



CENTRAL AFRICAN REPUBLIC

Unity - Dignity - Work

FRENCH MINISTRY OF THE ENVIRONMENT AND SUSTAINABLE DEVELOPMENT

NATIONAL CLIMATE COORDINATION



NATIONALLY DETERMINED CONTRIBUTION (NDC) REVISED VERSION



TABLE OF CONTENTS

SUMMARY

1.	INTRODUCTION_____	6
2.	NATIONAL CONTEXT _____	8
3.	MITIGATION OF GREENHOUSE GAS EMISSIONS AND CLIMATE POLLUTANTS _____	13
4.	ADAPTING TO THE EFFECTS OF CLIMATE CHANGE _____	23
5.	MEANS OF IMPLEMENTATION _____	31
6.	MEASUREMENT, NOTIFICATION, and VERIFICATION (mnv) MECHANISM _____	33
7.	Information to facilitate clarity, transparency and understanding _____	34

SUMMARY

The revision of the Nationally Determined Contribution (NDC) is in line with the objectives pursued by the Government of the Central African Republic as part of the National Recovery and Peacebuilding Plan (RCPA), the country's main strategic planning instrument. It consolidates the achievements of the first generation of NDCs, and makes significant methodological improvements.

It is based on the probable consequences of climate variations and changes projected to 2030, the evolution to date of greenhouse gas emissions and absorptions, and existing and potential impacts and vulnerabilities, in order to :

- Describe a trend scenario (or *Business as Usual Scenario-BAU*) of greenhouse gas emissions over the 2010-2030 cycle in the most emitting sectors: Energy; Agriculture, forestry and other land uses (AFAT); Industrial processes; Waste;
- Propose mitigation measures likely to bend the trend curve according to an unconditional scenario (investments made by the State) and a conditional scenario (additional investment required from the international community).
- Identify, according to a conditional and an unconditional scenario, adaptation measures in the most vulnerable sectors (Agriculture, Energy, Forestry, Water Resources, Health, Spatial Planning, Infrastructures and Housing), in line with the objectives pursued by sectoral planning.

The trend scenario shows a rise in greenhouse gas emissions from 10,040 GgeCO₂ in 2010 to 14,141 GgeqCO₂ in 2025 and 17,644 GgeqCO₂ in 2030. Sequestration capacity over the same horizons is 730,714 GgCO₂ and 733,607 GgCO₂ respectively.

According to the unconditional scenario, the mitigation measures taken will generate a reduction in greenhouse gas emissions of 9.03% and 11.82% by 2025 and 2030 respectively, compared with the reference situation; and according to the conditional scenario, 14.64% and 24.28% by 2025 and 2030 respectively, compared with the reference situation.

CAR's NDC builds on the existing inventory of short-lived climate pollutants (SLCPs) to broaden the spectrum of gases covered, in addition to greenhouse gases. Emissions of organic carbon (CO), which accounts for 61.9% of total SLCP emissions, are expected to fall significantly under the proposed mitigation measures, at the same time as other SLCPs (13.67% to -55.31% by 2030, depending on the type of pollutant).

In terms of adaptation measures, the targeted actions proposed in the most vulnerable sectors should enable us to reduce the impacts and vulnerabilities generated by current and future climate change by 2030.

The financial requirements associated with implementing all the actions described above are estimated at \$1.764 billion, including :

- 1.32 billion for mitigation: \$236 million unconditional and \$1.08 billion conditional;
- 443.87 million for adaptation: \$44.38 million unconditional and \$399.48 million conditional.

The implementation of mitigation and adaptation measures and the support received in terms of technology, capacity-building and financing are monitored by a measurement, reporting and verification system based on the national SDG monitoring system. This MNV system facilitates, among other things, the updating of inventories and the periodic reporting of CAR's progress to the United Nations Framework Convention on Climate Change (UNFCCC).

TABLES AND FIGURES

Figure 1: Observed temperatures in CAR 1951-2020 (Source: CCKP, 2021)	8
Figure 2: Average annual rainfall observed in CAR: 1951-2020 (Source: CCKP, 2021)	8
Figure 3: Risk of fluvial, urban flooding and drought in CAR (Source: ThinkHazard, 2021)	9
Figure 4: Economic impact of climate change on the Central African Republic (Source: Stanford, 2021)	10
Figure 5: Breakdown of GHG emissions by sector (Source: Third National Communication)	11
Figure 6: % of PCCVD emissions by source	12
Figure 7: GHG emissions for the BAU scenario (2010-2030)	13
Figure 8: PCCVD emissions - trend scenario (2010-2030)	14
Figure 9: Energy sector emissions-trend scenario, unconditional NDC and conditional NDC	16
Figure 10: AFAT sector emissions-trend scenario, unconditional NDC and conditional NDC	18
Figure 11: PIUP sector emissions-trend scenario, unconditional NDC and conditional NDC	20
Figure 12: Global emissions-trend scenario, unconditional NDC and conditional NDC	21
Figure 13: Global absorptions-Trend scenario, unconditional NDC and conditional NDC	22
Figure 14: Sectoral impacts and vulnerabilities	23
Figure 15: MNV-Dampening device	Error! Bookmark not defined.
Figure 16: MNV-Adaptation device	Error! Bookmark not defined.

Table 1: Projected changes (Source: CCKP-2021 & GERICS-2015)	9
Table 2: Evolution of CAR's GDP growth rate over the five-year period 2017-2021 (Source: MEPC, 2020)	10
Table 3: Summary of emissions from the third national communication (Gg CO ₂ e)	11
Table 4: Breakdown of PCCDV emissions by source	12
Table 5: PCCDV emission reductions in unconditional and conditional scenarios	22
Table 6: Impacts and vulnerabilities by sector	24
Table 7: Information to facilitate clarity, transparency and understanding	36

ACRONYMS AND ABBREVIATIONS

AEP :	Drinking water supply
AFAT:	Agriculture, forestry and other land uses
AR6:	Sixth Assessment Report (AR6) of the Intergovernmental Panel on Climate Change (IPCC)
ATPC:	Assainissement Total Piloté par les Communities
BAU:	Business As Usual
UNFCCC:	United Nations Framework Convention on Climate Change
CDN:	Nationally Determined Contribution
CO:	Organic carbon
CO ₂ :	Carbon dioxide or carbon dioxide
NMVOCs:	Non-methane volatile organic compounds
CH ₄ :	Methane
DGEP:	General Directorate for Studies and Planning
DGEPC:	Direction Générale des Etudes, de la Programmation et du Control
DGPC:	Direction générale de la protection civile (General Directorate for Civil Protection)
DPEN:	National Energy Policy Document
HFC:	hydrofluorocarbons
ICASESS:	Institut Centrafricain des Statistiques et des Etudes Economiques et Sociales
ICRA:	Institut Centrafricain de la Recherche Agronomique
GHG:	Greenhouse gases
HDI:	Human Development Index
LPG:	Liquefied Petroleum Gas
MDERH:	Ministère du Développement de l'Energie et des Ressources Hydrologiques
MNV:	Measurement, Notification, Verification
MTPER:	Ministry of Public Works and Road Maintenance
MURFVH:	Ministère de l'Urbanisme, de la Réforme Foncière, de la Ville et de l'Habitat
NO _x :	Nitrogen oxides
N ₂ O:	Nitrous oxide
ODD:	Sustainable Development Goals
PIUP:	Procédés Industriels et Utilisation des Produits
PCCDV:	Short-lived climate pollutants PM ₁₀ ; PM _{2.5} : Suspended particulate matter
PNIASAN:	National Agricultural Investment Program for Food and Nutritional Security
PNA:	National Adaptation Plan
NTFP:	Non-timber forest products
SODECA:	Central African Water Distribution Company
RPCA:	Plan National de Relèvement et de Consolidation de la Paix (National Recovery and Peace Consolidation Plan)
SDRASA:	Stratégie de Développement Rural, de l'Agriculture et de la Sécurité Alimentaire
SNAT:	Schéma National d'Aménagement du Territoire (National Spatial Planning Scheme)

1. INTRODUCTION

The revision of CAR's NDC responds to the urgent need for ambitious action in the face of the global climate crisis and rising global temperatures.

Consistent with the first NDC of 2016 and the relevant provisions of decisions 1/CP.21, 4/CMA.1 and 9/CMA.1 of the United Nations Framework Convention on Climate Change (UNFCCC), the revised NDC confirms the country's aspiration to contribute significantly to global efforts to combat climate change. This second-generation agreement makes significant advances on the first:

1. The formulation process was carried out in an inclusive manner, involving the various stakeholders grouped around a multi-stakeholder committee responsible for strategic steering and validation of results, and sectoral working groups (six in total), tasked with proposing and/or amending the proposed contributions to mitigation and adaptation. As a result, the quality of data collected from primary suppliers has improved. Processing and analysis were supported by the expertise of the official bodies in charge of sectoral statistics.
2. It covers more sectors and gases:
 - a. The sectors and sub-sectors covered include, in addition to those of the first generation, transport, mining, land use planning and housing, in line with the recommendations of the evaluation report of the first NDC.
 - b. Greenhouse gas coverage has been extended to include hydrofluorocarbons (HFCs), in addition to carbon dioxide (CO₂), methane (CH₄) and nitrous oxide (N₂O). Better still, short-lived climate pollutants (SLCPs) have been taken into account, in view of their potential role in reducing global warming.
3. The revised NDC is based on an improved and more robust database for estimating reference scenario emissions and removals: the time series used is presented with annual data, unlike the first NDC, where the results summed over the 2003-2010 time series show overestimates, particularly in the Agriculture, Forestry and Other Land Use (AFOLU) sector. The trend scenario, or BAU scenario, is therefore more realistic and credible, as it is based on more disaggregated, high-quality data, and covers more sectors.
4. The implications of the corrections indicated *above* are a revision of the emissions of the trend scenario compared to the first NDC. These are 10,040 GgeCO₂ in 2010 and 17,643 GgeCO₂ by 2030.
5. In relative terms, the revised NDC's ambitions for reducing greenhouse gas emissions are greater than those of its predecessor (24.28% by 2030 compared with the trend scenario, versus 5% for the first NDC). In absolute terms, however, the reduction is smaller: 4,284.42 GgeCO₂ compared with 5,500 GgeCO₂ for the first NDC.
6. The proposed mitigation measures incorporate the most realistic measures from the first NDC and consolidate them with new measures.
7. Adaptation planning is made more robust by measures based on targeted objectives, consistent with sectoral targets.
8. A measurement, notification and verification system is proposed.

In view of the improvements made possible by the revision process, CAR now has an effective medium-term tool (to 2030) for steering public actions that take into account the projected effects of climate change, and the means of mitigating these effects.

