RÉPUBLIQUE TOGOLAISE

# REVISED NATIONALLY DETERMINED CONTRIBUTIONS (NDC)


CLIMATE PROMISE UNDP
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# TOGO'S REVISED NATIONALLY DETERMINED CONTRIBUTIONS (NDC)

## Interim document

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# Acronyms

| | |
|---|---|
| ADAPT | Adapting agricultural production to climate change |
| AFD | French Development Agency |
| AGR | Income-generating activities |
| AME | Multilateral environmental agreements |
| ANASAP | National sanitation and public health agency |
| ANGEL | National Environmental Management Agency |
| ANPC | National Civil Protection Agency |
| AP | Storm drainage, protected areas |
| ODA | Official development assistance |
| BAD | African Development Bank |
| BCEAO | Central Bank of West African States |
| IBE | Capital expenditure and equipment budget |
| BM | World Bank |
| BOAD | West African Development Bank |
| CC | Climate change |
| CCD | United Nations Convention to Combat Desertification |
| CDQ | Neighbourhood Development Committee |
| ECOWAS | Economic Community of West African States |
| CEREEC | ECOWAS Centre for Renewable Energy and Energy Efficiency |
| CET | Technical landfill centre |
| CDN | Nationally determined contributions |
| CFC | Chlorofluorocarbons |
| CGES | Environmental and social management framework |
| CSIGERN | Strategic investment framework for the management of the environment and natural resources |
| CITES | Convention on International Trade in Endangered Species of Wild Fauna and Flora |
| CNDD | National Commission for Sustainable Development |

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|---|---|
| UNFCCC | United Nations Framework Convention on Climate Change |
| COA/GIRE | West African Conference on Integrated Water Resources Management |
| COP/CdP | *Conference of Parties* /Conférence des parties |
| CSI | Strategic investment framework |
| CVD | Village Development Committee |
| CPDD | Prefectural Sustainable Development Commission |
| CPDN | Expected contribution determined at national level |
| DAC | Joint Affairs Department |
| DCNCC | Second national communication on climate change |
| FROM | Environment department |
| DGSCN | Directorate-General of Statistics and National Accounts |
| DRERF | Regional Environment and Forest Resources Department |
| DRF | Forest Resources Department |
| PRSP-C | Full Poverty Reduction Strategy Paper |
| EESS | Strategic environmental and social assessment |
| EEDD | Environmental education and sustainable development |
| EIES | Environmental and social impact assessment |
| FAO | Food and Agriculture Organization/Food Organisation des Nations Unies pour l'alimentation et l'agriculture |
| FCPF | Forest Carbon Partnership Facility |
| FDR | Togo 2025 government roadmap |
| FEM | Global Environment Facility |
| SWOT | Strengths, weaknesses, opportunities and threats ; |
| FNDF | National Forestry Development Fund |
| FNE | National Environment Fund |
| FVC | Green Climate Fund |
| GAFSP | *Global Agriculture and Food Security Program* |
| GDF | Sustainable forest management |
| GERN | Management for the environment and natural resources |
| IPCC | Intergovernmental Panel on Climate Change |
| GIFERC | Integrated management of water fertility and pests by fungi |

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| GIFS | Integrated soil fertility management |
| GIRE | Integrated water resource management |
| GIZ | *Gesellschaft für Internationale Zusammenarbeit* |
| GERN/GRN | Environment and natural resources management/Natural resources management |
| GT | Working group |
| GTVD | Waste management, treatment and recovery |
| IEC | Information education communication |
| IFN | National forest inventory |
| INSEED | French National Institute for Statistics and Economic and Demographic Studies |
| IRENA | International renewable energy agency / Agence internationale des énergies renouvelables |
| EITI | Extractive Industries Transparency Initiative |
| ITRA | Togolese Institute for Agronomic Research |
| MAEH | Ministry of Agriculture, Livestock and Hydraulics |
| MAEP | Ministry of Agriculture, Livestock and Fisheries |
| MDP | Clean Development Mechanism |
| MEAHV | Ministry of Water, Sanitation and Village Hydraulics |
| SEA | Ministry of Rural Equipment (currently merged with MAEH) |
| MERF | Ministry of the Environment and Forest Resources |
| MPDC | Ministry of Development Planning and Cooperation |
| MRV / MNV | Measurement, reporting and verification / Mesure notification et vérification |
| MUH | Ministry of Town Planning and Housing |
| NDT | Neutrality with regard to land degradation |
| NEPAD | *New Partnership for Africa's Development* /Nouveau partenariat pour le développement de l'Afrique/ |
| ODD | Sustainable development objectives |
| ODEF | Forestry Development and Exploitation Office |
| ITTO | International Tropical Timber Organization |
| MDG | Millennium Development Goals |
| ONAEM | National body responsible for State action at sea |
| NGO | Non-governmental organisation |

| | |
|---|---|
| OSC | Organisation of civil society |
| OTR | Togolese Revenue Office |
| PADAT | Togo agricultural development support project |
| PALCC | Support programme to combat climate change |
| PAFN | Togo's national forestry action plan |
| PANA | National action plan for adaptation to climate change |
| PAN-LCD | National action plan to combat desertification |
| PANSEA | National action plan for the water and sanitation sector |
| PASA | Support programme for the agricultural sector |
| PAUT | Togo urban development project |
| PAZOL | Development project for the lagoon area |
| CAADP | Detailed programme for the development of agriculture in Africa |
| PEUL | Lomé urban environment project |
| NTFPS | Non-timber forest products |
| ESMP | Environmental and social management plan |
| PGFF | Refrigerant management plan |
| PGICT | Integrated land and disaster management project |
| GDP | Gross domestic product |
| SMES | Small and medium-sized businesses |
| PNACC | National climate change adaptation plan |
| PNADE | Programme national decentralised decentralised of management of the environment |
| PNASAP | Togo's national strategic plan for sanitation and public health |
| NEAP | National Environmental Action Plan |
| PND | National development plan |
| PNDS | National health development plan |
| PNE | National water policy |
| PNE TOGO | Togo National Water Partnership |
| PNGE | National Environmental Management Programme |
| PNHAT | Togo's national hygiene and sanitation policy |
| PNIASA | Programme national d'investissements agricultural and of food security |

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|---|---|
| PNIASAN | Programme national d'investissements agricultural and of food and nutritional security |
| PNIERN | National investment programme for t h e environment and natural resources |
| PNPC | National civil protection policy |
| NRP | National reforestation programme |
| UNDP | United Nations Development Programme |
| UNEP | United Nations Environment Programme |
| PMA | Least developed countries |
| PONAT | National spatial planning policy |
| PP | Public policy |
| PPAAO | West Africa Agricultural Productivity Programme |
| PRAPT | Project to strengthen the conservation role of Togo's national system of protected areas |
| PRCGE | Capacity-building project for environmental management |
| PRCNDGE | Decentralised national capacity-building project for environmental management |
| ProDRA | Rural development programme including agriculture |
| ProREDD | Support programme for REDD+ readiness and forest rehabilitation in Togo |
| PSSET | Strategic plan for the energy sub-sector in Togo |
| PTF | Technical and financial partner |
| PUDC | Emergency programme for community development |
| PURISE | Emergency p r o j e c t to rehabilitate electrical services and infrastructure |
| QUIBB | Unified questionnaire of basic indicators of well-being |
| RAPD | Report on official development assistance |
| REDD+, | Reducing emissions from deforestation and forest degradation |
| RGPH | General population and housing census |
| RRC | Disaster risk reduction |
| CSR | Corporate social responsibility |
| RSO | Corporate social responsibility |
| M&E | Monitoring and evaluation |

| | |
|---|---|
| SAP | Early warning system |
| SCAPE | Strategy for accelerated growth and promotion of employment |
| SDAL | Coastal development plan |
| SISL | Coastal information and monitoring system |
| SNGF | National wildfire management strategy |
| NTSRC | National disaster risk reduction strategy |
| SPANB | National biodiversity strategy and action plan |
| SRRC | Togo's national disaster risk reduction strategy |
| UA | African Union |
| EU | European Union |
| UEMOA | West African Economic and Monetary Union |
| PMU | Project Management Unit |
| UNESCO | United Nations education, scientific and cultural organization / Organisation des Nations Unies pour l'éducation, la science et la culture |
| UNICEF | United Nations Children's Fund |
| WACA | West Africa coastal areas management program |
| WACAF | Coastal zones in the West and Central Africa region |
| WASCAL | West African science service centre on climate change and adapted land use |

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# Introduction

At the 21st Conference of the Parties (COP21) in Paris on 12 December 2015, the Parties to the United Nations Framework Convention on Climate Change (UNFCCC) reached a historic agreement to tackle climate change. This is to accelerate and scale up the action and investment needed for sustainable, low-carbon development. The Paris Agreement (PA) entered into force in November 2016, following the universal adoption of the Agreement by the Parties. Through this agreement, all stakeholders have made voluntary commitments for the transition to a future that is resilient to climate change and low in greenhouse gas (GHG) emissions.

Parties are required to undertake and communicate their efforts to contribute to the achievement of these targets in the form of Nationally Determined Contributions (NDCs) communicated to the UNFCCC (Article 3). The NDCs are therefore the centrepiece of the Paris Agreement, which calls on the signatory countries to revise their commitments every 5 years with a view to raising their ambitions in terms of both mitigation and adaptation in order to keep global warming below 2°C or even 1.5°C.

In the run-up to the Paris Agreement, Togo prepared and submitted its Nationally Determined Contributions (NDCs) in 2015, which were confirmed as its NDCs following the adoption of the Agreement. With the support of the United Nations Development Programme (UNDP) through the "Climate Promise" initiative and the *NDC* Support Programme, Togo is committed to revising its NDCs in 2020.

Togo's aim in revising its NDCs is to comply with its commitments under the Paris Agreement and to ensure that they are in line with its development priorities (National Development Plan and Government Roadmap 2025) and the Sustainable Development Goals (SDGs).

The revision of Togo's NDCs covers, among other things, the updating of data and information in the light of new programmatic and political developments, the inclusion of the infrastructure sector, better integration of the water resources sector and the inclusion of hydrofluorocarbons (HFCs) and short-lived atmospheric and climate pollutants among the gases whose emissions are to be reduced. This has made it possible to update the country's commitment targets, incorporating new projects based on new incentives in the transport and renewable energy sectors to raise the level of ambition.

Togo's revised NDCs describe the strengthened actions and enabling environment required over the 2015-2020 period that have laid the foundations for more ambitious targets beyond 2020, contributing to the concerted effort to prevent a 2°C increase in global average temperature, and

continue efforts to limit the temperature rise to 1.5°C above pre-industrial levels.

By 2030, Togo plans to increase its climate resilience through comprehensive mitigation, adaptation and disaster risk reduction strategies. Togo has set itself ambitious sustainability targets linked to the production and consumption of food, water and energy. These goals will be achieved by supporting empowerment and capacity building, improved delivery of basic social services, technological innovation and sustainable management of natural resources, while respecting the principles of good governance.

In addition to the CDN 2030 target, Togo is committed to moving towards a long-term low-carbon development and climate resilience strategy through its National Development Plan (NDP 2018-2022) and the Government Roadmap 2025.

With this in mind, the country has drawn up a plan for the preparation and implementation of its NDCs covering the period 2020-2024. This plan, comprising nine programmes, aims to accelerate transformational change towards low-carbon development that is resilient to climate change.

This revised NDC document contains seven chapters dealing respectively with the national context, governance, mitigation, adaptation, financial and technological needs and the assistance required, the national measurement, reporting and verification (MRV) system, and the communication strategy for implementing the NDCs.

# Chapter 1: National context

## 1.1. GENERAL PRESENTATION

Togo is located in the inter-tropical zone. It has a tropical Guinean climate with 4 seasons in the southern part and a tropical Sudanian climate with two seasons in the northern part. The Maritime and Savanes regions receive less than 1000 millimetres of water per year. Seasonal irregularities have been observed in recent decades. The Atakora massif and the Togo mountains cut across Togo from north-east to south-west. Mount Agou is the country's highest peak, rising to over 900m in the south-west. On either side of this range lies the peneplain. Togo has four main types of soil. These are crude mineral soils with little development, tropical ferruginous soils, ferralitic soils and vertisols, and hydromorphic soils.

With a forest cover of 24.24%, Togo's biological resources are numerous and diverse. Plant formations include dense semi-deciduous forests, Guinean savannahs, Sudanian savannahs interspersed with dry forests or open forests depending on the locality, gallery forests and riparian forests, etc. Togo's flora includes 3,491 terrestrial species and 261 aquatic species. The fauna, estimated at 3,469 species, is made up of terrestrial species, avifauna and aquatic fauna. Togo is divided into five main phytogeographical domains. These are known as ecological zones.

Togo's water resources are fairly abundant. They consist of surface water drained by the three main catchment areas (Oti, 47.3%, Mono, 37.5%, Lake Togo, 16%) and renewable groundwater contained in the two aquifers of the basement and the coastal sedimentary. The total volume of renewable water resources is estimated at around 19 billion cubic metres per year, or around 27% of rainfall (around 70 billion cubic metres per year).

Togo has a 50 km long coastal zone stretching from Lomé to Aného, which is of vital economic importance to the country. A wide range of activities such as fishing, industry, crafts, tourism, etc. are carried out in this zone. As it opens onto the Gulf of Guinea, the balance of the physical environment of the coastline is somewhat unique due to the interrelationships between the various elements of this fragile environment, the weight of demographic growth, and the existing developments, which are expanding every year. It is exposed to coastal risks: erosion, flooding and pollution.

The November 2010 general population and housing census put Togo's resident population at 6,191,155, with an average annual growth rate of 2.3%. Projections for 1 January 2019 put this figure at 7,538,000.

hbts. It will reach 7,723,000 inhabitants on 1 January 2020. The average population density was 109 inhabitants/km² in 2010. It varies from region to region, being highest in the Maritime region and lowest in the Savanes region. In Togo, 53.5% (2017) of the population lives below the poverty line. The poverty rate fell by 1.6 points between 2015 and 2017. In 2018-2019, a new estimate of the poverty line was made, in order to assess more accurately the proportion of households living below the poverty line. The incidence of poverty calculated on this new basis is 45.5% at national level. Togo's Human Development Index (HDI) rose from 0.426 in 2000 to 0.484 in 2014 and then to 0.484 in 2015, placing the country 162nd out of 188 countries with comparable data.

With emergence at the heart of its ambition, Togo has made remarkable progress over the last 10 years and has set itself high targets for economic growth and social and human development in the years ahead. The global pandemic caused by Covid-19 is an unprecedented shock that will have major repercussions for Africa, and particularly for Togo. However, Togo wishes to give a new impetus to its economy and society in the form of a concrete strategic plan. The government therefore defined a roadmap launched in October 2020 for the 2025 horizon. The purpose of this roadmap is to adjust the integrated national vision by gaining an overall understanding of Togo's context, in particular by considering the Covid-19 context, to update Togo's portfolio of projects and reforms defined in its National Development Plan (NDP) by taking account of the new vision and their state of progress, and to guide the implementation of this new vision at the level of each sectoral ministry.

The government's roadmap aims for "a peaceful Togo, a modern nation with inclusive and sustainable economic growth". This vision is structured around three strategic interdependent strategic axes : (i) strengthening social inclusion and harmony and consolidating peace; (ii) boosting job creation by building on the strengths of the economy; and (iii) modernising the country and strengthening its structures. The three axes are broken down into ten ambitions that respond to the country's main challenges. Togo places particular emphasis on climate change issues under ambition 10, which places sustainable development and anticipation of future crises at the heart of the country's priorities.

## 1.2. SUMMARY OFEVALUATION DELA MISEEN ŒUVREDESCDN INITIALES DU TOGO

Following the adoption of the Paris Agreement, creating synergies between climate action and development implementation has become a key issue for the effectiveness of public policies in Togo. Two levels of reduction have been proposed: an unconditional reduction of 11.14% and a conditional reduction of 20% without

details of the conditionalities for a total financing requirement estimated at US$3.54 billion (Adaptation = 1.54; Mitigation = 1.10; Technology transfer = 0.5; Capacity building = 0.4).

All of the mitigation and adaptation projects implemented with mitigation co-benefits have enabled Togo to reduce its emissions by 7 990 Gg CO2-eq in 2020 instead of the 5 075 Gg CO2-eq reduction initially forecast, i.e. a reduction of 27.57% by 2020 instead of 17.51% compared with the baseline, as shown in Figure 1. The additional reduction is therefore 10.06%.

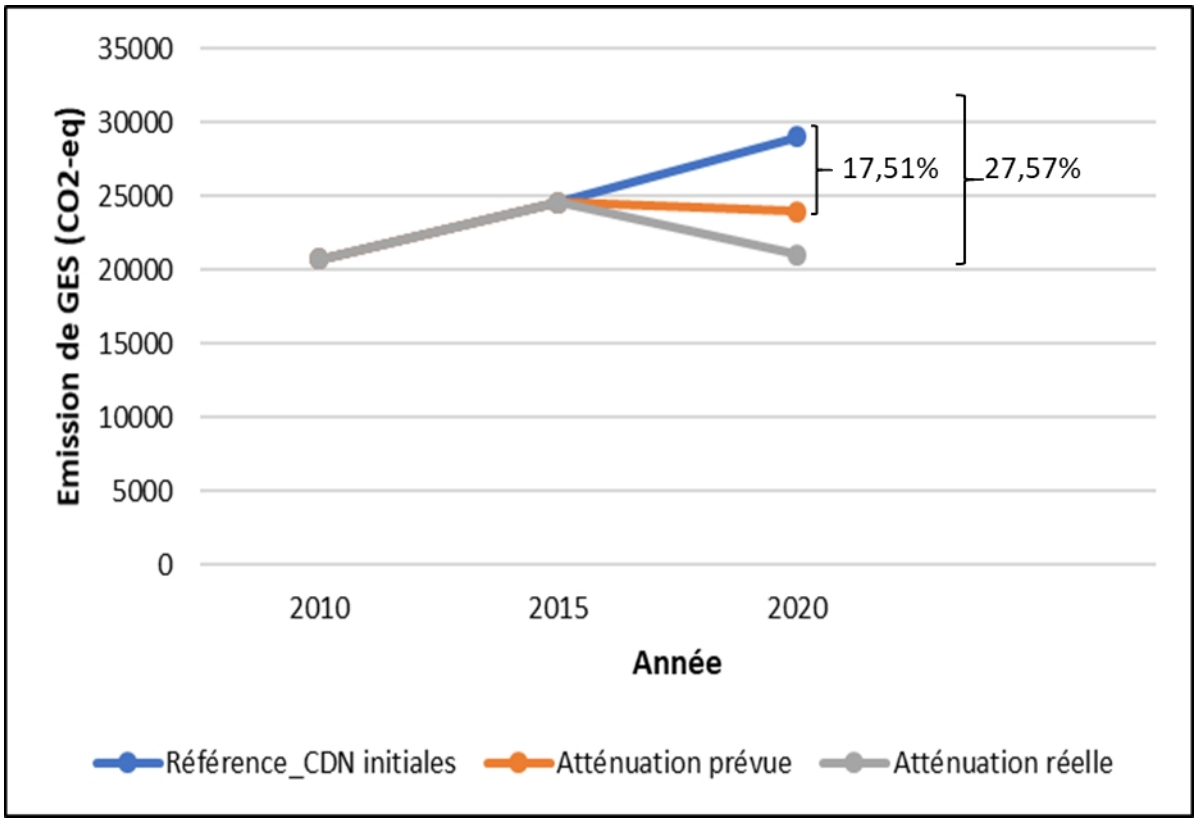


**Figure 1: Scenarios for predicted and actual mitigation in 2020 compared with the baseline**

On the whole, Togo has been politically proactive in the field of climate change for over 20 years and is committed to combating its adverse effects, which affect the population and many sectors of economic activity, through a series of actions, both multilateral and national.

# Chapter 2: Governance

## 2.1. EXISTING INSTITUTIONAL ARRANGEMENTS FOR CDN

In 2015, through interministerial order No. 002/MERF/MMEFPD, a coordinating committee for the process of preparing nationally determined planned contributions (CPDN) was set up. This CPDN committee was replaced in 2018 by the National Authority for coordinating the process of preparing national communications (NCs), biennial updated reports (BURs) on climate change and NDCs, set up by Order No. 0095 / MERF/SG/DE of 13 July 2018. This authority, through the CDN subcommittee, is responsible for monitoring the implementation of CDNs. The CDN sub-committee is made up of representatives of public institutions, the private sector and civil society organisations concerned by the issue of climate change. These include the President of the Republic, the Prime Minister's Office, the ministry responsible for foreign affairs, the ministry responsible for finance, the ministry responsible for planning, the ministry responsible for agriculture, the ministry responsible for energy, the ministry responsible for the promotion of women and young people and other ministries, civil society organisations and employers.

## 2.2. ANALYSIS OF THE STRENGTHS, WEAKNESSES, OPPORTUNITIES AND THREATS OF THE EXISTING INSTITUTIONAL SET-UP

The existing institutional framework for NDCs suffers from a number of shortcomings (Table 1).

**Table 1: Strengths, weaknesses, opportunities and threats of the existing institutional framework**

| Forces | Weaknesses |
|---|---|
| ➢ Existence of a National Authority to coordinate the process development, NCs, RBAs on climate change and CDNs<br>➢ Existence of several committees of other bodies (DLCC, Comité technical committee for coordinating the process of integrating adaptation to climate change, etc.) on which the CDN committee can draw.<br>➢ Creation of a national MNV committee<br>➢ Creation of a CDN sub-committee | ➢ Non-operationality of certain committees (National Committee on Climate Change, etc.)<br>➢ Non-transparent functioning of institutional arrangements<br>➢ Weak technical capacity of the members of the National Authority coordinating the NC development process, RBAs on climate change and CDNs<br>➢ Limited technical expertise in all key areas related to the priority sectors covered by the project mitigation studies<br>➢ Low level of collaboration between the institutions responsible for implementing government policies and the institutions in charge of studies<br>➢ Non-assignment of resources financial for the operation of the NDC implementation committee<br>➢ Poor knowledge of the specifications of the various stakeholders<br>➢ No involvement of local authorities in the CDN committee |
| **Opportunities** | **Threats** |
| ➢ Existence of the CBIT initiative (currently being implemented)<br>➢ Availability of technical and financial à support the climate governance | ➢ Lack of coordination and coherence between the various thematic bodies, entities entities, agencies and other organisations outside the Convention<br>➢ Low involvement of players in the sector private sector, women's groups, parliamentarians and civil society. civil |

## 2.3. CAPACITY BUILDING FOR GOVERNANCE

In response to the constraints and gaps identified in the existing institutional framework, the following actions are proposed to ensure effective governance and coordination of the NDC implementation process. These include :

- ✓ set up a framework for dialogue and communication between the various thematic bodies, operational entities, implementing agencies and organisations civil society, the private sector and other organisations outside the Convention ;

- ✓ strengthen the technical capacities of stakeholders in all key areas relating to the priority sectors concerned by the mitigation studies ;
- ✓ mobilise the financial resources needed to make the NDC implementation committee operational;
- ✓ make the various existing climate change committees operational;
- ✓ draw up an institutional capacity-building programme for the effective implementation of the NDCs;
- ✓ strengthen the technical and operational capacities of the various stakeholders on the CDN committee;
- ✓ strengthen collaboration between the institutions responsible for implementing government policies and the institutions responsible for research ;
- ✓ define the terms of reference for the various parties involved in the CDN committee.

