REPUBLIC OF CHAD

UNITY – WORK – PROGRESS

Intended Nationally Determined Contribution (INDC) for the Republic of Chad

September 2015

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Abréviations et acronymes utilisés

ADB	Asian Development Bank
ADF	African Development Fund
AGIR-PRP	Alliance Globale pour l'Initiative Résilience-Priorités Résilience Pays (Global Alliance for Resilience Initiative)
ASAP	Adaptation for Smallholder Agriculture Programme
BaU	Business as Usual
CDM	Clean Development Mechanism
CH4	Methane
CO2	Carbon dioxide
CO2e	Carbon dioxide equivalent
ECCAS	Economic Community of Central African States
EVI	Economic Vulnerability Index
EU	European Union
FAOSTAT	Statistic software of the Food and Agriculture Organization
FCFA	Franc Communauté Financière Afrique
FSE	Fonds Spécial pour l'Environnement (Special Fund for the Environment)
GDP	Gross Domestic Product
GEF	Global Environment Facility
Gg	Gigagramme
GHG	GreenHouse Gas
GTR	Groupe de Travail Restreint (Core Working Group)
GWh	GigaWatt hour
GWP	Global Warming Potential
IDB	Islamic Development Bank
IFAD	International Fund for Agricultural Development
INSEED	Institut National de la Statistique et des Etudes Economiques et Démographiques (National Institute of Statistics for Economic and Demographic Studies)
INDC	Intended Nationally Determined Contribution
IPCC	Intergovernmental Panel on Climate Change
IWRM	Integrated Water Resources Management
LDC	Least Developed Countries
MRV	Measurement, Reporting and Verification system
NAPA	National Adaptation Programme of Action
N2O	Nitrous Oxide
P2RS	Nutrition and food insecurity resilience reinforcement programme in the Sahel
PAIBLT	Projet d'Appui à l'Initiative du Bassin du Lac Tchad
PARSAT	Projet pour Améliorer la Résilience des Systèmes d'Agriculture au Tchad (Project to Improve the Resilience of Agricultural Systems in Chad)
PLCBA	Prévention et Lutte Contre les Bio-Agresseurs (Prevention and fight against bio-aggressors)
PNISR	Plan National d'Investissement pour le Secteur Rural (National Investment Plan for the Rural Sector)
PREDAS	Programme Régional de promotion des Energies Domestiques et Alternatives au Sahel (Regional Programme for the Promotion of Household and Alternative Energies in the Sahel)
PRODEBALT	Programme de Développement Durable du Lac Tchad (Lake Chad basin sustainable development programme)
RPCA	Réseau de Prévention de la Crise Alimentaire (Food Crisis Prevention Network)
PRP	Priorités Résilience Pays (Country Resilience Priorities)
REDD+	Reducing Emissions from Deforestation and Forest Degradation

SCPM	Suivi du Climat et Prévision Météorologique (Climate and meteorological forecast monitoring)
SNE	Société Nationale d'Electricité (National Electricity Company)
STI/HIV/AIDS	Sexually Transmitted Infections /Human Immunodeficiency Virus/Acquired Immune Deficiency Syndrome
tCO2e	Tonne of carbon dioxyde equivalent
UNFCCC	United Nations Framework Convention on Climate Change
USD	United States Dollar

