agriculture ;
- Protecting high-risk infrastructure systems.

The objectives for increasing resilience in the forestry sector include :

- Stop deforestation and degradation of native forests;
- Maintain national parks, reserves and protected areas;
- Creation and management of forest reserves ;
- Promote reforestation and rehabilitation of cleared and degraded forests with tree species that are resilient to climate change and ecologically and socially appropriate;
- Promoting integrated agroforestry in agricultural areas ;
- Discourage the felling of trees on tax allowances;
- Encourage allotment holders to plant and manage trees on their properties.

Table 12: Summary of priority adaptation actions taken and not taken

Priority area	Unconditional scenario	Conditional scenario
Food safety	• Climate-smart agricultural policy is socially inclusive • Progress in food safety is supported by the national food safety policy	• Extending and replicating smallholder climate-smart agriculture infrastructure, technology, training and information and knowledge management to improve food security, safety, nutrition and build farmer resilience access to subsidies.
Water and sanitation	• Implementation of the Water, Sanitation and Hygiene Policy • Development partners now actively implementing the policy in the provinces; the National Planning and Monitoring Department (DNPM) is overseeing this activity, which has begun in some provinces	• Increased access to drinking water and • Sanitation in rural areas leading to a reduction malaria and other vector-borne diseases • Improvements in technological approaches • Improvements to the water catchment • Desalination process • Developing renewable energy initiatives to combat climate change. against water insecurity caused by climate change • Activities implemented as part of the policy must be reproduced in all communities
Coastal flooding and rising sea levels	• Planting mangroves • Coastal defence structures • Coastal rehabilitation and relocation / resettlement • Climate risk and vulnerability assessments in the provinces	• Extending and replicating successful measures on the country's coasts • Climate-resilient physical planning standards and codes • No policy on climate-resilient infrastructure
Inland flooding	• Climate risk, hazard and vulnerability assessments • Community simulation exercises flooding • Integration of the early warning system	• National extension and replication • Hazard mapping • Soil stabilisation • Physical planning standards and codes for climate-resilient planning • Infrastructure and asset management plans

Cities and climate change.	• National Energy Policy 2018-2028, which underpins action on the energy sector, affecting cities in the face of the impacts of climate change • Support has been received for the project to create a transport sector that is more resilient to climate change	• Action on low-emission transport options is still lacking support • Connecting farmers to markets in rural areas via climate-proof infrastructure • Measures to increase the coastal defences of climate-resilient infrastructure, standards and physical planning codes • "Greening" urban development plans • Rainwater and drainage systems and the management of wastewater waste (sewage, municipal, industrial) require improvements
Climate-induced migration	• Indirect support for action on climate-induced migration	• Assessments of resettlement, relocation and gender social inclusion must be explored • Raising awareness of the impact of climate change-related migration on customary lands • A range of strategies and activities are also needed to prepare for resettlement, including extensive consultation with climate-induced migrants and their host communities; the NCCDMP states that support for the resettlement of people should be considered, including through the planning and construction of buildings and infrastructure by local government.
Malaria and vector-borne diseases	• Malaria is recognised as one of the five main priority activities of the Ministry of Health • Measures have been taken to destroy and reduce the reproduction of malaria vectors • Environmental health management under study • Policy on the impact of climate change on health is being drafted	• Improving environmental health services. • Improving technology (i.e. mosquito nets) and distribution • Improving research into understanding impacts and responses • Increased access to drinking water and basic sanitation in the rural areas, leading to a reduction in malaria and other vector-borne diseases • Applying the concept of healthy islands
Landslides/flow	• Identifying landslide risks using technology (GIS, LiDAR and others)	• Engineering design improvements • Implementing geohazard assessments

	• Consultancy assistance for the design engineering of road and infrastructure projects using the development partners' climate guidelines	• Improvements to rainwater drainage • Reforestation and soil stabilisation
Waste	• Promoting solid and chemical waste management at national level • Municipal waste management planning • Planning the management of special waste (plastics, electronic waste, bulky items, mines, etc.) • Raising awareness of household waste • Community awareness and education	• Urban growth has put pressure on cities, in turn straining waste management and urban sanitation services, wastewater management is in its infancy and there is no formal waste management system. • Improving capacity in the waste sector through knowledge, training, research and intervention • Biodiversity is also affected by inefficient waste management protocols where investment is needed in industrial and wastewater management.