2. NATIONAL CONTEXT

CURRENT AND FUTURE CLIMATE IN THE RCA

The climate in the Central African Republic is characterized by an upward trend in mean annual temperature of around 0.3°C per decade, which began in the 1970s¹. This variation, which varies according to climatic zone, has been increasing more rapidly since the 1950s, especially in the south-western regions. Over the last thirty years, annual precipitation has shown a slight upward trend, estimated at 8%². This relative increase is accompanied by a rise in extreme events, as evidenced by an increase in the number of rainy days with 10 mm of precipitation over the same period. The most marked climatic hazards in recent years have been storms, floods (in the south-west³), and droughts (in the north). Climatic conditions remain favorable to epidemics of bacterial and viral diseases. The likelihood of annual meningococcal meningitis epidemics during the dry season remains very high in the northern part of the country, which lies in the meningitis belt.

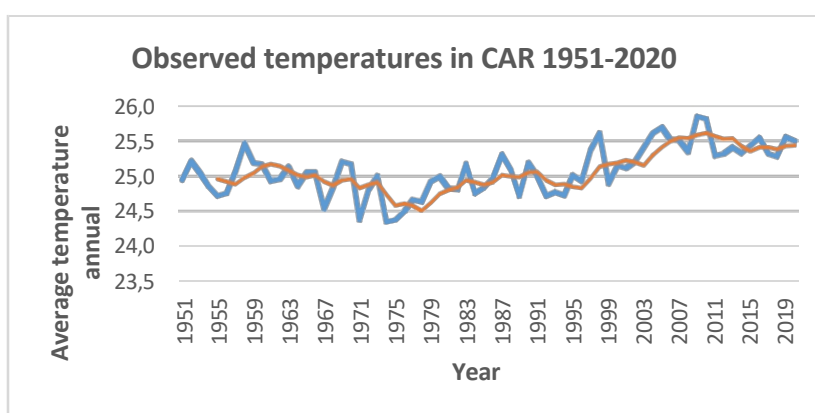


Figure 1: Observed temperatures in CAR 1951-2020 (Source: CCKP, 2021)

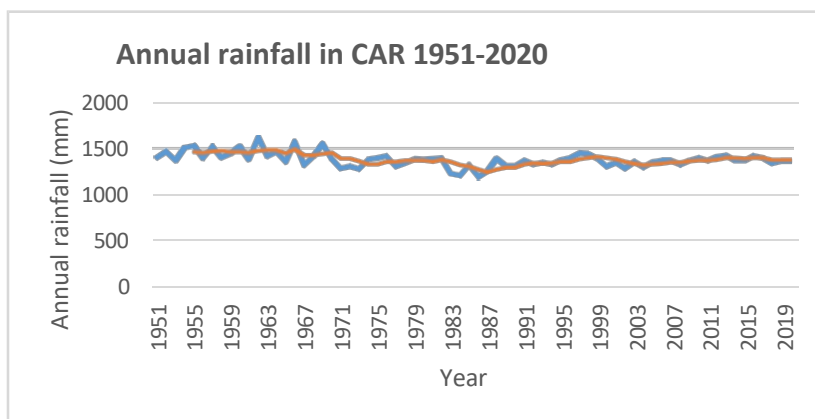


Figure 2: Average annual rainfall observed in CAR: 1951-2020 (Source: CCKP, 2021)

¹ WB Climate Change Knowledge Portal (CCKP, 2021). Central African Republic URL: <https://climateknowledgeportal.worldbank.org/country/central-african-republic/climate-data-historical>

² GERICS (2015). Climate-Fact-Sheet, Central African Republic

³ Those in 2009 around the urban areas of the capital, Bangui, cost \$6 million, with losses estimated at \$2.6 million.

Cmip5	RCP 8.5 scenario projections ⁴				
	Observations (1986 to 2005)	Horizon 2030	Horizon 2050	Horizon 2070	Horizon 2090
Annual temperature anomaly (°C)	+0.35 °C per decade	+0.7 to +1.5 (+1.1°C)	+1.4 to +2.7 (+1.9°C)	+2.3 to +4.2 (+2.8°C)	+3.1 to +5.7 (+3.8°C)
Annual precipitation anomaly (mm)	+8 %	-18.4 à +21.9 (0.8 mm)	-21.0 à +29.6 (1.7 mm)	-21.5 à +38.5 (5.5 mm)	-28.2 à +50.4 (6.6 mm)
Heavy rains (%)		-2 à +14%	-2 à +22%		
Dry periods (days)		-9 to +3 days	-15 to +3 days		

Table 1: Projected changes (Source: CCKP-2021 & GERICS-2015)

Temperature projections show an increase of between 0.7 and 1.5°C by 2030 for the RCP 8.5 scenario, and an increase of between 1.4 and 2.7°C by the middle of the 21st century⁵ compared with the 1986-2005 reference period. Projections for annual precipitation show a slight upward trend in total annual precipitation⁶.

A probable increase in rainfall variability is expected, marked by an increase in the frequency (strong trend) and intensity (slight trend) of extreme events⁷ likely to lead to occurrences of river flooding (see figure 3) over a large part of the country, and urban flooding in the regions of Ombelle Mpoko (Bangui) and Haute Kotto (Bria). As for dry periods, the highest risks are located in the Vakaga and Haute Kotto regions.

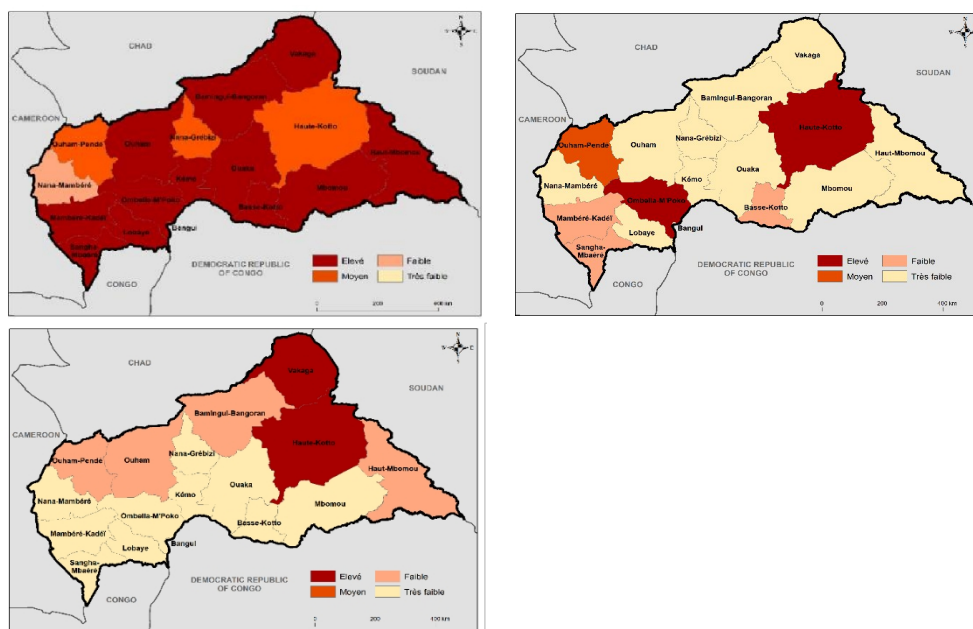


Figure 3: Risk of fluvial, urban and drought flooding in CAR (source: ThinkHazard, 2021)

⁴ The value in bold corresponds to the range (10th-90th percentile) and the values in brackets indicate the median (or 50th percentile). For heavy rains and dry spells, the values correspond to the 5th and 95th percentiles (90% in the center).

⁵ Ibid.

⁶ Ibid.

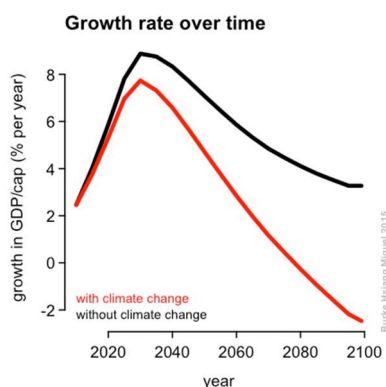
⁷ Confirmed by the 7th IPCC report. Cf: IPCC, 2021: The Physical Science Basis. Contribution of Working Group I to the Sixth Assessment Report of the Intergovernmental Panel on Climate Change. Regional fact sheet - Africa.

At the macro-economic level, these projected changes present all the more risk to the outlook for economic development, as the recovery phase initiated in 2017 has seen downturns in 2018 and 2020, in terms of GDP growth rates. This rate, which should rebound with the completion of energy projects and the resumption of agricultural and mining activities, can only be maintained if the impact of climate variability and change does not compromise national ambitions, among other factors. Indeed, in Central Africa, a warming of 1°C above the historical average is associated with a reduction of around 0.7 percentage points in GDP growth, ranging from -1.3 to -0.03⁸.

Table 2 presents GDP growth forecasts, and Figure 4 the potential effect of climate change on CAR's projected GDP⁹.

	2017	2018	2019	2020	2021	2022	2023
Growth rate gr owth rate GDP (%)	4,5	3,8	4,5	1,7	2,1	5	5

Table 2: Evolution of CAR's GDP growth rate over the five-year period 2017-2021 (Source: MEPC, 2020)



Probability that climate change will reduce GDP per capita in the Central African Republic by :

- More than 10%: 100%.
- More than 20%: 100%.
- Over 50%: 99

Figure 4: Economic impact of climate change on the Central African Republic (Source: Stanford, 2021)

⁸ AfDB. Climate Change Impacts on Africa's Economic Growth. 2019.

⁹ This effect is most noticeable in dry years, particularly on agricultural GDP, and in turn national GDP: Sonwa, D. et al. (2014).

TRENDS IN EMISSIONS AND REMOVALS OF GREENHOUSE GASES AND SHORT-LIVED CLIMATE POLLUTANTS (SCLP)

GgeCO ₂	3 ^{ème} National Communication
	Series: 2010-2016
	Reference year: 2010
Energy	5151,99
Agriculture, forestry and other land uses (AFAT)	4244,36
Waste	643,779
Industrial Processes and Product Utilization (IPUP)	0,078
Total emissions (excluding forestry absorptions)	10 040,20
Absorptions AFAT	728 896

Table 3: Summary of emissions from the third national communication (Gg CO₂e)

The table above shows the profile of greenhouse gas emissions (CO₂, CH₄, N₂O, HFC) in the following sectors: Energy; Agriculture, forestry and other land uses (AFAT); Industrial processes; Waste. The most significant emissions are in the energy and AFAT sectors, which account for almost 94% of total volumes (see figure below).