Section 1. Summary

Contribution	> Contribution based on a mixed approach, (Results and Actions, both conditional and unconditional) > Results-based Approach: percentage of emission reduction by 2030. Data obtained through projections based on the latest GHG inventories presented in the 2nd National Communication, and on the data and national and regional strategy and policy documents > Action-based Approach: relating to the implementation of current policies, awareness of good practice, in particular in the field of agriculture
National Objectives	> Chad's vision by 2030: an emerging country with a middle-income economy, generated by diverse and sustainable growth sources and value adding activities
Emissions for the reference year (2010)	> 8,379.62Gg CO2e
Cumulative reduction of emissions for the period 2015- 2030	> Unconditional reduction of 18.2% of the country's emissions compared to the reference scenario by 2030, approx. 41,700 Gg CO2e > Conditional reduction of 71% of the country's emissions by 2030, cumulative reduction of 162,000 Gg CO2e
Coverage and scope of the contribution	> 100% of the country is covered by the stipulated contributions > Energy, Agriculture/Livestock, Land use and forestry, Waste > Gases covered: CO2, CH4, and N2O
Implementation process	> Reinforcement of human, institutional and technological capacities, as well as financial support and technology transfers
Assumptions and methodology	> IPCC 2006 guidelines for national greenhouse gas inventories. > The reference scenario is established taking into consideration the assumptions stated in the vision and strategy documents in place in Chad
Adaptation	> Priority sectors: water, agriculture/agroforestry, livestock and fishing > Priority target zones: Kanem, Barh El Ghazal, Batha, Guéra, Hadjer Lamis, Wadi Fira; Ouaddai, Dar Sila, Lac, Moyen-Chari, Borkou, Tibesti, Ennedi Est, Ennedi Ouest)[1]
Funding needs	> Adaptation: 14.170 billion USD in total for the period, of which 11.380 will be used to achieve the conditional objective > Mitigation: 7.063 billion USD in total for the period, of which 6.540 will be used to reach the conditional objective > Total implementation cost of the INDC: 21.233 billion USD, of which 17.920 will be used to achieve the conditional objectives
Environmental and fair character	> Chad does not have a historical responsibility, although it is already experiencing the impacts of climate change. It is characterised by a structural vulnerability, with an Economic Vulnerability Index (EVI) of 52.8 in 2012, which is greater than that of the majority of less developed countries, which have an average EVI of 45.7 > A dual approach (results and actions) optimising Chad's contribution towards reducing the impacts of climate change on a global scale: Chad aims to halve its emissions per inhabitant, reducing them from 0.736 tCO2e in 2010 to 0.334 tCO2e in 2030, under the conditional scenario, whilst using its available resources in a diverse and sustainable manner

[1] NAPA Chad (2009), and working groups "adaptation of workshops, dated 15 June and 24 to the 25 August 2015"

Section 2. National circumstances

Chad, a landlocked sub-Saharan country, lacking a coastline, covers a surface area of 1,284,000 km^2, the majority of which is desert. The country's main economic activities are those associated with the primary sector, such as subsistence agriculture, livestock rearing and fishing. Despite the oil industry being relative new, with exports only having started in 2004, it is already booming. An oil refinery, which opened in 2011, meets domestic demand for oil products.

Table 1.Key data for 2010 (reference year)

Surface Area	**1,284,000 km^2**
Climate	Three climate zones: Saharan, Sahelian and Sudanian
Population	11,679,974 inhabitants (2nd National Census, 2009 including refugees), of which 21.9% live in urban areas and 46.4% are of working age. The natural rate of growth is 3.6% per year
GDP	5,249.6 billion FCFA
GDP structure	Oil: 37%; Agriculture: 21%; Trade: 13%; Other sectors: 29%
Rate of access to electricity	3.9%
Proven oil reserves	1.5 billion barrels
Oil production	122,500 barrels/day on average
Rate of access to sanitation facilities	23% in urban areas, 4% in rural areas
Rate of access to drinking water	43% on a national level.

Over the last ten years, Chad's Saharan and Sahelian zones have spread 150 km south. This has resulted in reduced farming and pasture areas, which, in turn, has lead livestock rearers and farmers to move to more suitable areas to work, leading, in general, to a reinforcement of existing inequality and discrimination amongst certain populations. Likewise, Lake Chad has reduced in size from 25,000 km² in 1960 to 2,500 km² today. This reduction has considerably impacted upon crop and fish production, and forced inhabitants to move to wetter areas.

With the increase in oil exploitation, exporters of agro-pastoral products have lost ground to oil exporters, with oil representing 88% of exports in 2010, against 6% for livestock, 2% for cotton fibre and 4% for other products.

The state of the National Electricity Company's (SNE), production facilities exclusively thermal, explains the high cost of electricity production, which represents an obstacle to the competitiveness in the Chadian economy, in particular in terms of industrial and commercial activity. The absence of an interconnected national grid makes economical pooling of the energy generated impossible, instead favouring the proliferation of isolated and onerous production facilities to supply the different cities across the country, which makes electricity expensive.

In line with its Government policy guidelines for development, Chad aspires to become an emerging country by 2030. In this regard, the Government intends, amongst other things, to reinforce environmental protection, GHG emissions mitigation measures and adaptation actions in respect of climate change.