# Chapter 3: Mitigation

To help combat the harmful effects of climate change, the Togolese government is working hard to reduce greenhouse gas emissions.

## 3.1. CONTRIBUTIONS TO MITIGATION: REFERENCE AND MITIGATION SCENARIOS

### 3.1.1. Reference scenario

The data used are those from the thematic and sectoral studies of the 4th NC and the 2nd ASR. The sectors, gases, categories and pools covered by the revised nationally determined contributions are :

**sectors**: energy; industrial processes and product use (IPUP); agriculture, forestry and other land uses (AFAT); waste.

**gases**: CO2, CH4, N20, Hydrofluorocarbons (HFCs) in accordance with the Kigali Amendment to the Montreal Protocol.

**short-lived air pollutants (SLCPs)**: black carbon (BC), particulate matter PM 2.5 and PM 10, nitrous oxides, volatile organic compounds and carbon monoxide.

For each sector, GHG emissions are projected over the period 2010-2030 as follows (Figure 2):

- **Energy sector**: emissions will rise from 3725.16 Gg CO2-eq to 13169.18 Gg CO2-eq between 2010 and 2030, an increase of 254%;
- **PIUP sector**: projected emissions rise from 551.19 Gg CO2-eq in 2010 to 3,203.54 Gg CO2-eq in 2030, an increase of around 481% in the PIUP sector. sector ;
- **AFAT sector**: emissions will rise from 12,190.89 Gg CO2-eq to 13,464.37 Gg CO2-eq between 2010 and 2030, an increase of 10.45%;
- **Waste sector**: emissions from this sector as a whole will rise from 335.7 Gg CO2-eq in 2010 to 573.3 Gg CO2-eq in 2030, an increase of 70.8%.

Overall, GHG emissions will rise from 16,802.92 Gg CO2-eq in 2010 to 30,410.42 Gg CO2-eq in 2030, an increase of 80.98%.

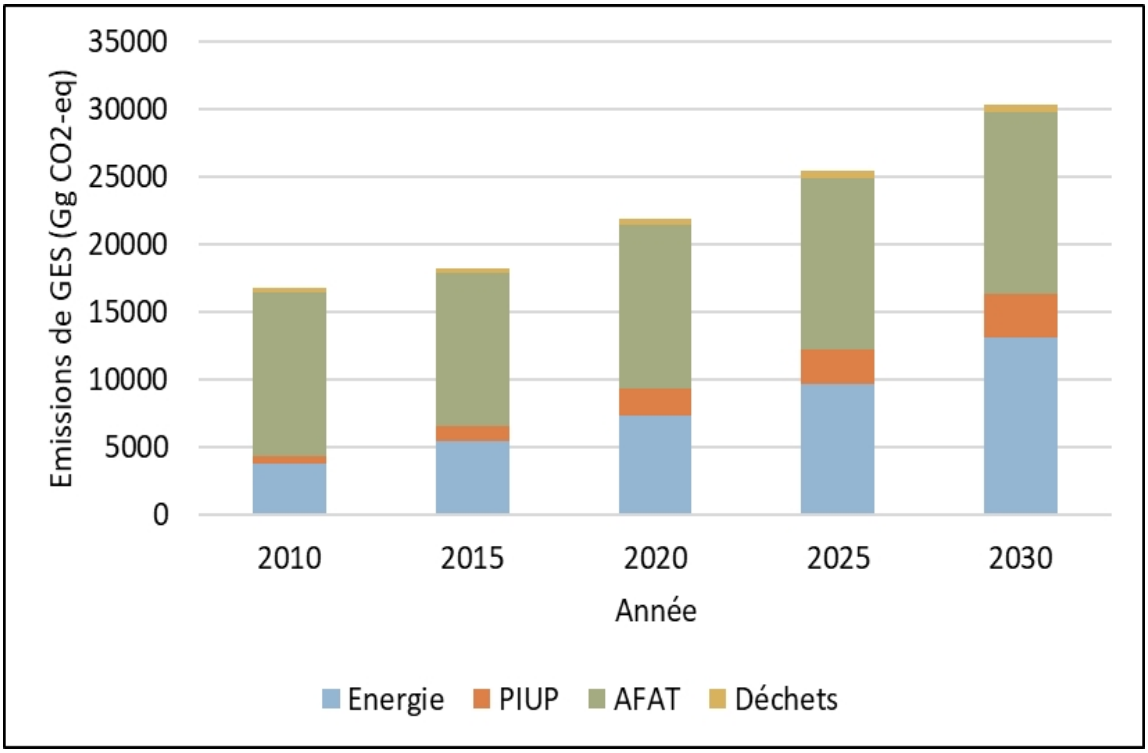


**Figure 2: Trends in projected GHG emissions from the various sectors according to the reference scenario**

### 3.1.2. Mitigation scenario

GHG emission reduction potentials are estimated by sector and then aggregated at national level. In general, the information provided is based on Togo's new programmatic developments, in particular the National Development Plan (NDP 2018-2022) and the Government Roadmap 2025. The information is also based on the sectoral measures and priorities presented in Annex 1.

#### 3.1.2.1. Global commitments in figures

The mitigation measures are guided by an aspiration for long-term low-carbon development, which promotes the implementation of its 2025 government roadmap, its NDP (2018-2022), its policy of food self-sufficiency and the fight against poverty to become an emerging state by 2050.

Implementation of the plans, strategies, programmes and other planning documents used in this study relies on the various resources (own funds, national and international loans) that the government mobilises for the country's development.

Furthermore, in order to ensure low-carbon sustainable development, Togo has embarked on an ambitious programme to combat climate change, the activities of which require sustained support from its technical and financial partners (capacity-building, technology transfer and dissemination, and financial resources).

❖ **Unconditional contribution**

The results of the analysis of sectoral reductions indicate that Togo can make an unconditional contribution to reducing its greenhouse gas (GHG) emissions by **20.51%** by 2030, i.e. 6 236.02 Gg CO2-eq (Figure 13; Table 11).

❖ **Conditional contribution**

In the approach proposed for the mitigation scenario, the Togolese government undertakes, if it receives the required support, to achieve an additional reduction of **30.06%** in GHG emissions compared with the reference scenario by 2030, i.e. 9 305.59 Gg CO2-eq (Figure 3), without compromising its policy of food self-sufficiency by proceeding in such a way as not to compromise its sustainable development.

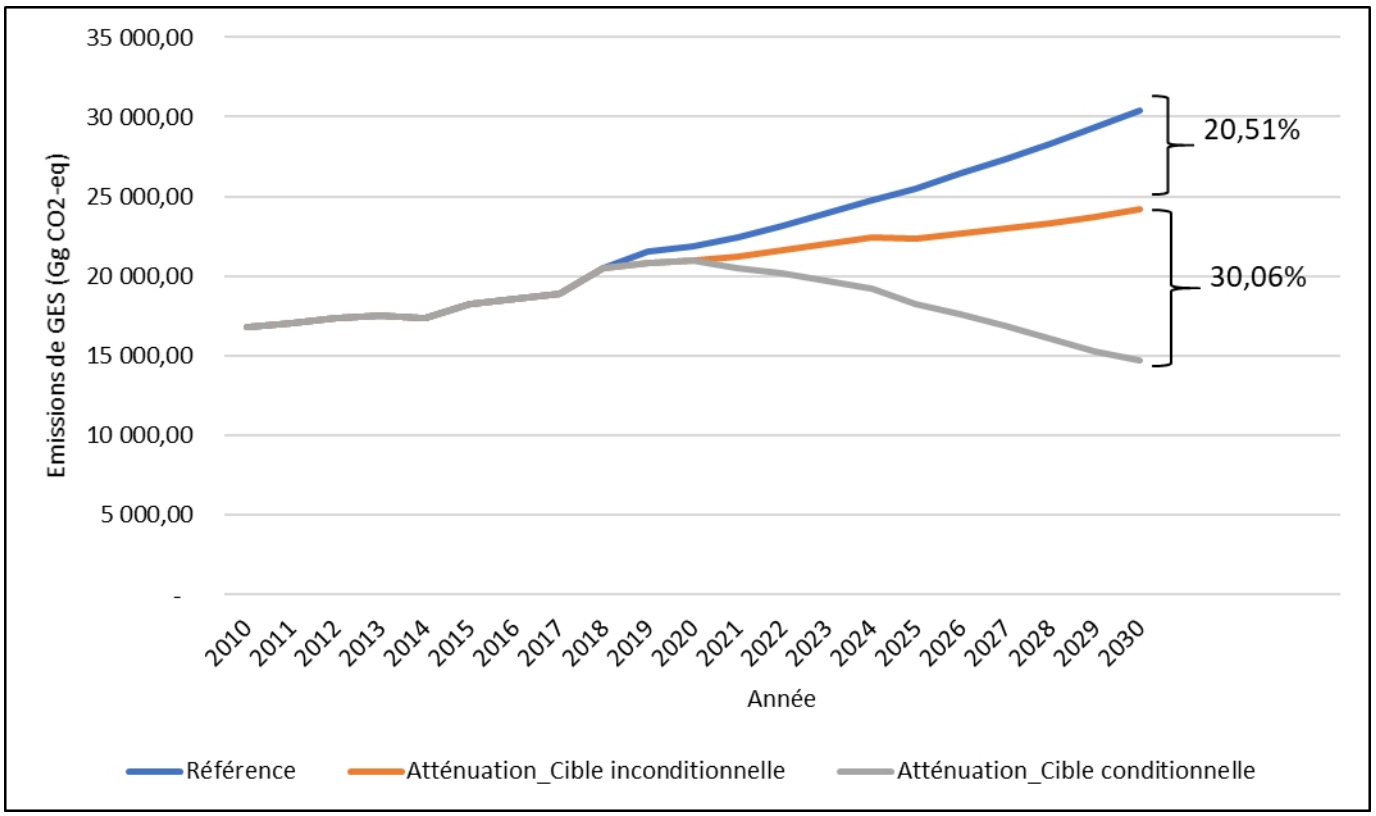


**Figure 3: Trends in overall reductions in GHG emissions compared with the reference scenario**

❖ **Overall contribution**

Overall, Togo's contribution amounts to **50.57%**, or 15,378.55 Gg CO2-eq by 2030, broken down as follows:

- ✓ Unconditional target: 20.51% ;
- ✓ Conditional target: 30.06%.

These new commitments represent a step up from the initial NDCs and correspond to the highest possible level of ambition, taking into account national circumstances in accordance with paragraph 3 of Article 4 of the Paris Agreement.

### 3.1.2.2. Commitments by sector

Figure 2 shows the level of attenuation in each sector:

- **energy sector**: the analysis of the mitigation scenario shows a reduction of 16.89% (2,224.87 Gg CO2-eq) by 2030 compared with the baseline scenario.

reference scenario. The reduction trends in this sector are shown in Figure 4a ;

- **PIUP sector**: given that the cement production sub-sector does not generate any potential reductions, the reduction in emissions in the PIUP sector is limited to that of the hydrofluorocarbons (HFCs) sub-sector and corresponds to 0.8% by 2030 compared with the reference scenario (Figure 4b);
- **AFAT sector**: the estimated value of the mitigation scenario by 2030 is 9 640.17 Gg CO2-eq compared with 13 464.37 Gg CO2-eq for the reference scenario (Figure 4c), i.e. a reduction of 28.40% (3 824.20 Gg CO2-eq);
- **Waste sector**: the estimated value of the mitigation scenario by 2030 is 412.20 Gg CO2-eq compared with 573.325 Gg CO2-eq for the reference scenario, a reduction of 28.10% (Figure 4d).

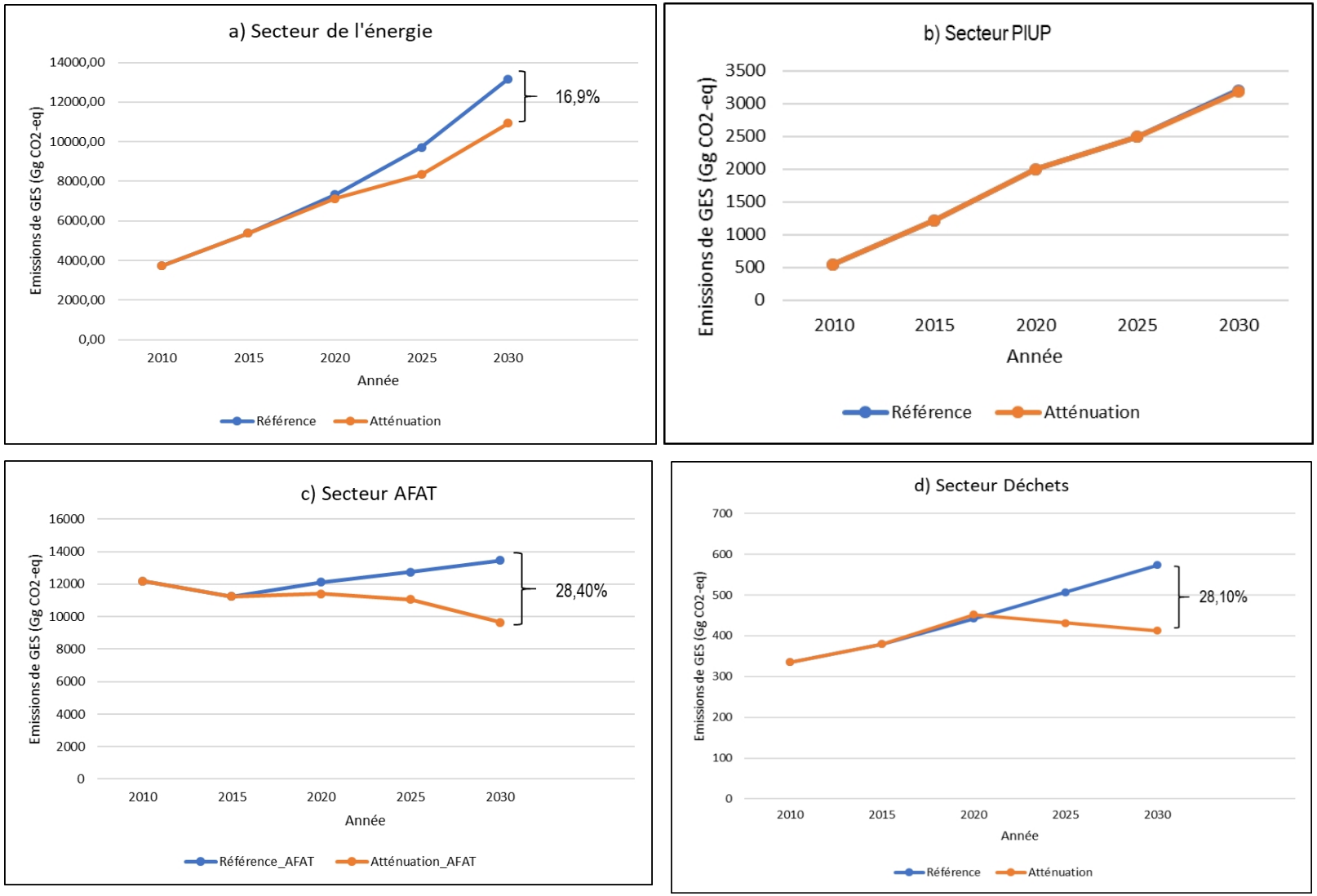


**Figure 4: Trends in GHG emission reductions compared with the reference scenario in the various sectors**

### 3.1.2.3. Strengthening ambition

The revision of Togo's NDCs was carried out in consultation with stakeholders and is aligned with the development objectives contained in the NDP and the Government Roadmap 2025, on the one hand, and the objectives of the Paris Agreement, on the other. As a Party to the Paris Agreement, Togo is committed to setting the ambitious targets needed to effect change and remains fully supportive of the Paris Agreement and all the responsibilities and actions set out therein.

By submitting this NDC, Togo, a low GHG emitter, is supporting the call for all Parties to make their submissions, to ensure that their NDCs are consistent with their contributions to global emissions and their respective responsibilities under the Convention, and to take action that will limit the global temperature increase to 1.5°C, well below pre-industrial levels.

Togo's new contributions are fair and ambitious, taking into account national circumstances such as the SDGs and poverty eradication, demography, geography, climate and dependence on external stimuli. They go well beyond the commitments presented in Togo's initial NDC submission, i.e. in terms of scope, sectoral ambition, coherence between adaptation and mitigation, horizontal themes, including gender, and in particular transparency. The details of the increased ambition are set out in Table 2.

The COVID 19 pandemic represents a time of profound upheaval, causing an economic slowdown due to the decline in socio-economic activities, and exacerbating the country's economic vulnerabilities to climate change. However, Togo's priorities continue to include taking appropriate measures to adapt to and combat the harmful effects of climate change.

**Table 2: Mitigation ambitions in relation to current NDCs**

| Improvement components | Revised NDCs (2021) | Initial CDNs (2015) |
|---|---|---|
| **Reinforcing the GHG target** | Type of year-end target (2030 emissions level compared with 2010 emissions level) :<br><br>In 2030, the reduction in emissions broken down by sector is as follows:<br><br>• Energy sector: 16.9%.<br>• Industrial Processes and Product Utilization (IPUP): 0.8%.<br>• Agriculture, Forestry and Land Allocation (AFAT): 28.40 %. | Deviation from the SAM target (reference) in 2030 :<br><br>Emissions reduced by 11.13% in 2030 compared with the SAM. |

| Improvement components | Revised NDCs (2021) | Initial CDNs (2015) |
|---|---|---|
| | • Waste sector: 28.10%.<br>• Total unconditional target: 20.51%. | |
| **Geographical coverage** | National level | National level |
| **Sector coverage** | • Energy<br>• PIUP<br>• AFAT<br>• Waste | • Energy<br>• AFAT |
| **Coverage of GHG** | • CO2<br>• CH4<br>• N20<br>• Hydrofluorocarbons (HFCs) in accordance with the Kigali Amendment to the Montreal Protocol. | • CO2<br>• CH4<br>• N20 |
| **Reinforcement or addition of policies and actions** | Mitigation policies and measures (MAP) in the following sectors:<br>• Energy (including energy supply, residential and unspecified, industry, transport)<br>• Agriculture, Forestry and Other Land Use (AFAT)<br>• Waste<br>• Additional MAPs (mitigation action facilitators) | Mitigation MAPs (in a higher ambition scenario) in the following sectors:<br>Energy<br>Emissions from fossil fuel combustion |
| **Reinforcing or adding a non-GHG sector target** | The revised NDCs are consistent with the following non-GHG sectoral targets for 2030:<br>• Renewable energy sources (RES)<br>• 10% of the consumption energy consumption in transport<br>• Energy efficiency (EE)<br>• Savings in final energy consumption compared with the reference scenario<br>• Savings in primary energy consumption compared with the reference scenario<br>• **Short-lived air pollutants (SLCPs)** :<br>o Black carbon (BC)<br>o Matter PM2.5 and PM10, nitrous oxides, volatile organic compounds and particulate matter. carbon monoxide. | |
| **Aligning the implementation of the existing NDC with long-term objectives** | In addition, the revised NDCs address the regional aspect contributing significantly to the priority measures identified in the energy sector in the NDP. | |

The mitigation of GHGs has included the mitigation of short-lived climate pollutants in accordance with the National Plan for the Reduction of Air Pollutants and Short-lived Climate Pollutants. As a result, the implementation of Togo's revised NDCs is expected to deliver substantial benefits in terms of reducing short-lived climate and air pollutants, improving air quality and improving public health.

By 2030, full implementation of the updated NDC should make it possible to achieve a reduction compared with the reference scenario :

- ✓ **black carbon** emissions by 80%,
- ✓ **methane** emissions by 32%,
- ✓ **particle** emissions by 58% and
- ✓ **nitrogen oxide** emissions by 51%.

In addition, HFC emissions would be reduced by 9% in 2030 compared with a reference scenario, with a sharp reduction from 2029 in line with the HFC phase-out schedule set out in the Kigali Amendment.

The main actions to achieve the objective of mitigating SLCPs while improving air quality and benefiting human health are :

- ✓ increase the number of households cooking using biomass stoves with improved efficiency and cleaner fuels such as biofuels LPG or electricity.
- ✓ increase the efficiency of charcoal production furnaces ;
- ✓ renewing the fleet to increase efficiency and compliance with stricter vehicle emission standards;
- ✓ promote the use of electric vehicles;
- ✓ increase the efficiency of livestock production to minimise emissions from enteric fermentation and manure;
- ✓ adopt alternative wetting and drying practices for rice production to reduce methane emissions;
- ✓ Promote best practice in landfill management for municipal solid waste, including methane capture;
- ✓ Increase municipal solid waste collection and reduce open burning of municipal solid waste.

## 3.2. INFORMATION TO IMPROVE THE CLARITY, TRANSPARENCY AND COMPREHENSIBILITY (ICTC) OF THE REVISED NATIONALLY DETERMINED CONTRIBUTIONS

Table 3 below shows the information required for clarity, transparency and comprehension as recommended by Annex I of Decision 4/CMA1. It enables the extent of the information provided to be measured.