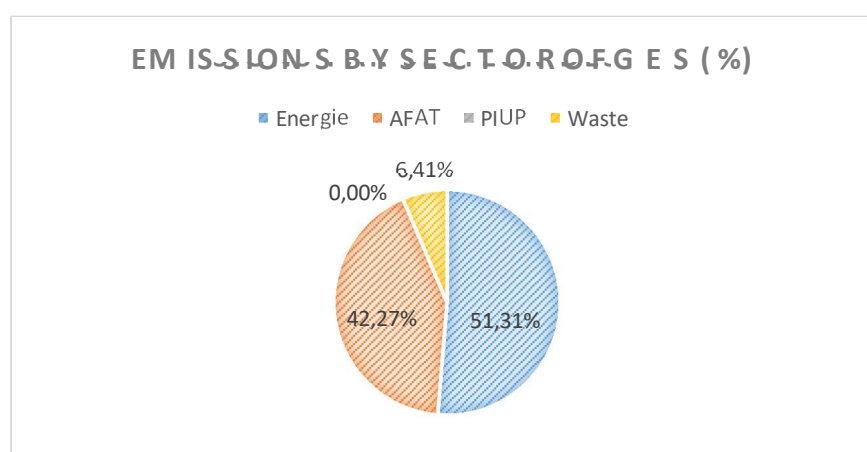


Figure 5: Breakdown of GHG emissions by sector (Source: Third National Communication)

It should be noted, however, that despite its significant emissions, the CAR's forest and grassland ecosystems remain a major carbon sink, with an estimated sequestration capacity of 728,896 GgeCO₂.

In the same vein, and based on the assumption of a potential short-term global warming reduction of 0.4-0.5°C by 2050¹⁰ by short-lived climate pollutants (SLCPs)¹¹, their inventory has been carried out¹². So, in addition to greenhouse gases (CO₂, CH₄, N₂O, HFCs), the main sources of PCCDV emissions remain the AFAT and Energy sectors. The most emitting gases are, in order of importance: organic carbon (CO), suspended particulates (PM10), and to a lesser extent nitrogen oxides (NOx), PM 2.5 and non-methane volatile organic compounds (NMVOCs).

	NOx	CO	NMVOC	SO2	PM10	PM2.5	BC	OC	NH3	TOTAL
Emissions (t)	10 786	107 740	15 894	527	17 609	11 956	1 996	5 574	1 746	173 833
%	6,21%	61,98%	9,14%	0,30%	10,13%	6,88%	1,15%	3,21%	1,00%	100%

Table 4: Breakdown of PCCDV emissions by source

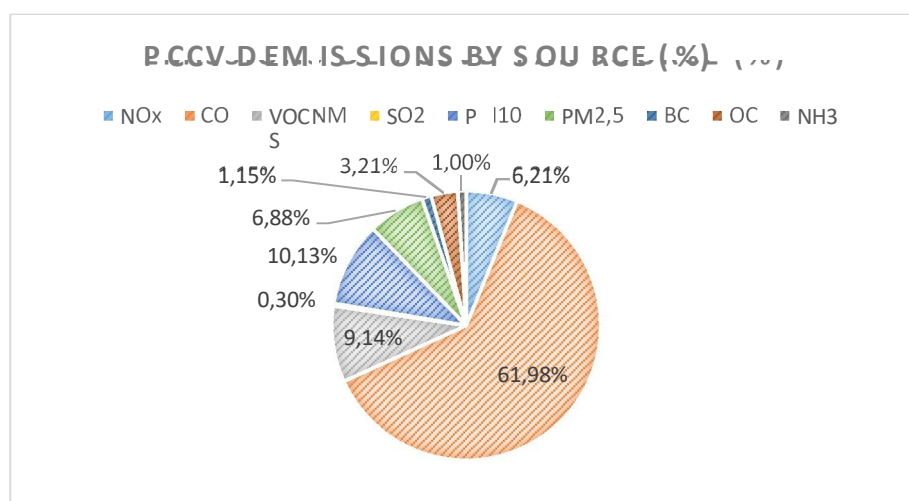


Figure 6: % PCCVD emissions by source

¹⁰ UNEP & WMO (2011) Integrated Assessment of Black Carbon and Tropospheric Ozone. UNON/publishing Services Section/Nairobi, ISO 14001:2014

¹¹ These include particulate matter (PM2.5 and PM10), black carbon (NC), organic carbon (OC), nitrogen oxides (NOx), sulfur dioxide (SO2), ammonia (NH3), and non-methane volatile organic compounds (NMVOCs).

¹² MEDD (2020) Integrated inventory of short-lived climate pollutants, air pollutants and greenhouse gases in the Central African Republic.

3. MITIGATION OF GREENHOUSE GAS EMISSIONS AND CLIMATE POLLUTANTS

VISION AND OBJECTIVES

CAR's mitigation vision is to promote low-carbon development, by reducing emissions by 10% to 25% by 2030 (unconditional and conditional scenario) compared with the trend scenario. It is broken down into several objectives: (i) the development of renewable energy resources and energy conservation; (ii) the promotion of agroecology; (iv) the sustainable use of natural resources; and (v) the improvement of the living environment.

BAU OR TREND SCENARIO (2010-2030)

The Business as Usual (BAU) scenario for greenhouse gas emissions (CO_2 , CH_4 , N_2O , HFC) over the 2010-2030 cycle is shown below for the following sectors: Energy; Agriculture, forestry and other land uses (AFAT); Industrial processes; Waste. The CAR's emissions by 2025 and 2030 are 14,141 Ggeq CO_2 and 17,644 Ggeq CO_2 respectively. Sequestration capacity over the same horizons remains high. It is 730,714 Gg CO_2 and 733,607 Gg CO_2 respectively.

For PCCV, organic carbon (CO) is expected to account for 71% of short-lived climate pollutant emissions.

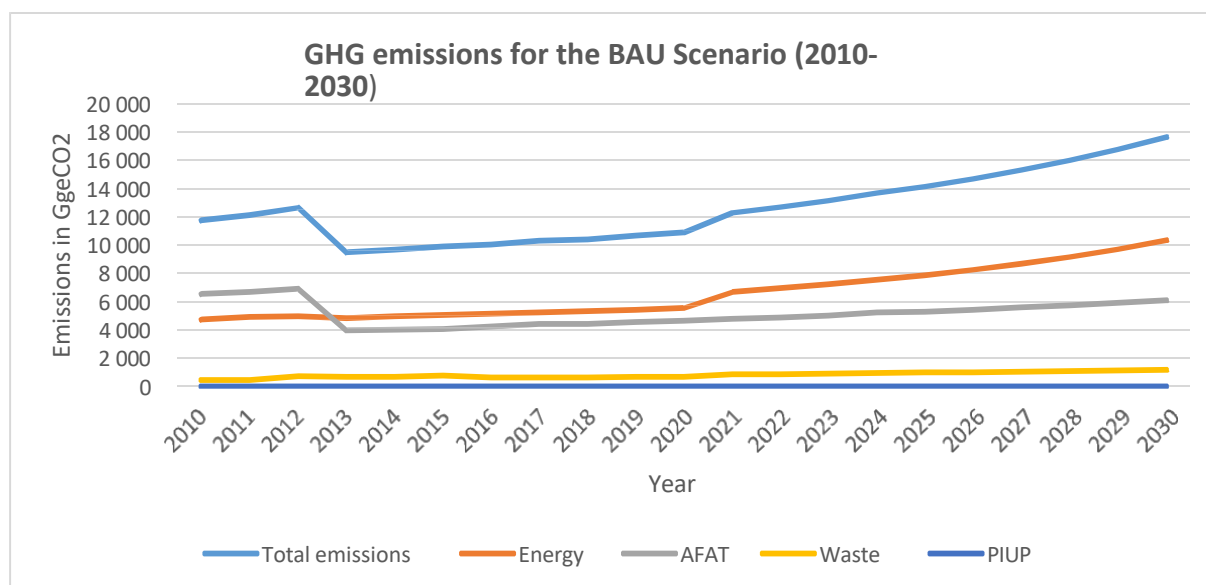


Figure 7: GHG emissions for the BAU scenario (2010-2030)

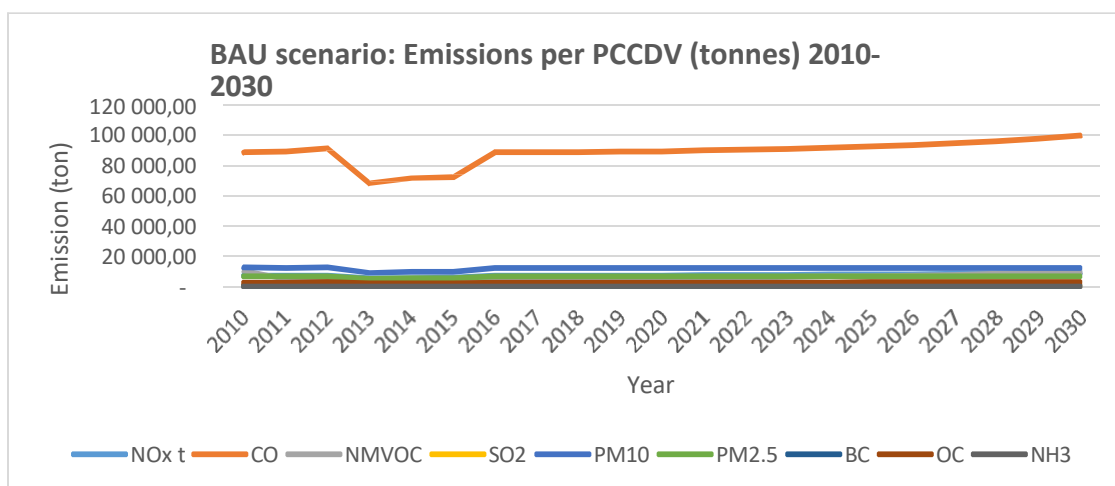


Figure 8: PCCVD emissions - trend scenario (2010-2030)

At sector level, the mitigation measures set out below cover activities for which investment is planned to be granted by the state (unconditional NDC), and activities for which additional investment needs are required (conditional NDC). For all the activities indicated *below*, the NDC will ensure equitable access to economic opportunities between genders, and will particularly target young people and indigenous peoples in areas where they are present.

ENERGY SECTOR

The National Energy Policy Document (DPEN) supports the objective of contributing to economic growth, improving the quality of life while respecting the environment, by increasing the rate of access to electricity from 4% to 20% by 2025, and securing energy supplies. This ambition is broken down by sub-sector: traditional energies, electricity, new and renewable energies, hydrocarbons, energy management and conservation.

In line with these ambitions, the CDN de la RCA is structuring its intervention in the field of energy, according to the actions and objectives below.