Table 13: Adaptation measures linked to the SDGs with mitigation co-benefits

Adaptation measures	Description	Horizon	Links with	
			gender	the SDGs
Adaptation priority 1	Strengthening the resilience of the agricultural sector to improve agricultural production of the Congo in a climate-smart way	2022-2030	The gender dimension is taken into account	1, 2, 3, 5, 8, 12 and 5
Mitigation co-benefit	Climate-smart agriculture includes GHG reduction measures such as managing quantities and types of fertiliser			
Key activities	• Restore the livelihoods and productive capacity of farmers and producers; • Increase agricultural production and productivity; • Improving the efficiency and competitiveness of agri-food value chains, including fisheries; • Encourage private investment along the agri-food value chain, including innovative technical solutions and better access to climate finance and insurance; • Strengthen the favourable institutional environment ; • Increase the resilience of households in terms of food and nutritional security.			
Adaptation priority 2	Promoting the sustainable use of natural resources, restoring landscapes and increase the Congo's forest cover, while at the same time meeting the country's the ecological, social and economic needs of sustainable forest management	2025-2030	The gender dimension is taken into account	1, 8, 12 and 15
Mitigation co-benefit	Reforestation, afforestation and land restoration activities improve carbon sinks			
Key activities	• To achieve the objectives set out in the CAFI Declaration on the role of Mediterranean forests in achieving the NDCs; • Adapt forestry systems to climate change by halting land degradation, controlling topsoil erosion and improving water quality and soil productivity; • Create sites with improved production capacity in conjunction with the development of the forest products processing industry			

	with the needs of the population in terms of goods and services. and services and improve employment opportunities ; • Promoting sustainable rangeland management ; • Reduce the risk of intense and frequent forest fires by developing fire prevention measures and early warning systems; • Managing pest and disease epidemics to protect forests and forest resources.			
Adaptation priority 3	Structuring and developing sustainable water services, including irrigation, in order to improve living conditions for local people	2022-2025	The gender dimension is taken into account	1, 3, 8, 9, 11, 12, 15
Mitigation co-benefit	Irrigation using clean energy sources reduces GHG emissions			
Key activities	• Implementing the water strategy ; • Improving the efficient use of irrigation water and extending the supply of surface water for irrigation ; • Encourage and support the use of renewable energies in agricultural irrigation and drinking water supply; • To build an operational and sustainable legal and institutional framework to ensure sound management of the water sector, enabling the development of sustainable and efficient services; • Develop financing tools for the sector to put in place financial mechanisms to ensure the sustainability and financial equilibrium of services; • Involve all players in the service chain and put in place sustainable collaboration and coordination mechanisms to improve monitoring and transparency in the sector.			
Adaptation priority 4	To enhance and sustainably manage the Congo's terrestrial and marine biodiversity in order to preserve and conserve its ecosystems and habitats and the species they support, respond adequately to anthropogenic and natural pressures and guarantee Congolese citizens equal access to goods and services. ecosystem services	2022-2030	The gender dimension is taken into account	

Mitigation co-benefit	Managing biodiversity contributes to carbon sinks and the blue economy			

Most relevant SDGs	2, 4, 11, 12, 14 and 15		The gender dimension is taken into account	2, 4, 11, 12, 14 and 15
Key activities	• Identify the status of known species of flora and fauna and implement implement conservation actions for 50% of threatened species; • Protect at least 20% of natural terrestrial and marine ecosystems and represent all types of ecosystems in the network of protected areas ; • Increase the total percentage of natural reserves to at least 25% of the Congo's surface area; • To manage 50% of all natural ecosystems sustainably and to take proper account of them when implementing land-use planning. ; • Reducing the gap between the Congo's ecological footprint and its biocapacity means achieving a state of equality; • Implement effective measures to control the introduction and spread of non-native biodiversity in the environment; • Identify ecosystems vulnerable to climate change and draw up and implement appropriate adaptation plans; • Implement rehabilitation plans in at least 20% of degraded sites so that they can guarantee the sustainable provision of ecosystem services.			
Adaptation priority 5	Reducing vulnerability to the impacts of climate change on zones coastal areas, particularly in towns		The gender dimension is taken into account	6, 9, 10 and 14
Mitigation co-benefit				
Key activities	• Assessing seawater intrusion in the main coastal aquifers ; • Improve the artificial recharge of selected aquifers; • Progressively update the water balance of all aquifers; • Modelling the saline and porous aquifer; • Increase coastal protection against storm surges and rising sea levels; • Promoting the sustainable use of natural resources, such as fisheries.	2022-2025		

Adaptation priority 6	Ensuring general public health and safety through healthcare systems climate-resilient		The gender dimension is taken into account	3, 6, 10 and 11
Mitigation co-benefit				
Key activities	• Assessing the vulnerability of the public health sector to climate change, identifying current and future effects on health and setting up early warning systems • Building the capacity of health professionals to identify the health impacts of other sectors (e.g. transport, energy, food, water, housing and urban development); • Empowering and ensuring the sustainability of existing environmental health functions and services to meet the challenges of water security for health, water quality degradation, droughts, heat waves, food security and safety, vector redistribution, air quality degradation, floods and other climate-related natural disasters; • Improving epidemiological surveillance to incorporate new health outcomes into the epidemiological surveillance unit; • Develop a mechanism for integrating climate data into the national health information system; • Develop health system response strategies, plans and projects and integrate them into national health strategies.	2022-2025		
Adaptation priority 7	Reduce the risk of disasters and minimise damage by mitigating and adapting to natural hazards related to climate and conditions extreme weather		The gender dimension is taken into account	1, 2, 3, 9, 10 and 11
Mitigation co-benefit				
Key activities	• Carrying out a multi-risk assessment ; • Update/review flood, fire and drought risk maps;	2022-2025		