The issue of environment protection is enshrined in articles 47 and 52 of the Constitution of Chad, and Act N°014/PR/1998 defines the general principles for protecting the environment. In 1992, Chad signed the United Nations Framework Convention on Climate Change (UNFCCC), which was ratified on 30 April 1993. Since then, the country has produced the Initial and Second National Communications relating to climate change, in accordance with the relevant UNFCCC provisions. This demonstrates Chad's desire to make an effective contribution to the global effort to combat global warming, to which the country is highly vulnerable given the fragility of its ecosystems and its economy, which is highly dependent on sectors that are sensitive to climate change.

In the face of development challenges, Chad is ready to fight against climate change and adapt to its impacts by making efforts to protect the environment, in particular through activities such as planting thousands of trees each year and implementing the national programme for the development of green belts around Chadian cities. In addition to these green belts, ten million trees are being planted as part of the African Great Green Wall initiative, and National Tree Week has been officially launched. Chad has also established a Special Fund for the Environment (FSE) in 2013, in order to mobilise its own resources through the establishment of specific taxes.

Under this INDC, Chad intends to reaffirm its determination to contribute to the global effort to reduce GHG emissions and reinforce its resilience to climate change, implementing coherent programmes which will enable it to become an emerging country by 2030, whilst favouring low-carbon development, as far as possible with the means available. The largest challenge to overcome is the move, between now and 2030, from a development model based on oil revenue, to a model based on a more diversified economy with sustainable utilisation of resources and an energy transition.

Chad supports the Lima summit's call for action on climate change, as cited in the decision 1/CP.20, which called for each Party country to establish a nationally determined contribution in order to achieve the Convention's objective. Chad's contribution is based on measures and results.

Section 3. Adaptation

Impacts and vulnerability

The impacts of climate change are significant on the large hydrographic systems of the basins of Lakes Chad and Niger: natural, agro-silvo-pastoral, fishery and human systems. They include changes to the agricultural seasons, disturbances in the biological cycles of crops and a reduction in cereal crop production. Depending on the geographic zone, climate change exposes certain sectors and social groups to a medium to high level of vulnerability (1 = very high, 6 = lower), according to the NAPA and consultations carried out during the workshop launching the INDC preparation process.

- Saharan Zone
  - Sectors: 1) livestock, 2) agriculture, 3) trade, 4) natural resources, 5) water
  - Groups: 1) The sick, 2) isolated elderly people, 3) women and children, 4) disabled heads of family, 5) displaced persons
- Sahelian Zone
  - Sectors: 1) water resources, 2) agriculture, 3) livestock, 4) fishing, 5) gathering, 6) handicrafts, 8) forestry
  - Groups: 1) women and children, 2) isolated elderly people, 3) the sick, 4) displaced persons and refugees, 5) returning persons
- Sudanian Zone
  - Sectors: 1) water resources, 2) agriculture, 3) livestock, 4) fishing, 5) fishery resources, 6) forestry
  - Groups: 1) women and children, 2) isolated elderly people, 3) displaced persons, 4) refugees, 5) rural populations, 6) returning persons[2]

National priorities in terms of adaptation to climate change

Whilst the actions are applicable to all of Chad, it appears that the priority target zones (Kanem, Barh El Ghazal, Batha, Guéra, Hadjer Lamis, Wadi Fira; Ouaddai, Dar Sila, Lac, Moyen-Chari, Borkou, Tibesti, Ennedi Est, Ennedi Ouest) are especially vulnerable to the effects of climate change and, in part, to the arrival of displaced populations. There are approx. 700,000 displaced people in Chad, including refugees and Chadians returning from Sudan, the Central African Republic, Nigeria and Libya (OCHA, 2015).