**Table 3: Information required for clarity, transparency and understanding (ICTC)**

| Information required for clarity, transparency and understanding (ICTC) | | |
|---|---|---|
| **Para** | **Decision 4/CMA.1 guidelines** | **ICTC guidelines applicable to Togo's revised NDC** |
| ***1*** | ***Quantifiable information on the reference point (including, where applicable, a reference year):*** | |
| **a)** | **Reference year(s), base year(s), period (s) reference or other (starting point(s)** | Reference year: 2018 (which is the reference year for the 4th National Communication and the 2nd Biennial Update Report) |
| **b)** | **Quantifiable information on the reference indicators, their values in the reference year(s), base year(s), reference period(s) or other point(s) (s) and, where applicable, in the target year** | Reference indicator: national greenhouse gas inventory (IGES) for the reference year 2018 contained in the NIR and updated.<br>Disaggregated emissions in 2030 are as follows:<br>• ***Energy sector***: 13,169.18Gg CO2-eq.<br>• ***Industrial Processes and Product Utilization (IPUP)***: 3,203.54 Gg $CO_{2-eq}$.<br>• ***Agriculture, Forestry and Other Land Use (AFAT)***: 13,464.37Gg $CO_{2-eq}$.<br>• ***Waste sector***: 573.33 Gg CO2-eq. |
| **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 is not applicable, the Parties must provide other relevant information** | NA |
| **d)** | **Target in relation to the reference indicator, expressed numerically, for example for example as a percentage or amount of reduction** | A detailed assessment of the GHG mitigation options identified for Togo estimates a total emissions reduction potential of around 15 378.55 Gg $CO_{2-eq}$ in 2030 compared with the reference emissions for the same year, estimated at 30 410.42 Gg $CO_{2-eq}$. This reduction is broken down into unconditional and conditional contributions.<br>• **Unconditional contribution:** A reduction of 20.51% compared to the baseline in 2030; equivalent to an estimated mitigation level of 6,236.02 Gg $CO_{2-eq}$.<br>This is an unconditional objective, based o n sustained mitigation measures and policies. |

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| | | implemented at national level. In 2030, the reduction in emissions of the unconditional target broken down by sector compared with the reference scenario is as follows:<br>✓ ***Energy sector***: 16.9%.<br>✓ ***Industrial Processes and Product Utilization (IPUP)***: 0.8%.<br>✓ ***Agriculture, Forestry and Other Land Use (AFAT)***: 28.40%.<br>✓ ***Waste sector***: 28.10%.<br>• **Conditional contribution:** A reduction emissions of 30.06% above the 2030 baseline, equivalent to a n estimated mitigation level of 9,305.59 Gg $CO_{2\text{-eq}}$. This represents an additional targeted contribution, based on the provision of international support and financing. |
| **e)** | **Information on the sources of data used to quantify the (reference point(s)** | Data sources used to quantify points are the analysis of the time series of the Fourth National Communication (4CN) and Second Report Biennial Report (2RBA), and and of information derived from consultations with the various ministries concerned and consultations with the parties stakeholders. In addition, the information contained in departmental strategies and estimates of international organisations have been used to quantify reference points. The reference scenario and the mitigation scenarios have been developed for all the sectors using LEAP software. For forestry and other land uses, the IPCC calculation sheets 2006 were used and the results imported into LEAP. |
| **f)** | **Information on the circumstances in which the Party may update the values of the benchmark indicators** | In the following circumstances, Togo may update or modify the values of the reference indicators:<br>• In the next greenhouse gas inventory, Togo will be able to update the reference indicators for existing sectors and/or provide new values for sectors not previously covered.<br>• The level of GHG emissions for the reference scenario, the unconditional and conditional targets in 2030 may be updated and recalculated according to methodological changes in the GHG inventory, such as the recalculation of the GHG inventory with the 2006 IPCC Guidelines or changes in the global warming potential (GWP) in the IPCC Assessment Reports, or the adoption of the 2019 IPCC refinement. Information on the updates made will be included in the biennial transparency reports (BTR). |

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| | | • Togo is one of the least developed countries in the world. |
| | | As a result, any major change in the economic and social environment may lead to the values of the benchmark indicators being updated or modified.<br>• Some of the actions are part of the government's Roadmap and National Development Plan (NDP) and are the subject of international support (technical and financial); delay or lack of support could have unforeseen consequences for national circumstances.<br>• Togo is very prone to natural disasters (flooding, drought, etc.). In the event of a major natural disaster or pandemic situation similar to COVID-19, Togo may update/modify the reference point. |
| ***2*** | ***Deadlines and/or implementation times:*** | |
| **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 Paris Agreement (CMA)** | 1 January 2021 to 31 December 2030 |
| **b)** | **Whether the objective is annual or multi-year, as the case may be** | 2030 annual target, including updates to 2025 targets.<br>NDC interventions will be implemented in stages in accordance with the annual work plan; however, the target year chosen is 2030. |
| ***3*** | ***Scope and coverage:*** | |
| **a)** | **General description of the target** | Sectoral targets based on activities and policies, including emission reductions in certain sectors.<br>The Government of Togo will achieve the conditional targets if international support in terms of funding, technology transfer and/or capacity building is provided in a sustained and timely manner. |

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| **b)** | **Sectors, gases, categories and pools covered by the nationally determined contribution, including, where applicable case in accordance with the guidelines Group guidelines** | **Sectors :**<br>- Energy,<br>PIUP<br>- AFAT,<br>- Waste |
| | **Intergovernmental Panel on Climate Change on climate of Change (IPCC)** | **Gas :**<br>- CO2<br>- CH4<br>- N20<br>- F-gases: HFC-32, HFC-134a, HFC-125, HFC-143a. In accordance with the Kigali Amendment to the Montreal Protocol.<br>**Short-lived air pollutants (SLCPs)** :<br>- Black carbon (BC)<br>- Particulate matter PM2.5 and PM10. |
| **c)** | **How the Party has taken paragraph 31 into account c) and d) of decision 1 / CP.21** | In accordance with paragraph 31 c) of decision 1 / CP.21, Togo has undertaken to include all categories of anthropogenic emissions in its revised NDCs.<br>The detailed assessment carried out during the process of formulating the revised NDCs showed that the data needed to define targets and rigorously assess the impact of policies and actions on emissions for all sectors was not available.<br>Togo will progressively extend the coverage of its NDCs to all categories of anthropogenic emissions and removals as more robust data becomes available. |

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| **d)** | **Benefits related mitigation 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** | • In accordance with the national policy on climate change, the vehicles for implementing the policy's objectives, strategies and results are the NDC and the National Adaptation Plan (NAP). Implementation of the actions set out in each document will guarantee the operational components of the policy.<br>• Togo's National Adaptation Plan (NAP) (2017-2021), as well as the projects currently being implemented, include mitigation co-benefits. The resulting reductions will contribute to achieving the objective described in point 1 d) and should not be considered as additional.<br>• Togo has also committed to continuing to communicate data and information on the quantified co-benefits of adaptation measures in its NAP and national communications.<br>• Mitigation measures within adaptation projects will be reported through the data collection framework and the GHG inventory and reported in the respective sectors. |
| ***4*** | ***Planning process:*** | |
| | **Information on the planning processes that the Party has undertaken to prepare** | |
| **a)** | **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** | The provisions relating to governance and coordination at sectoral level are set out in each of the sectoral action plans of the NDCs.<br>A National NDC Committee was temporarily set up for the duration of the NDC programme implementation projects. This committee has not been functional at all and should be rearranged and strengthened.<br>New national institutional arrangements based on the prior involvement of public, private, local community and gender stakeholders are being developed. |
| **(ii)** | **Contextual issues, including, among others** | |

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| **a.** | **National circumstances, such as geography, climate, economy, sustainable development and poverty eradication** | ***Togo's recent political development***. It has been marked by presidential elections in 2015 and 2020, major marches in 2017, legislative elections in December 2018 followed by constitutional reforms and municipal elections in June 2019.<br><br>**Geo-climatic profile**. Togo is located in the inter-tropical zone. It has a tropical Guinean climate with 4 seasons in the southern part and a tropical Sudanian climate with two seasons in the northern part. The Maritime and Savanes regions receive less than 1000 millimetres of water per year. Seasonal irregularities have been observed in recent decades.<br><br>***Demographic characteristics and poverty***. The final results of the General Census of Population and Housing in November 2010 put Togo's resident population at 6,191,155, with an average annual growth rate of 2.3%. Projections for 1 January 2019 put this figure at 7,538,000. It will be 7,723,000 on 1 January 2020. The average density was 109 hbts/km² in 2010. It varies from region to region, being highest in the Maritime region and lowest in the Savanes region. In Togo, 53.5% (2017) of the population lives below the poverty line. The poverty rate fell by 1.6 points between 2015 and 2017.<br><br>***Economic and sectoral context.*** Achieving the objectives of the government's Togo 2025 roadmap resulting from the revision of the National Development Plan (NDP 2018-2022) will affect all sectors of Togo's economic life, both public and private. Overall, the national economic context was marked by continued efforts to maintain the stability of the macroeconomic framework and improve the business environment.<br><br>*The State fully controls the energy sector,* with the participation of several ministries and other institutions.<br>state or private. Taking all sources together, the |

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| | | Final energy consumption was 2145.29 ktoe in 2018, compared with 1973 ktoe in 2016, an increase of 172.29 ktoe (8.7%) in 3 years. Togo's total final energy consumption per capita per year has been stable since 2000 at 0.27 toe/toe. Self-consumption of wood energy (charcoal and firewood) predominates, accounting for 76% of national production, compared with 24% for marketing.<br><br>*In agriculture,* the cultivated area is estimated at 1.4 million hectares, or 41% of the cultivable area and 25% of the country's total surface area. A comparative analysis of GDP and the budget reveals that in 2012, the value generated by agriculture at constant prices represented 42.2% of GDP. This sector provides a livelihood for 2/3 of Togo's working population. The contribution of agriculture to the GDP growth rate, which was 0.7% in 2018, is expected to rise to 1% in 2019.<br><br>*Forest cover in Togo is* 24.24%. The forestry sector plays a very important role in the country's economic development. It helps to create jobs, reduce unemployment and generate wealth. But despite this importance, the added value generated is low, according to the statistics. Its contribution to GDP was US$33 million or CFAF 16.5 billion, or 1.68% of GDP in 2006. It should be noted, however, that the forestry sector's non-market and ecosystem services are not taken into account in these statistics. In 2015, the value added of the forestry sector reached FCFA 17.80 billion for fuelwood and FCFA 71.19 billion for charcoal, i.e. almost FCFA 89 billion for wood energy.<br><br>***Description of Togo's development priorities and their relationship with climate change.*** Togo's development vision today is guided by the government's Togo 2025 roadmap. This document clearly sets out the country's vision and priorities for development, broken down into three main strategic areas: (i) strengthening social inclusion and harmony and guaranteeing peace; (ii) boosting job creation by building on the strengths of the economy; and (iii) modernising the country and strengthening its structures. Over and above the national vision and priorities, each sector of the economy has its own development priorities which are grafted onto the national framework. These priorities are defined as sectoral operational policies. On the whole, the issue of climate change is now included in national development policies. Despite the efforts made, it has to be said that the degree to which the issue is taken into account in the policies initiated by the Government varies greatly from one sectoral policy to another.<br>the other, with general levels of execution, |

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| | | low. |
| **b.** | **Best practice and experience in preparing nationally determined contributions** | The revised NDCs capitalised on the analytical capacity, participatory practice, experience, tools and knowledge base that were created prior to the original NDCs and maintained and enhanced as part of the 4CN and 2BUR. Target setting was well informed by a robust and comprehensive existing GHG inventory.<br><br>In addition, the revised NDCs have integrated sustainable development into its P&Ms, quantifying the link between sustainable development and climate change mitigation. More specifically, with regard to the economic and environmental dimensions.<br><br>Finally, the revised NDCs also include a regional dimension. |
| **c.** | **Other aspirations and contextual priorities recognised when joining the Paris Agreement** | A commitment to reducing national GHG emission levels will require cleaner technologies, expertise and financing.<br><br>***Technology:*** The need for new innovations is rooted in the need to be more efficient and to produce using cleaner technologies. The availability and transfer of technologies that are environmentally friendly and support low-carbon and climate-resilient development is paramount. As LDCs, these opportunities are often not easily accessible, so the spirit of the Paris Agreement would help to foster North-South and South-South cooperation.<br><br>***Expertise:*** The integration and transformation of new ideas and technologies into the economy, society and the environment will require a certain amount of capacity building for their appropriate applicability and dissemination.<br><br>***Financing:*** Technology transfer and capacity building cannot take place without sufficient financial resources being made available to undertake the transition. As a Heavily Indebted Poor Country (HIPC) and highly vulnerable to the impact of climate change, it is important to find the right balance to strengthen the country's resilience and implement the necessary adaptation and mitigation measures, while meeting the country's day-to-day needs. The measures needed to make the transition are costly. |
| **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** | Togo took part in the Talanoa dialogue in 2018, which generated political momentum for enhanced climate action, in particular by calling on Parties to update their NDCs. In addition, the country joined the High Ambition Coalition of countries determined to achieve their climate ambition by 2020. The preparation of the revised NDCs was in line with the recommendations of the Talanoa Call for Action and the High Ambition Coalition, taking into account national circumstances. |

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| **c)** | **Each Party with a nationally determined contribution under Article 4 of the Paris Agreement that consists of adaptation actions and/or economic diversification plans leading to mitigation co-benefits in accordance with Article 4, paragraph 7, of the Paris Agreement to submit information on:** | |
| **(i)** | **How to the economic and social consequences of the response measures been been taken taken into account when the determined contribution at national level** | National and regional stakeholder consultations have enabled the social, economic and environmental impacts of national mitigation measures to be taken into account by incorporating the data collected into the assessment tools when the revised NDCs are drawn up. |
| **(ii)** | **Projects, measures and activities specific à put in implement to contribute to co-mitigation benefits, including including information on adaptation plans which also produce from co-benefits mitigation measures, which can cover, but withoutit key sectors, such such as energy the resources, water resources, resources coastal, establishments human and planning urban, agriculture and forestry; and of diversification which can cover, but withoutit limit, sectors such as that the manufacturing and industry, energy and mining, transport and communications, th e construction and tourism, real estate, agriculture and** | **ENERGY sector** :<br>- Promoting the production of electricity from renewable energy sources in Togo<br>- Continuation of the policy of electrification for all - Extension of the network and deployment of decentralised systems to achieve 100% electrification, supported by the establishment of the Electricity for All Fund;<br>- Increasing electricity generation, transmission and distribution capacity - Developing sustainable and reliable generation capacity, particularly in the solar and hydroelectric sectors, and corresponding reinforcement of the transmission and distribution network (in synergy with the extension of the internet network);<br>- Increase the share of renewable energy in energy production to 50% by 2025<br>- Increase the share of electric vehicles in new vehicle purchases to 3% by 2025<br>- Extension of the rural road network - Construction of 4,000 km of rural roads targeting agricultural areas with high export potential in order to connect farmers to the market;<br>- Construction of the Unity Motorway - Acceleration of the RN1 development project linking the productive hinterland to the Lomé conurbation and the port<br>- Exemption from tax on new vehicles<br>- Increase the use of improved stoves from 40% in 2020 to 80% in 2030<br>- Increase the proportion of charcoal produced using improved techniques from less than 1% in 2020 to 45% in 2030<br>- Increase the proportion of the population using biogas for cooking to 4% by 2025 and 12% by 2030 in rural areas.<br>6% in 2025 and 15% in 2030 in rural areas<br>- Increase the proportion of the population using briquettes to 15% in urban areas and 10% in rural areas by 2030<br>- Increase the proportion of the population using LPG to |

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| | **fishing** | 35% in urban areas and 8% in rural areas by 2030.<br><br>**PIUP sector** :<br>- Distribution of F-gas recovery equipment<br>- Building the capacity of refrigeration technicians to reduce handling losses |

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| | | - Enhancing the treatment and recycling of fluorinated gases<br>- Promotion of the import of alternative refrigerants such as: propane (R290); Isobutane (R600a) used for freezers, refrigerated display cabinets and ice cream dispensers; R448A (HFC-HFO); R455A (HFC-HFO) to replace R404A.<br>- Promoting the construction of private and public buildings using thermal insulation materials<br>- Tax exemption on new vehicles<br><br>**AFAT sector**<br>- Integrated development of the agricultural sector through the introduction of an effective strategy for the sustainable management of cultivated land;<br>- Promotion and sustainable management of hydro-agricultural, hydro-pastoral and agricultural development and water supply facilities;<br>- Organisation of value chains: Organising value chains for all the main crops right through to the processing and marketing of agricultural products and by-products;<br>- modernising the livestock sub-sector by increasing the productivity of livestock beyond the natural growth and development of herds, setting up livestock product processing units, genetic improvement for cattle breeding performance, introducing breeding stock into the traditional system, intensifying fattening and strengthening market access for the marketing of livestock products, etc;<br>- Support for reforestation for fodder purposes with the introduction of fodder trees on farms with a view to sustained production of quality fodder;<br>- Restoring existing forest landscapes by promoting the restoration of natural forests, fragile ecosystems and the conservation of biodiversity, giving priority to supporting projects linked to areas that are already organised (protected areas, community or village forests, sacred sites), limiting the fragmentation of forest areas and maintaining the connectivity of natural habitats;<br>- Improving sustainable land management to strengthen carbon sinks and sequester carbon through "massif development plans" promoted by private forests or community forests or "territorial forest charters" or rural centres of excellence;<br>- Development of urban forestry through the establishment of urban plantations and the promotion and creation of green spaces;<br>- Promoting the processing of forest products and non-timber by-products and promoting value chains and market access for local |

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| | | processed forest products ;<br>- Strengthening the participatory fight against vegetation fires to contribute to carbon storage, by reducing the current rate of deforestation and the impact of vegetation fires, a source of carbon emissions into the atmosphere.<br>**Waste sector** :<br>- Togo water and sanitation project (PEAT1&2): development of an engineered landfill site (CET) in Lomé and development of final landfill sites, implementation of a household waste collection system, waste recycling, construction of latrines, extension of the drinking water distribution network in the towns of Tsévié, Atakpamé, Sokodé and Kara, etc.<br>and Dapaong |
| ***5*** | ***Assumptions and methodological approaches, including those for estimating and accounting 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 decision 1 / CP.21 and the accounting guidelines adopted by the CMA** | Togo has accounted for its anthropogenic GHG emissions and removals using the 2006 Intergovernmental Panel on Climate Change (IPCC) Guidelines for National Greenhouse Gas Inventories, the 2006 IPCC software and the 2013 Supplement to the 2006 IPCC Guidelines for National Greenhouse Gas Inventories for Wetlands.<br>Togo also relied on :<br>• *IPCC recommendations on good practice and uncertainty management for national inventories (GPG 2000)*<br>• IPCC good practice recommendations for the LULUCF sector (GPG LULUCF 2003) |
| **b)** | **Assumptions and methodological approaches used to report on the implementation of policies and measures or strategies in the contribution determined at national level** | The quantification of the level of GHG emissions in the 2030 mitigation scenario is based on the following assumptions:<br>• In the transport category, the improvement and extension of road infrastructure (underway and planned in the 2025 Government Roadmap) and the promotion of low-emission public transport will make it possible to reduce final energy intensity by 10% for motorbikes and 20% for cars and lorries;<br>• In phase 1 of the HCFC Phase-out Management Plan (HCMP) project, 26% of refrigeration technicians were trained. According to the guidelines for the second phase of this project, which are similar to those for phase 1, 79% of refrigeration technicians will be trained by 2030;<br>• In phase 1 of the HCFC Phase-out Management Plan (PGEH) project, 3.4% of refrigeration technicians received recovery equipment.<br>which are similar to those of phase 1; 9.4%. |

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| | | of refrigeration technicians will receive recovery equipment by 2030 ;<br>• In phase 1 of the HCFC phase-out management plan (PGEH) project, 3 structures with large refrigeration facilities benefited from 70 split air conditioners running on R-290, an alternative F-gas with a low global warming potential. On this basis, phase 2, which will follow the same guidelines as phase 1, will reduce imports of HFCs by 5% per year through the following component: Distribution of alternative F-gases to structures with large cooling installations;<br>• In Togo, fixed refrigeration equipment that is no longer in use and has reached the end of its life cycle contains 55% of F-gases and is sold to scrap metal companies without being processed. Setting up a recycling system with a processing capacity of 5 tonnes of F-gases per year will enable 50% to be recovered;<br>• The construction of at least 100 green buildings using less air conditioning by 2030 will reduce the rate of F-gas imports by at least 2%.<br>• If the Togolese government continues its reforestation efforts, the rate of forest cover could rise from 24.24% to 30%, representing an increase of around 5% in forest area and reforested land by 2030;<br>• The implementation of measures to combat wildfires and protect forest ecosystems will help to reduce the area of plant formations burnt by 5%;<br>• Efforts to protect forest formations and respect land use allocations will help to reduce deforestation and limit the conversion of forest land into agricultural land or other forms of land use;<br>• Promoting alternative sources of domestic energy and popularising improved stoves will reduce the use of wood energy and the $CO_2$ and other greenhouse gas emissions associated with this form of energy;<br>• In the agricultural sub-sector, numerous initiatives have been undertaken in recent years to promote the conversion of 5% of manure and agricultural residues into compost (organic fertiliser) and/or biogas, thereby reducing the use of chemical fertilisers by 3% and intensifying the use of organic fertilisers;<br>• The implementation of the new strategic orientations in the cereal production sector will contribute to the reduction by 3% of the surface area of irrigated rice fields in favour of rainfed rice cultivation;<br>• Recover 12% of municipal solid waste by 2030 |

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| | | (i.e. 100000 tonnes) by composting in in the main towns each year;<br>• By 2030, to convert 80% of the biogas produced by the Lomé landfill site into electricity for the site's needs;<br>• Reduce the amount of waste destined for burning by 80% by improving waste collection and creating new landfill sites in secondary towns;<br>• By 2030, convert 5% of domestic wastewater in rural areas into biogas by installing biogas septic tanks.<br><br>The methodological approach used is that of LEAP-IBC. |
| **c)** | **The case as appropriate, information how how the Party will account methods and under the Convention to account for anthropogenic emissions and anthropogenic emissions and removals, in accordance with paragraph 14 of Article 4 of the Paris Agreement, as appropriate** | In accordance with paragraphs 13 and 14 of Article 4 of the Paris Agreement, Togo has carried out a QA/QC of the input data to ensure that there are no omissions or double counting. |
| **d)** | **Methodologies an d IPCC parameters used to estimate anthropogenic greenhouse gas emissions and removals** | The 2006 IPCC guidelines, good practice guides and the IPCC database were used to estimate anthropogenic GHG emissions and removals. |
| **e)** | **Assumptions, methodologies and approaches specific to the sector, category or activity, in accordance with IPCC guidance, where applicable :** | |
| **(i)** | **Approach for dealing with emissions and subsequent removals of natural disturbances on managed lands** | GHG emissions and removals due to natural disturbances, where applicable, will be accounted for in accordance with the 2006 IPCC guidelines. |
| **(ii)** | **Approach used to take account of emissions and absorptions of harvested wood products** | GHG emissions and removals from harvested wood products, where applicable, will be accounted for in accordance with the 2006 IPCC guidelines. |

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| (ii) | **Approach used to deal with the effects of age class structure in forests** | NA |
| **f)** | **Other assumptions and methodological approaches used to understand the contribution determined at national level and, where appropriate, to estimate the corresponding emissions and removals, in particular :** | |
| (i) | **How the reference indicators, reference levels, including, where appropriate, sector-, category- or activity-specific reference levels, are constructed, including, for example, the key parameters, assumptions, definitions, methodologies, data sources and models used.** | To quantify the level of GHG emissions in the reference scenario projected to 2030, the following assumptions have been made for the drivers of emissions growth:<br>• The government will not take any further measures to combat GHG emissions in the socio-economic development sectors other than those already under way;<br>• Behavioural factors are considered to be constant throughout the projection period; |
| (ii) | **For Parties whose contributions determined at the level contain components other than à effect effect information assumptions and methodological approaches used in in relationwith these components, the where appropriate** | The methodological approach used for short-lived climate pollutants (black carbon, PM2.5 and PM10) is that of LEAP-IBC. |
| (ii) | **For climate forcing factors included in nationally determined contributions not covered by the IPCC guidelines, information on how climate forcings are estimated.** | NA |
| (iii) | **Other technical information, as required** | NA |
| **g)** | **The intention to resort to voluntary cooperation under Article 6 of the Paris Agreement, where applicable** | Togo recognises the important role of market-based international cooperation in contributing to the mitigation of GHG emissions and the promotion of sustainable development. Togo will continue to explore the potential of bilateral, multilateral and<br>market-driven regional development, including in the context |

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| | | Article 6 of the PA, which can facilitate, accelerate and improve the development and transfer of technologies, capacity building and access to financial resources that support Togo's sustainable transition to low-emission growth that is resilient to climate change. |
| ***6*** | ***How the Party considers that its nationally determined contribution is fair and 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** | Following the Talanoa Call to Action, issued by the Presidents of COP 23 and COP 24, Togo has made its revised NDC (2021) more ambitious than the NDC (2015) (i) by articulating targets for reducing GHG emissions in 2030 compared to 2010 levels.<br><br>The national commitments are well in line with the 2050 emissions trajectories that correspond to the long-term objective of the Paris Agreement. It is also important to note that the evolving nature of a country's situation must be reflected in the examination of equity using the following indicators:<br><br>• Responsibility reflected in past and current GHG emissions.<br><br>• Ability to invest in appropriate mitigation measures (ability to contribute to solving the problem of climate change)<br><br>• Mitigation potential and costs |
| **b)** | **Equity considerations, including reflection on equity** | It should be noted that equity considerations from a national perspective encompass a variety of issues and that no single indicator can accurately reflect equity or a fair distribution of countries' efforts on a global scale. |
| **c)** | **How the Party has dealt with paragraph 3 of Article 4 of the Paris Agreement** | The revised 2021 NDCs propose an unconditional reduction of 20.51% compared with the reference scenario in 2030, compared with 11.14% for the current 2015 NDCs.<br><br>The overall contribution (unconditional and conditional combined) of the revised NDCs (2021) is a 50.57% reduction in GHG emissions compared with the reference scenario in 2030, compared with 31.14% for the current NDCs (2015). |

| | | |
|---|---|---|
| **d)** | **How the Party has dealt with Article 4, paragraph 4, of the Paris Agreement** | Another issue that demonstrates the strengthening of the country's ambitions concerns the application of an absolute economy-wide emissions reduction target (in accordance with Article 4, paragraph 4 of the Paris Agreement), which ensures that targets are met in a relevant, comprehensive, consistent, transparent and accurate manner. |
| **e)** | **How the Party treated Article 4(6) of the** | NA |
| | **the Paris Agreement** | |
| ***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 national commitments are well in line with the 2050 emissions trajectories that correspond to the long-term objective of the Paris Agreement, thus contributing to the stabilisation of GHG concentrations in the atmosphere at a level that would prevent dangerous anthropogenic interference with the climate system, and development in a sustainable manner, in accordance with Article 2 of the Convention. |
| **b)** | **How the nationally determined contribution contributes to achieving Article 2(1)(a) and Article 4(1) of the Paris Agreement** | Togo's contribution through its NDCs is in line with global ambitions to limit the temperature to 2°C and compatible with Togo's sustainable development objectives. |

# Chapter 4: Adaptation

## 4.1. CONTEXT NATIONAL OF ADAPTATION TO CLIMATE CHANGE

### 4.1.1. National situation

Togo's economy is dominated by agricultural activities (almost 40% of GDP), which are highly dependent on climatic conditions. Other development sectors such as energy, water resources, the coastal zone, human settlements and health, forestry and other land uses also remain highly vulnerable.