	• Improving and developing an early warning platform for multiple risks; • Coordinating the updating of the national forest fire management strategy.			
Adaptation priority 8	Setting up an observation and information management system, and warning system for climate risks in the Congo	2022-2030	The gender dimension is taken into account	
Mitigation co-benefit				
Most relevant SDGs				
Key activities	• Set up an optimal system for collecting operational and effective climatic and hydrological information in each agro-ecological zone • To disseminate knowledge of climate, meteorology and hydrology in the Congo with a view to adapting to climate change • Increasing the number of agro-meteorological stations			
Adaptation priority 9	Raising awareness among the general public, professionals, administrations and decision-makers of the effects of climate change and of the measures to be taken. take	2022-2025	The gender dimension is taken into account	
Mitigation co-benefit				
Key activities	• Raise awareness among stakeholders (local and national authorities) and the Congolese population with a view to improving their resilience to the effects of climate change • Updating the communication strategy on climate change to inform the general public • Disseminate best practices for adaptation • Raising the awareness of elected representatives about climate change and decision-making to improve the resilience of their areas			
Adaptation priority 10	Adapting the technical standards for infrastructure construction to effects of climate change		The gender dimension is taken into account	
Mitigation co-benefit				

Key activities	• Adapting the technical guidelines for building and maintaining infrastructures to the possible effects of climate change • Develop a harmonised methodology for diagnosing the vulnerability of infrastructure to climate change • Modify technical standards and construction engineering, adapting them to the context of climate change • Strengthen capacity for quality control of construction materials whether imported or locally produced • Reinforcing control and monitoring systems for construction work	2022-2030		
Adaptation priority 11	Taking climate change into account in the development of tourism and craft activities		The gender dimension is taken into account	
Mitigation co-benefit				
Key activities	• Improving the resilience of tourism and craft activities to the effects of climate change • Creating and redeveloping tourist infrastructures • Structuring the craft sector through an inventory of the activities and trades that make it up • Diversifying and increasing the supply of raw materials for the craft sector • Encourage craft production (organisation of competitions for the best craftsman, trade fairs, etc.). • Improving the conservation of artisanal products to limit deterioration and losses. • Developing access routes to craft centres and tourist sites	2022-2030		

IV. INSTITUTIONAL ARRANGEMENTS FOR THE CDN IN THE REPUBLIC OF CONGO

In the Republic of Congo, climate change issues are overseen by the Ministry for the Environment. This Ministry supports government action by preparing documents (technical fact sheets, position papers, etc.) and participating in the various negotiations (COP on climate, One planet summit, etc.).

The lessons learnt from the implementation of the initial NDC in 2015 have led to the establishment of a The institutional set-up is as follows:

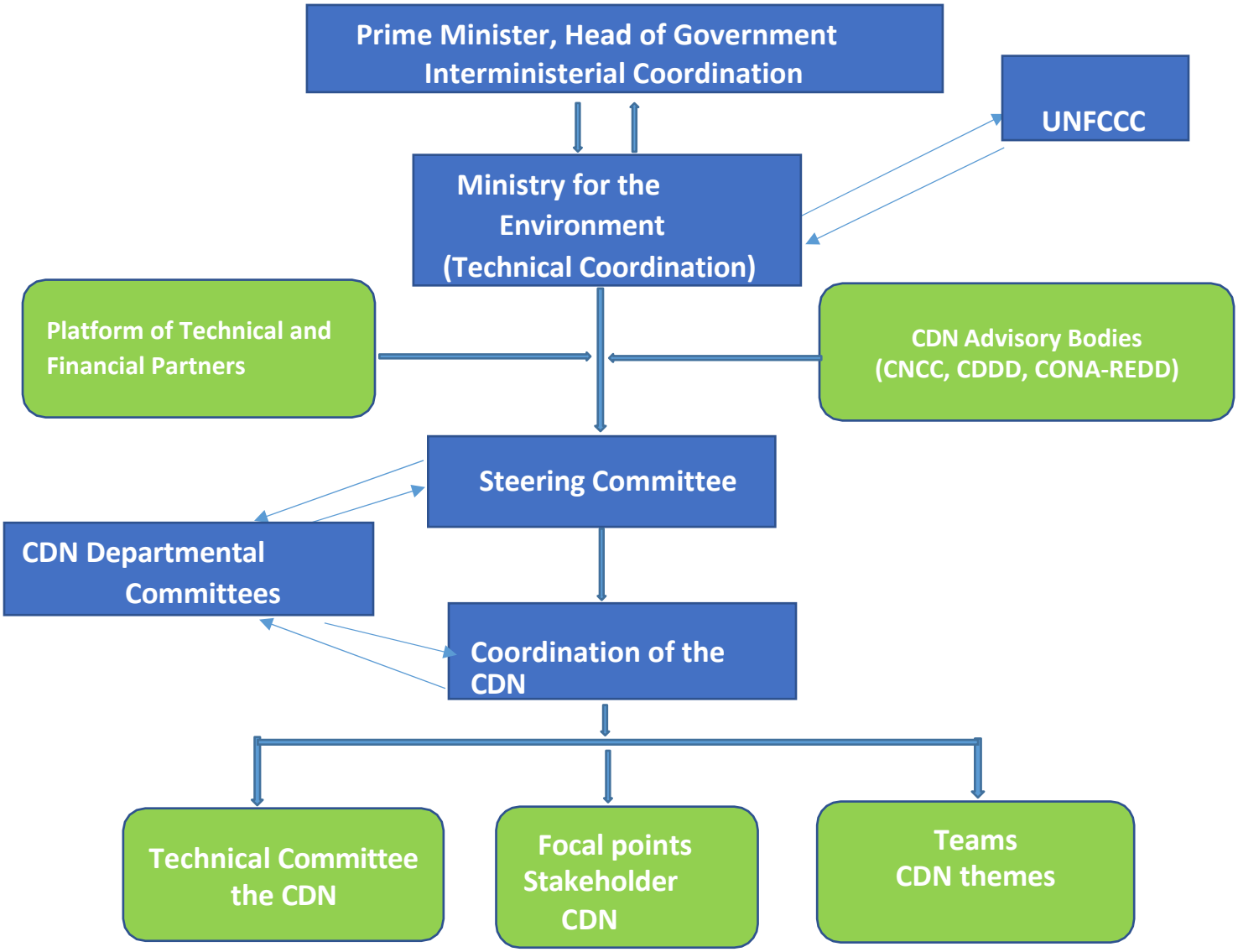

Figure 8: Institutional arrangements

• CNCC = National Committee on Climate Change • CONA-REDD=Comité National REDD+ (National REDD+ Committee) • CCF = Women's Advisory Council • CCPH = Advisory Council of People Living with Disabilities	• CNDD = National Committee on Sustainable Development • CCPH = Advisory Council of People Living with Disabilities • CCJ = Advisory Council on Youth • CCONGSC = Consultative Council of NGOs and Civil Society

The Prime Minister, Head of Government, is responsible for the implementation of the NDC. The Interministerial Committee is the high-level management body for the implementation of the NDC in the Republic of Congo. It is under the authority of the Prime Minister, Head of Government. It is vice-chaired by the Minister for the Environment.

The Ministry for the Environment, which coordinates government policy on climate change, is responsible for the technical coordination of the CDN process with institutional stakeholders, civil society and technical and financial partners. The focus on the gender dimension justifies the role of the Women's Advisory Council, the Advisory Council of People Living with Disabilities and the Youth Advisory Council.

The Steering Committee is the body responsible for providing strategic guidelines for the implementation of the NDC. It provides a framework for national consultation and political dialogue between the government and its partners in the private sector, civil society and development support agencies. It is chaired by the Minister for the Environment.

The Coordination of the CND is the body responsible for implementing the CND in the Republic of Congo.

The Departmental NDC Implementation Committees are bodies that facilitate the implementation of the NDC at departmental level. They are co-chaired by the Prefect and the Presidents of the Departmental Councils.

The task of the technical teams is to provide technical assistance to the Coordination of the CDN. They reflect the five pillars of the NDC, namely governance, mitigation, adaptation, financing and MRV.

The Technical Committee supports the Coordination of the CND on all technical and scientific matters.

The Focal Points Their role is to represent their parent bodies in the process of implementing the NDC. They are designated by the parties to the Paris Climate Agreement as their focal points.

The proposed institutional arrangements place the implementation of the NDC under the authority of the Prime Minister, Head of Government, and the technical supervision of the Minister for the Environment.

V. FINANCING AND IMPLEMENTATION

5.1-Financial requirements for mitigation and adaptation:

5.1.1- Financial requirements for mitigation :

Total investments for mitigation options amount to US$ 4,395.15 million to meet the final 2030 target. The financing of conditional mitigation options amounts to US$ 4,301.067 million against US$ 94.07 million for non-conditional mitigation options, i.e. 97.86% for the conditional option against 2.14% for the unconditional contribution.

Table 14: Financial cost of mitigation options

Emissions sector	Mitigation measure	Unit of measurement	2025	2030
Agriculture	Reduction of CH4 from rice crops	Million US$	1,338	1,338
Biomass energy	Electricity production from residues biomass	Million US$	34,139	32,564
	Electricity production at From bagasse	Million US$	1,215	4,859
EE households	Efficient lighting with LEDs replacing compact fluorescents	Million US$	2,730	3,511
	Efficient wood stoves	Million US$	40,000	55,000
	Electric stoves efficient	Million US$	5,025	6,700
	Efficient refrigerators	Million US$	32,425	45,396
	Charcoal stoves efficient	Million US$	0,000	0,000
EE service	Dishwasher effective commercial	Million US$	0,000	0,000
	Hotel fridge effective	Million US$	0,000	0,020
	Efficient washing machine for hotel	Million US$	0,041	0,041
	Energy efficiency in service	Million US$	0,033	0,038
	New office building with central cooling	Million US$	0,066	0,132
Energy distribution	Electrical networks efficient	Million US$	23,973	28,767
Forestry	Reforestation	Million US$	3,600	3,600
	REDD: deforestation avoided	Million US$	-2,017	-2,017
	Assisted regeneration forests	Million US$	2,400	2,400
Discharge	Incineration plant	Million US$	28,889	28,889
	Waste composting municipal solids	Million US$	4,877	4,877
Industry : Replacement of Fossil fuels	Switching from heavy fuel oil to natural gas in industry	Million US$	3,124	3,124
Fugitive emissions	Reducing flaring to the oil field	Million US$	21,732	21,732
Hydro	Mini hydro off-grid	Million US$	20,000	40,000
	Water heaters water heater,	Million US$	0,000	0,047