- Cross-cutting priorities:
  - Reinforce the capacities of the stakeholders (farmers, fishermen and livestock rearers) and their revenue-generating activities;
  - Improve production techniques by developing water infrastructure, access to improved and adapted inputs(food crop and fodder seeds, animal gene banks, manure management, compost management, etc.), develop storage and conservation units to limit high post-harvest losses;
  - Inform, educate and communicate information relating to climate risk,(improve the observatory used to forecast meteorological events and develop the population's ability to react in the event of a catastrophe);
  - Create an observatory for policies for adapting to climate change;
  - Improve the seasonal forecast of precipitation and surface runoff;
  - Manage climate risks.
- Priorities by sector (NAPA, 2009 and June 2015 Workshop):
  - Water: manage water through the creation and development of agricultural irrigation structures including retention ponds, irrigated perimeters, artificial lakes, and the application of Integrated Water Resources Management (IWRM) and Water Governance

[2] **A** = supplements indicated during working groups "adaptation launch workshop, 15 June 2015"

- Agriculture: develop intensive and diverse cultivation, using improved inputs, (organic fertilisers including composts, adapted plant varieties), agroforestry, land and water conservation, (implementation of soil restoration works) and preparation and distribution of new cropping calendars
- Livestock: securing pastoralism and transhumance through common grazing zones, as well as creating and popularising fodder banks and crossbreeding of animal species
- Fish: development of enclosed fish farming areas

The cost of national priorities, in terms of adaptation to climate change, are met on the one hand by the National Investment Plan for the Rural Sector (PNISR), covering the period 2014 – 2020 and validated in 2014, and on the other by the meeting held by the Food Crisis Prevention Network (RPCA) in March 2015, which put forward the Country Resilience Priorities (PRP) AGIR CHAD for implementation by 2020, which would help approx. 6.5 million people escape food and nutritional insecurity.

The PNISR, using an initial amount of 2,301.7 billion CFA francs for the period 2014-2020, estimate that, by 2030, by applying an annual population growth rate of 3.6% and an annual inflation rate of 2.9%[3], this amount will be 4,321 billion CFA francs. The overall cost of the AGIR CHAD PRP will be 775 billion CFA francs for a period of 5 years until 2020. By 2030, the total necessary funding to implement the INDC adaptation component would be 14.170 billion USD, in order to establish development resilient to climate change.

Current and planned initiatives to support adaptation

On the national level, the initiatives to support adaptation have just started within the National Adaptation Programme of Action for Climate Change (NAPA adopted in2009), in particular with financing by the EU (~5.26 billion CFA francs or 8 million Euros through the AMCC –Global Climate Change Alliance project-) for the following priority projects:

- Development of intensive and diversified crops that are adapted to extreme climate risks
- Soil restoration and defence against degradation caused by climate change
- Improvement of intercommunity grassland areas, in order to reduce migratory movements due to climate change
- National Agency for the Great Green Wall

In addition to these, adaptation will be supported by the 11th European Development Fund for the period 2014-2020. This foresees the provision of 297 million euros for “rural development, nutrition and food safety”, and an amount of 53 million euros for “sustainable management of natural resources”.

Finally, adaptation is supported by the Project to Improve the Resilience of Agricultural Systems in Chad (PARSAT). The PARSAT with total funding of 36.2 million USD, co-funded by IFAD, GEF, ASAP and the Chadian government was put in place in 2015, for a period of 7 years.

At a regional level, there are:

- The Lake Chad basin sustainable development programme (PRODEBALT with funding from ADB)
- The nutrition and food insecurity resilience reinforcement programme in the Sahel (P2RS, based on African Development Funds amounting to 15 million USD)
- The Project in Support of the Lake Chad Basin initiative to reduce vulnerability and the risks associated with STIs/HIV/AIDS (PAIBLT, ADB)
- The regional “Adaptation to climate change in the Lake Chad Basin” project (German Ministry for Economic Development and Cooperation/Federal Enterprise for International Cooperation cooperation) covering the period 2013-2018
- The Lake Chad preservation project: contribution to the Lake development strategy (GEF-ADF)

[3] http://www.afdb.org/fr/countries/central-africa/chad/chad-economic-outlook/

- Pan-African Great Green Wall agency
- The Programme for integrated management of cross-border basins in African – example: Lake Chad (EU)
- The regional programme to reinforce the resilience of countries in the Sahel (26 million US, IDB)

Gaps and barriers

Gaps:

- Poor understanding of the concept of climate change by the vast majority of society
- Illiteracy
- Lack of involvement from women

Barriers:

- Poor integration of policies relating to climate change into national and sectoral policies
- Besides the Directorate-General of Meteorology and the Directorate leading the Fight Against Climate Change, there is no other climate governance structure
- Poor livelihood capacity, (physical, national, social, institutional, etc.) of communities
- Slow implementation of measures
- Failure to consider climate change in the general State budget
- Insufficient international funding

Summary of adaptation needs

In order to reduce vulnerability and increase resilience, adaptation needs include the reinforcement of human, institutional and technical capacities, as well as financial support and technology transfer.