With this in mind, Togo made a commitment in the initial NDCs to help combat climate change and strengthen the resilience of production systems and resources, in accordance with its National Action Plan for Adaptation to Climate Change (NAPA), drawn up in 2008. In 2016, the country adopted a National Climate Change Adaptation Plan (PNACC), which confirms its commitment to strengthening people's ability to adapt to the adverse effects of climate change.

### 4.1.2. Institutional, legal and political arrangements

In terms of international commitments relating to the environment and adaptation to climate change, Togo has ratified the three conventions of the Rio generation: (i) the United Nations Framework Convention on Climate Change (UNFCCC) (08 March 1995); (ii) the Convention on Biological Diversity (CBD) (04 October 1995); and (iii) the Convention to Combat Desertification (CCD) (15 September 1995). At national level, adaptation is part of the national environment policy, the forestry policy statement, the national sustainable development strategy, the framework law on the environment and laws on the forestry, water, health, hydrocarbons and merchant marine codes.

At institutional level, several players are involved in strengthening adaptation to climate change in Togo. The main players are: (i) the Ministry of the Environment and Forest Resources, with all its branches; (ii) the National Commission on Sustainable Development, made up of representatives of public and private institutions, local authorities, NGOs and other legal entities; (iii) the National Committee on Climate Change, which is a framework for information, consultation and monitoring of the implementation of the national policy on climate change; (iv) the Interministerial Committee for monitoring the implementation of the NDCs; and (v) the multidisciplinary team.

on climate change. These players are working with other stakeholders such as Togo's public and private universities and the country's major institutions (the Presidency of the Republic, the Prime Minister's Office, the National Assembly, etc.).

## 4.2. ANALYSIS OF THE IMPACTS, RISKS AND VULNERABILITY OF PRIORITY SECTORS

Since 2014, the scenarios developed show that climate change is a real concern for Togo and that current and future trends will have damaging consequences if appropriate measures are not taken. With an economy essentially based on agriculture, climate hazards make the Togolese population as a whole vulnerable.

Climate variability in Togo leads to food and nutritional insecurity, degradation of forest resources, and difficult access to energy, water resources and quality healthcare. Togo's climate is highly variable in space and time. By 2020, temperatures will have risen by a maximum of 1.2°C, 20% higher than in 2012. Rainfall, meanwhile, is on the decline, with fluctuations ranging from 15 mm to 98 mm. This is leading to climate risks that are affecting all sectors of development, in the form of flooding, drought, extreme heat, seasonal shifts, violent winds, poor rainfall distribution, land erosion and coastal erosion.

Future projections of climate variability based on the IPCC's rigorous methods are as follows for Togo. If the country continues to stabilise emissions (RCP6.0) compared with 2020, temperatures will rise by 0.6°C to 0.7°C in 2025 and by 2.15°C to 2.75°C in 2100. Precipitation will vary from -0.08% to +0.35% (2025) and from -0.3% to +1.26% (2100).

On the other hand, if the country embarks on the process of reducing greenhouse gas emissions (RCP4.5), temperatures will rise by 0.66 to 0.84°C (2025) and 1.53 to 1.96°C (2100). Precipitation will vary between -0.09% and +0.39% (2025) and from -0.21% to +0.89% (2100).

### 4.2.1. Energy sector

#### 4.2.1.1. Biomass energy

Wood energy accounts for 80% of the energy used by households, and 90% of the local population use this source of energy in Togo. The current wood energy potential will only be able to satisfy 28% and 12% of demand respectively.

2025 and 2050 respectively. On the basis of multi-criteria analyses, the wood energy sector has an average vulnerability index estimated at 0.58 at national level. At regional level, the country's two northern regions (Savanes and Kara) have a high level of vulnerability, with an index of between 0.6 and 0.8.
The impacts linked to this vulnerability in this sector are essentially the low growth and production of biomass for wood energy, the increasing scarcity of species used for wood energy and the destruction of protected ecosystems that are far from dwellings and constitute refuges for most threatened species.

The vulnerability of the wood energy sector will worsen in the future. Indeed, in the event of stabilisation (RCP6.0), the vulnerability index for this sub-sector will fall into the high category from 2075 for the whole country. If appropriate measures are not taken, there will be socio-economic repercussions, such as an increase in the price of firewood and charcoal, and a rise in the poverty index in rural areas.

#### 4.2.1.2. Hydropower

In Togo, hydroelectric power is produced exclusively by the Kpimé and Nangbeto dams, which are fed by large rivers. The current vulnerability of this sector is average, with an index of 0.51. In the future, if nothing is done, it will become highly vulnerable from 2075. This will exacerbate the current impacts of climate change, which are reflected in a reduction in the water level of hydroelectric dams, the destruction of hydroelectric facilities and a reduced capacity to supply energy to businesses and industry.

If the integrated water resource management (IWRM) measures set out in the sector's planning documents and the renewable energy development policy are implemented, the vulnerability index will be considerably reduced by 2025 (0.48) and 2050 (0.35).

#### 4.2.1.3. Hydrocarbons

As Togo is not a producer of hydrocarbons, the vulnerability of this sector to climate change is not direct. It is linked to that of the wood-energy and hydroelectricity sectors. Thus, the reduction in the supply of biomass and hydroelectricity will increase hydrocarbon consumption. As Togo imports the petroleum products it needs, the hydrocarbons sector remains highly sensitive to fluctuations in oil prices. In terms of impact, we are seeing an increase in expenditure due to a rise in hydrocarbon consumption, with negative repercussions on the transport sector.

### 4.2.2. Agriculture, forestry and other land uses (AFAT) sector

In Togo, the AFAT sector is the most exposed to the effects of climate change. On a national scale, a downward trend in rainfall coupled with an increase in temperature is forecast. This is likely to have an impact on biodiversity, species habitats, ecosystem services and agricultural production in Togo. Most of these effects are linked to drought, flooding and pest outbreaks.

#### 4.2.2.1. Forestry and other land use sub-sector (FAT)

The resulting vulnerability of the forestry and other land use sub-sector is 0.59 for the country as a whole, which is equivalent to a "medium" level of vulnerability. However, it is "high" for the Centrale, Kara and Savanes regions, and "medium" for the Plateaux and Maritime regions. This vulnerability in the FAT sector is reflected in all regions of the country by :

- **The increase in natural mortality of woody plants in Togo's natural ecosystems**. High temperatures and drought
  increase the intensity of fires, which are responsible for most of the mortality of woody species in forest areas. The natural mortality rate is 8.60%, 5.41% and 5.42% respectively for the Savanes, Kara and Central regions.
- **Deterioration in the health of woody stands**. In Togo's natural ecosystems, an average of 20 trees per hectare are attacked.
  by parasites. According to field investigations, the high temperatures recorded in recent years explain the recurrence of attacks on woody plants by pests and parasitic plants.
- **Windfall**. The damage caused by violent winds to forests is estimated at 9 feet/ha in natural ecosystems.
- **Low regeneration capacity**. With climate change, vegetation fires are more violent and regeneration is suppressed or delayed.
  In forest landscapes in protected areas, less than 30% of potential regeneration is able to survive fires, which are becoming increasingly violent with CC.
- **Land use**. A drier climate, higher temperatures and increased evapotranspiration are intensifying leaching and lattersization.
  while heavy rainfall increases soil erosion, especially in hilly areas. This leads to further land degradation. Extensive slash-and-burn agriculture is also leading to a reduction in forest cover.

Highly exposed to climate change, the forestry sector is suffering from impacts such as the loss of forest cover, biodiversity and ecosystems.

This has led to the disappearance of protected species, the disappearance of certain forest species and the low productivity of mangroves.

In the future, the vulnerability of this sub-sector will increase at national level by 2050, with an index of 0.63 corresponding to high vulnerability. This situation will be observed in all regions except the Plateaux, which will remain in the middle class. In this context, with the exception of the Atakora mountain range, all of Togo's forest ecosystems will be highly exposed to a drop in rainfall and an increase in temperature, with a worsening of the impacts linked to climatic hazards.

#### 4.2.2.2. Agriculture, livestock and fisheries sub-sector

The major disruptions to agriculture, livestock farming and fishing in all of Togo's economic regions are climatic hazards. These include seasonal changes, irregular rainfall with pockets of drought, rising temperatures, flooding and pest attacks. These hazards make the sub-sector highly vulnerable, with repercussions for food security (crop losses).

- **Vulnerabilities and impacts of the agriculture sub-sector**

The resulting vulnerability of the crop production sector is high overall for the country as a whole, and particularly in the savannah region. The impact of this vulnerability is reflected in yield reductions estimated over the last ten years at between 30% and 51% for the main food crops.

Pockets of drought caused yield losses of 1.3t/ha, 1.0t/ha and 0.7t/ha for maize, rice and yam respectively. Pests, in particular the armyworm, caused losses ranging from 0.5 to 0.95 t/ha for maize. In 2020, the total area of food crops flooded was 6,902 ha, with production losses estimated at almost 9,000 t.

Currently estimated at 0.70, the national vulnerability index for the agriculture sub-sector will remain high, rising slightly to 0.75 by 2050. This will exacerbate the impacts on the agricultural sector, with disruption of the agricultural calendar, devastation of crops by pests (army worms, locust whiteflies), the appearance of new invasive species, the disappearance of certain cultivars, lower agricultural yields, erosion of arable land, etc.

- **Vulnerabilities and impacts of the livestock sub-sector**

In all regions of Togo, poultry farming is a widespread activity in rural areas. This type of family farming, which involves women, is less

water-intensive. However, the rearing of small ruminants and large livestock, widely practised in the savannah and plateau regions by sedentary and transhumant livestock farmers, is demanding in terms of the availability of natural resources, particularly water. With the trend towards prolonged drought in recent decades, conflicts between livestock breeders and farmers are recurring, accentuating vulnerability in the livestock sub-sector.

In the savannah region, livestock are being decimated by shortages of water and fodder. In addition, the proliferation of epizootics such as anthrax, African swine fever and avian influenza in these regions is linked to the high temperatures that are becoming increasingly prevalent. This situation is affecting national livestock production, which covers less than 50% of the population's needs.

❖ **Vulnerabilities and impacts of the fisheries sub-sector**

Fishing is concentrated on the coast, the lagoon complex of southern Togo, the Nangbéto basin, and along the Mono and Oti rivers. Drought and high temperatures are making the fishing sector more vulnerable. As a result, the coverage rate for fish products fell from 35% in 2015 to 29% in 2017. High temperatures, flooding and early low water levels in rivers are making spawning grounds sensitive, thereby reducing the availability of fish. As in the case of livestock farming, the future vulnerability of the fishing sub-sector may increase, with an accentuation of the impacts, in particular the reduction in catches, the silting up of rivers and the disappearance of certain fish species. These impacts will also affect the government's efforts to develop aquaculture, with the increasing scarcity of fry.

### 4.2.3. Water resources sector

High temperatures, irregularity and changes in rainfall distribution are reflected in reduced water stocks in groundwater and surface water. This situation makes the water sector very vulnerable at national level, especially in the savannah region. Based on the Standardised Precipitation Index (SPI), the years between 1961 and 2018 are dominated by moderate to severe drought in the Kara and Maritime regions. Currently, the impacts associated with climate change in the water sector are the early drying-up of wells and watercourses, silting-up of watercourses, saline intrusion in the terminal continental zone and water pollution.

The simulations indicate that in the event of stabilisation (RCP6), the two major river basins (Oti and Mono) and Togo's lagoon complex will be affected to varying degrees by 2030. Water stocks (surface and underground) will increase by between 7 and 28 million cubic metres in the Mono basin. However, they will decrease by

60 to 500 million and 120 to 750 million cubic metres respectively in the Oti and Lake Togo basins.

If measures are not taken, the problems of availability and accessibility of drinking water for the population will increase and the government will have difficulty ensuring easy, universal and equitable access to drinking water (target 1 of SDG6) and improving its quality by reducing pollution (target 3 of SDG6). The impacts will be exacerbated by the shortage of drinking water in households and the risk of conflicts over water supplies.

### 4.2.4. Human settlements and health sector

Human settlements are becoming increasingly vulnerable in Togo. In 2020 and 2021, overflowing rivers in the Oti and Mono basins caused enormous material damage and loss of life. Human facilities and infrastructure (roads, markets, health centres, housing, schools, electricity and telecommunications, etc.) are becoming more fragile and collapsing, and will continue to do so in the future.

In terms of health, the hot weather and flooding have led to the outbreak and proliferation of certain diseases such as malaria, meningitis, typhoid fever, cholera and respiratory diseases, which used to be localised and controlled. So far, the northern regions (Savanes and Kara) are the most vulnerable. However, the simulation shows that in the future, the risk of these diseases could spread southwards, with a worsening in the northern regions. The mortality rate would increase, and the vulnerability of the elderly, pregnant women, people with disabilities, people living with HIV-AIDS and children would become greater and greater.

### 4.2.5. Coastal zone

The phenomenon of coastal erosion in Togo, which has been the subject of scientific observation since 1964, has resulted in changes to the coastline over the years. Storms and natural cycles of undulation linked to climate change are exacerbating the advance of the sea towards human settlements on land, as evidenced by the retreat of the beach by an average of 10m per year. This erosion threatens 42% of the national population, industrial units, economic and port activities, tourist sites and fishing villages.

In the future, all climate scenarios point to an amplification of this phenomenon, as the amplitude of sea level rise will increase from 11.35 cm in 2025 to 62 cm in 2100. This situation will exacerbate the current impacts, which include the complete disappearance of some coastal villages, the considerable loss of land and coastal ecosystems, and the destruction of seaside infrastructures.

(roads, houses, hotels, etc.), the disruption of economic activities and the destruction of spawning grounds.

## 4.3. PRIORITIES, OBJECTIVES AND ADAPTATION MEASURES

### 4.3.1. Priorities

The following diagram shows the strategic map that will enable us to strengthen people's ability to adapt in all the priority sectors, broken down into the main areas. The objectives defined derive from the national priorities set out in the NCCP and other national and sectoral planning tools (Figure 5). The implementation of activities to achieve these objectives is based on the principles of equity, gender, cooperation, research and transparency.

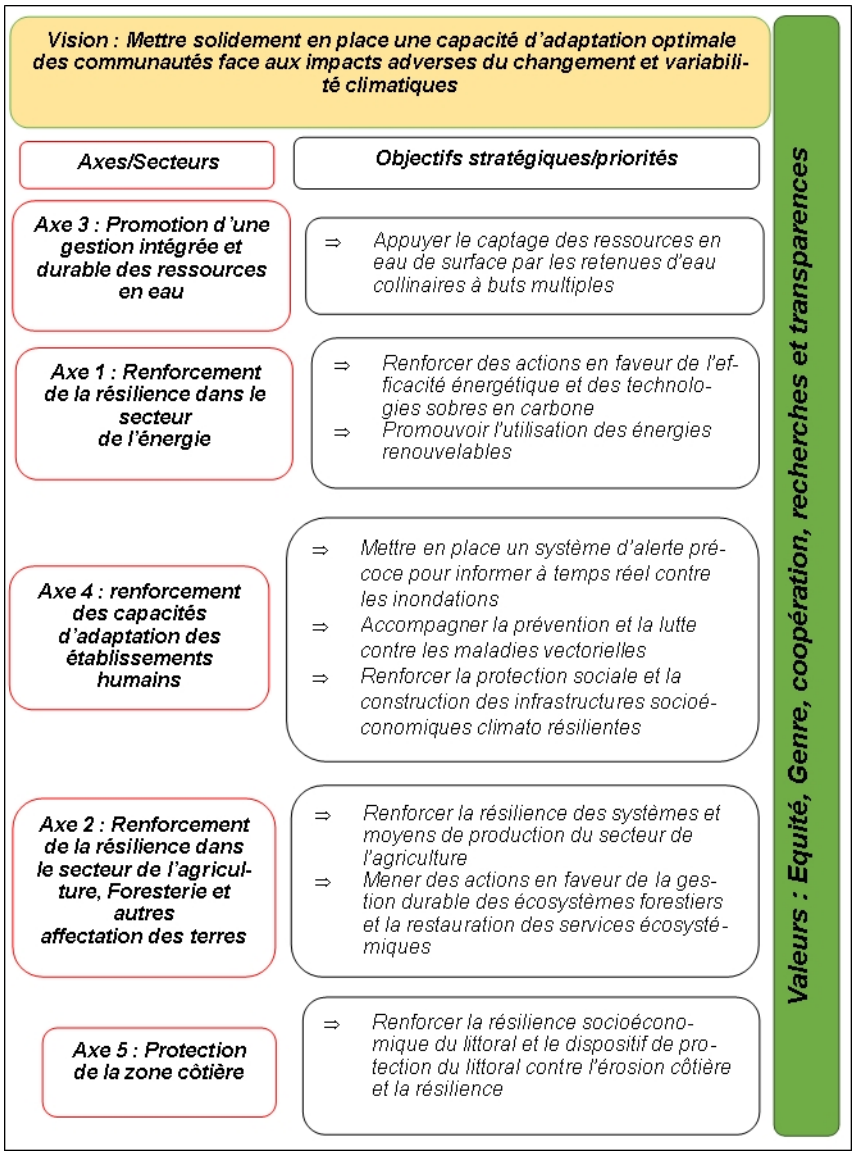


**Figure 5: Adaptation strategy map for Togo**

### 4.3.2. Adaptation measures/Mitigation co-benefits

To strengthen people's resilience, adaptation measures are identified in the priority sectors (Table 4), including those that have a beneficial impact on mitigation.

The various measures identified in Togo incorporate nature-based solutions that can contribute to mitigation while strengthening adaptation to climate change. These co-benefits can be seen in the increased potential for carbon sequestration, the ability of crops to cope with water stress and pest attacks, and the reduction of risks associated with flooding and the proliferation of pathogens.

The measures identified respond to a number of persistent needs in terms of strengthening the resilience of communities to the effects of climate change, despite the efforts made by the State (Table 4).

In addition, the measures identified will contribute to the implementation of frameworks aimed at strengthening adaptation at national and international level.

At national level, the various adaptation measures will essentially contribute to the operationalisation of the National Development Plan. They are also in line with the Government's Roadmap 2025 and will contribute primarily to project 35 (response to the main climate risks) and project 36 (green mobility programme). In this roadmap, they also target projects 2 and 3 (setting up the single social register, establishing universal health cover), project 5 (pursuing the policy of electrification for all), project 6 (increasing access to drinking water and sanitation), projects 12, 13, 14 and 15 (improving agricultural yields, extending the rural road network, speeding up the MIFA, expanding the Kara agropolis in partnership with the private sector).

At international level, the adaptation measures identified are intended to contribute to achieving the Sustainable Development Goals (SDGs), in particular SDG2, which aims to ensure food and nutritional security; SDG3, which relates to good health and well-being; SDG5, which aims to ensure the empowerment of all women; SDG8, which aims to guarantee economic growth through decent work; and SDG15, which aims to preserve and restore the earth's ecosystems.