Solar	residential			
	Solar PV, large grid	Million US$	600,000	500,000
	PV solar home	Million US$	1,575	1,800
	PV solar chalet	Million US$	0,015	0,021
	Mini-network solar/diesel	Million US$	24,000	27,000
	Solar street lamps	Million US$	22,848	36,556
Transport	Electric cars	Million US$	0,000	7,200
	Electric buses from 18m	Million US$	758,500	1 902,500
Wind	Onshore wind turbines	Million US$	2,025	6,500
		Total	**1 632,553**	**2 762,595**
		Conditional	**1 594,56**	**2 706,487**
		Unconditional	**37,964**	**56,108**

Over the period 2020-2030, the total share of investment varies from one sub-sector to another. The transport sub-sector will have the largest share of investment at the end of the period, with an estimated total cost of 2,668.2 million dollars, or 60.7% of the investment. The energy sub-sector will contribute 33%, or $1451.36 million.

5.1.2- Financial requirements for adaptation :

Until the Congo adopts a National Adaptation Plan (NAP), which will set out its priorities in terms of adaptation and specify the means for its implementation, the financing requirements for adaptation to climate change amount to US$3.795 billion, of which US$1.016 billion is unconditional and US$2.779 billion conditional.

Table 15: Financing requirements for adapting to climate change

FINANCING REQUIREMENTS (USD millions)			
	Unconditional	**Conditional**	**Total**
Food safety	452	808	**1 260**
Water and sanitation	106	614	**720**
Coastal flooding and rising sea levels sea level	116	464	**580**
Inland flooding	40	120	**160**
Cities and climate change	180	420	**600**
Climate-induced migration	5	10	**15**
Malaria and vectorial transmission	100	300	**400**
Landslides ground/flow	15	35	**50**
Waste	2	8	**10**
Total	**1 016**	**2 779**	**3 795**

Table 16: List of adaptation projects eligible for the CVF

Project title	Brief description	Estimate (US$)
Climate-resilient food security for women and men smallholders in Congo through integrated risk management	The Congo is highly vulnerable to the impacts of climate change. There are other effects of climate change that do not yet make the headlines, but which are equally disruptive to rural livelihoods and food systems. Climate change is leading to higher temperatures and changes in precipitation patterns, including an increased incidence of prolonged periods of drought. This translates into reductions in water availability, variable and shorter growing seasons and reductions in production potential. In the southern Congo regions (Mindouli, Madingou, Nkayi and Dolisie), the impacts are being felt most severely, with the highest levels of inter-annual rainfall variability, as well as some of the lowest seasonal rainfall in the country, combined with increased temperatures. As a result, rain-dependent livelihoods are being compromised and, with limited alternatives to cope, government capacity is being stretched to help meet recurrent food needs. Climate projections show that these trends will continue and become more variable5. To meet these challenges, the project is seeking support from the CVF for : 1. Reducing vulnerability to climate risks by promoting climate-resilient agriculture and restoring and improving watersheds for food-insecure women and men. 2. 2 Improve and maintain the adaptive capacity of smallholder women and men through a combination of integrated, context-specific risk management tools and market-based opportunities. 3. Inform adaptation planning and decision-making between smallholders, communities and national/local authorities through the production and use of climate information. Together, these elements will strengthen the capacity of individuals, communities and governments to address climate risks and vulnerabilities in line with national commitments.	**10 000 000**
Strengthen the resilience climate of means of	The proposed project will help the Government of Congo to strengthen its resilience to the risks associated with climate change. vulnerable small-scale farmers in the country's agro-ecological regions. These	**1 282 000 000**

agricultural livelihoods in Congo's agro-ecological regions	These regions are facing increasing risks as a result of climate change, mainly rainfall variability and more frequent droughts, which are having a direct impact on agricultural production in the region. These are also the regions of Congo with the highest incidence of poverty and where rain-fed agriculture is predominant. As a result, the poorest small-scale farmers in these regions face devastating effects on their livelihoods, which will further erode development gains. Women are disproportionately affected by these impacts, given their role in the production of food. guaranteeing household food production and food/nutritional security, despite their unequal access to land, information and inputs (e.g. improved seeds, fertilisers, tools).	
Improving climate information systems for resilient development in the Congo	The project will reduce the exposure of Congo's communities, livelihoods and infrastructure to climate-induced natural hazards through a well-functioning national multi-hazard impact-based forecasting and early warning system. The project will contribute to the achievement of various types of impact at the level of the Green Fund for adaptation : 1. Increasing the resilience and improving the livelihoods of the most vulnerable people 2. Increased resilience in terms of health and well-being and food and water security 3. Increased resilience of infrastructure and t h e built environment to the threats of climate change The aim of the project is to further strengthen Congo's climate-related observation and monitoring capacities, early warning and early action systems and other environment-related information systems. It seeks to lead to a paradigm shift towards climate-informed and evidence-based decision-making, planning and response. The overarching objective is to integrate green growth, environmental resilience and adaptation into national development planning through effective climate information systems. The project aligns well with the CVF investment criteria as it proposes to provide timely and relevant climate information to reduce the loss of life and livelihoods, the value of physical assets and environmental and social losses due to the impact of extreme disasters related to climate change. This outcome will have direct and indirect positive impacts on	10 000 000