Traditional energies sub-sector	
	ObjectivesPlanned actions
Unconditional CDN	Increase the performance of 10% charcoal production in 2025 and to 25% in charcoal 2025 and 12.5% in 2030
	Promotion of techniques Improved carbonization: Training; 2030Valorisation of waste Increase the share of in industrial end consumption ¹³ by 4% in
	Penetration of improved cookstoves inImprovement by households, by 5% in 2025 and 10% in 2025 of wood-energy use. energy t h r o u g h household use

¹³ To replace firewood

	2030 (targets: 50% female heads of household)	improved : Elaboration of prototypes; Production and distribution
	Households equipped in 2025 and 2030: Solar lighting: 5% and 50%. Solar cookers: 5% by 2025 LPG: 10% by 2030 (target: 50% female heads of household)	Modernization of domestic energy: sector study; pilot phase implementation
Conditional CDN	Increase the performance of 10% charcoal production in 2025 and 25% in 2030 Increasing the share of coal in final consumption by 8% in 2025 and 25% in 2030 ¹⁴	Cf. unconditional CDN
	Penetration of improved stoves in households by 25% in 2025 and 50% in 2030	Cf. unconditional CDN
	2% in 2025 and 15% in 2030 (target: 50% female heads of household)	Reduce the impact of waste on ecosystems by promoting bio-digesters (% of waste reuse) organic waste)
	Households equipped in 2025 and 2030 : 20% and 50% solar lighting Solar cookers: 5% and 10%. LPG: 25% by 2030	Cf. unconditional CDN

Electricity sub-sector		
	Objectives	Planned actions
Conditional CDN	10 MW in 2030	Construction of micro-hydropower plants: pre-feasibility and feasibility studies, commissioning, management and maintenance
	60 MW in 2030	Construction of the Lobaye hydroelectric power station; pre-feasibility and feasibility studies, commissioning operation, management and maintenance
	40 MWp in 2030	Construction of solar power plants: pre-feasibility and feasibility studies, start-up, management and commissioning. maintenance

Energy management and conservation sub-sector		
	Objectives	Planned actions
Unconditional CDN	80% penetration rate by 2030 (target: 50% female heads of household)	Promoting energy savings in households by popularizing low-energy lamps: Study sector; Pilot phase implementation

All these measures will enable CAR to change the reference scenario (or "Business as Usual-BAU" scenario) in the energy sector from -to- respectively.

¹⁴ These percentages include the unconditional portion

2.02% and -6.53% in 2025, and -6.34 and -19.89% in 2030, under unconditional and conditional scenarios (see figure and table below).

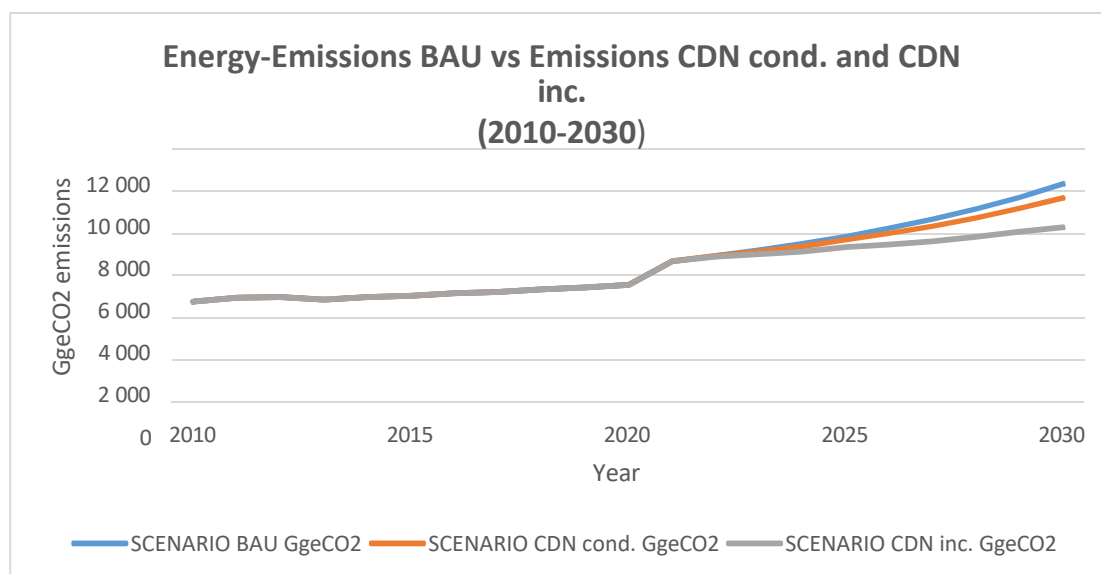


Figure 9: Energy sector emissions - trend scenario, unconditional NDC and conditional NDC

ENERGY	Emissions Trend scenario (GgeCO2)	Unconditional CDN emissions (GgeCO2)	CDN discount unconditional	Conditional CDN emissions (GgeCO2)	CDN discount conditional
Horizon 2025	7 874	7 715	-2,02%	7 360	-6,53%
Horizon 2030	10 362	9 705	-6,34%	8 300	-19,89%

AGRICULTURE, FORESTRY AND OTHER LAND USES SECTOR (AFAT)

The Stratégie de Développement Rural, de l'Agriculture et de la Sécurité Alimentaire (SDRASA - rural development, agriculture and food security strategy) is structured around a vision for 2025 of Central African agriculture that is "productive, profitable, respectful of the environment, based on local initiatives and the gender concept, a creator of wealth, and the conditions for the emergence of a dynamic agricultural private sector". It includes in its programming support for natural resource management and the development and dissemination of sustainable agricultural practices, as major thrusts of its policy. The SDRASA is complemented by the Programme National d'Investissement Agricole de Sécurité Alimentaire et Nutritionnelle (PNIASAN - National Agricultural Investment Program for Food and Nutritional Security), which focuses, among other things, on revitalizing the food sectors and developing export sectors (cotton, coffee, oil palm).

In the forestry sector, CAR's ambition is that "by 2035, forest ecosystems and their associated resources will be co-managed to provide the goods and services necessary for peace, sustainable and harmonious development, the conservation of biological diversity and the safeguarding of the global environment". This vision is reflected in the REDD+ 2020-2025 National Investment Framework, which aims to support the country in the economic and social development of the AFAT sector, while ensuring that impacts on forest ecosystems are avoided, minimized and compensated for.

In these areas, the objectives and mitigation measures are as follows:

Agriculture sub-sector		
	Objectives	Planned actions
Unconditional CDN	Reduce the practices by 15% by 2025	Encourage sustainable agriculture by promoting agro-ecology: local diagnostics, introduction of new technical and marketing guidelines, etc. new experiments
	50,000 ha in 2030, based on agroforestry; including the maintenance of agroforestry heritage indigenous populations	Increase the capacity of sequestration of carbon from ecosystems by promoting orchards and palm groves family sustainable
	15,000ha by 2030 (10,000 ha of coffee plantation, 5,000 ha cocoa), based on agroforestry (targets: 50%) of female heads of household)	Increase the capacity of sequestration of carbon from agricultural systems through of a coffee-cocoa farming agroforestry without deforestation, agronomic performance, economic and environmental
Conditional CDN	Reduce the practices by 60% by 2030	Cf. unconditional CDN
	100,000 ha by 2030, based on agroforestry	Cf. unconditional CDN
	15,000ha by 2030 (10,000 ha of coffee plantation, 5,000 ha cocoa), based on agroforestry	Cf. unconditional CDN

Forestry and Land Use sub-sector		
	Objectives	Planned actions
Unconditional CDN	12.5% of urban households having planted at least 3 trees in their home plots by 2030 (target: 50% female heads of household)	Support for the development of urban and peri-urban forestry (FUPU)
	Make 12.5% of fuelwood consumption renewable by 2030	Development of an agroforestry system combining wood energy and agricultural production; Plantation development forestry and agroforestry in suitable areas
	Reduce uncontrolled fires by 6.25% in 2025 and 15% in 2030	Installation and maintenance of firewalls
	Restore 25% of post-mining sites annually by 2030	Reduce the impact of mining on national forest ecosystems through the promotion of good mining practices
	Preserve 20% of the sequestration capacity of APDS and PNMB by 2030	Capitalizing on the carbon potential of Dzangha-Sangha protected areas (APDS) and Mbaéré National Park Bodingué (PNMB)

Conditional CDN	50% of urban households having planted at least 3 trees on their plot	Cf. unconditional CDN
	Make 25% of fuelwood consumption renewable by 2030	Cf. unconditional CDN
	Reduce uncontrolled fires by 25% by 2025 and 60% by 2030	Cf. unconditional CDN
	Restore 50% of sites post annual mining by 2030	Cf. unconditional CDN
	Preserve 80% of the sequestration capacity of APDS and PNMB by 2030	Cf. unconditional CDN

The actions thus taken, in line with the priority orientations defined in CAR's sectoral planning and programming instruments in the fields of agriculture, forestry and land use, would make it possible to reduce greenhouse gas emissions according to the unconditional scenario by -2.76% and -4.33% respectively in 2025 and 2030; and according to the conditional scenario by -11.03% and -17.30% respectively in 2025 and 2030 compared with the trend scenario (see figure and table below).

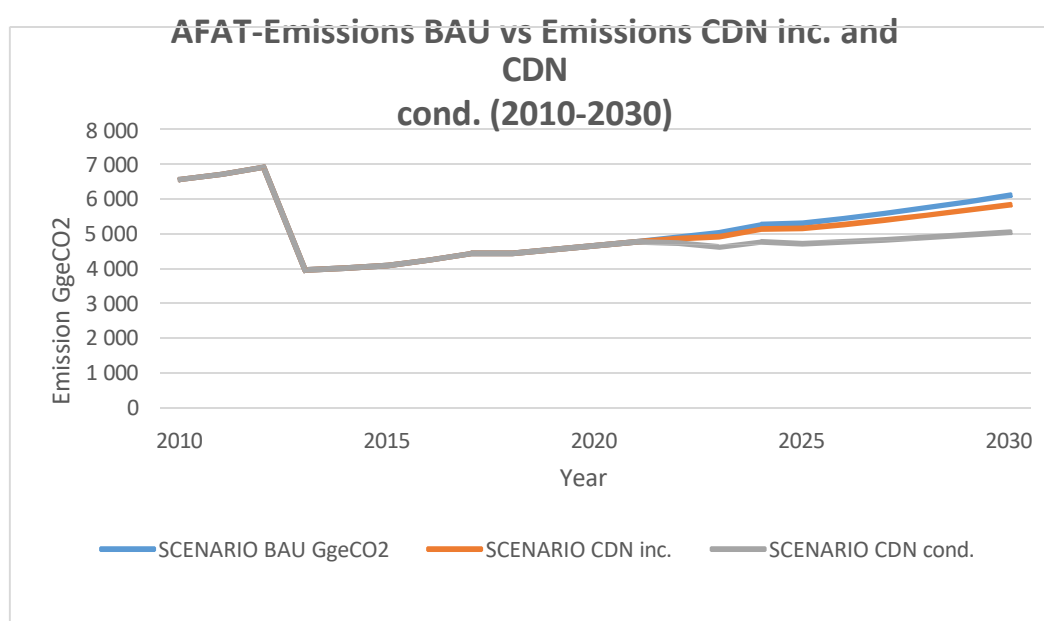


Figure 10: AFAT sector emissions - trend scenario, unconditional NDC and conditional NDC

AFAT/Emissions	Emissions Trend scenario (GgeCO2)	Unconditional CDN emissions (GgeCO2)	CDN discount unconditional	CDN emissions conditional (GgeCO2)	CDN discount conditional
Horizon 2025	5 293	5 147	-2,76%	4 709	-11,03%
Horizon 2030	6 106	5 842	-4,33%	5 049	-17,30%

WASTE SECTOR

The national water and sanitation strategy document pursues several sub-objectives in the sanitation sub-sector, including improving the living environment and health of the population; developing action strategies for hygiene and solid waste¹⁵, liquids and excreta in rural and urban areas. This ambition is pursued within the framework of the National Water Policy (2020-2030), one of whose strategic axes is "universal access to water and sanitation by 2030". In line with this approach, rational and sustainable waste management remains a major challenge for municipalities in general, and urban ones in particular, against a backdrop of a growing urban population estimated at 41.4% of the population, and expected to reach 48% and 60% respectively by 2030 and 2050.