**Table 4: Priority adaptation measures by sector**

| Sectors/ | | PrioritiesPriority adaptation | measuresNeeds/goalsContribution to frameworks | | |
|---|---|---|---|---|---|
| | | | | National | International |
| Axis 1 Strengthening resilience in the energy sector | Reinforcing actions to promote energy efficiency and low-carbon technologies | • Promoting biofuels<br>• Seeking TFPs for the production of new and renewable energies<br>• Sustainable management of traditional energies | • Supply populations with alternative energy sources such as domestic gas | PND<br>Expected effect 2.5 and 3.7 | Target 1 of MDG 13<br>SDG7 targets 1 and 3 |
| | Promoting the use of renewable energies | • Promoting wood energy plantations<br>• Development of renewable energies<br>• Tax breaks for imports of renewable energy equipment<br>• Development of mini hybrid networks for rural electrification | • Promoting alternative energy-saving technologies<br>• Facilitating the development of renewable energies for men, women, girls and vulnerable people | FDR 2025<br>Project 35<br>PND<br>Expected effect 2.5 and 3.7 | Target 1 of MDG 13<br>Target 2 of MDG 7 |
| Axis 2 Strengthening resilience in the energy sector of agriculture | Strengthening the resilience of agricultural production systems and resources | • Promoting high-performance, climate-resilient varieties<br>• Strengthening integrated soil fertility management (ISFM)<br>• Definition/development of transhumance corridors and areas for grazing and watering animals | • Ensuring food security for all by increasing yields and improving the income of producers, particularly women,<br>• Reducing crop losses and damage caused by by flooding, pockets of | FDR 2025<br>Project 35<br>PND<br>Expected effect 2.1 and 2.2<br>FDR 2025<br>Project 12 | Target 1 of MDG 13<br>Targets 3, 4 and 5 of MDG2 |

| | | | | | |
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| | | animals<br>• Strengthening the agricultural insurance system against climate risks<br>• Construction and/or rehabilitation of water reservoirs for micro-irrigation<br>• Control of water in rice and market garden production<br>• Popularisation of good agro-ecological practices<br>• Fight against the plagues and epizootics<br>• Strengthening early warning and health monitoring systems | droughts and pests. | | |
| | Take action to promote the sustainable management of forest ecosystems and the restoration of ecosystem services | • Strengthening the resilience of agricultural product processing units<br>• Support for the mapping of areas sensitive to climate change<br>• Reforestation and protection of fragile ecosystems<br>• Promoting urban forestry<br>• Development of environmentally sensitive community forestry | • Promoting traditional practices to protect forest resources and the environment<br>• Increase the availability of quality seeds and seedlings<br>• Reducing the degradation of natural ecosystems<br>• Strengthen the services | PND<br>Expected effect 3.12<br>FDR 2025<br>Project 35 | Target 1 of MDG 13<br>SDG15 targets 1 to 9 |

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| | | like,<br>• Implementing gender-sensitive sustainable and participatory management of key forest resources<br>• Restoring and developing degraded natural forests and protected areas<br>• Capacity-building for stakeholders in the FAT sub-sector, leaving no one behind | ecosystems | | |
| Axis 3: Promoting integrated and sustainable management of water resources | Supporting the harnessing of surface water resources through multi-purpose hill dams | • Improving knowledge of water resources<br>• Protecting water resources<br>• Improving water management in the agricultural sector<br>• Rainwater conservation and wastewater recycling<br>• Improving groundwater management<br>• Improving access to drinking water<br>• Improvement of hygiene practices and water quality<br>• Study of the water potential of the coastal sedimentary basin and its resilience to CC | • Increase the availability and accessibility of all water resources, especially in rural areas<br>• Restore and maintain catchment areas and wetlands<br>• Building the capacity of institutions involved in water resource management. | PND<br>Expected effect 3.6<br>FDR 2025<br>Project 6 | MDG 6 targets 1 to 6<br>Target 1 of MDG 13 |

| | | | | | |
|---|---|---|---|---|---|
| Axis 4 Strengthening of human settlements | Set up an early warning system for risks | • Protection against disaster risks<br>• Mapping of areas at risk<br>• Improved management and use of at-risk areas | • Strengthen the system for protecting people against flooding and other natural natural disasters | PND<br>Expected effect 3.12<br>FDR 2025<br>Project 35 | Targets 1 and 3 of MDG 13 |
| | Supporting the prevention and control of vector-borne diseases | • Strengthening the regulatory framework for health and the environment<br>• Providing rural areas with adequate health infrastructure<br>• Protecting people against Covid 19 and other pathogens | • Improving access to healthcare for local populations<br>• Reduce the mortality rate from infectious diseases and other pathogens | PND<br>Expected effect 3.2<br>FDR 2025<br>Projects 3 and 4 | Target 1 of MDG 13<br>MDG3 targets 1 and 7 |
| | Strengthening social protection and building climate-resilientclimate-resilient socio-economic infrastructure | • Implementation of urban planning tools<br>• Strengthening san itation infrastructure in urban centres<br>• Sustainable urban waste management<br>• Design of urban centres<br>• Harmonious and balanced harmo nious and balanced spatial development of urban centres | • Strengthening the economic resilience of the population, particularly women and young people | PND<br>Expected effect 3.6 and 3.9<br>FDR 2025<br>Project 35 | Target 1 of MDG 13<br>MDG1 targets 4 and 5 |

- Development of IGA

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| | | climate resilient for women | | | |
| Priority 5: Protecting the coastal zone | Initiating IGAs for market gardening<br><br>m arket gardeners and fishermen in the coastal zone | • Capacity building for maritime fisheries stakeholders<br>• Initiation of IGAs for market gardening and fishing communities in the coastal zone | • Ensuring the safety of people living in the coastal zone against flooding and coastal erosion<br>• Improving the incomes of vulnerable populations in the coastal zone<br>• Reducing pollution and nuisances in coastal areas | PND<br><br>Expected effect 3.5, 3.12<br><br>FDR 2025<br><br>Project 35 | MDG1 targets 4 and 5<br><br>Targets 1, 2 and 14b of the SDG14<br><br>Target 1 of MDG 13 |
| | Reinforcing coastal protection against coastal erosion (both natural and artificial) | • Improving the regulatory framework and knowledge management of the phenomenon of coastal erosion<br>• Carrying out structural investments to protect the coastline<br>• Rehabilitation of coastal plant formations such as mangroves | • | | |

## 4.4. STATE OF IMPLEMENTATION OF ADAPTATION MEASURES

### 4.4.1. Progress made in integrating gender and inclusion in adaptation efforts in Togo

Since the initial NDCs, Togo has made efforts to implement adaptation actions through development projects and programmes that take gender and inclusion into account.

In Togo's initial NDCs, issues relating to the legal and institutional framework and to gender were not explicitly addressed. However, the progress made in implementing adaptation has taken these aspects into account. The following table summarises the main adaptation efforts in Togo (Table 5).

**Table 5: Togo's adaptation efforts**

| Sectors | Measures in the initial CDNs | Progress made |
|---|---|---|
| Energies | Development of Renewable energies (to reach 4% of the energy mix) | • Installation of four solar photovoltaic mini-power stations with a total operational output of 600 KW;<br>• Solar electrification of 314 health centres and installation of solar water heaters in 122 health centres; |
| | Sustainable management of traditional energy sources (firewood and charcoal) | • 1,500 charcoal burners trained in the Casamance millstone and cooperatives supplied with Casamance millstone equipment<br>• Over 200 hectares of reforestation for wood energy<br>• 100 cooperatives trained in wood-energy forestry entrepreneurship and the sustainable management of natural resources<br>• Promotion and distribution of around 20,000 improved wood-burning ovens and stoves to households<br>• 15,000 improved stoves and 25,000 biogas kits distributed,<br>• Promoting the use of gas by raising awareness, with the aim of reaching 24,000 users, including 18,000 women |
| | Implementing strategies to save electrical energy | |
| | Development of mini hybrid networks for rural electrification | • Electrification of more than 53,000 households with individual solar kits or photovoltaic solar nanogrids by December 2020<br>• Installation of 2,000 solar irrigation systems; 500 solar kits in schools; 500 solar pumping systems for drinking water supply and 12,000 solar street lamps. |
| | Promoting low-carbon modes of transport and new clean technologies in the building sector | • Tax relief for new and hybrid vehicles |
| Agriculture | Promotion of varieties that are resilient to climate change | • Extension of short-cycle varieties |

| | | |
|---|---|---|
| | Strengthening integrated soil fertility management (ISFM) | • Distribution of 300 micro-irrigation kits, establishment of 50 ha of market gardening with GIFERC products<br>• Installation of stone barriers for integrated fertility management<br>• Support for community restoration of degraded land in the Nangbani area to improve the resilience of local agriculture to climate change<br>• Promotion of good agricultural practices for climate resilience and sustainable land management in the Avé prefecture |
| | Definition/development of transhumance corridors and areas | • A transhumance map |
| | Construction and/or rehabilitation of water reservoirs for micro-irrigation and livestock watering in rural areas in all regions | • Installation of 15 pastoral water points<br>• Development of 10 small water reservoirs |
| | Support for the mapping of areas sensitive to climate change | • Training of 2,863 PO members in CC impact and vulnerability assessment |
| | Support for the dissemination of good agro-ecological practices | • Organisation of 6 workshops to raise awareness among political decision-makers<br>• Introducing groups / cooperatives and young agricultural entrepreneurs in the prefectures of Agou and Kloto to good practice in sustainable land management |
| | Promotion of a rice-growing system that consumes very little water and produces low greenhouse gas emissions (SRI: Système de riziculture intensif - intensive rice-growing system) | • Rough management of lowlands, soil improvement using organic fertiliser,<br>• Support for the sustainable management of rice-growing land in Asséré |
| Forestry and other of | Mapping and orientation of areas of human activity adapted to each environment and natural context | • Participatory zoning and mapping at village or cantonal level to target sites for restoration/development<br>• Restoration of more than 1,000 ha of state forests |

| | | |
|---|---|---|
| land | Capacity-building (technical and material) for meteorological services to ensure effective forecasting and planning of activities | • Development of over 6,000 ha of community forests<br>• Equipping 9 weather stations with automatic equipment |
| | Reforestation and protection of areas with fragile ecosystems (mountainsides, river banks) to combat flooding, strong winds and erosion. | • Rehabilitation of brigades and forest tracks in protected areas.<br>• Nearly 1,000 ha of reforestation planted by ODEF<br>• Training, equipment for 175 nurserymen and production of 145,000 plants<br>• Acquisition and distribution of 88,223 seedlings for reforestation over an area of 220 ha<br>• Restoration of 240 ha with reforestation of 150,000 seedlings in degraded areas of protected areas |
| | Promoting the Ecology and Conscience Programme in schools in Togo | • Building and equipping two CC research laboratories<br>• 27 studies carried out in conjunction with the CCs<br>• Setting up 13 agro-ecological school fields in 13 prefectures |
| | Drawing up the national regional development plan and implementing pilot actions | • Carrying out Togo's second national forest inventory<br>• Installation of almost 300 ha of cashew orchards<br>• Support for the creation and management of almost 50 community forests |
| Human settlements | Improving sanitation and rainwater drainage in the main urban centres | • Support for local authorities in sanitation and waste management<br>• Strengthening ANASAP's operational capabilities<br>• Creation and restoration of dams and water retention basins (13 basins restored and maintained in Greater Lomé and 1 dam under construction at Binaparba in the Bassar prefecture)<br>• Construction of 2,300 ECOSAN family latrines |

| | | |
|---|---|---|
| | Development and renovation of urban roads in the main urban centres | • Development of major roads and almost 90,000 km of rural tracks |
| | Promoting urban forestry | • Creation and maintenance of 49,556 $^{m2\ of}$ green spaces.<br>• Urban reforestation of the city of Lomé with 10,000 seedlings planted |
| | Rational and sustainable urban waste management | • Organisation of waste management inspections in hospitals, industries, households and public latrines across the city<br>• Construction of Monfort-type incinerators for biomedical waste in the 5 regions.<br>• Elimination of 369 illegal dumps with 39,160 m3 of waste and disposal of urban waste<br>• Evacuation of urban waste from bins set up along roadsides across the city (28,400 m3 of urban and peri-urban waste evacuated) |
| | Development spatial harmonious of urban centres | • Drawing up, reviewing and implementing master plans for town planning and development (SDAU)<br>• Regularisation of de facto housing estates |
| | Strengthening the institutional and regulatory framework for health and the environment | • Drawing up a climate strategy for the health sub-sector<br>• Strengthening the resilience of the entire Togolese population to malaria and other diseases;<br>• Increased provision of integrated FP HIV/AIDS services, with 91% of SFs offering these services;<br>• Support for improving health and nutrition in 1,000 localities<br>• Strengthening community health activities in the Maritime region |
| | Protection against the risks risks | • Emergency project for the rehabilitation of electrical infrastructure and services (PURISE)<br>• Survey of geodetic points<br>• Identifying new areas to build on |

| | | |
|---|---|---|
| | Improving water management in the agricultural sector | • Mapping database of flood-prone areas in Greater Lomé, the Maritime and Savanes regions<br>• Drawing up disaster management maps<br>• Integrated rehabilitation of flood victims in 60 localities<br>• Creation of internal dams<br>• Installation of 15 pastoral water points |
| | Conservation of rainwater and reuse of wastewater | • Development of 10 small water reservoirs |
| | Improving groundwater management | • Rehabilitation of 60 boreholes and construction of 30 new boreholes;<br>• Extension of the water supply network in major towns ;<br>• Installation of a solar pumping system at 400 human-powered water points |
| Coastal zone | Study of the water potential of the coastal sedimentary basin and resilience to CC | • Study to assess post-capture losses in Togo's small-scale marine fisheries |
| | Improving the regulatory framework and knowledge management of the phenomenon of coastal erosion | • Production and/or adaptation of long-term planning tools for marine and coastal areas<br>• Establishment of appropriate cross-sectoral policy, legal and institutional frameworks to implement guidelines and ensure the sustainable development of marine and coastal areas<br>• Creation of a ministry responsible for the blue economy |
| | Realization of structural investments to protect the coast | • Implementation of eleven (11) community sub-projects at a total cost of FCFA 1,730,825,544 in the coastal prefectures. All these projects aim to reduce vulnerability and strengthen socio-economic resilience to the effects of climate change.<br>• Support of almost 270,000 euros for the development of alternative income-generating activities for those involved in coastal sand extraction.<br>• Capacity building for 250 women market gardeners |

| | | |
|---|---|---|
| | | • Development and use of twenty (20) hectares for market gardening on the coast<br>• Support for the restoration of mangrove ecosystems |

## 4.5. TRADITIONAL KNOWLEDGE AND GENDER-SENSITIVE ADAPTATION MEASURES

According to recent studies and field investigations, various adaptive measures have been implemented by local populations to cope with the effects of climate change, particularly in the Oti basin. In the agricultural sector, people are increasing the area sown (96.6%), using agroforestry (75.9%), using veterinary services to treat livestock instead of traditional methods (62.1%), growing off-season crops and diversifying crops (50.6%), adopting early varieties and conserving fodder during periods of drought (35%).

In the human settlements sector, the people of the Oti plain build straw houses every year, depending on the flood periods (25%), and build bait houses with a ceiling to support harvest produce, based on estimates of the height of flood waters (6.5%).

In the forestry sector, due to the continual degradation of their land and the disappearance of certain forest species, certain communities such as those of Tchavadè (central region) have undertaken the extension of their sacred forest by clearing 100 ha all around it and enriching it with plants for multiple uses which are used in traditional therapy or food. These forests are historical and cultural sites for the local population, as well as providing a special microclimate.

In the water sector, rural people reduce the amount of water used for personal hygiene (57%) and make small holes in riverbeds to trap a few litres of water (10.5%). Women in particular are responsible for water chores and are the ones most involved in applying these endogenous strategies.

When it comes to energy, people in rural areas all use oil cakes, sawdust, palm nut shells and maize and sorghum straw to cook their food. People also prefer electric torches to paraffin lamps, which used to be the main source of lighting in rural areas (98%).

The measures identified in Togo's revised NDCs integrate the needs and interests of women and men in all plans and sectors. The various measures recognise the differences between men and women and target the specific needs of men and women.

## 4.6. USEFUL INFORMATION: ADAPTATION SITUATION IN RELATION TO COVID 19

In Togo, the COVID-19 pandemic is not only having an impact on the health system, but is also undermining production and marketing systems at all levels. In terms of coping with the pandemic, over 52.7% of households have resorted to stress strategies (sale of non-productive assets and debts). The population also adopted crisis strategies (sale of productive assets) and emergency strategies (sale of plots of land and houses). With the measures taken as part of the state of health emergency, the only socio-economic alternatives for the population in rural areas were the abusive exploitation of fishing and forestry resources. The COVID-19 crisis has disrupted the implementation of the 2018-2022 national development plan, which included a number of actions to promote adaptation. Overall, in Togo, COVID only exacerbated the impacts linked to climate conditions, leading to a number of emergency responses to strengthen the resilience of the population (Table 6).

**Table 6: Impacts of Covid 19 and priority adaptation responses in Togo**

| | |
|---|---|
| **Impacts of Covid 19 aggravating CC** | ➢ Increased exploitation of certain species<br>➢ Abusive use of wood resources for the production of electricity.<br>subsistence<br>➢ Reallocation of budgets earmarked for the fight against climate change<br>climatic<br>➢ Increased pressure on medicinal plants<br>➢ Delay in implementing adaptation projects<br>➢ Disruption to the implementation of integrated planning tools<br>adaptation aspects<br>➢ Worsening of food insecurity<br>➢ Cancellation of national events and international events at<br>for the climate<br>➢ Increased health risk<br>➢ Increase in health-related expenditure |

| | |
|---|---|
| **Priority responses or measures** | ➢ 3 billion Fcf in cash transfers to the most vulnerable people.<br>vulnerable people through the solidarity programme (Novissi)<br>➢ Food aid programme for vulnerable populations through the community restaurants<br>➢ Distribution of food kits to vulnerable households<br>➢ Subsidy of 2,408,034,430 Fcfa for the free social tranche in electricity and water<br>➢ Exemption from tax in the transport, land and agricultural sectors, industry and energy, etc.<br>➢ Partnership with traditional medical practitioners<br>➢ Increase in public health expenditure (20 billion CFA francs of public spending) |

# Chapter 5: Financing

Funding for the implementation of the NDC will have to come first and foremost from Togo's public funds and from investments by Togolese and foreign private players (households, SMEs and large companies, diaspora). A substantial and unprecedented commitment is required from the players in Togolese society, particularly those in the financial sector who have the means to influence investment flows, and from international financial partners.

Achieving the overall target of 50.57% will require an estimated investment of around USD 5.4 billion between 2020 and 2030. Achieving the conditional portion of this target, i.e. 74%, which requires an estimated investment of USD 3.97 billion, depends on access to new sources of financing and additional support over and above that received in recent years. External support (bilateral or multilateral) for the implementation of the NDC is crucial, in terms of capacity building, technology transfer and the financing of climate infrastructure projects. This support can give impetus to all the actions of the revised NDC, in terms of both mitigation and adaptation. The shares allocated to mitigation and adaptation measures are USD 2.7 billion and USD 2.6 billion respectively.

## 5.1. INVESTMENT REQUIREMENTS FOR MITIGATION

The planning focuses on sectors with a high reduction potential, such as energy, AFAT, PIUP and waste, which were included in the revised NDC. However, adaptation sectors such as water resources, human settlements and health and the coastal zone were addressed in the NDC and will also be the subject of planning.

### 5.1.1. Investment needs of the energy sector

#### 5.1.1.1. Electricity generation subsector

An institutional framework has been put in place for the development of renewable energies and the supervision of projects, in particular the institutionalisation of the management of renewable energies and energy efficiency at national level through the creation of the AT2R.

Created by Presidential Decree N°2016 - 064/PR of 11 May 2016, the Agence Togolaise d'Electrification Rurale et des Energies Renouvelables (AT2ER) is a financially autonomous public establishment. The agency is responsible for implementing the country's rural electrification policy and for promoting and developing renewable energies.

As a key player in the development of renewable resources, AT2ER's ambition is to transform the country's natural energy potential into electrical energy for the development of rural localities. As such, AT2ER has the dual responsibility of accelerating rural electrification and increasing the share of renewable energy in Togo's energy mix. From now on, any action taken to guarantee the supply of electricity to rural populations will be carried out by the agency[1].

**Table 7: Investment costs of revised CDN actions in the electricity generation sub-sector**

| Revise CDN d actions | Investment costs | Unconditional | | Conditional | | | Total cost |
|---|---|---|---|---|---|---|---|
| | | % | Costs | % | Costs | Cost of implementation im plementation | |
| Improving du the electricity de distribution network Promoting an energy- d saving light bulbs | 32 680 000 | 12 | 3 921 600 | 88 | 28 758 400 | 4 313 760 | 36 993 760 |
| Promoting of energy efficiency in in households | 12 680 000 | 10 | 1 268 000 | 90 | 11 412 000 | 1 711 800 | 14 391 800 |
| Promoting production electricity à source database renewable energy hydroelectric | 328 124 778 | 20 | 65 624 956 | 80 | 262 499 823 | 39 374 973 | 367 499 752 |
| Promoting production of electricity from sources energy renewable | 477 794 974 | 15 | 71 669 246 | 85 | 406 125 728 | 60 918 859 | 538 713 834 |

[1] *https://at2er.tg/*

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| Togo (individual solar kits, mini-grids, solar power plants) | | | | | | | |
| **Total** | **851 279 752** | **15** | **142 483 802** | **85** | **708 795 951** | **106 319 392** | **957 599 146** |

**Source: CDN Support Project, September 2021**

The investment costs of the revised CDN actions in the power generation sub-sector are estimated at USD 957,599,146, of which USD 815,115,343 is conditional financing, i.e. 85% of the total cost. This translates into the implementation of several short-, medium- and long-term action plans to develop solar power generation and hydroelectric power stations, thereby helping to achieve the sub-sector's estimated target of 41.1% of the 455.66 Gg CO2-eq mitigation effort by 2030.

#### 5.1.1.2. Transport sub-sector

The transport sector, a driving force behind the country's growth and development, nevertheless remains a major cause for concern, in particular because of its greenhouse gas (GHG) emissions and pollutant gases, and by extension its direct impact on climate change.

In Togo, this sector accounts for 7% of GDP, of which road transport accounts for 70%, or 5%; the remaining 30%, or 2% of GDP, is accounted for by other modes of transport, mainly maritime transport, concentrated in the activities of the Port Autonome de Lomé2. Transport accounts for 81.11
% of final consumption of petroleum products (a large proportion of which is for road transport, particularly for two-wheeled vehicles)[3].

However, the 2021 Finance Act, like the 2020 Finance Act, provides for exemptions or a reduction in the tax burden (customs duties and VAT) on imports of new electric and hybrid vehicles with a life of 5 years. The aim is to remove excessively polluting cars from the fleet, which is due to be renewed.

In the same vein, the NDP intends to develop all modes of transport and position Togo as a benchmark platform in the sub-region and on a continental level. The government's Togo 2025 roadmap, which stems from the NDP, sets out the following objectives:

- Increase the share of electric vehicles in new vehicle purchases to 3% by 2025;

[2] Brief overview of the transport sector in Togo 2016

3 sustainable energy for all (se4all) 'sustainable energy for all by 2030 (SE4ALL-20national action programme, October 2015

- Extending the rural road network by building 4,000 km of rural roads targeting agricultural areas with high export potential in order to connect farmers to the market,
- build the Unity motorway by speeding up the RN1 development project linking the productive hinterland to the Lomé conurbation and the autonomous port.

The implementation of the national programme for energy efficiency in transport, compulsory roadworthiness testing and eco-driving training are measures that help to achieve the objectives of the NDC.

**Table 8: Total investment costs for the transport sub-sector**

| Revised CDN actions | Investment costs | Unconditional | | Conditional | | | **Investment cost Total** |
|---|---|---|---|---|---|---|---|
| | | **%** | **Costs** | **%** | **Costs** | **Cost of implementation** | |
| **Green mobility from programme** | 39 974 781 | 2,00 | 799 496 | 98,00 | 39 175 285 | 5 876 293 | 45 851 074 |
| **Improvements road infrastructure to relieve congestion in urban centres** | 31 587 920 | 1,00 | 315 879 | 99,00 | 31 272 041 | 4 690 806 | 36 278 726 |
| Total | 71562701 | | 1 115 375 | | 70447326 | 10567099 | 82 129 800 |

**Source: CDN Support Project, September 2021**

The total financial requirements for the transport sub-sector are estimated at USD 82,129,800, with USD 1,115,375 of unconditional investment. It could generate a cumulative emissions reduction of 9,960.04 Gg CO2-eq over the period 2020-2030 compared with a "business as usual" scenario through the projects listed in the appendix.