	indirect impacts on the country's inhabitants, mainly on the country's vulnerable population exposed to the adverse effects of climate change and variability. As a paradigm shift, the project will improve the existing hydrometric infrastructure provided in previous projects and strengthen coordination for better service delivery in different priority sectors of the Congolese economy in order to facilitate the transparent integration of climate information into national planning. The socio-economic and environmental benefits of the project are also important for creating jobs, increasing incomes and improving health and living standards, by particularly in women.	
Strengthening the resilience of communities living in landscapes threatened by climate change through an ecosystem-based approach to adaptation	Despite its small population, over 70% of the Congolese population depends on natural resources for its livelihood. The productivity of these natural resources is threatened by both climatic and non-climatic factors, increasing the vulnerability of rural communities. There is evidence that the deterioration of biodiversity and ecosystem services will lead to increased vulnerability of communities and reduced potential for nature-based livelihoods and economic activities. An increased risk of drought, combined with increased inter- and intra-annual variability, is likely to lead to an increase in the risk of forest fires, which will contribute to the intensification of erosion pressures linked to climate change. The proposed project is based on the premise that biodiversity and ecosystems provide valuable services, particularly provisioning services. Community livelihoods are based on the services provided by healthy ecosystems, including economic value through agro-productive use (grazing for livestock and healthy soils for agriculture). This proposed project will use large-scale ecosystem-based adaptation (EbA) as a cost-effective, low-risk approach to building climate resilience in the eight large landscapes targeted for implementation. This will result in a paradigm shift. The project has three components, the first of which aims to build the capacity of rural communities dependent on ecosystem goods and services by developing landscape strategies and community-led coordination mechanisms in eight landscapes. Landscape governance systems through participatory decision-making processes between community groups themselves or neighbouring communities will be implemented, while the promotion of knowledge sharing between communities and other stakeholders outside the target landscape will be central to the scaling up and replication of activities. The first element is essential for the success and sustainability of the planned community action to adapt to climate change.	**9 200 000**

Integrated physical adaptation and community resilience through an improved direct access pilot project in the public, private and civil society sectors (Niari, Lekoumou and Buenza)	This project responds to the call for proposals (RfP) issued by the VCF in July 2016, and is designed to meet the stated objectives of the RfP, namely: to strengthen country ownership of projects and programmes by decentralising decision-making to the country level, allowing for greater involvement and contribution from relevant stakeholders. Unlike the traditional direct access modality, there will be no submission of individual projects or programmes to the Fund, as decision-making for the financing of specific pilot activities will be devolved to the national level. The aim of this project is to build institutional capacity and increase the resilience of at least 5% of the country's population to climate variability and change, 50% of whom are women, by adapting infrastructure, strengthening buildings and improving ecosystem services. The proposed project is designed to strengthen country ownership of adaptation by devolving decision making to the national and community level, greater involvement of communities vulnerable to climate change. The problem this project seeks to address is that the pilot country is suffering loss of property, life and well-being due to climate variability and climate-induced extremes. Climate change is already leading to increased frequency and intensity of extreme weather events.	**18 500 000**
Strengthening the resilience of small-scale farming to water insecurity induced by climate change in the high plateaux, high hills and southern coast regions of Congo	The aim of this project is to empower vulnerable smallholders in the high plateaux, high hills and southern coast regions of Congo - particularly women and ethnic minority farmers - to manage the growing climate risks to agricultural production. To achieve its objective, the project will enable small farmers to adapt to climate-induced rainfall variability and drought through the implementation of two linked products integrating the VCF and co-financing to be sought: 1) water for vulnerable small-scale farmers for climate-resilient agricultural production in the face of rainfall variability and climate-induced droughts, and 2) Capacity building of smallholder farmers to apply climate and market information, technologies and practices for climate resilient agriculture and water management. While this project will use CVF funding to specifically target ethnic minorities, women and other poor/near-poor farmers, it will use resources from CVF and co-financing to build the capacity of all farmers in climate-vulnerable areas.	**124 260 000**