In this area, the objectives and mitigation measures focus on the treatment and reuse of municipal waste. Examination, processing and analysis of the proposed mitigation measures show that, in the CAR context, they are either (i) likely to generate methane emissions that add to the emissions of the trend scenario, or (ii) the percentage reduction remains marginal (less than 1%) compared with the costs incurred by the action. No action is therefore proposed under this component.

INDUSTRIAL PROCESSES AND PRODUCT USE SECTOR (PIUP)

The legal framework for national climate action is based primarily on Law No. 07/018 of December 28, 2007 on the Environment Code, which includes air protection among its priority interventions. The country has also ratified the Vienna Convention for the Protection of the Ozone Layer and the Montreal Protocol, which aims to reduce and completely eliminate ozone-depleting substances.

In light of the country's commitments in this area, the NDC's mitigation measures are as follows:

Ozone sub-sector		
	Objectives	Planned actions
CDN	Reduce the use of gas appliances by 6.25% in 2025 and 12.5% in 2030.	Reducing fluorinated gas emissions
Conditional CDN	Reduce the use of gas appliances by 25% in 2025 and 50% in 2030.	Reducing fluorinated gas emissions

The implementation of actions by 2025 and 2030 will enable CAR to reduce greenhouse gas emissions, in particular hydrofluorocarbons (HFCs), according to the unconditional scenario by -3.91% and -6.04% respectively in 2025 and 2030; and according to the conditional scenario by -15.65% and -15.65% respectively.

¹⁵ Solid waste management is a municipal responsibility

24.16% respectively in 2025 and 2030 compared with the trend scenario (see figure and table below).

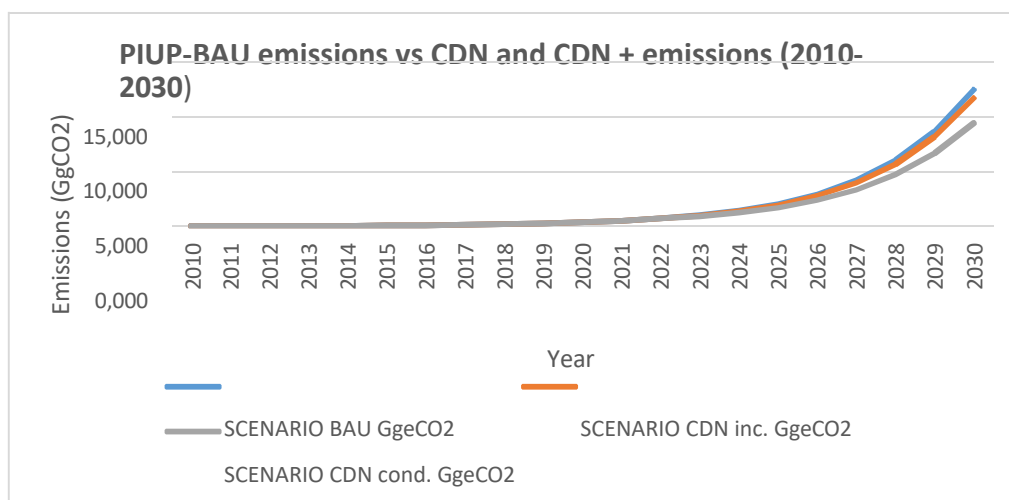


Figure 11: Emissions in the PIUP sector-trend scenario, unconditional NDC and conditional NDC

PIUP	Emissions Trend scenario (GgeCO2)	Unconditional CDN emissions (GgeCO2)	CDN discount unconditional	Conditional CDN emissions (GgeCO2)	CDN discount conditional
Horizon 2025	2,026	1,947	-3,91%	1,709	-15,65%
Horizon 2030	12,466	11,713	-6,04%	9,455	-24,16%

GLOBAL EMISSIONS AND REMOVALS AT HORIZONS 2025 AND 2030: TREND SCENARIO, UNCONDITIONAL CDN AND CONDITIONAL CDN

Taken together, these measures lead CAR to greenhouse gas reductions of -9.03% and -11.82% in 2025 and 2030 respectively, under the unconditional scenario. Assuming support from the international community, these reductions will reach -14, 64% and -24.28 in 2025 and 2030 respectively.

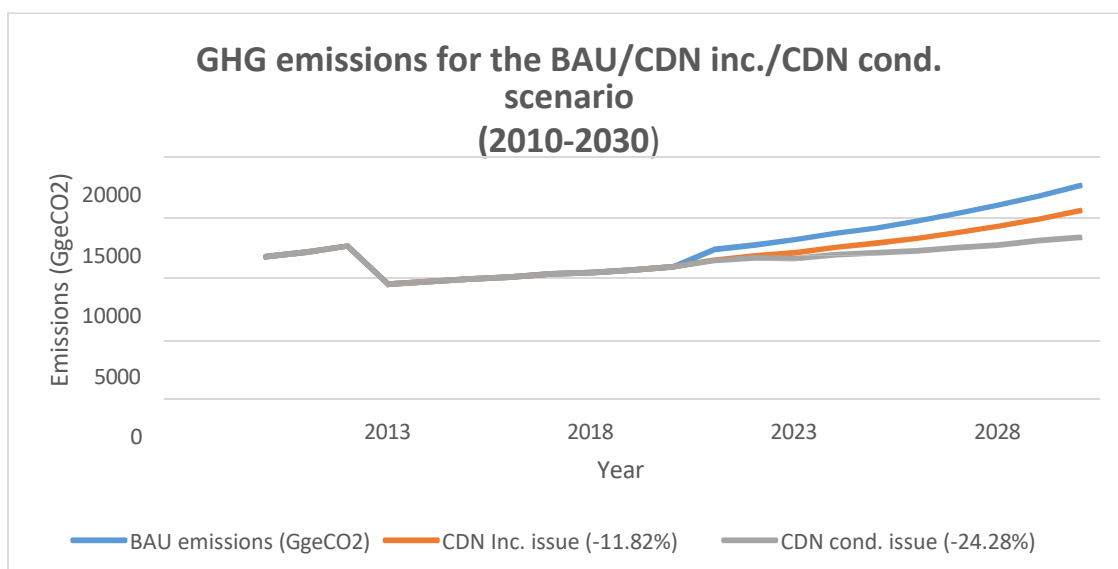


Figure 12: Global emissions-trend scenario, unconditional NDC and conditional NDC

Emissions	Emissions Trend scenario (GgeCO2)	Unconditional CDN emissions (GgeCO2)	CDN discount unconditional	Conditional CDN emissions (GgeCO2)	CDN discount conditional
Horizon 2025	14 141	12 864	-9,03%	12 070	-14,64%
Horizon 2030	17 644	15 558	-11,82%	13 359	-24,28%

Measures taken in this way not only have an impact on reducing greenhouse gas emissions, but also on improving the level of carbon sequestration by biomass and soils. In 2030, this absorption capacity will be 735,140 GgCO₂ and 739,086 GgCO₂ under the unconditional and conditional scenarios respectively.

Absorptions	CO2 sequestered Trend scenario (GgeCO2)	CO2 sequestration CDN unconditional (GgeCO2)	% increase in unconditional CDN	CO2 sequestered CDN conditional (GgeCO2)	% increase CDN conditional
Horizon 2025	730 714	732 036	+0,18%	735 763	0,69%
Horizon 2030	733 608	735 140	+0,21%	739 086	+0,75%

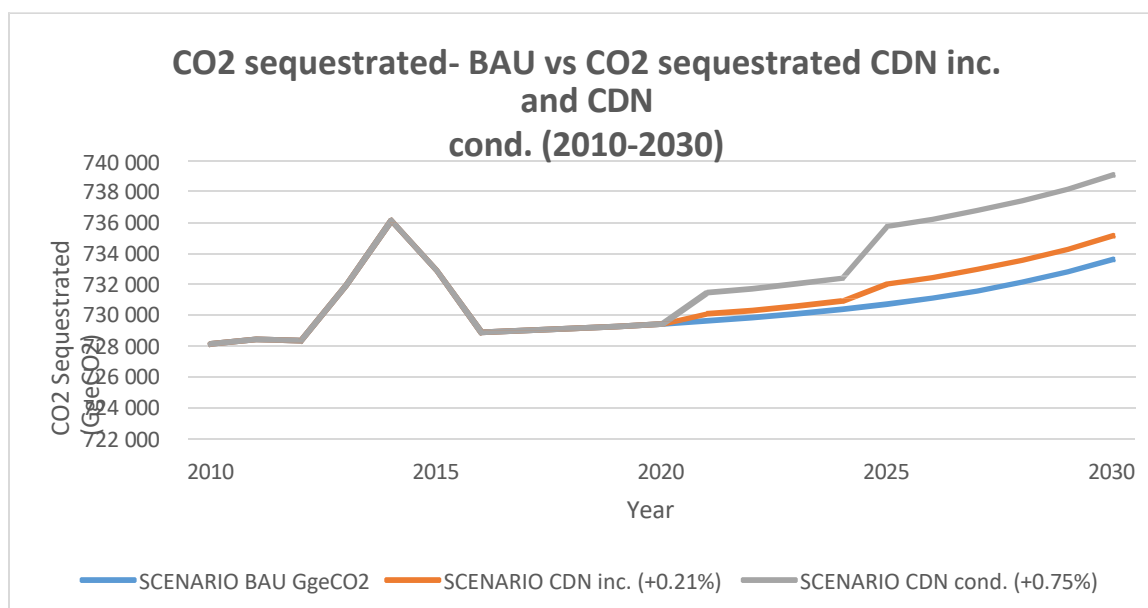


Figure 13: Global absorptions-Trend scenario, unconditional NDC and conditional NDC

In the case of PCCVD, emission reductions by gas are as follows.