Needs for reinforcement of human and institutional capacity:

- Inform, educate and communicate information regarding climate risks and adaptation technologies (develop the population's ability to react)
- Reinforce stakeholder attitudes, (in particular in relation to women and farmers), with regards to new techniques in terms of intensive and sustainable methods of production
- Support research and encourage the transfer of technology between research bodies and agro-silvo-pastoral stakeholders
- Support institutions in defining adaptation priorities, for each socio-economic sector, based on the needs of the population and favouring coherence between sectors, in particular during the preparation of the National Adaptation Plan

Technical needs, transfer of technology and financial needs

Table 2.Technical needs, technology transfers and funds[4]

Needs	Objectives and Description
Control and management of water resources	> Develop, renovate and manage hydro-agricultural facilities, retention basins and artificial lakes > Adapt arrangements for rain fed and flood-recession crops and livestock watering > Develop small and medium-sized irrigation systems and improve their capacity to limit water consumption > Prepare channels to enable the transportation and supply the perimeter of polders on Lake Chad > Carry out work to create a drinking water supply > Create, renovate and manage water sources according to human needs and protection of the environmental eco-system
Intensification and diversification of agrarian production	> Intensify and diversify agrarian production whilst facilitating access to inputs(organic fertilizers, seed for food crops and fodder resistant to drought and certified and approved phytosanitary products) and agrarian equipment > Develop an agro-ecological approach (soil fertility management practices, addition of manure and compost, agroforestry development, water and soil conservation)
Secure migration of livestock and support the combining agriculture and livestock raising	> Secure herd mobility, based on traditional transhumance routes and preserve natural resources > Enable the diversification of activities (livestock of multiple animal species, combining of agriculture and livestock, sale of harvest transportation services, fodder crops, etc.) > Encourage genetic diversity of various animals > Support social agreements between the various groups of livestock rearers and farmers in areas of transhumance
Support the use of water resources	> Develop use of water resources whilst preserving these Resources, (stocking of water, development of rainfed fish production and implementation of restricted access)
Improve population wellbeing	> Improve agricultural production and livestock rearing activities (drainage, dry storage, cold chain) using renewable energy sources (hydroelectricity, solar, wind)
Knowledge of spacio-temporal changes to the environment	> Climate and meteorological forecast monitoring (SCPM) > Prevention and fight against bio-aggressors (PLCBA) > Information networks providing access to information on areas hit by disease, as well as those where water and grazing resources are significant > Develop and renovate the hydrometeorology network with a view to improving knowledge of spacio-temporal changes to the environment
Support initiatives	> Environmental protection projects to support adaptation

[4] The costs are included in the table 7 summary.

Section 4. Mitigation

Table 3. Base information relating to mitigation contributions

		Discounted reduction rate
Type of contribution	*Unconditional contribution*	> Reduction of 18.2% of GHG emissions in comparison with reference scenario (BaU) by 2030
	Conditional contribution	> Reduction of 71% of GHG emissions, between 2016 and 2030 in comparison with reference scenario
Reference year		> 2010
Target year		> 2030
Cumulative reduction of emissions by 2030		> 41,700 GgCO2e for the unconditional objective and 162,000 GgCO2e for the conditional objective

Reference scenario and emission reduction objectives

The table below shows the emissions from the reference year and the reference scenario (BaU), emissions for the unconditional objective as well as emissions for the conditional objective, the implementation of which will be dependent on the financial support received from the international community.

Table 4.Emissions for the reference scenario and mitigation objectives

Sector		Emissions (Gg CO2e)			
		2010 Survey	Reference scenario 2030	Unconditional	Conditional
1	*Energy*	665.20	2,165.00	2,165.00	1,840,25
2	*Agriculture and Livestock*	18,448.00	43,426.00	38,215.70	30,398.83
3	*Land use and forestry*	(-) 10,908.77	(-) 17,387.48	(-) 17,387.48	(-) 24,342.48
4	*Waste*	175.19	455.85	455.85	402.85
Total		**8,379.62**	**28,659.37**	**23,449.07**	**8,229.45**
% reduction				**18.20**	**71.00**