Likouala climate resilience project	The Likouala region is a prime example of the urgent need to address the multi-sectoral challenges of climate change in the Congo. Impacts include profound changes in water availability, temperature pressures for people, livestock and crops, changes in public health, agricultural practices, incomes, food security and ecology. Climate models predict a further intensification of dry seasons, but also unpredictable intense rainfall and flooding, which pose a major threat to livelihoods, particularly among the poor. For the population, and women are particularly negatively affected, these developments present increasing challenges to daily life, with inadequate local water supplies, worsening health conditions and deteriorating opportunities for (subsistence) farming posing particular threats. The aim of the project is to increase the climate resilience of rural and urban households, particularly small-scale farmers and women, living in the Likouala region, and to improve policies and regulations for cross-sectoral action in favour of climate adaptation. It will contribute to the implementation of Congo's Nationally Determined Contributions (NDCs). More than 50,000 direct beneficiaries (including 57,000 women) and around 1 million indirect beneficiaries are expected to increase their capacity to adapt to climate change thanks to the project. Areas of action include: • improve the government's institutional and regulatory framework for cross-sectoral and community adaptation planning • improving the climate resilience of water supply infrastructures, sanitation services and agricultural practices in the Oyo region • pursue a community-based approach to ensure that the most vulnerable people are targeted • strengthen the capacity of vulnerable urban and rural populations to adapt, as well as the capacity to implement local and central government structures	**8 804 000**
Strengthening the climate resilience of rural communities in central and northern Congo by implementing ecosystem-based adaptation (EbA) in forest and agricultural landscapes	Through an integrated approach to ecosystem-based adaptation and climate-resilient agriculture, the proposed project will bring about a national paradigm shift in the way Congo addresses the current and future impacts of climate change threatening the livelihoods of rural Congolese. Policies, legislation and land-use planning will be reformed to catalyse the scaling up of climate-resilient management of agricultural land and forests across Congo. This scaling up will also be facilitated by rigorous analysis and dissemination of information on the positive socio-economic and ecological effects of the project's interventions and by the	**10 000 000**

	building technical capacity within the Congolese government to integrate interventions in their adaptation investments. Climate change and variability are increasingly damaging the livelihoods of rural farming communities in the Congo. Communities in central and northern Congo are particularly threatened by shorter growing seasons, increased days of extreme heat, rising temperatures, more frequent and severe droughts and more intense rainfall. These adaptation objectives will be achieved through three interdependent outcomes, namely: (i) improved provision of ecosystem goods and services for climate change adaptation through forest restoration, (ii) increased agricultural productivity to secure livelihoods in the face of climate change, and (iii) increased capacity and awareness to implement AbE and climate resilient agriculture. Climate models show that these effects are likely to intensify considerably over the coming decades. Vulnerable Congolese communities are increasingly using natural resources (e.g. charcoal production) to compensate for declining agricultural productivity and cope with growing poverty. The result is an unsustainable use of forest resources and a negative vicious circle in which the rapid degradation of ecosystems leads to greater vulnerability of communities to climate change. The aim of the proposed GCF project is to interrupt this cycle in central and northern Congo and strengthen the climate resilience of local communities by integrating climate-resilient agricultural techniques with tailored restoration of degraded forest ecosystems. This ecosystem-based approach to adaptation (AbE) will - under current and future conditions of climate change - result in increased agricultural productivity (through judicious soil management and the planting of climate-resilient crops) and an increased supply of ecosystem goods and services (including water availability, soil conservation and cooling, fibre, medicines, fruit, fuelwood and timber). Forest restoration will focus intensively on the use of native trees that are well adapted to current and future climatic conditions.	
Integrating climate-resilient infrastructure	The Integrating Climate-Resilient Infrastructure project systematically integrates climate change adaptation into decision-making for infrastructure planning, supervision and maintenance of local government engineering. A climate-resilient local infrastructure centre - a centre of excellence - will be created within the ministry responsible for infrastructure. To complement the institutional arrangements, the project will finance	**80 000 000**

	pilot local infrastructures designed to optimise resilience to climate change in some of the country's most vulnerable districts.	
Building resilience to climate change in traditional rainfed agricultural and pastoral systems in Congo systems in Congo	The project supports climate change adaptation efforts among subsistence agropastoralist and nomadic pastoralist communities in the drylands of Congo. Its overall objective is to promote a paradigm shift in dryland pastoral and agricultural systems through an integrated approach by increasing the resilience of food production systems; improving the availability of/access to climate-resilient water sources; and building the capacity of institutions/communities in climate resilience. The project capitalises on synergies in climate risk management practices across agriculture, water and pasture to improve water/food security under changing climatic conditions. The main outcomes are increased resilience to climate risks among subsistence farming and nomadic pastoralist communities and the promotion of an enabling environment for long-term (post-project) adaptation activities in Congo. In addition, building the capacity of the state-level administration in the areas of environmental governance, the management of shared natural resources, inter- and intra-state relations and how to establish a network of early warning systems will help to prevent conflicts and mitigate their effects in targeted areas of the country.	**25 645 114**
Ensuring a climate-resilient water supply in the Congo	The project will achieve a national paradigm shift in strengthening the climate resilience of water supply by integrating systematic climate risk reduction approaches into the governance and provision of water resources, catchments, water supply infrastructure and water user management, including planning, investment, design, operation and maintenance. More specifically, the project will invest in : • Strengthen climate-resilient water supply management by strengthening the water sector enabling environments for medium and long-term climate adaptation planning. This will be achieved by integrating climate information into national water legislation reforms, training on practical risk-based water management, and upgrading tariff reforms to include the additional costs of climate risk reduction; • Protecting water quality and moderating extremely high and low flows of water resources using an integrated catchment improved catchment management (informed by monitoring water resources); and using water resource monitoring to provide	**60 751 495**