	Horizon 2025					Horizon 2030				
	Cumulati ve emissions (tonnes)	CDN	%	CDN+	%	Cumulati ve emissions (tonnes)	CDN	%	CDN+	%
NOx	61 685	58440	-5,26	57346	-7,03	68480	50039	-26,93	44945	-34,37
CO	577 232	537033	-6,96	533620	-7,56	614099	382793	-37,67	361758	-41,09
NMVOCS	10388	97569	-2,81	95 783	-4,59	117047	101052	-13,67	90019	-23,09
SO2	2592	2343	-9,63	2341	-9,69	2573	1158	-54,97	1150	-55,31
PM10	94993	88804	-6,52	87944	-7,42	98330	63212	-35,71	57920	-41,10
PM2.5	67208	63659	-5,28	62816	-6,53	70846	50821	-28,27	45638	-35,58
BC	12101	11760	-2,83	11517	-4,83	13048	11102	-14,91	9628	-26,21
OC	31862	30312	-4,86	29886	-6,20	33922	25210	-25,68	22572	-33,46
NH3	10831	10574	-2,37	10358	-4,37	11829	10389	-12,17	9040	-23,57

Table 5: PCCDV emission reductions in unconditional and conditional scenarios

4. ADAPTING TO THE EFFECTS OF CLIMATE CHANGE

VISION AND GOAL

CAR's national vision on climate change is that "by 2030, the Central African Republic will be part of a dynamic of sustained, equitable and sustainable socio-economic development, integrating the challenges of climate change into all social and productive sectors, thereby improving the general well-being of its population".

In keeping with such a vision, and consistent with the adaptation objectives of the Paris Agreement, the SDGs and the priority directions defined by the Government, the adaptation objective is "to improve the resilience of communities and ecosystems in the socio-economic sectors most vulnerable to the adverse effects of climate change by 2030".

IMPACTS AND ADAPTATION MEASURES

At national level, vulnerability is more marked in areas included in the 2017-2021 National Recovery and Peacebuilding Plan (RCPCA) as Government priorities. These are: agriculture, energy, forestry, water resources, health, land use planning, infrastructure and housing. It is exacerbated by political insecurity and inequality, in a context marked by growing gender inequality, whose index is considered one of the highest in the world. Indeed, the country is ranked 159th out of 162 countries according to the United Nations' 2019 Gender Inequality Index (GII). This inequality has increased over recent decades due to successive crises, with an index that has risen from 0.743 in 1995 to 0.680 in 2019.

The table below details the impacts and vulnerabilities by sector, in relation to the expected effects of climate change.

Horizon	2030 ¹⁶								
Temperature variation (°C)	0.2°C	0.4	0.6	0.8	1	1.2	1,4	1.6	1.8
Precipitation anomaly (mm)	-20	-15	-10	-5	0	+5	+10	+15	+20
National economy	GDP decline from -2.6% to -3.4% in ²⁰³⁰ ¹⁷ . Worsening incidence of poverty.								
Agriculture and food safety	<ul style="list-style-type: none"> Increase in land degradation to levels > 1.3% of national territory/year¹⁸, due to exposure of shallow ferrallitic soils (75%) vulnerable to erosion and cultivation practices. Reduced productivity (up to 20%) of sesame, sorghum, groundnuts and millet in dry spraying, 								

¹⁶ The proposed presentation does not mean that temperature and precipitation values correspond on the same axis.

¹⁷ AfdB. Climate Change Impacts on Africa's Economic Growth. 2019. RCP 2.6 and RCP 8.5 scenarios.

¹⁸ Rate of deterioration between 2000 and 2010

	<p>Increased cassava productivity under a wet projection, by 2025,</p> <ul style="list-style-type: none"> Rise in severely food-insecure population to new levels > at the rate of 30-50% of the population¹⁹.
Forestry	<ul style="list-style-type: none"> Increase in loss of forest area > 0.1% per year <p>15% contraction in forest area Assuming an increase of 4°C</p>
Water Resources	<ul style="list-style-type: none"> Low water levels in dams supplying hydroelectric power plants (e.g. Boali) Increase in the number of households without access to basic water services (>62.5%), due to reduced reliability of ground and surface water sources during prolonged dry spells. <p>Increase in flow variability, Intensification of high flows and Reducing low flows. Hydroelectric benefits</p>
Energy	<ul style="list-style-type: none"> Increased frequency and intensity of heavy rainfall likely to impact electrical infrastructure.
Health	<ul style="list-style-type: none"> Increase in conditions conducive to disease (typhoid, respiratory infections, meningitis, diarrhoeal diseases, malaria) and transfer to new areas new zones
Infrastructure and housing/ Spatial planning	<ul style="list-style-type: none"> Negative impact of annual damage and losses caused by recurrent flooding on GDP: Average annual damage and losses estimated at XAF 3, 1 billion²⁰ (USD 7 million).

Table 6: Impacts and vulnerabilities by sector

SPECIFIC OBJECTIVES AND ADAPTATION MEASURES

To achieve the overall adaptation objective, intermediate objectives and measures have been identified. They are aligned with the SDGs, the RCPCA, the National Adaptation Plan, and the country's third national communication.

OBJECTIVE 1: GUARANTEE THE SECURITY OF AGRO-SYLVO-PASTORAL SYSTEMS AND WATER RESOURCES, BY CAPTURING THE OPPORTUNITIES ASSOCIATED WITH PROJECTED CLIMATIC VARIATIONS

Alignment with PNA: Programme national d'investissement agricole, sécurité alimentaire et résilience au changement climatique (National agricultural investment program, food security and climate change resilience)

Option	Targets/Reference year: 2010	Actions and measures to achieve targets
Agriculture and Livestock		
Development of sustainable, intensive and diversified agriculture, and promoting management actions	<ul style="list-style-type: none"> Improvement and dissemination of production of food crops, 	Popularize high-performance crop-growing packages that can bring about a lasting improvement in

¹⁹ CPI averages between 2016 and 2021.

²⁰ Joint needs assessment report (September 2009) on urban flooding in Bangui

sustainable land management involving young people, women and indigenous peoples	taking into account climate projections (5 by 2030: Manioc (+26%), Peanut (+13%), Corn (+33%), Sorghum/Millet (+29.7%), Sesame (+23%).	productivity and environmental protection in a context of climate change (resistant varieties)
	<ul style="list-style-type: none"> By 2030, reduce the loss of land productivity by 50%. (target: 50% female owners) 	Integrate the neutrality of land degradation(NDT) into national priorities; ensure the integration of agriculture and livestock in degraded cultivated areas; promote agri-forestry systems for sustainable soil management; ensure the reforestation of areas degraded by fodder crops in degraded cultivated areas; ensure the integration of agriculture and livestock in degraded cultivated areas; promote agri-forestry systems for sustainable soil management; ensure the reforestation of areas degraded by fodder crops in degraded cultivated areas.
	<ul style="list-style-type: none"> Reduce slash-and-burn cultivation practices by 60% by 2030 	Cf. Attenuation-AFAT
Developing agricultural research that adapts to climate change	<ul style="list-style-type: none"> By 2030, develop food crop varieties adapted to water stress and/or temperature in the central and northern regions of CAR, for the benefit of the most vulnerable communities: cassava; groundnuts; maize; rice; sesame (at least 10 varieties) 	Technical capacity building (varietal development, use of impact models to simulate productivity and production per scenario); ICRA material capacity building (simulation models, laboratories, seed multiplication centers).
Prevention and management of the effects of exceptional climatic events on the agro-sylvo-pastoral system	<ul style="list-style-type: none"> Set up and make operational by 2030 a system for preventing food crises associated with climate variability and change (early warning system including an information system 	Existence of a functional hydro-meteorological and seasonal forecasting system
Improving the climate resilience of communities and traditional pastoral systems	<ul style="list-style-type: none"> By 2030, seven new land-use plans (for the seven regions of the CAR) will redefine, among other things, livestock farming zones and transhumance corridors, in line with variability and changes in climate. current and projected climatic conditions 	Drawing up natural resource zoning adapted to current and projected climate zoning, Rehabilitating and building water reservoirs in certain breeding areas
	<ul style="list-style-type: none"> By 2030, improve the level of sedentarization of transhumant herders and reduce the risks associated with climate variability and change, by increasing the area of forage crops in forested areas and ensuring monitoring. zootechnical and veterinary 	Installation of fodder crop plots, improved and maintained water points; Ensuring the supply of veterinary vaccines and medicines to pastoral organizations; Supporting vulnerable households to develop IGAs.

Option	Targets/Reference year: 2010	Actions and measures to achieve targets
Forestry		
Restoration of deforested landscapes, through reforestation with multi-species species to reduce the sensitivity and exposure of forests to climatic hazards.	<ul style="list-style-type: none"> By 2030, restore and maintain 1,000,000 ha, including degraded forest landscapes in mining areas 	Ensure reforestation of degraded areas through urban, peri-urban and community forestry; Reduce pressure on the use of wood as an energy source by modernizing domestic energy (see mitigation).
Regulation of artisanal timber and energy wood harvesting and measures to reduce pressure on resources	<ul style="list-style-type: none"> A master plan for the sustainable use of Bangui's wood-energy supply has been defined, and the implementing regulations drawn up by 2025. Make 25% of firewood harvesting renewable in 2030 	<ul style="list-style-type: none"> Identification of Bangui's wood-energy supply basins Support for sustainable management of existing supply basins (see AFAT mitigation)
	<ul style="list-style-type: none"> Household penetration of improved stoves: 25% in 2025 and 50% in 2030 Increase charcoal production efficiency from 10% to 25% by 2030 LPG: 10% by 2030 	<ul style="list-style-type: none"> Improving the energy efficiency of wood energy use (see Energy mitigation) Promotion of LPG as a substitute for wood energy
Promoting agroforestry to reduce climate risks and diversify economic options	<ul style="list-style-type: none"> Planting of 100,00 ha by 2030 (50,000 ha of orchards, 20,000 ha of palm groves 30,000 ha of hardy plants (date, shea, tamarind)) 	Cf. Mitigation-AFAT Capacity building and materials of the parties Establish incentives: quality seeds, nurseries, training materials, etc. extension services, identification of product markets.
Support and formalization of the non-timber forest product (NTFP) supply chain to diversify food supply sources in a climate crisis situation	<ul style="list-style-type: none"> Increase production of food NTFPs (shea, wild pepper, Gnetum africanum, Dorstenia sp, caterpillars, mushrooms) by 30% by 2030 (targets: 50% female heads of household 	Information, training, installation of propagation nurseries and processing units; establishment of collection and storage depots; organization of the NTFP marketing circuit.

Alignment with the NAP: Integration of climate change adaptation into national and regional water resource management; Strengthening the resilience of rural and urban areas to climate change through better management of community water resources.