Mitigation objectives by 2030

Figure 1 Emissions of the reference scenario and mitigation objectives

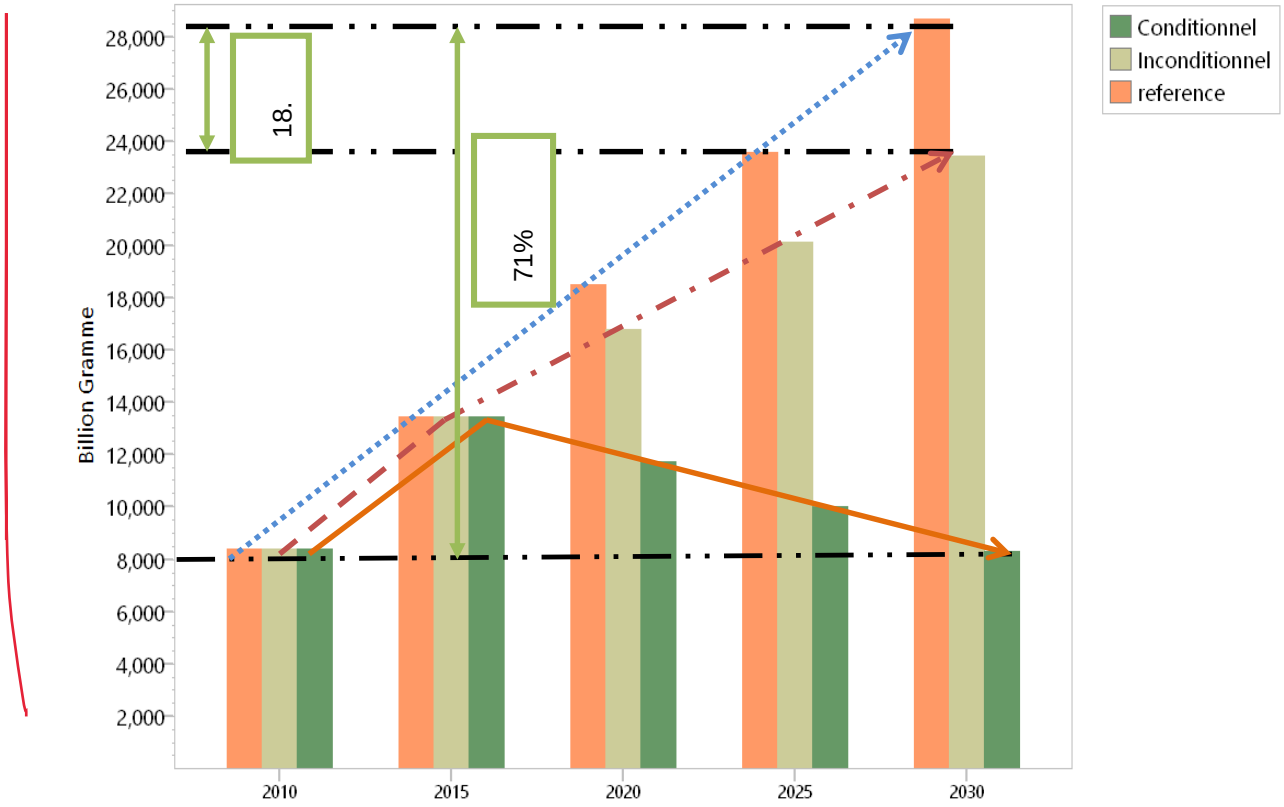

Table 5. Scope and field of contributions

Sector	Gas	Sub-sectors	Geographic scope
Energy	CO_2, CH_4, N_2O	Fuel combustion activities, fugitive emissions from fuels.	National
Agriculture/Livestock	CH_4 and N_2O	Enteric fermentation, manure management, rice cultivation, agricultural soil, controlled burning of the savannah, burning of agricultural waste.	National
Land use and forestry	CO_2	Forest lands, cultivated land, grassland.	National
Waste	CH_4, N_2O	Elimination of solid waste, Treatment of used water.	National