#### 5.1.1.3. Residential sub-sector

Residential and commercial premises contribute to GHG emissions because of the level of energy consumption. Generally speaking, this level of consumption depends on the type of energy used for cooking, ventilation, heating, lighting, household appliances, etc. Nationally, this level is rising with rapid urbanisation, especially in the city of Lomé, where trends towards a Western lifestyle are becoming apparent, with ever greater energy needs. Housing development policies will only exacerbate the problem if they neglect the environmental aspect.

For this sub-sector, the scenario assumes to increase (i) the share of the population using biogas for cooking to 4% in 2025 and 12% in 2030 in urban areas; to 6% in 2025 and 15% in 2030 in rural areas, (ii) the share of the population using briquettes to 15% in urban areas and 10% in rural areas in 2030 and (iii) the share of the population using LPG to 35% in urban areas and 8% in rural areas by 2030.

This is reflected in the implementation of two action plans in the short, medium and long term, the needs and benefits of which are estimated as follows in the CDN.

**Table 9: Investment requirements for CDN actions in the residential sub-sector**

| Actions Revised CDN | Unconditional | | Conditional | | | Total investment costs |
|---|---|---|---|---|---|---|
| | % | Costs | % | Costs | Cost of implementation | |
| **Promotion of modern bioenergy for cooking** | | - | 100 | 38 000 000 | 5 700 000 | 43 700 000 |
| **Promoting LPG in households** | 40 | 10 976 000 | 60 | 16 464 000 | 2 469 600 | 29 909 600 |
| **Total** | | 10976000 | | 54 464 000 | 8 169 600 | 73 609 600 |

**Source: CDN Support Project, September 2021**

The investment requirement for the residential sub-sector is USD 73,609,600, of which USD 10,976,000 is unconditional and USD 62,633,600 conditional.

### 5.1.2. Requirement investment of Sector Agriculture and forestry and other land uses

#### 5.1.2.1. Investment requirements for CDN actions in the agriculture sub-sector

The agricultural sector plays a key economic and social role in Togo. In recent years, it has employed 65% of the working population, accounted for 15% of exports and contributed around 38% of real GDP. It is the driving force behind Togo's development through the National Programme for Agricultural Investment and Food and Nutritional Security (PNIASAN 2017-2026), which aims to raise Togo's gross domestic agricultural product (GDP) growth rate to at least 10% by 2026, improve the agricultural trade balance by 15%, double the average income of farming households, help reduce malnutrition by combating malnutrition, and improve the quality of life of the population.

food insecurity and halve the poverty rate in rural areas to 27%.

This sector is highly sensitive to climate change. Climate change is exacerbating current unsustainable trends, such as the degradation of water resources, soil erosion, desertification and the loss of agro-biodiversity. Yet these resources are vital to agriculture.

The agricultural sector enjoys many privileges due to Togo's new position on the international scene. This position is due to the resumption of cooperation with the main technical and financial partners, Togo's eligibility for the HIPC initiative and the effective start of the implementation of certain projects included in the PNIASA I and II and the PNIASAN 2017-2026, the main tool for implementing the policy focused essentially on the development of Agropoles (agricultural development centres).

**Table 10: Investment requirements for CDN actions in the agriculture sub-sector**

| **Actions CDN Agriculture mitigation** | **Unconditional** | | **Conditional** | | | **Total investment cost** |
|---|---|---|---|---|---|---|
| | % | Costs | % | Costs | Cost of implementation im plementation | |
| **Integrated development of the agricultural sector through the implementation of an effective strategy for the sustainable management of cultivated land** | 40 | 1860000 | 60 | 2790000 | 418500 | 5068500 |
| **Promotion and sustainable management of hydro-agricultural development works, and water supply;** | 30 | 195000 | 70 | 455000 | 68250 | 718250 |
| **Organisation val ue chains: Organise value chains for all the main crops right through to the of processing and marketing of agricultural products and sub-products** | 60 | 2790000 | 40 | 1860000 | 279000 | 4929000 |

| | | | | | | |
|---|---|---|---|---|---|---|
| **The modernisation of the livestock livestock à increasing of productivity beyond the natural growth and development the natural growth and development of the herds, setting up units to process products products, genetic improvement for performance breeding of the introduction of breeding stock into the the traditional system, intensification fattening and access to the market for for marketing livestock products, etc;** | 35 | 10675000 | 65 | 19825000 | 2973750 | 33473750 |
| **Support for reforestation for fodder purposes with the introduction of fodder trees on farms with a view to sustained production of quality fodder;** | 25 | 45125000 | 75 | 135375000 | 20306250 | 200806250 |
| **Total** | 23 | 60645000 | 77 | 160305000 | 24045750 | 239 927 250 |

**Source: CDN Support Project, September 2021**

Financing needs for the agriculture sub-sector are estimated at USD 239,927,250, including USD 60,645,000 for unconditional actions. The country needs to mobilise 77% of this amount under the conditional scenario to achieve the cumulative emissions reduction target of 3799.23 Gg CO2-eq over the period 2020-2030.

#### 5.1.2.2. Forestry and other land use sub-sector

Togo's forest ecosystems fall into three main categories: natural forest formations, forest plantations and agro-ecosystems.

forests and special ecosystems (protected areas and community forests). There are also inland water ecosystems or wetlands (lakes, rivers and lagoons). The forest cover rate is estimated at 24.24% (IFN, 2015), with an annual forest area loss rate currently estimated at 1.7% (MERF, 2017).

The loss of forest area is the result of the effects of deforestation due to strong agricultural expansion with unconservative practices, the uncontrolled exploitation of forest resources, the lack of control over the timing of vegetation fires, which are often wild, and the abusive supply of wood fuel.

Although not fully appreciated, it is estimated that Togo's forestry sector contributes almost 1.7% of the country's GDP4. It supplies 90% of the country's biomass energy needs and makes a significant contribution to timber requirements. The value added (VA) of fuelwood to GDP in 2015 was FCFA 17.80 billion, FCFA 71.19 billion for charcoal and FCFA 88.99 billion for wood energy. The organs of several plants (bark, leaves, roots, etc.) are used in traditional pharmacopoeia, cosmetics, fodder, food and other uses.

In addition to reforestation and forest climate risk management projects, the revised NDC includes wood energy efficiency and adaptation projects with mitigation co-benefits.

**Table 11: Investment requirements for CDN actions in the forestry and other land use sub-sector**

| Action CDN | Unconditional | | Conditional | | | Total cost |
|---|---|---|---|---|---|---|
| | % | Costs | % | Costs | Cost of implementation im plementation | |
| Restoring existing forest landscapes by promoting the restoration of natural forests and fragile ecosystems and conserving of biodiversity, giving priority to support for projects linked to areas that are already organised (protected areas, community or village forests, sacred sites), limiting the fragmentation of the forest landscape and promoting the conservation of biodiversity. forest massifs and in | 50 | 388152000 | 50 | 388152000 | 58222800 | 834526800 |

[4] National Accounts (2014) and MERF estimates, 2017 for 2014

| | | | | | | |
|---|---|---|---|---|---|---|
| keeping natural habitats connected | | | | | | |
| Improving sustainable land management to strengthen carbon sinks and sequester carbon through "massif development plans" promoted by private or community forests or by "forestry charters" or rural centres of excellence; | 25 | 37891000 | 75 | 113673000 | 17050950 | 168614950 |
| Development of urban forestry through the establishment of urban plantations and the promotion and creation of green spaces; | 10 | 276 400 | 90 | 2 487 600 | 373 140 | 3 137 140 |
| Promotion of processing of forest products and non-timber by-products and promotion of value chains and market access for processed forest products; | 8 | 2 116 800 | 92 | 24 343 200 | 3 651 480 | 30 111 480 |
| **Total FAT** | | 489 081 200 | | 688 960 800 | 103 344 120 | 1 281 386 120 |

**Source: CDN Support Project, September 2021**

The sub-sector's financing needs are estimated at USD 1,281,386,120. The mitigation measures all include a conditional component valued at USD 792,304,920 between 2020 and 2030, aimed at stepping up the national effort already underway in this area.

### 5.1.3. Investment needs of the PIUP Sector

In Togo, the industrial fabric varies very little and remains concentrated on extractive industries (phosphate production and cement plants) and manufacturing industries (food, beverages and tobacco; textiles, clothing; wood and wood products; printing, paper, publishing; chemical industries; and metal products).

emissions). The clinker manufacturing industries are the key emission category in Togo.

The industrial sector in Togo is relatively recent and is characterised by its modest contribution to GDP, which has fallen from 23% in 2005 to 15.6% in 2018. In addition to modern industries, there are a number of small-scale activities (mining, metallurgy, textiles, agri-food).

The CDN's objectives in the industrial sector are directly in line with the HCFC Phase-out Management Plan, which aims to reduce the consumption of ozone-depleting substances (ODS) and prevent their significant release into the atmosphere at the end of the life cycle of equipment containing them, thereby reducing greenhouse gas emissions. The plan calls for the construction of at least 100 green buildings using fewer air conditioners by 2030, and a reduction of at least 2% in the rate of F-gas imports.

The National Ozone Office, which reports to the Ministry for the Environment, is a technical partner supporting companies in implementing the HCFC phase-out management plan. Eight measures have been set out in the plan up to 2030, aimed in particular at reducing emissions in the sector.

**Table 12: Investment requirements for CDN actions in the PIUP sector**

| **Action CDN** | **Unconditional** | | **Conditional** | | | **Total investment cost** |
|---|---|---|---|---|---|---|
| | % | Costs | % | Costs | Cost of implementation im plementation | |
| **Promoting the treatment and recycling of fluorinated gases** | 1 | 300 000 | 99 | 29 700 000 | 4 455 000 | 34 455 000 |
| **Promote imports of alternative refrigerants such as propane (R290) ; Isobutane(R600a) used for freezers; refrigerated display cabinets and ice cream dispensers; R448A (HFC-HFO); R455A (HFC-HFO) at replacement of R404A** | - | - | 100 | 800 000 | 40 000 | 840 000 |

| | | | | | | |
|---|---|---|---|---|---|---|
| **Draw up registers containing information on the quantities and types of fluorinated gases installed, any quantities added and any quantities recovered during quantities recovered during of maintenance and maintenance** | 0 | 0 | 100 | 80000 | 4000 | 84000 |
| **National survey of refrigeration operators in Togo** | 0 | 0 | 100 | 5000000 | 250000 | 5250000 |
| **Promote the construction private and public buildings with thermal insulation materials** | 0 | 0 | 100 | 100000 | 5000 | 105000 |
| **Promote the manufacture of cements made with less clinker, such as portland cement with limestone, slag cement and blast-furnace cement** | 0 | 0 | 100 | 40000000 | 2000000 | 42000000 |
| **Develop technologies of CO2 Capture and Storage** | | 0 | 100 | 6000000 | 300000 | 6300000 |
| Total PIUP | 14 | 300000 | 96 | 81680000 | 4084000 | 89 034 000 |

**Source: CDN Support Project, September 2021**

Financing requirements for the PIUP sector, mainly in the hydrofluorocarbons (HFCs) sub-sector, amount to USD 89,034,000, more than 96% of which is available under the conditional scenario.

### 5.1.4. Waste sector

The waste sector is cruelly lacking in data. The collection of household waste and the disposal of sewage is one of the greatest difficulties faced by municipal authorities.

Individual waste production varies from 0.4 to 2kg per inhabitant per day.

Emissions from the sector as a whole will rise from 335.7 Gg CO2-eq in 2010 to 573.3 Gg CO2-eq in 2030, an increase of 70.8%.

In addition to the importance of the issue from an environmental and natural resources point of view, the collection, recovery and treatment of waste is becoming, in this context, an economically buoyant sector, a source of added value, competitiveness, job creation and limiting the increase in greenhouse gas emissions. The plan is therefore broken down as follows in table 13.

**Table 13: Investment requirements for CDN actions in the waste sector**

| | **Unconditional** | | **Conditional** | | | **Requirements total investment requirements** |
|---|---|---|---|---|---|---|
| | % | Costs | % | Costs | Cost of implementation im plementation | |
| **Promote be tter sanitation** | 30 | 45 754 225 | 70 | 106 759 859,30 | 16 013 979 | 168 528 064 |
| **Converting 3.5 Gg (around 2.9 million m3) of methane produced at the centre into energy landfill site in Lomé.** | 10 | 3 027 456 | 90 | 27 247 100,32 | 4 087 065 | 34 361 621 |
| **Sort and recycling of145,000tonnes waste (50,000 tonnes per composting) intended for burning.** | 10 | 5 256 220 | 90 | 47 305 976,13 | 7 095 896 | 59 658 092 |
| Total waste | | 54 037 901 | | 181 312 936 | 27 196 940 | 262 547 777 |

**Source: CDN Support Project, September 2021**

The cost of the three mitigation options in the waste sector is estimated at 262 547,777, including $54,037,901 for unconditional actions. Mobilisation of the amounts in the conditional scenario, estimated at USD 208,50,9876, will enable the sector to achieve its reduction target of 412.20 Gg CO2-eq of cumulative emissions over the period 2020-2030.

### 5.1.5. Mitigation cost aggregation

This section presents the aggregation of options and costs assessed by key

sectors in terms of GHG contribution. The key sectors identified are :

Agriculture, waste and energy, which includes electricity production, transport, the residential and tertiary sectors and industry. Table 14 shows the estimated financing requirements based on unconditional (nationally financed) and conditional contributions for the period 2020-2030.

**Table 14: Associated investment costs for mitigation scenarios**

| SECTORS | COST UNCONDITIONAL million USD | COSTS CONDITIONAL million USD | TOTAL COST million USD | in % of |
|---|---|---|---|---|
| **Energy** | 154, 576 | 915, 064 | 1 069,640 | 39,63 |
| **Agriculture** | 60, 645 | 184 ,351 | 244,996 | 9,08 |
| **FAT** | 428, 160 | 607, 955 | 1 036,115 | 38,38 |
| **PIUP** | 0,300 | 85,764 | 86,064 | 3,19 |
| **Waste** | 54, 038 | 208, 510 | 262,548 | 9,73 |
| **TOTAL** | **697,719** | **2 001,643** | **2 699,363** | **74,41** |

The financing needs associated with all the mitigation options identified are estimated at US$2,699.363 million up to 2030, including US$697.719 million for the unconditional options and US$2,001.643 million for the conditional actions. These represent the required capital investment and implementation costs.

If Togo is to meet its 2030 target, it must put in place strategies to mobilise conditional resources, which account for more than 74% of mitigation financing needs.

The investment levels for each sector broadly correspond to the estimated mitigation shares in each emitting sector. The graph shows that energy and FAT projects account for over 80% (40% and 38% respectively) of total investment over the 2020-2030 period. Investments in mitigation efforts in agriculture account for most of the remaining needs.

Table 15 shows the requirements as a proportion of estimated funding based on unconditional (nationally funded) and conditional contributions for the sectors and sub-sectors.

Table 15: Investment costs for all mitigation measures (USD million)

| | UNCONDITIONAL | | CONDITIONAL | | TOTAL cost |
|---|---|---|---|---|---|
| **SECTORS /Sub-sectors** | % | COST **million USD** | % | COST **million USD** | **million USD** |
| **Electricity generation** | 20,42 | 142,48 | 38,5 | 772,00 | 914,48 |
| **Transport** | 0,16 | 1,12 | 4,05 | 81,01 | 82,13 |
| **Residential** | 1,57 | 10,98 | 3,13 | 62,63 | 73,61 |
| **Agriculture** | 8,69 | 60,65 | 9,21 | 184,35 | 245,00 |
| **FAT** | 61,37 | 428,16 | 30,36 | 607,95 | 1 036,11 |
| **PIUP** | 0,04 | 0,30 | 4,28 | 85,76 | 86,06 |
| **Waste** | 7,74 | 54,04 | 10,41 | 208,51 | 262,55 |
| **TOTAL** | | 697,72 | | 2002,23 | 2699,94 |

**Source: CDN Support Project, September 2021**

Analysis of the table shows that for the conditional scenario, investment in the generation sub-sector accounts for a significant 38.56%, followed by projects in the FIT sub-sector with 30.36%. This is supported by a major investment announced in the field of solar electrification and the government's desire to increase the share of renewable energies in the energy mix from 3% to 50% by [2023]. In the FAT sub-sector, this commitment can be seen in the ambition to plant a billion trees by 2030. Although the agriculture sub-sector is a major source of greenhouse gases, it accounts for only 9.21%, as adaptation is the priority in this sector, which has already been shaken by the adverse effects of climate change.

## 5.2. INVESTMENT REQUIREMENTS FOR ADAPTATION

From the outset, Togo's economy has been based on the primary sector, which for decades has been the most exposed to the effects of climate variability and is now considered to be the most vulnerable to climate change.

The investment plan for the planned adaptation measures is based on the actions proposed for the adaptation component of the revised NDC (Table 16).

[5] https://at2er.tg/

**Table 16: Sectoral adaptation measures with cost estimates**

| Adaptation measures | Objectives of the measure | OPTIONS AND COSTS | | | | | |
|---|---|---|---|---|---|---|---|
| | | Unconditional | | Conditional | | | |
| | | Popular | Costs in millions USD | Proportional | Costs in millions USD | costs of setting at work ( 15%) | Total cost (US$ million) |
| | Energy sector | | | | | | |
| More reforestation for wood energy (17,400 ha) | | 0 | 0 | 100 | 27,3 | 4,095 | 31,40 |
| Development of modern bioenergy: installation of briquette and pellet production plants in the major rice and oil palm production basins, promotion of bio-digesters for biogas production, promotion of gasification equipment, etc. | | 7% | 2 | 81% | 23 | 3,45 | 28,45 |
| Promoting energy efficiency: improved stoves, improved charcoal-burning grindstones (in major charcoal-producing areas), efficient electrical equipment, etc. | | 7 | 2 | 81% | 24 | 3,6 | 29,60 |
| Development of mini hybrid networks for rural electrification (solar, biomass, small hydro) | | 20 | 76 | 74% | 386 | 57,9 | 519,90 |
| SUB-TOTAL Energy sector | | | 80 | | 460,3 | 69,045 | 609,35 |
| | Agriculture sub-sector | | | | | | |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| **Strengthening research into plant health (development of low-cost bio-pesticides, research into biological control).** | | | **7,6** | | **8,4** | **1,26** | 17,26 |
| **Support for the dissemination of good agro-ecological practices** | | | **3** | | **45** | **6,75** | 54,75 |
| **Promotion of water management and village hydraulics for multiple purposes (hydro-agricultural development, promotion of small-scale irrigation, development of low-lying areas for farming).** | | | **8** | | **299** | **44,85** | 351,85 |
| **Strengthening integrated soil fertility management (ISFM)** | | | | | **141** | **21,15** | 162,15 |
| **Definition/development of transhumance corridors and areas** | | | | | **20** | **3** | 23,00 |
| **Capacity-building (technical and material) for meteorological services to ensure effective forecasting and planning of activities** | | | **0,3** | | **39** | **5,85** | 45,15 |
| **Promotion of varieties resistant to climate change** | | | **10** | | **123** | **18,45** | 151,45 |
| **SUB-TOTAL AGRICULTURE** | | | **28,9** | | **675,4** | **101,31** | 805,61 |
| | **Forestry and other land use sub-sector** | | | | | | |
| **Reforestation and protection of areas with fragile ecosystems to combat flooding, strong winds and erosion** | | | **3** | | **139,5** | **20,925** | 163,43 |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| **Promotion of non-timber forest product chains in the country's 5 regions (capacity-building and organisation of stakeholders, development of marketing channels) to strengthen community resilience** | | | **2** | | **13** | **1,95** | 16,95 |
| **SUB-TOTAL FAT** | | | **5** | | **152,5** | **22,875** | 180,38 |
| **Health and Human Services sector** | | | **Health and Human Services sector** | | | | |
| **Improving sanitation and rainwater drainage in the main urban centres** | | | 50 | | 169 | 25,35 | 244,35 |
| **Development and renovation of urban roads in the main urban centres** | | | 150 | | 20 | 3 | 173,00 |
| **Development of services emergency medical services** | | | 20 | | 40 | 6 | 66,00 |
| **Drawing up and implementing a health monitoring plan (national and local level)** | | | 0,1 | | 25 | 3,75 | 28,85 |
| **Rational and sustainable management of municipal waste** | | | 0,6 | | 159,4 | 23,91 | 183,91 |
| **SUB-TOTAL Human and health facilities** | | | 220,7 | | 413,4 | 62,01 | 696,11 |
| **Water Resources Sector** | | | **89** | | **85** | **12,75** | 186,75 |
| **Improving access to drinking water (rehabilitation of of village drinking water supply systems, installation of new boreholes / solar-powered water supply systems)** | | | **36** | | **10** | **1,5** | 47,50 |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| **Rainwater harvesting and reuse of treated wastewater** | | | **37** | | **60** | **9** | 106,00 |
| **Improving knowledge of surface and groundwater resources (increasing the hydrological and hydrogeological observation network)** | | | **16** | | **10** | **1,5** | 27,50 |
| **Action plan for mini-drinking water supply technology, technology for rehabilitating surface water reservoirs, gravity drainage of rainwater, etc.** | | | | | **5** | **0,75** | 5,75 |
| **SUB-TOTAL water resources** | | | **89** | | **85** | **12,75** | 186,75 |
| | **Coastal zone sector** | | | | | | |
| **Reinforcement of structural investments to protect the coast and increase resilience** | | | **75** | | **80** | **12** | 167,00 |
| **Support for vulnerable populations in coastal villages and along the Gbaga channel to develop IGAs (off-season market gardening, creation of fish ponds, training, cold rooms for preserving fish, training and equipping women to handle and pack fish) in order to reduce their vulnerability.** | | | **2** | | **70** | **10,5** | 82,50 |
| **SUB-TOTAL coastal zone** | | | **77** | | **150** | **22,5** | 249,50 |
| **Transversality** | **Transversality** | | | | | | |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| **Support for the development and implementation of sectoral climate change adaptation plans, taking into account the national, regional and local levels** | | | | | **35** | **5,25** | **40,25** |
| **Support for the revision and implementation of the MNV system taking into account progress and impact indicators for all climate change adaptation instruments** | | | | | **10** | **1,5** | **11,5** |
| **SUB-TOTAL Transversality** | | | | | **45** | **6,75** | 51,75 |
| **Total** | | | 500,6 | | 1981,6 | 297,24 | 2 779,44 |

**Source: CDN Support Project, September 2021**

The total amount of the revised NDC adaptation interventions is estimated at more than USD 2 779.44 million up to 2030, including USD 2 278.84 million for conditional actions and USD 500.6 million for unconditional actions. Figure 2 below sets out the financing requirements by sector associated with all the adaptation actions identified, estimated at USD 2,779.44 million up to 2030.