Option	Targets/Reference: for	Actions and measures 2010 Target achievement
Water Resources, Water and Sewerage Services		

Improving the tools current and future vulnerability of taking climate	governance- • Vulnerability analyses governance sanitation line with Policy, des outils basés sur l'analyse de : the development and management the master plan for wastewater and excreta treatment, the national water information system, the water plan updated IWRM action plan	By 2025, equip ourselves with the of the water and sector , in National Water eau par bassin ; development into account projections of water resources to climate change vulnerability master plan.
Setting up a monitoring system – monitoring monitoring of climate change	By 2025, develop a system water safety ²¹ and uses in en eau (hydrometric stations, establish a water quality monitoring • (SQE)	• Maintenance and renewal and to ensure the des outils for suivi des resources groundwater and surface water context of variability and and piezometer system, des protocols quality assessment water • Data processing and analysis tools for public services
Capacity municipalitiescommunes collection, management and waste recycling	building- ofBenchmarking; institutional (technical managers) in collection, management and solid waste training, acquisitions of provide them with the	By 2025, train 30% development of training modules on collection, in recovery,; implementation of solid recycling and equipment they need
Development of associated with the promotion of the efficiency of drinking the	drinking water the population using SODECA services major cities; Establishment of water use water supply systems (Bangui and secondary centers) to cope with the risk of drought	Improving the proportion of ; Extension of the network in water supply to 75% of the rural population and , boreholes, etc.

OBJECTIVE 2: ADAPT THE REGION AND ITS ENERGY SYSTEMS TO CURRENT AND FUTURE CLIMATE CHANGE

Option	Targets/Reference year: 2010	Actions and measures to achieve targets
Regional planning		
Shaping the use of land and natural resources through a legal and regulatory framework that takes current and future climate into account	<ul style="list-style-type: none"> 1 Schéma National d'Aménagement du Territoire (SNAT) and 20 Plans d'aménagement locaux spatialisés pilot, integrating environmental issues by 2025 	Participatory mapping of uses and usage rights; Technical studies on land potential and use; Geo-referenced database of risks and specific resources

²¹ Availability of resources in sufficient quantity and quality to guarantee socio-economic development, livelihoods, health and ecosystems

	<ul style="list-style-type: none"> The land code and the land code agro-pastoral d'ici 2025 more 	<ul style="list-style-type: none"> Revision and harmonization of the etc. legal framework adopted land code; Making the texts adapted and applicable in the CC context
--	---	---

Option	Targets/Reference year: 2010	Actions and measures to achieve targets
Energy		
Promotion of improved carbonization of wood waste logging	<ul style="list-style-type: none"> See mitigation Traditional energies sub-sector 	
Rural electrification	<ul style="list-style-type: none"> See mitigation Electricity sub-sector 	
Regulating and combating artisanal logging and energy wood	<ul style="list-style-type: none"> See Adaptation Forestry sub-sector 	
Promote the reforestation of degraded areas with fast-growing plants for use as a food source. wood energy	<ul style="list-style-type: none"> See Adaptation Forestry sub-sector 	

OBJECTIVE 3: INFORM AND PREPARE INFRASTRUCTURES AND HABITATS, AND HEALTH SYSTEMS, FOR CLIMATE RISKS, BY IMPROVING AND GENERATING EVIDENCE IN THESE FIELDS

Option	Targets/Reference year: 2010	Actions and measures to achieve targets
Housing and Infrastructure		
Improving knowledge of the vulnerability of housing and infrastructure and identifying adaptation options	<ul style="list-style-type: none"> By 2025, in-depth vulnerability assessments have been carried out and incorporated into sectoral planning. By 2025, a participatory action plan for the housing and infrastructure sectors in adaptation planning at national level is drawn up, and operational 	Climate change modeling; assessment of risks, impacts and vulnerabilities, and of adaptation options; integration into sectoral planning
Promotion of a sustainable housing construction model, linked to the sedentarization of indigenous AKA populations in a climate change context	<ul style="list-style-type: none"> Building pilot habitats 	Free, Prior and Informed Consent with Aborigines on sedentarization and sustainable habitats
Improve stormwater drainage systems to anticipate the effects of recurrent flooding in the most vulnerable cities	<ul style="list-style-type: none"> By 2030, improve the network by 25%. 	Drainage infrastructure, restructuring, relocation.

Option	Targets/Reference year: 2010	Actions and measures to achieve targets
Public health		
Improving knowledge of vulnerability of the health sector to climate change and identifying options adaptation	<ul style="list-style-type: none"> By 2025, assessments of vulnerability are conducted and capitalized on in the sectoral planning 	Change modeling climate; risk assessment, impacts and vulnerabilities, and adaptation options; integration in sector planning
Promotion of Hygiene and basic sanitation	<ul style="list-style-type: none"> By 2030, implementation of Total Sanitation Piloted by Communities (ATPC) in 500 villages 	Capacity building for actors and harmonization of the ATPC approach
Development of a for prevention and control against epidemics and diseases climate-sensitive (malaria), cholera, meningitis, etc.)	<ul style="list-style-type: none"> By 2030, establish a information and warning system climate-sensitive diseases and epidemics 	Identify the most vulnerable areas vulnerable people; Put in place tools for processing and analyzing RISK DATA and environmental trends epidemiological data; Identify or Establish a system for distributing information

CROSS-FUNCTIONAL MEASURES

Alignment with the NAP: Implementation of an integrated early warning system

Option	Targets/Reference year: 2010	Actions and measures to achieve targets
Transversal measures		
Climate change modelling and scenarios for CAR	<ul style="list-style-type: none"> By 2025, detailed climate projections based on the latest information (AR6) have been made for CAR 	Institutional support for the instrumentation and production of climate information
Disaster risk monitoring, post-disaster rapid needs assessment (PDNA) and operations management	<ul style="list-style-type: none"> By 2030, a multi-hazard early warning system (bushfires, floods, drought) is in place and operational. By 2030, a multi-sector disaster management system is in place, coordinated by DGPC 	Strengthening the technical and material capacities of the DGPC (training and equipment); Setting up an intersectoral risk management platform
Special adaptation program for aboriginal peoples	<ul style="list-style-type: none"> By 2030, 50% of the indigenous communities initially targeted have seen their capacity to adapt to climate change reinforced 	Specific needs assessments and FPIC, strengthening CC-resilient agricultural practices, water supply systems, building sustainable habitats, sustainable exploitation of natural resources. NTFPS.

Climate Education	<ul style="list-style-type: none"> By 2025, integrate basic notions of change into primary and secondary school curricula. climatic 	Capacity building for teacher-researchers, Curriculum development, Validation, Testing, Commissioning
Mobilizing resources	<ul style="list-style-type: none"> By 2030, mobilizing domestic financing necessary for the implementation of CDN and financing conditional exterior 	<p>Formulating a plan investment and</p> <p>Capacity building on climate finance</p>

5. MEANS OF IMPLEMENTATION

FINANCING REQUIREMENTS

NDC funding requirements over the decade 2021-2030 are estimated at \$1.764 billion, including \$1.321 billion for mitigation and \$443.872 million for adaptation. CAR's contribution, from its domestic resources, is \$280.44 million (or 16%). International partners are expected to contribute \$1.483 billion (84%).

ATTENUATION

Sector	Unconditional Cost (Millions \$)	Conditional Cost (Millions \$)	Total Cost (Millions \$)
Energy	58	476	534
AFAT	178	606	784
PIUP	0,29	0,15	0,44
Transversal measures	0,23	2,07	2,3
TOTAL	236	1084	1321

ADAPTATION

Sector	Unconditional Cost (Millions \$)	Conditional Cost (Millions \$)	Total Cost (Millions \$)
Agriculture and Livestock	12,377	111,396	123,774
Forestry	0,0451	22,524	22,570
Water resources, water and wastewater services	13,05	117,45	130,5
Regional planning	0,187	1,689	1,876
Energy	Cf Mitigation	Cf Mitigation	Cf Mitigation
Housing and Infrastructure	8,22	73,98	82,2
Public health	0,15	1,35	1,5
Cross-cutting measures including communication	8,332	74,995	83,328
TOTAL	44,387	399,484	443,872

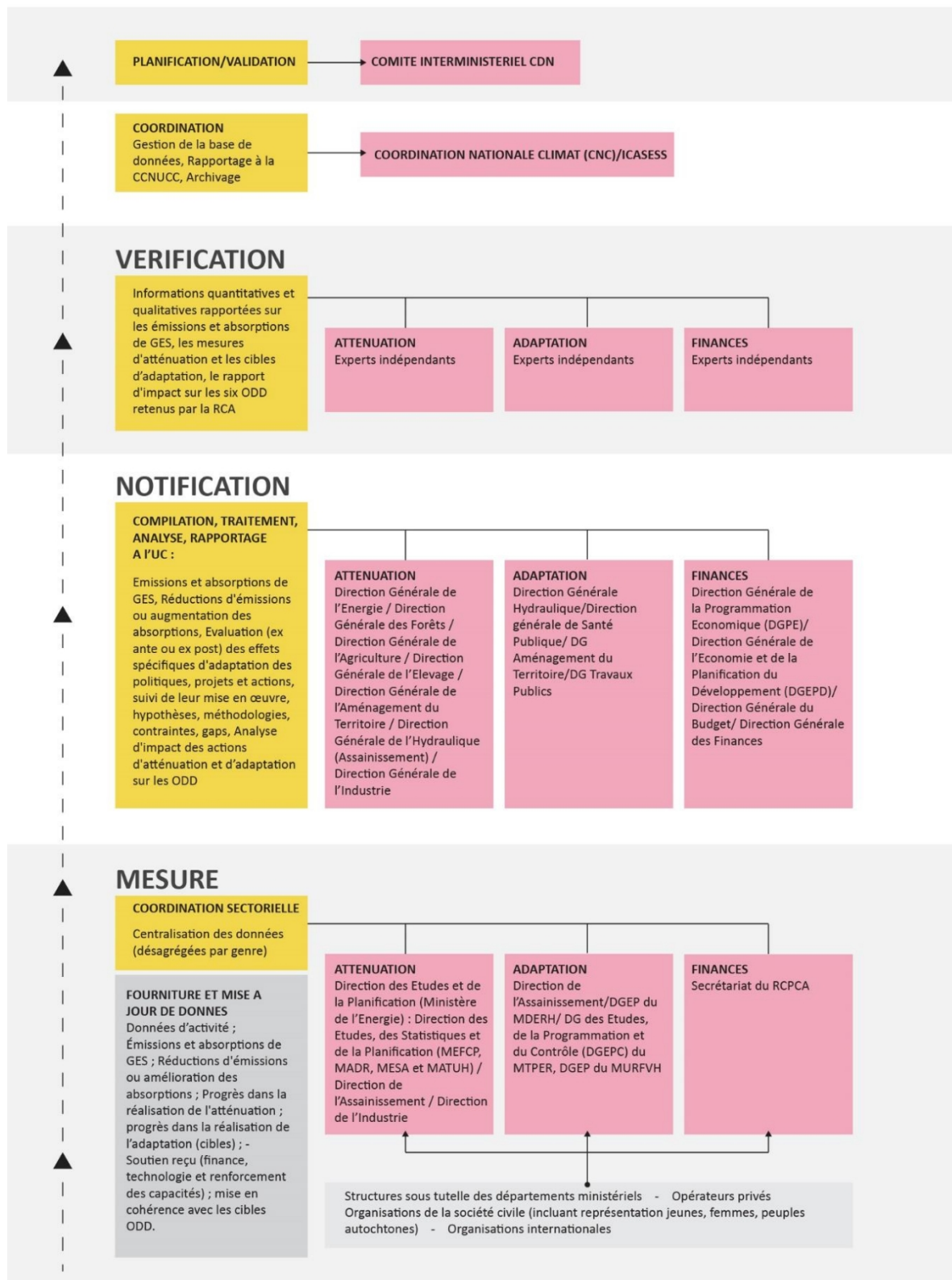
TECHNOLOGY NEEDS AND CAPACITY BUILDING

The implementation of certain adaptation and mitigation actions requires the use of technologies. Technology transfer in this field will include both capacity building and the installation of equipment.