	early warning and forecasting of climate risks to improve the resilience of water supplies; and • Increasing the climatic resilience of water supply infrastructures by diversifying the sources of water supply for more than 50,000 people (rainwater, surface water and groundwater); and designing and building infrastructures that take account of the risks associated with climate change to protect against the risk of flooding and are sized to withstand periods of drought. The project is in line with the priorities identified in the NAPA.	
Congo Coastal Adaptation Project	The proposed FVC project will enable the Congolese government to implement the measures that are urgently needed to reduce the impact of increasingly intensive wave action on key infrastructure as a result of climate change-induced sea level rise and the intensification of extreme events. Financial and capacity constraints at all levels - from technical awareness to community awareness - that have prevented a sustainable coastal protection solution will be addressed. The project will also build institutional and community capacity to support and replicate the project's results. Strengthening coastal resilience is an urgent national priority and the formulation of this project will be led at the highest political level and the scope of the project will be fully discussed and designed by a technical working group comprising key government departments and NGO associations, representing communities and civil society.	**38 870 000**
Climate services and climate-sensitive livelihood diversification to empower vulnerable and food-insecure communities on Mbamou Island	The Ile-Mbamou is a highly varied tourist site that is exposed to climatic variability and climate change, which is causing erosion of the coastline and exacerbating the poverty of the already deprived population. The project "Climate services and diversification of climate-sensitive livelihoods to empower vulnerable and food-insecure communities on Mbamou Island" will contribute to building the capacity of the Government of the Republic of Congo, its line ministries, local authorities and communities to implement climate change adaptation activities in the food security, nutrition and tourism sectors. The aim of the is to help the government of the Republic of Congo to reduce its vulnerability to climate change	**9 700 000**

	and to increase the adaptive capacity and resilience of the rural communities of Ile-Mbamou, which are increasingly affected by the impacts of climate change and suffer from low adaptive capacity. The underlying principle of project implementation is a set of innovative but pragmatic actions. These include informed top-down but user-tailored generation and dissemination of climate services, a targeted effort to support climate change adaptation actions at community level, and the generation of knowledge, awareness and good decision-making, which taken together will help to create an enabling environment for climate action on Mbamou Island. The proposed FVC project will support 5,000 direct beneficiaries (200 households) and 70,000 indirect beneficiaries in the villages of Ile-Mbamou through the implementation of the following four interdependent components: 1. Climate services to help vulnerable rural communities plan for and manage climate risks and increased weather variability; 2. Strengthening and diversifying livelihoods to increase the adaptive capacity of vulnerable groups and build community resilience; and 3. Capacity building and decision support to strengthen climate action using a multi-sectoral approach ; 4. Developing and promoting tourist activities on the island. The four components are designed to create synergies and optimise the investments made in each component in order to jointly contribute to the project's overall objective, thereby helping to greater efficiency, longer-term impact and sustainability.	

CONCLUSION

The Republic of Congo's current NDC, which saw the effective participation of national stakeholders and technical and financial partners, was carried out in a context characterised by the economic crisis (with the drastic fall in the price of raw materials) and the health crisis (with the COVID 19 pandemic).

Despite these unprecedented crises, which are drastically reducing the country's financial capacity, the Government and other stakeholders are committed to raising the national ambition for emissions reduction. This commitment should in no way compromise the country's socio-economic development.

The national stakeholders committed to implementing the 2021 NDC are mindful of the preamble to the United Nations Framework Convention on Climate Change (UNFCCC), which emphasises that "measures taken to address climate change should be closely coordinated with social and economic development in order to avoid adverse impacts, taking into account the legitimate priority needs of developing countries for sustainable economic growth and poverty eradication. They are also aware that Article 2 of the above-mentioned Convention states as follows: "The ultimate objective of this Convention and any related legal instruments that the Conference of the Parties may adopt is to achieve, in accordance with the relevant provisions of the Convention, stabilization of greenhouse gas concentrations in the atmosphere at a level that would prevent dangerous anthropogenic interference with the climate system. This level should be achieved within a time frame sufficient to allow ecosystems to adapt naturally to climate change, to ensure that food production is not threatened and to enable economic development to proceed in a sustainable manner.

The preamble to the Paris Agreement emphasises that climate change is a matter of concern to all humankind. In addressing climate change, countries should take into account their respective obligations regarding human rights, the right to health, the rights of indigenous peoples, local communities, migrants, children, persons with disabilities and persons in vulnerable situations, and the right to development, as well as gender equality, the empowerment of women and intergenerational equity.

It is on these principles that national stakeholders will work to implement the NDC,
in both its conditional and unconditional scenarios.

REPUBLIC OF CONGO

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MINISTRY OF THE ENVIRONMENT, SUSTAINABLE DEVELOPMENT AND THE CONGO BASIN

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