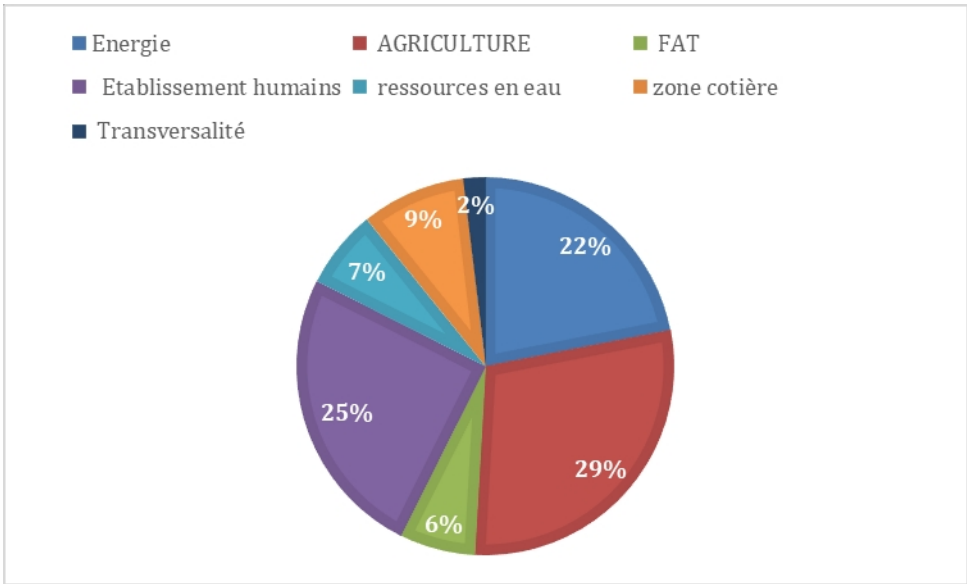



**Figure 6: Proportion of Adaptation Scenario actions by sector in terms of investment costs, out of a total of $2.8 billion**

Figure 6 above summarises the financial needs by sector for adaptation as reported by each ministry. The total funding required for adaptation actions amounts to just over USD 2.8 billion. The largest amounts of funding are required for agriculture (29%, USD 805.61 million), human settlements (26%, USD 696.11 million) and energy (22%, USD 609.35 million). Most of the funding requested depends on international support, representing 81.99% of the total amount to be invested.

## 5.3. INVESTMENT NEEDS IN CAPACITY BUILDING AND TECHNOLOGY TRANSFER

Under the Paris Agreement, developed countries have also committed to providing technology transfer and capacity building to developing countries, technology transfer and capacity building to developing countries. Many developing countries will need strengthened capacity to effectively track flows of bilateral and multilateral resources and support, and to identify and respond to climate change.

identify gaps and outstanding support needs

### 5.3.1. Technology transfer

Priority technology transfer needs were identified in the energy, agriculture and forestry sectors. The criteria that guided their choice were the sectors' GHG emission potential, their importance to the country's socio-economic development and their vulnerability to climate change. Since June 2015, Togo has been engaged in the second phase of the Technology Needs Assessment (TNA) project, which involves identifying and analysing technological needs with a view to drawing up a portfolio of projects and programmes capable of addressing the adverse effects of climate change through the transfer of and access to clean technologies for both adaptation and mitigation.

Only four sectors had benefited from Technology Needs Assessment (TNA) studies, two for mitigation and two for adaptation. These were transport and electricity generation for mitigation.

For adaptation, the priority technologies covered two sectors and are listed below in order of importance:

- For the Agriculture sector: 1) development of agricultural land, 2) integrated agricultural production systems and 3) off-season farming.
- For the water resources sector: 1) mini-drinking water supply, 2) rehabilitation of surface water reservoirs and 3) gravity drainage of rainwater.

Table 17 summarises the cost of the requirements resulting from this assessment.

**Table 17: Technology transfer costs**

| Sectors | Proposed technological measure | Investment(in million) | Cost of implementation (15%) | Total (in millions of $) |
|---|---|---|---|---|
| ENERGY | Implementation of the Action Plan for the High-Power Hydroelectric Plant (CHGP) technology | 5,152 | 0,7728 | 5,9248 |
| | Action plan for grid-connected solar photovoltaic (PV) technology (SPRR) | 4,586 | 0,6879 | 5,2739 |
| | Action plan for the Small or Mini Hydroelectric Power Plant (PMCH) technology | 0,964 | 0,1446 | 1,1086 |
| TRANSPORT | Action plan for technology to improve road infrastructure to relieve congestion in urban centres (AIRDCU) | 2,172 | 0,3258 | 2,4978 |
| | Action plan for bus public transport development technology (DTCB) | 8,37 | 1,2555 | 9,6255 |
| | Action plan for technology standards for road transport vehicles | 1,122 | 0,1683 | 1,2903 |
| AGRICULTURE | Action plan for Agricultural Land Management (ATA) technology | 2,818 | 0,4227 | 3,2407 |
| | Action plan for the Integrated System of Agricultural Production (SIPA) technology | 2,284 | 0,3426 | 2,6266 |
| | Action plan for counter-seasonal agriculture (CSA) technology | 26,442 | 3,9663 | 30,4083 |
| WATER RESOURCES | Action plan for mini-drinking water supply technology | 1,348 | 0,2022 | 1,5502 |
| | Technological action plan for the rehabilitation of surface water reservoirs | 1,488 | 0,2232 | 1,7112 |
| | Technological action plan for gravity drainage of rainwater | 1,066 | 0,1599 | 1,2259 |
| | TOTAL | 57,812 | 8,6718 | 66,4838 |

**Source: CDN Support Project, September 2021**

The total estimated cost of the EBT action plan is $57.812 million. It should be noted that for reasons of inflation and implementation costs, this amount will be increased by 15% of the capital. In this respect, the investment requirements for technology transfer amount to USD 66.4838 million, which can be financed under the contingency plan and broken down as follows in Figure 7.

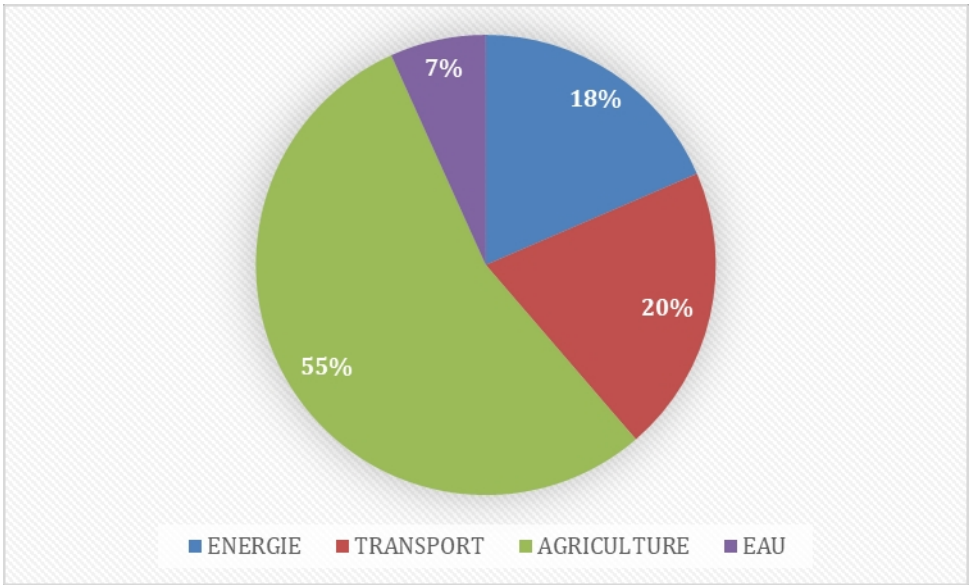



**Figure 7: Breakdown of technology transfer costs by sector**

### 5.3.2. Capacity building and knowledge management.

From the CNI to the QCN, capacity-building and technical resource requirements have always been identified and formulated. The scale of these needs necessitated a programme of National Self-Assessment of Environmental Capacity (ANCR) carried out between 2006 and 2008.

The ANCR, PRCGE and PRCNDGE have been instrumental in building capacity on global environmental issues and specifically on climate change. These documents remain a national reference on this issue.

Although efforts are being made, the stakeholder consultations reveal that most of the needs identified at national level for environmental management (ANCR, 2008) and as part of the national communication processes (CNI, DCN, TCN), including the PRBA, are still relevant and need to be addressed. These are the institutional, individual (human) and systemic capacity-building needs summarised and prioritised in table 18.

**Table 18: Priority needs for technical resources and institutional, individual and systemic capacity building**

| Axis of intervention | Sectors | Actions to be taken (projects identified) | Cost (Million US Dollars) | Cost of implementation implementation | Total |
|---|---|---|---|---|---|
| Capacity building | Institutional | Support for the implementation of a framework institutional harmonious for a put in implementation of the UNFCCC at the United Nations Togo | 7 | 1,05 | 8,05 |
| | Human / individual | Capacity building for delegates Togolese delegates to a active and beneficial participation for the country in the negotiations on the climate | 35 | 5,25 | 40,25 |
| | | Reinforcement of capacity of national experts on tools and methodology for of studies thematic national communications | 20 | 3 | 23 |
| | Systemic | Capacity building for actors from both the public and private sectors for the mobilisation of the climate finance | 12 | 1,8 | 13,8 |
| | | Available at in set up of system acquisition, use and distribution and of distribution of data activities and at information relating to to changes climatic | 125 | 18,75 | 143,75 |
| | | Information and training for decision-makers on opportunities for development offered by the implementation of the UNFCCC | 5 | 0,75 | 5,75 |
| | | TOTAL | 204 | 30,6 | 234,6 |

**Source: CDN Support Project, September 2021**

Priority needs in terms of technical resources and institutional, individual and systemic capacity building are estimated at US$234.6 million, all of which can be mobilised from external funding sources.

## 5.4. TOTAL FINANCING REQUIRED FOR TOGO'S REVISED CDN

Financial needs remain high despite the efforts underway. Most of the actions that require financing and the mobilisation of future resources will be a fair mix of domestic and foreign funds. The estimated net cost of established NDC mitigation measures is expected to be around USD 2.70 billion and over USD 2.88 billion for adaptation objectives, reflecting a combined funding requirement of around USD 5.58 billion.

Table 19 summarises the value of funding required over the next ten years. Unconditional measures account for 22% of projected overall aid and conditional measures for 78%.

**Table 19: Mitigation and adaptation funding required for the revised NDC**

| | **Mitigation (USD billion)** | **Adaptation (USD billions)** | **Total (USD billions)** |
|---|---|---|---|
| **unconditional** | 0,698 | 0,501 | 1,198 |
| **conditional** | 2,002 | 2,279 | 4,281 |
| **Total** | 2,700 | 2,779 | 5,479 |

The expected overall cost of NDC mitigation defined in this investment plan up to 2030 is estimated at around USD 2.70 billion and USD 2.78 billion for adaptation objectives, reflecting a total financing requirement of around USD 5.48 billion. Unconditional measures account for 22% of projected overall aid, while conditional measures account for 78%.

**It should be noted that** this evaluation does not cover the aspects relating to capacity building and technology transfer. These are estimated at US$66.4838 million and US$234.6 million respectively over the period 2020-2030.

# Chapter 6: Measurement, Notification and Verification

## 6.1. MNV/MRV SYSTEM

### 6.1.1. Different types of VNR in Togo

#### 6.1.1.1. Emissions systems

Since 2017, Togo's MNV system has been based on the institutional mechanism of national communications and biennial CC update reports. This institutional mechanism was set up at the TCN and replicated during the PRBA. It was materialised by a memorandum between MERF and the research structures of the University of Lomé. But in 2019, this arrangement was strengthened in the context of the 4CN & 2RBA by a formal agreement between the MERF and the UL. The UL research structures involved in emission studies under this agreement are:

- ✓ Regional Centre of Excellence for Energy Management at the Ecole Nationale Supérieure des Ingénieurs (ENSI) for emissions into the atmosphere.
  Energy sector;
- ✓ Atmospheric Chemistry Laboratory (LCA) for emissions in the Industrial Processes and Product Use (PUIP) sector;
- ✓ Agro-resources and Environmental Health Research Laboratory for the Agriculture sector;
- ✓ Laboratoire de Biologie et écologie Végétale (LBEV) (Plant Biology and Ecology Laboratory) for emissions in the Forestry and Other Land Use sector;
- ✓ Laboratoire de Gestion, Traitement et Valorisation des Déchets (LGTVD) for emissions in the waste sector.

This system has been strengthened by the recruitment of an IGES coordination team, whose role is to train and provide technical support to the research structures involved in studying emissions.

#### 6.1.1.2. MNV of measurements

Like the emissions system, the studies on mitigation measures for the sectors selected under the 4CN & 2RBA have been entrusted to the University of Lomé (UL) through the following research structures:

- ✓ Regional Centre of Excellence for Energy Management at the Ecole Nationale Supérieure des Ingénieurs (ENSI) for the energy sector;
- ✓ Agro-resources and Environmental Health Research Laboratory for the Agriculture sector;
- ✓ Plant Biology and Ecology Laboratory (LBEV) for the Forestry and Other Land Use sector.

This system is reinforced by the introduction of :

- ✓ National Forest Monitoring System (SNSF): This system has been set up as part of the REDD+ process. The aim is to quantify emissions/removals associated with deforestation and forest degradation, enhancement of forest carbon stocks, conservation and sustainable management of forests and aspects related to governance, benefits and their distribution. This system developed the reference level for forests in Togo (NRF), which was submitted to the UNFCCC secretariat in January 2020.

- ✓ National Forest Inventory Database Management Unit (CGBD/IFN) and Cartographic Database Management Unit (UGBDC) the Ministry of the Environment: the CGBD/IFN is responsible for organising, collecting and managing forestry data. The UGBDC monitors forest dynamics using satellite data. Since March 2021, these structures have been implementing Togo's second national forest inventory as part of the REDD+ process.

#### 6.1.1.3. MNV support

The MNV for support in Togo is a system under construction with a number of initiatives. These are :

- ✓ EBT initiative: Togo has implemented the "Technological Needs Assessment" project, which has led to the development of a technological action plan. (PTA). This plan includes the prioritisation of technologies, based on a multi-criteria decision-making analysis taking into account, among other things, development priorities, economic viability and local employment. It has been drawn up for a

better programming of actions to provide specific responses to the problem of climate change;

- ✓ aid management platform (PGA): this is an initiative of the Ministry of the Economy and Finance set up in 2012 to capitalise on the experience of the French government in the area of aid management.
  all development support received by Togo. This platform is designed to disaggregate climate-related support. It takes into account support received by the government, the private sector and civil society organisations. This platform has not been operational since 2014. With a view to revitalising the AMP, a working session between the Ministry of Development Planning and technical and financial partners (TFPs) was held on 13 February 2018. This meeting provided an opportunity to discuss the measures to be taken to relaunch the Aid Management Platform (AMP). It was decided to continue with Gateway and move towards autonomy to relaunch PGA;
- ✓ MNV networking from the Regional Collaboration Centre (CRC): the CRC has a system that covers the three forms of support in the climate field to
  These include finance, capacity building and technology transfer.

### 6.1.2. Analysis of the strengths, weaknesses, opportunities and threats of Togo's MNV system

The diagnosis carried out on this existing MNV system shows that it suffers from certain shortcomings (Table 20).

**Table 20: Strengths and weaknesses of the existing MNV system**

| FORCES | WEAKNESSES |
|---|---|
| ➢ Development o f a national MNV system (SN-MNV) ;<br>➢ Existence of a high-capacity server within the ministry at in chargeof the environment that can host the SN-MNV geo-portal;<br>➢ Existence o f a VNM system linked to the national forest monitoring system (VNM/SNSF) in the REDD+ framework;<br>➢ Good experience in measuring, reporting and verifying of IGES and of measurements mitigation ;<br>➢ Togo joins the West African network for sharing experiences on VND;<br>➢ Existence of an MNV community in Togo | ➢ Inadequate communication on the MNV system ;<br>➢ Insufficient knowledge and understanding of the MNV system, creating conflicts of responsibility and interests between players;<br>➢ Methodology not harmonised between ODEF's MNV/SNSF and the AFAT sector's MNV;<br>➢ Database of NGOs and technical bodies holding data relating to the Non-exhaustive list;<br>➢ Data confidential or sensitive not accessible ;<br>➢ Insufficiency in the control of tools and methods assessment and development of mitigation scenarios and technical difficulties |

| | |
|---|---|
| bringing together the various stakeholders;<br>➢ Existence of a national MNV committee ;<br>➢ Project CBIT whichwill lead actions actions for MNV;<br>➢ Several capacity-building initiatives have been carried out for players in the system MNV ;<br>➢ Methodologies based on IPCC and UNFCCC guidelines, guides and recommendations ;<br>➢ Better mastery of IPCC methodologies by upgrading national experts;<br>➢ Availability o f national expertise o n emissions in all relevant sectors;<br>➢ Several levels of verification of the reliability of the emissions data collected; | identifying appropriate technologies ;<br>➢ Difficulties in disaggregating climate actions in development projects,<br>➢ Insufficiency of resources financial for further data collection ;<br>➢ Unsuitable format for storing and archiving data with the structures that hold it data ;<br>➢ Absence of procedures QA/QC procedures in data-producing institutions ;<br>➢ Data collection format not harmonised between INSEED, data producers and producers of emission studies ;<br>➢ Lack of activity d a t a for certain categories in all sectors;<br>➢ The expert assessors have a poor grasp of the methodologies used in emissions studies and of QA/QC to ensure proper assessment o f emission study reports ;<br>➢ Insufficient qualified personnel to apply the methodologies for estimating of emissions ;<br>➢ Lack o f equipment for measurements and data collection in the AFAT sectors. |
| **OPPORTUNITIES** | **THREATS** |
| ➢ Project CBIT whichwill lead actions actions for MRV;<br>➢ Planning o f a future review of the institutional framework and formulation of measures with a view to the operationalisation of the national MNV system by the CBIT project;<br>➢ Existence of management management of mobilisation of aid and partnership ;<br>➢ Existence of a pilot platform on aid management that takes all sectors into account (public, private and CSOs). | ➢ No quality management system for activity data;<br>➢ Lack of a framework for consultation between TFPs on the management of public development aid ;<br>➢ Failure to implement the monitoring mechanism effectively monitoring and evaluation at level of all at ministries ;<br>➢ Lack of a framework f o r consultation and inter-connectivity between ministries;<br>➢ Aid Management Platform (AMP) not operational. |

## 6.2. CAPACITY-BUILDING NEEDS IN THE FIELD OF VMN

A clear and robust mechanism to ensure transparency and accountability is essential to the success of the MNV system for implementing CDNs. On the basis of an analysis of the strengths, weaknesses, opportunities and threats of the various existing MNV systems, a number of actions are proposed. These actions concern all the stakeholders involved in implementing the MNV system. They involve :

- ✓ Establish a harmonised format for data collection between INSEED, data producers and those carrying out studies on emissions;
- ✓ build stakeholder capacity on data management issues, including robust data quality assurance and archiving data ;
- ✓ strengthen monitoring, reporting and verification (MRV) capabilities, including the development of capabilities for the generation system and data management,
- ✓ develop an electronic data archiving system for data relating to mitigation and/or adaptation;
- ✓ build the capacity of stakeholders to master the tools and methods for assessing and developing mitigation scenarios;
- ✓ strengthen national capacities to establish a framework for collaboration to facilitate better coordination between public and private institutions and the civil society organisations to collect and document information on mitigation, adaptation and support actions;
- ✓ strengthen the capacity of stakeholders to understand the importance of the VNM system;
- ✓ build the capacity of the Ministry of the Economy and Finance's executives to effectively relaunch the aid management platform (PGA) in conjunction with the Member States existing national skills ;
- ✓ training for data producers and holders (such as DTRF, DGE, INSEED, DST, etc.) on how to take into account emission data formats, and mitigation measures ;
- ✓ build the capacity of data producers and users to manage confidential or sensitive data;
- ✓ build the capacity of national experts in the concept of good practice in calculating uncertainties when collecting activity data and compiling statistical data.

In addition to these capacity-building needs, there are other needs to be taken into account for the effective implementation of the NVM, in particular:

- ✓ formalising a collaboration agreement between the national CC coordination and public or private institutions that produce or hold data;
- ✓ signing of confidentiality agreements between producers and users of sensitive or confidential data;
- ✓ strengthening communication on the MNV system ;
- ✓ Organising national and sectoral data collection structures and providing them with the resources they need to conduct an inventory of GES, data storage and archiving.

## 6.3. IMPROVEMENTS TO THE VMN SYSTEM OVER TIME

In order to improve the MNV system over time, a number of recommendations have been made to the national MNV committee. These are as follows

- ✓ establish a mechanism to ensure that the outputs of the VNM systems can inform regular updates to the mitigation, adaptation and climate finance, and that the lessons learned can be integrated into subsequent actions undertaken in the implementation of the NDC;
- ✓ evaluate the effectiveness of the NVM system in collecting and reporting relevant data, and adjust the implementation plan and the systems depending on the course ;
- ✓ communicate regularly with stakeholders to obtain feedback on the operation and effectiveness of the VNM system;
- ✓ Work with countries with similar NDC targets and VNR needs to share lessons learned and best practices;
- ✓ continue the process of making the national MNV system operational, with a view to moving from biennial update reports to biennial transparency in 2024.

## 6.4. THE RIGHT STRUCTURE FOR MNV

Ensuring transparent climate action in the NDC process is a key priority for Togo. To achieve the objectives of the Paris Agreement, the country must show that it is meeting its commitments in a transparent manner. To this end, measurement, reporting and verification (MRV) has been recognised as the key process for monitoring, evaluating and reporting progress on the implementation of commitments, including NDCs. Since 2017, Togo has designed a national measurement, reporting and verification system on changes

A climatic system that brings together the three types of MNV described above. This system comprises the following elements (Figure 8):

- ✓ Collection of data and metadata involving all key stakeholders at national level in the various sectors concerned by the emissions, mitigation, adaptation and support.
- ✓ Data processing and management, consisting of data storage and archiving, processing, analysis and interpretation and monitoring of indicators.
- ✓ Notification concerning the publication of processed and interpreted data and their put à available to decision-makers national and/or to partners on climate issues.