Assumptions and methodology

Methodology

The accounting method for GHG inventory in each sector is the same as that used in the IPCC 2006 Guidelines on national GHG inventories. The values used, with regards to the Global Warming Potential (GWP) for the different greenhouse gases, are those published in Appendix 3 of Decision 24, adopted by the Conference of the Parties during their 19th meeting between the 11th and 23rd November 2013. Energy demand projections for 2030 are based on the Blueprint for Chad's energy sector. For the waste sector, the projections reflect the demographic and migratory forecasts published by the National Institute of Statistics for Economic and Demographic Studies (INSEED). In the calculations of GHG gases for the agriculture, livestock, land use and forestry sectors, in the absence of national data, the values published by the statistical division of the Food and Agriculture Organization of the United Nations (FAOSTAT) are used. The reference scenario was built considering the assumptions cited in the vision and strategy documents in place in Chad, in particular:

- "Vision 2030, The Chad we want"
- ECCAS 2025 strategic vision on the environment
- ECCAS General Environment and Natural Resources Management Policy
- Order No. 89 PR/PM/MAE/SG/DGE/2015 relating to the establishment of a Core Working Group (GTR) responsible for preparing Chad for the COP 21
- Chad Energy Sector Blueprint
- Five-year Agricultural Development Plan for Chad (2013-2018)
- National Development Plan 2013-2015
- National Livestock Development Plan (2009-2016)
- Food Security Profile
- National Poverty Reduction Strategy document
- The Niamey declaration on Intended Nationally Determined Contributions (INDC) for the agricultural, livestock and forestry sectors in April 2015
- Project to Improve the Resilience of Agricultural Systems in Chad (PARSAT), launched in 2015
- Regional Programme for the Promotion of Household and Alternative Energies in the Sahel (PREDAS)
- National Food and Nutrition Policies 2014-2025

Carbon offsets

As a Non-Annex I Party of the United Nations Framework Convention on Climate Change (UNFCCC) and Least Developed Countries (LDC), the Republic of Chad does not intend to appeal to the international carbon markets in order to compensate for its own emissions. The country hopes, by contrast, to encourage investment in mitigation projects on its own territory, notably by means of the Clean Development Mechanism (CDM) and the REDD+ programme. These initiatives must particularly focus on sharing benefits with the local population, for example in terms of: (i) access to sustainable energy for all (ii) generation of local jobs, (iii) reducing impact on health and on the environment, (iv) reducing inequalities, including gender-based inequality and (v) respecting human rights.

Accounting / verification system

The monitoring and assessment system will entail quantifying GHG emissions on a national level, as well as their evolution over time, with the aim of periodically providing robust data reflecting the country's progress with regards to mitigation and sustainable development. A measurement, reporting and verification system (MRV) must be drawn up, with the aim of being precise but also simple. In order to reduce inherent institutional, technical, political and financial risks, it will be necessary to reinforce technical capacity, as well as research and stakeholder coordination, in order to carry out this activity. Chad encourages the Parties cited in Annex I of the Convention to technically and financially support the establishment of follow-up and assessment initiatives in Chad.

Institutional arrangements for implementation

Implementing mitigation actions and reaching the GHG emission limitation objectives set out in Chad's INDC include aspects which are conditional on the availability of international support in terms of funding, technology transfer and reinforcement of capacity. To prepare and implement mitigation projects, the country intends to request international aid from different available sources, in particular from agencies for development assistance, bilateral and multilateral financial institutions, UNFCCC financial mechanisms (Green Fund for the climate, adaptation funds, GEF etc.) and the private sector. Funding needs have been estimated at approx. 21.233 billion US$. Implementation of Chad's INDC will place particular emphasis on better taking account of human rights and equality between the sexes.

Ambitious and fair nature of the intended contribution

Limiting the growth of GHG emissions represents, in itself, a great challenge for Chad, considering national circumstances. In economic terms, Chad is classed amongst the Least Developed Countries (LDC), having a GDP per inhabitant of 676 USD.

Chad suffers significant structural vulnerabilities, due in particular to the country's isolation and its exposure to natural and climatic hazards. According to statistics from the United Nations, Chad has an Economic Vulnerability Index of 52.8, compared to an average of 45.7 in 2012 among all of least developed countries. In the face of these developmental challenges, the contribution from the Republic of Chad is ambitious, as it establishes an allowance of 2314.66 GgCO2e, on average, per year for 15 years, for the unconditional scenario. This objective will be achieved by various means, including increasing the renewable electricity supply from 0 to 750 GWh/year in 15 years, i.e. to a level equivalent to double the current total national production for all sectors included and introducing/reinforcing sustainable practices in the waste management, agriculture, livestock, land use and forestry sectors.