Component	Technology needs	Need for capacity building
Attenuation	<ul style="list-style-type: none"> Cogeneration technology (biogas, wood and wood by-products) 	Using geospatial technologies to monitor ecosystems
	<ul style="list-style-type: none"> Bio methanization technology 	Conservation tillage Agroecology
	<ul style="list-style-type: none"> Photovoltaic solar technology 	Management of persistent organic pollutants (POPs)
	<ul style="list-style-type: none"> Solar field connected to the domestic grid ; 	Management of industrial standards
	<ul style="list-style-type: none"> Hydroelectric technology 	Complete definition of the baseline for adaptation and mitigation measures
	<ul style="list-style-type: none"> Large power plant 	
	<ul style="list-style-type: none"> Improving the energy efficiency of service equipment (pumps, generators, etc.) and recovery of energy produced but not consumed 	
	<ul style="list-style-type: none"> Mini and micro power plants 	
	<ul style="list-style-type: none"> Improved MAGE furnace-based carbonization technology 	
	<ul style="list-style-type: none"> Metal engineering (improved fireplace, solar cooker) 	
Adaptation	Non-timber forest products (NTFPs): processing technology and wild pepper conservation	Agroforestry
	Meteorological instrumentation	Climate scenarios and projections Conducting vulnerability assessments
	Simplified non-tillage technology or Techniques Culturelles Simplifi��e (TCS)	Development of curricula integrating climate change at primary and secondary levels
	Drought-resistant crops	
	Equipment and tools for remote sensing monitoring of bushfire alerts	

6. MEASUREMENT, NOTIFICATION AND VERIFICATION (MNV) MECHANISM

The proposed MNV system covers mitigation, adaptation and finance. It integrates across the board SDGs (CAR has selected six priority SDGs to follow: 4, 8, 10, 13, 16 and 17), technology transfer and capacity building.



7. Information to facilitate clarity, transparency and understanding²²

1.	Quantifiable information on the reference point (including, where applicable, a base year)	
(a)	<i>Reference year(s), base year(s), reference period(s) or other starting point(s)</i>	Reference year for emission projections: 2010 Reference year for BAU emission target: 2030
(b)	<i>Quantifiable information on reference indicators, their values in the reference year(s), reference years, reference periods or other starting points and, where applicable, the target year.</i>	The projected level of emissions in 2030 is 17,643 GgeCO ₂ .
(d)	<i>Target relative to the reference indicator, expressed numerically, e.g. as a percentage or amount of the benchmark. reduction</i>	The reduction in GHG emissions is 24.28% compared with the baseline (BAU) in 2030.
(e)	<i>Information on data sources used to quantify reference point(s)</i>	CAR's third national communication was used to quantify the GHG baseline. The RCA's integrated inventory of short-lived climate pollutants was used to quantify the level of reference for short-lived climate pollutants (PCCDV)
(f)	<i>Information on the circumstances in which the country Party can update the values of the reference indicators</i>	The BAU scenario has been updated on the basis of final data from the latest available inventories (GHG and PCCVD). CAR plans to update the GHG inventory in its first biennial report, scheduled for 2024. An emissions measurement, reporting and verification (MRV) tool will be developed and used to update the inventory. Reference indicators may change as a result of the update. up to date.
2.	Implementation deadlines and/or periods	
(a)	<i>Timetable and/or implementation period, including start and end dates, in accordance with any other relevant decisions adopted by the Conference of the Parties serving as the meeting of the Parties to the Kyoto Protocol. Paris (CMA)</i>	January ¹ , 2022-December 31, 2030
(b)	<i>Whether it's a one-year goal or a multi-year goal, as the case may be</i>	One-year target (2030).
3.	Scope and coverage	
(a)	<i>General description of the target</i>	The proposed mitigation measures will enable CAR to reduce its GHG emissions compared with the trend scenario. The level of GHG reduction in 2030 is in absolute terms 4284.42 GgeCO ₂ , and in relative terms 24,28%.

²² As per Decision -/CMA.1: Further guidance on the mitigation section of decision 1/CP.21.

		PCCVD reduction levels vary from -13.67% to -55.31% depending on the type of pollutant by 2030.
(b)	<i>Sectors, gases, categories and pools covered by the nationally determined contribution, including, where applicable, in accordance with the guidelines of the Intergovernmental Panel on Climate Change. climate (IPCC)</i>	Greenhouse gases: CO ₂ , CH ₄ , N ₂ O, HFC Short-lived climate pollutants: PM _{2.5} , PM ₁₀ , CN, CO, NO _x , SO ₂ , NH ₃ , NMVOCs
(c)	<i>How the country Party has taken into account paragraphs 31(c) and (d) of decision 1/CP.21²³</i>	The revised NDC includes all relevant categories of anthropogenic emissions or removals, in line with the 2006 IPCC Guidelines. Compared with the first NDC, the coverage of the revised NDC is extended to include to PCCVD.
(d)	<i>Mitigation co-benefits resulting from Parties' adaptation actions and/or economic diversification plans, including descriptions of specific projects, measures and initiatives of Parties' adaptation actions and/or economic diversification plans</i>	Mitigation co-benefits can be expected from the implementation of the following adaptation measures: Restoration of deforested landscapes through reforestation with multi-purpose species; Regulation of artisanal logging of timber and energy wood and measures to reduce pressure on resources; Promotion of agroforestry to reduce climate risks and promote sustainable development. diversification of economic options.
4.	Planning process	
(a)	<i>a) Information on the planning processes that the country Party has undertaken to prepare its NDC and, if available, on implementation plans.</i>	The process was led by the National Climate Coordination, with support from the UNDP Climate Promise initiative. A Steering Committee (CoPIL) representative of all parties (including representatives of women's, youth and indigenous peoples' organizations), created by ministerial decree, acted as an Intersectoral Technical Working Group responsible for supporting the process of formulating and validating deliverables at the various stages. The inclusion of CCSDPs, in addition to greenhouse gases, is a good practice on which other countries are building. Parties could draw inspiration from.
(c)	<i>How the country Party's preparation of its NDC has been informed by the results of the global stocktaking, in accordance with Article 4, paragraph 9, of the Paris Agreement</i>	The CAR's first NDC was submitted in 2016. In accordance with Article 4, paragraph 9, of the Paris Agreement, this second NDC is drawn up five years after the first. With the global review scheduled for 2023, the revision of the NDC was inspired by the September 2021 synthesis report of the United Nations Framework Convention on Climate Change (UNFCCC). Climate Change (UNFCCC).
5.	Assumptions and methodological approaches, including those for estimating and accounting for anthropogenic greenhouse gas emissions and, where appropriate, removals	
(a)	<i>Assumptions and methodological approaches used to account for anthropogenic greenhouse gas emissions and removals corresponding to the country Party's NDC, in accordance with paragraph 31 of decision 1/CP.21 and the accounting guidelines adopted by the Meeting of the Parties to the Paris Agreement (CMA)</i>	Emissions and absorptions are reported in accordance with IPCC guidelines. There is methodological consistency between the 3 rd national communication and the CDN as regards the reference level. CAR intends to report on the GHG inventory in accordance with decision 18/CMA.1, and will report on progress in implementing the NDC by December 31, 2024.

²³ Parties shall endeavour to include all categories of anthropogenic emissions or removals in their nationally determined contributions and, where a source, sink or activity is taken into account, shall continue to include it.

(d)	<i>IPCC methodologies and metrics used to estimate greenhouse gas emissions and removals;</i>	IGES tool: Tier 1 method (GHG Inventory Manual 1996, revised version and 2006); EMEP / CORINAIR air pollution emissions inventory tool Reference year: 2010 Reference data: Third National Communication
(i)	<i>How are reference indicators and reference levels constructed?</i>	The national inventory report from the Third National Communication was used to construct the reference scenario. It is combined with a top-down statistical method of extrapolation based on the average annual rate of change, and the growth scenarios set out in the sectoral policy instruments. These can be improved and/or revised in future processes by making more data available and confirming or correcting growth rates. annual average
6.	How the country Party considers its NDC to be fair and ambitious in light of its situation national	
(a)	<i>How the country Party considers that its nationally determined contribution is fair and ambitious in light of its national situation;</i>	Despite the country's socio-economic situation (^{188th} out of 189 countries on the HDI), CAR's ambition is to contribute to the reduction of greenhouse gas emissions worldwide, according to the principle of common but differentiated responsibility. The revised NDC covers more sectors and gases. In relative terms, its ambitions are higher than those of its predecessor (24.28% for the revised NDC and 5% for the first NDC), but lower in absolute terms: 4,284.42 GgeCO ₂ compared with 5,500 GgeCO ₂ for the first NDC. This difference is due to the revision of the BAU scenario, which is more realistic, as it is based on more data and sectors. The country is a major carbon sink (728,896 GgeCO ₂), which it aims to protect and advance through the proposed sequestration measures. What's more, from a conceptual point of view, it introduces a new approach that could be of interest to other countries on the road to sustainable development. low-carbon development.
(b)	<i>Equity considerations, including a reflection on fairness</i>	See 6 (a)
(c)	<i>How the country Party has dealt with Article 4, paragraph 3, of the Paris Agreement²⁴</i>	See 4 (c). Ditto for 6 (c) and 6 (d).
7.	How the NDC contributes to achieving the objective of the Convention as set out in Article 2	
(a)	<i>How the contribution determined at national level contributes to achieving the objective of the Convention as set out in its Article 2</i>	See 4 (c).
(b)	<i>How the nationally determined contribution contributes to Article 2(1)(a) and Article 4(1) of the Paris Agreement</i>	See 4 (c). CAR's revised NDC relies on an improved and more robust database to estimate reference scenario emissions and removals and mitigation-induced reductions.

Table 7: Information to facilitate clarity, transparency and understanding

²⁴ Each Party's next NDC will represent a progression from the previous NDC and will correspond to its highest possible level of ambition, taking into account its common but differentiated responsibilities and respective capabilities, having regard to different national contexts.