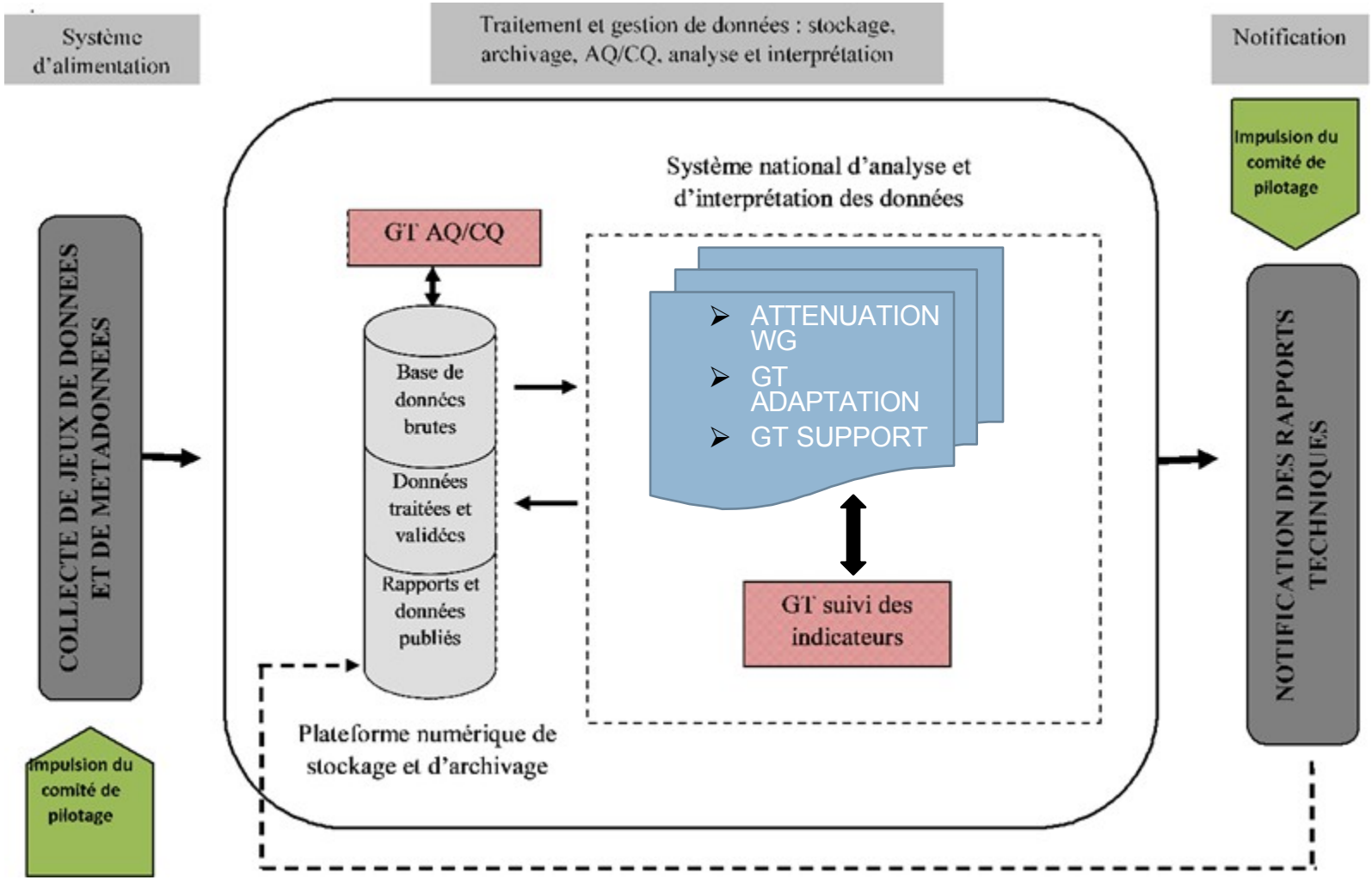



**Figure 8: Structure of the national MNV system**

### 6.4.1. Institutional framework of the CDN MNV system

Since 2017, the country has begun to operationalise this MNV system. As part of this, an exchange platform (MNV community of practice) has been created by MERF. This platform is run twice (2) a month and deals with issues relating to the operationalisation of the MNV, the method of collecting activity data, data management, including quality assurance and robust data archiving. As part of the operationalisation of the system, several capacity-building actions were carried out between 2017 and 2020. These include (i) capacity-building for national stakeholders on VNR, (ii) capacity-building for MERF stakeholders on their role and responsibility in operationalising the VNR system, (iii) capacity-building for VNR stakeholders through the VNR community of practice, (iv) updating the VNR country report combined with capacity-building for members of Togo's VNR select committee. These actions are mainly supported by the UNFCCC secretariat, the EU, the UNDP, the GEF, the Global Support Program and the Canadian government (Table 21).

It should also be noted that the CBIT project, which has just been launched, includes capacity-building activities to promote transparency in accordance with Article 13 of the Paris Agreement. Its main aims are to

- Strengthening institutional, legal and regulatory systems ;
- Develop the capacities of players in priority climate change sectors;
- Examine the institutional framework and formulate measures to make the national VNM system operational.

**Table 21: Aid received by Togo for VND**

| Type of aid | Help activity | Year of reception | Status | Amount (USD) | Source of help |
|---|---|---|---|---|---|
| Capacity building | MNV training for stakeholders | 2020 | Finalised | Not estimated | UNCAC Secretariat à through CDI |
| | Capacity-building for national players in the field of NVM | 2020 | Finalised | Not estimated | Global Support program |
| | Capacity-building for MERF stakeholders on their role and responsibility in the operationalisation of the MNV system | 2020 and 2021 | Finalised | 22061,22 | EU/PALCC |
| | Capacity building | | Finalised | Not estimated | Government |

| | | | | | |
|---|---|---|---|---|---|
| | MNV stakeholders through the MNV community of practice | | | | t CANADA |
| | Updating of the MNV country report combined with capacity building for members of Togo's MNV select committee | 2020 | Finalised | 7229,03 | GEF/UNDP |

### 6.4.2. Overall coordination of the MNV

In order to guarantee quality assurance and quality control (QA/QC), to take better account of reporting, measurement, notification and verification (RMV/MRV) and to enable a coherent archiving system to be set up, two institutions have been created, one in 2018 (National Coordination Authority for the process of drawing up NCs, RBAs on climate change and CDNs) and the second in 2020 (National MNV Committee). The institutional framework of the MNV CDN system is thus as follows:

- MNV National Committee: This committee was set up by memorandum No. 0230/SG/DE on 15 July 2020 as part of t h e operationalisation of the national MNV system. It is responsible for examining the institutional framework and formulating measures to make the MNV system operational. This committee has been strengthened by the appointment of MNV sectoral focal points in the ministries responsible for the environment and finance.
- The Climate Change Division (DLCC): This division is responsible for coordinating all the working groups and has three structures at its disposal These include the UNFCCC focal point, the National Climate Change Committee and the 4CN & 2RBA project steering committee.
- National coordinating authority for the process of drawing up NCs, RBAs on climate change and NDCs: this authority, set up by Order n°145 / MERF/SG/DE of 06 November 2018 has a sub-committee in charge of the MNV on climate.

In addition, there are two (2) MNV focal points (one in the Ministry of the Environment and the other in the Ministry of Finance) and focal points in all data-holding structures. The role of these focal points is to ensure the operationalisation and implementation of the MNV system at national and sectoral level.

# Chapter 7: Communication strategy for the implementation of the implementation of CDN

## 7.1. DIAGNOSTIC ANALYSIS OF COMMUNICATION ON CDN IN TOGO

The diagnostic analysis of the various communication experiences on climate change in Togo has made it possible to identify the strengths and weaknesses as well as the opportunities and threats affecting communication on the implementation of NDCs in Togo (Table 22).

**Table 22: SWOT matrix for analysis of communication on the implementation of NDCs**

| **INTERNAL DIAGNOSIS** | |
|---|---|
| **FORCES** | **WEAKNESSES** |
| ➢ Existence of framework for CDNs.<br>➢ Good knowledge of purpose of the Paris Agreement.<br>➢ Good knowledge of climate risks.<br>➢ Support for adaptation initiatives.<br>➢ Integration of resilience actions.<br>➢ Participation in mitigation actions.<br>➢ Development of endogenous individual and community initiatives adaptation/mitigation.<br>➢ High expectations for adaptation and mitigation measures.<br>➢ Strong potential for mobilisation at local level.<br>➢ Pro activity of universities and climate research centres. | ➢ Lack of internal and external communication about CDNs.<br>➢ Low level of ownership of NDCs at sectoral and local level.<br>➢ Insufficient CCSC actions aimed a t target groups<br>➢ Insufficient gender-inclusive initiatives. |
| **EXTERNAL DIAGNOSIS** | |
| **OPPORTUNITIES** | **THREATS** |

| | |
|---|---|
| ➢ Activating decentralisation in the implementation of the structural framework<br>actions to combat the harmful effects of CC.<br>➢ Media pluralism. | ➢ Disruptions in the mobilisation of funding.<br>➢ CC is not a priority for the Togolese. |
| ➢ Availability of development partners to support Togo in implement actions on CCs.<br>➢ Bilingual populations. | |

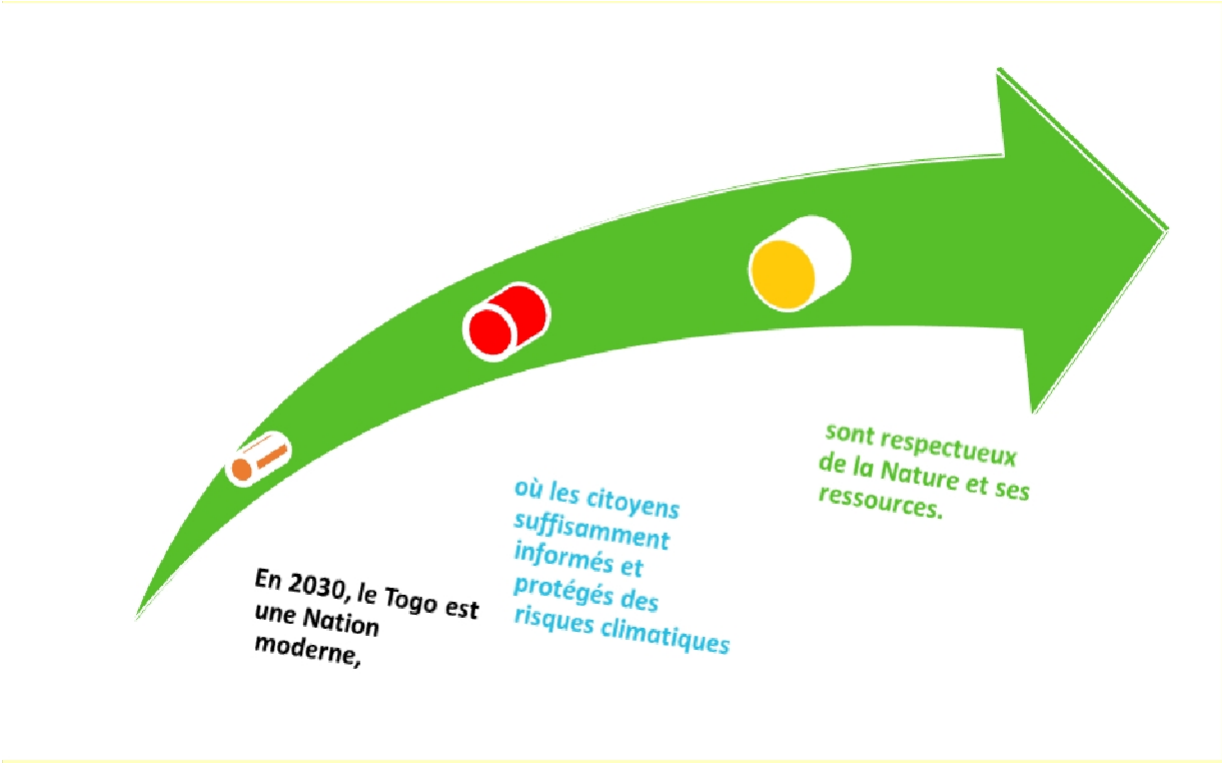
## 7.2. STRATEGY

### 7.2.1. Strategic guidelines

❖ **Vision**

The Vision is based on the objectives of the government's roadmap in relation to ambition 10 of strategic priority 3: "Putting sustainable development and anticipating future crises at the heart of the country's priorities".

The CDN Communication Vision is as follows:



❖ **Overall objective**

Based on the vision adopted: ***"in 2030, Togo is a modern nation, where citizens are informed and protected from climate risks, and respectful of Nature and its resources"*****, the** development objective for communication on CDN is worded as follows:

## CONTRIBUTING TO THE EMERGENCE OF CITIZENS WHO ARE AWARE OF CLIMATE RISKS AND RESPECTFUL OF NATURE AND ITS RESOURCES.

### ❖ Communication strategy and objectives

Three (3) strategic options are described and three (3) strategic orientations are set out. **Tables 23 and 24** present the main strategic orientations and the performance framework respectively.

**Table 23: Development of strategic orientations and formulation of objectives**

| Strategic options | Development of strategic orientations | Strategies formulated | Communication objectives |
|---|---|---|---|
| Strategic Direction 1:<br>**Seize opportunity 1 and use strength 1 to eliminate weakness 2** | **Take advantage of** decentralisation **and** the existence of a political, legal and technical framework **to eliminate the** low level of ownership of NDCs at sectoral and local level. | ***Adopt C DN planning at all levels*** | **Encourage sectoral ministries and local authorities to incorporate NDCs into their development plans** |
| Strategic direction 2:<br>**Seize opportunity 3 and use strengths 4, 5, 6, 7, 8, 9 and 10 to eliminate weaknesses 3 and 4 and threat 2.** | **Take advantage of** the availability of TFPs **and use** the support of target groups for adaptation initiatives, their participation in mitigation actions, their development of endogenous individual and community adaptation/mitigation initiatives and the pro-activity of universities and climate research centres **to eliminate** the shortfall in SCCC actions aimed at target groups, the shortfall in gender-inclusive actions and the disruption in the mobilisation of funding. | ***Strengthen ad aptation and an d mitigation capacities of target groups*** | **Train target groups on innovative adaptation and mitigation practices and adaptive financing** |
| Strategic direction 3**:**<br>**Seize opportunity 2 and use strengths 2 and 3 to eliminate weakness 1 and threat 1** | **Seize** media pluralism **and use** good knowledge of the purpose of the Paris Agreement and good knowledge of climate risks **to eliminate** t h e internal and external communication deficit and the absence of CC in the priorities of the Togolese. | ***Improve t he visibility of CDNs*** | **Improve the CDN communication tools** |

**Table 24: Intervention performance framework**

| Results | Performance indicators | Sources of verification | Risks and Assumptions |
|---|---|---|---|
| **OG Result: Effect of Specific Objective 2 of the FRS (Protect Togolese people from climate risks)** | **Indicators of the effects of SO2 of the FRS** | **Investigation report** | **Risks identified for OS2 of the FRS** |
| **Result 1: NDCs are integrated into all sectoral and municipal development plans** | **1. By the end of 2030, 100% of the sectoral action plans linked to the NDCs and the Community Development Plans have integrated adaptation and mitigation.**<br>1.1 By the end of 2026, **at least 80% of** political, sectoral, local and economic **decision-makers are** fully aware of the vision and objectives of the NDCs.<br>1.2 By the end of 2026, **at least 100% of communes and sector ministries will** be equipped to plan CDNs. | **Sector action plans and CDPs**<br>• Activity report<br>• Press publications<br>• CDN Reports | **Change of CDN policy** |

| | | | |
|---|---|---|---|
| **Outcome 2: Target groups are trained in innovative practices and the mobilisation of ad aptive financing** | **2. By the end of 2030, at least 60% of groups or companies operating in climate-vulnerable areas have integrated adaptation and mitigation into their production practices.**<br>2.1 By the end of 2026, **117 facilitators** had provided training in communes in vulnerable areas.<br>2.2 By the end of 2026, **at least 6,000 people**, including **at least 1,240 women** working in vulnerable areas, will have been equipped to develop and implement innovative adaptation and mitigation projects. | **Report report or survey**<br>• Training reports<br>• Innovative projects implemented<br>• Press publications<br>Activity report | **Absence or delay fi nancing** |

| Results | Performance indicators | Sources of verification | Risks and Assumptions |
|---|---|---|---|
| **Outcome 3: CDN's communication system is improved** | **3. By the end of 2030, CC will be one of the ten priorities of the Togolese people.**<br>3.1 By the end of 2026, **at least 80% of requests for information** on CDNs have been met.<br>3.2 By the end of 2026, **at least 70% of the population will** be aware of the importance of CDNs.<br>3.3 At the end of 2026, **at least one tool for capitalising on** innovative practices will be published. | **Investigation report**<br>• Copying tools | **Absence or delay financing** |

### 7.2.2. ACTION PLAN

A multi-annual action plan (PAP) is proposed for communication. This plan may be revised depending on the resources available to carry out these actions. The financial estimates for the actions selected and planned from 2022 to 2026 amount to **US$1,072,114**. Table 25 summarises the budget for each component.

**Table 25: Budgeted multi-year plan**

| RESULTS | YEARS OF IMPLEMENTATION (Costs in millions of US dollars) | | | | | TOTAL |
|---|---|---|---|---|---|---|
| | 2022 | 2023 | 2024 | 2025 | 2026 | |
| Result 1: CDN are integrated into all development plans at sectoral and municipal levels | 84 660 | 106 636 | 0 | 0 | 0 | 191 296 |
| Outcome 2: Target are trained in innovative innovative practices and the mobilisation adaptive financing | 34 518 | 182 073 | 120 160 | 33 251 | 28 524 | 398 526 |
| The educational and communication tools | 49 305 | 128 745 | 90 098 | 88 465 | 125 680 | 482 292 |
| TOTAL | 168 483 | 417 454 | 210 258 | 121 715 | 154 204 | 1 072 114 |

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# Appendices

**Appendix 1: Long-term mitigation measures**

| Sector | Measures and priorities | Description |
|---|---|---|
| Energy | Creation of the Togolese Agency de l'Electrification Rurale et des Energie Renewables by Decree No. 2016-064/PR of 11 May 2016, (AT2ER). | Promoting renewable energies and rural electrification |
| | Law N°2018-010 of 08 August 2018 with 8 implementing texts | Promoting the production of electricity from renewable energy sources in Togo |
| | Leaf of 2025 Government Roadmap | - Continuation of the policy of electrification for all - Extension of the network and deployment of decentralised systems (e.g. individual solar panels) to achieve 75% electrification, supported by the establishment of the Electricity for All Fund.<br>- Increasing electricity generation, transmission and distribution capacity<br>Developme nt of sustainable and reliable production capacity, particularly in the solar and hydroelectric sectors, and corresponding reinforcement of the transmission and distribution network (in synergy with the extension of the internet network).<br>- Increase the share of renewable energy in energy production to 50% by 2025 |

| | | |
|---|---|---|
| | | - Increase the share of electric vehicles in new vehicle purchases to 3% by 2025<br>- Extension of the rural road network - Construction of 4,000 km of rural roads targeting agricultural areas with high export potential in order t o connect farmers to the market<br>- Construction of the Autoroute de l'Unité - Acceleration of the RN1 development project linking the hinterland hinterland the Lomé conurbation and the port<br>- |
| | Strategy of electrification of Togo | - Increase the electrification rate to 100% by 2030<br>- i) deploy more than 300 mini-grids by 2030, i.e. around 9 MW of installed capacity; (ii) electrify 555,000 households with Solar Kits by 2030, i.e. up to 85 MW of installed solar generation capacity by 2030; and (iii) extend and densify the grid to reach around 670,000 connections by 2030, i.e. around 108 MW of additional capacity. |
| | Five-year plan 2019-2023 of AT2ER | - Install a additional hydroelectric capacity of 88.2 MW by 2023<br>- Install 99 MW of grid-connected solar capacity by 2025<br>- Install 4 MW of solar mini-grid capacity by 2023<br>- Install 11.71 MW of solar kits by 2023 |
| | National Action P l a n of the Bioenergy | - Wear the rate rate of improved stoves to 40% by 2020 |

| | | |
|---|---|---|
| | (PANBE) at pending adoption | to 80% by 2030<br>- Increase the proportion of charcoal produced using improved techniques from less than 1% in 2020 to 45% in 2030<br>- Increase the proportion of the population using biogas for cooking to 4% in 2025 and 12% in 2030 in urban areas, and to 6% in 2025 and 15% in 2030 in rural areas.<br>- Increase the proportion of the population using briquettes to 15% in urban areas and 10% in rural areas by 2030<br>- Increase the proportion of the population using LPG to 35% in urban areas and 8% in rural areas by 2030. |
| PIUP | Distribution of devices of F-gas recovery | Reduce the consumption of ozone-depleting substances (ODS) and prevent their significant release into the atmosphere at the end of the life cycle of equipment containing them, thereby reducing GHG emissions. |
| | Strengthen the capacity of customs officers | To combat the illegal trade in ODS, thereby reducing their consumption and, consequently, reducing greenhouse gas emissions, 150 customs officers are trained each year under this project. |
| | Strengthen the capacity of refrigeration technicians | To reduce the consumption of ozone-depleting substances (ODS) and prevent their significant release into the atmosphere at the end of the life cycle of equipment containing them, thereby reducing greenhouse gas emissions. 100 refrigeration technicians are trained each year through this project. |
| | Promoting the treatment and recycling of fluorinated gases | Set up an annual collection system for out-of-use equipment. Once collected, the equipment will be transported to the industrial unit. A |

| | | |
|---|---|---|
| | | Thousands of jobs will be created and several tonnes of F-gas will be recycled each year, reducing greenhouse gas emissions. |
| | Promoting the import of alternative refrigerants | Reducing HFC imports, training customs officers in the identification of HFCs and equipment containing them, and raising awareness and training refrigeration technicians in the use of the new gases. The implementation of this project will also enable the BNO to be strengthened in terms of staff and appropriate technical equipment. Thanks to this project, imports of HFCs will be reduced by 5% a year, and by 10% if the country receives support from its financial partners. |
| AFAT | National Strategy for Reducing Em issions from Deforestation and Forest Degradation (REDD+ 2020-2029) | • Increase forest cover to 30% by 2050;<br>• Reduce the direct and indirect factors exacerbating the country's vulnerability to forest resource degradation and respond to the political and technical issues/challenges relating to land degradation at national, regional and local level to effectively combat the consequences of these hazards. |
| | National Reforestation Programme (PNR) | • Establish new plantations covering 34,400 ha, representing a net increase of 0.7% in 2021;<br>• increase Togo's forest cover to 43,557 ha by 2030 |
| | Support programme to combat climate change (PALCC) | • Set up sustainable forest and land management zones through reforestation and/or sustainable management of 600 ha of state forests (i.e. 100 ha per year);<br>• create 6,000 ha of forest and |

| | | |
|---|---|---|
| | | community and private land rehabilitated, reforested and sustainably managed |
| | Programme to define neutrality targets for land degradation (NDT) | • by 2030, restore at least 80% of degraded land (i.e. 187,920 ha) and limit to 2% (i.e. 108,802 ha) the degradation of land not yet degraded, with a view to strengthening the preservation of terrestrial ecosystems compared with the reference situation (2010)".<br>• Increase Togo's forest area by 3% (i.e. 43,557 ha);<br>• reduce to 1/3 (i.e. 73,260 ha) the land with a negative trend in net productivity |
| | Policy Agricultural of Togo (2015-2030) | • implement production intensification programmes combining conventional intensification (use of modern inputs) and agro-ecological practices, in line with climate-smart agriculture (CSA);<br>• strengthen the prevention or mitigation of the effects of climate change, requiring that 20% of land (720,000 ha)<br>be set aside for reforestation |
| | Programme national agricultural investment and food and nutrition and Nutritional Security (PNIASAN) : Plan investment 2016-2025 | • achieve a growth rate in agricultural gross domestic product (GDP) of at least 10% by 2026;<br>• improve the agricultural trade balance by 25%, double the average income of farming households and help reduce malnutrition;<br>• strengthen the fight against food insecurity and halve the poverty rate in<br>27% in rural areas; |

| | | |
|---|---|---|
| Waste | The waste sector is oriented by the National Policy Hygiene and Sanitation (PNHAT) | This document sets the roles and responsibilities of actors state actors, from local authorities local from organisations non organisations, of populations, the partners technical and financial support for implementation of this policy. This policy is accompanied by the Plan Action for the Water and Sanitation Sector Sanitation (PANSEA) which aims improving of level access to basic sanitation services and collectives by the strengthening and the consolidation of infrastructures techniques or by the promotion adequate adequate and accessible to all. Universal access to water and sanitation by 2010 2030, advocated by the Goals of Sustainable Development Goals (SDGs) is inclusion |
| Transversal | | - |