The established contribution is also fair as GHG emissions per inhabitant in Chad are around 0.732 tCO2e, placing them amongst the lowest in the world. In line with the unconditional objective, emissions per inhabitant in 2030 will be 1.028 tCO2e, whereas they would be just 0.364 tCO2e if means are acquired to enable the country to reach the conditional objective of a 71% reduction.

Chad intends to achieve this established contribution whilst pursuing its development objectives and using its available resources in a sustainable manner.

Section 5. Summary of projects to be implemented under the INDC

The table below provides a summary, with figures, of the opportunities to achieve the INDC objectives. It will only be possible to achieve the conditional objectives with contributions from the international community amounting to 17,919,837,663 USD.

Table 6. Opportunities and necessary financial means to implement the INDC[5]

A. Adaptation		
Programmes	**Unconditional USD**	**Conditional USD**
Develop access to water whilst ensuring it is used to its full potential	1,176,350,000	950,959,000
Promote water-efficient and intensive agriculture	1,247,400,000	8,316,000,000
Secure animal and fishery production and promote associations	118,792,000	1,000,000,000
Support development of fishing resources	14,616,000	24,795,400
Develop of renewable energies for the agriculture and pastoral sectors	2,890,146	19,267,642
Reinforce cloud-seeding operations to compensate for the rainfall deficit in agriculture	18,000	24,000,000
Strengthen meteorological and climate networks and improve weather and climate forecasting tools	10,000,000	24,000,000
Communication relating to climate risks and adaptation scenarios	1,000,000	22.584,300
Maintain initiatives in favour of the environment (FSE)	39,421,800	400,000,000
Improve access to agriculture production and livestock zones	179,419,372	598,064,572
S/total	**2,789,907,318**	**11,379,670,914**
B. Mitigation[6]		
Interconnection of Chad-Cameroon power grids to supply Chad with hydro-generated energy of 500 GWh	57,245,500	542,754,500
Production of solar energy increased to 200 GWh/year, i.e. : 140 MW/year	184,099,840	1,840,998,400
Production of wind energy up to 50 GWh/year	12,582,052	125,820,515
Construction of a national 225 kv line to interconnect all cities	70,500,000	550,000,000
Cross-country power grid (between adjacent cities)	40,695,402	406,954,023
Use of butane gas and promotion of efficient domestic energy	57,758,620	180,000,000
Development of the agro-silvo-pastoral and fishery sectors	9,827,586	825,141,380
Programme of environmental protection and sustainable management of natural resources	34,032,100	721,289,300
CHAD REDD R-PP Project	750,000	45,796,400
Great Green Wall project	15,517,240	144,259,000
National programme for the development of green belts surrounding large urban cities	25,862,070	1,035,000,000
Environmental risk management	7,782,000	77,820,000
Waste processing plants in large urban centres	6,649,985	44,333,231
S/total	**523,302,394**	**6,540,166,749**
Overall total	**3,313,209,712**	**17,919,837,663**

[5]Main sources: PNISR, master energy blueprint, PNSA, Agriculture transformation plan, NAPA, R-PP.

[6]The 7 latest programmes of the "Mitigation" component are going to contribute greatly to carbon sequestering.

Section 6. Appendices

Annexe 1: INDC implementation plan

Table 7.Flowchart of activities for the INDC project

Products / Activities	2016-2020					2021-2025					2026-2030				
	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5
1. *Establishment of an institutional, legal and regulatory framework for the implementation of the INDC*															
2. *INDC launch workshop*															
3. *Communication strategy*															
4. *Reinforcement of national and sectoral capacities*															
5. *Setting up of a MRV system*															
6. *Sectoral workshops*															
7. *Finalisation of plans for priority projects*															
8. *Call to the International Community and the mobilisation of funds*															
9. *Mobilisation of climate funding*															
10. *Pilot phase of the INDC*															
11. *Acquisition of adaptation and/or mitigation technologies*															
12. *Implementation of the first priority adaptation and/or mitigation projects*															
13. *Evaluations of the first INDC reductions*															
14. *Verification*															
15. *Certification*															
16. *Preparation the implementation report*															
17. *Assessment workshop*															