

Republic of Djibouti

Intended Nationally Determined Contribution of the Republic of Djibouti

August 2015

EXECUTIVE SUMMARY

The Intended Nationally Determined Contribution (INDC) of the Republic of Djibouti is an extension of the country's commitments to fighting the effects of climate change. The process of drafting the INDC enabled a summary of all of the policies and programmes linked to climate change. It also provided an opportunity to reassess financing needs to fund the country's adaptation.

As an LDC and a coastal country of the Horn of Africa, the country's vulnerability is considerably high. As a result, this contribution reflects both the country's political will to participate in the worldwide reduction of greenhouse gases (GHGs) and the scope of its adaptation needs.

The Republic of Djibouti has committed to reducing its GHG emissions by 40% by the year 2030, representing close to 2 Mt of CO₂e, compared to projections for that year according to the business-as-usual scenario. This commitment is an ambitious one for a country like the Republic of Djibouti. It can be attained through a combination of mitigation measures and the development of sustainable economic sectors like renewable energies.

To fulfil that level of ambition, the Republic of Djibouti will need to invest more than US \$3.8 billion, in collaboration with the international community. An additional US \$1.6 billion, conditional on new funding sources like the Green Climate Fund, along with international support, would enable the country to reduce its emissions by a further 20% by 2030. The total effort, under both the unconditional and conditional scenarios, would essentially entail maintaining the country's emissions at roughly their level in 2010.

In terms of adaptation, the Republic of Djibouti has undertaken numerous plans and programmes. The priority objectives are also linked to the country's social priorities:

- Reduction of vulnerability to drought;
- Protection against rising sea levels;
- Improvement of access to water;
- Protection of biodiversity;
- Reinforcement of the resilience of rural populations.

The adaptation projects currently being implemented account for a budget of nearly €100 million. However, that sum represents just 12% of the total amount that will need to be invested in adaptation under the 2°C Scenario, and a mere 7.5% in the case of the 4°C Scenario.

These figures show that investing in adaptation measures is a crucial issue for the Republic of Djibouti. The country will not be able to raise the necessary funds on its own. With this contribution, the Republic of Djibouti wants to reaffirm its belief in the principle of common but differentiated responsibilities and to call on the international community to mobilise in response to this decisive issue for all of humanity.

NATIONAL CONTEXT

The Republic of Djibouti is located in the Horn of Africa, at the intersection of the Gulf of Aden and the Red Sea. The country has a semi-desert tropical climate characterised by recurring natural catastrophes and extended periods of drought. Its arable land, natural and mineral resources, and water resources are very low and are subject to strong pressure from climate change. With an estimated per capita gross national product (GNP) of US \$1,030 in 2014, the Republic of Djibouti is one of the poorest countries in the world, and one of the most vulnerable to climate change.

At COP19 in Warsaw, the Republic of Djibouti underscored the fact that climate change is a threat to the country's food security and water resources, as well as to sustainable development. With its arid climate and low level of social development, the Republic of Djibouti is vulnerable to various climate-related effects, including extreme drought, extreme temperatures, rising sea levels, flash floods and the salinization of soils and water. These phenomena have already been observed in the country and are expected to increase in frequency and intensity in the future, according to the various climate scenarios.

In the case of an optimistic climate scenario, the cost of the damage is likely to exceed US \$5 billion. Implementing adaptation measures would make it possible to anticipate the effects of climate change. An investment of close to US \$1 billion would enable a reduction of the total costs of the impact by two, account taken of residual damage.

Annual Cost of Damage	2010-2060
2°C Scenario, excluding natural catastrophes	US \$5 billion
4-5°C Scenario, excluding natural catastrophes	US \$9 billion
10,000 year flood scenario	US \$65 million

Source: PAGE model and FUND model

The Republic of Djibouti has thus adopted a proactive position to handling climate change. It ratified the United Nations Framework Convention on Climate Change (UNFCCC) in 1995. Pursuant to the provisions of Article 4 of that convention, the country developed a second national communication, which it submitted to the UNFCCC in 2014. Earlier, in 2006, the country had already identified a number of priority adaptation and resilience actions as part of a National Adaptation Programme of Action encompassing activities in the agricultural, forestry, water, livestock and coastal sectors.

To combine the country's fight against the effects of climate change with its economic development, the Republic of Djibouti is pursuing the objective of becoming a veritable economic crossroads and a showcase for sustainable development along the Red Sea. To achieve that aim, several political plans are under development, including national strategies for a green economy, for biodiversity and on climate change.

The Republic of Djibouti will work to contribute to global efforts to reduce GHG emissions. This ambition will rely on the development of renewable energies such as geothermal, wind and solar power. But the country will need to focus its efforts on adaptation above all and seek out the support of the international community. The present contribution is part of a dynamic process and may be reassessed in line with changes in the national and international contexts.

DJIBOUTI’S CONTRIBUTION TO MITIGATION

Objective and expected directions for 2030

General objectives

By means of unconditional measures, the Republic of Djibouti is committed to preventing 1.8 Mt CO₂e of future GHG emissions, thus reducing its emissions by 40% compared to the business-as-usual scenario.

The implementation of conditional measures would enable a further reduction in CO₂e emissions by 0.9 Mt, or 20% of GHG emissions compared to the business-as-usual scenario for 2030. In this way, the conditional mitigation scenario would enable the Republic of Djibouti to maintain its volume of emissions at a level equivalent to that of 2010.

Business-as-usual scenario

The linear sectoral projection was used to estimate the GHG emissions level in 2030 without the implementation of any mitigation measures. In that case, 2030 GHG emissions would more than double their level in 2010. Nearly 55% of those emissions come from the “Energy” category, making it a priority sector for the implementation of mitigation options by the Republic of Djibouti.

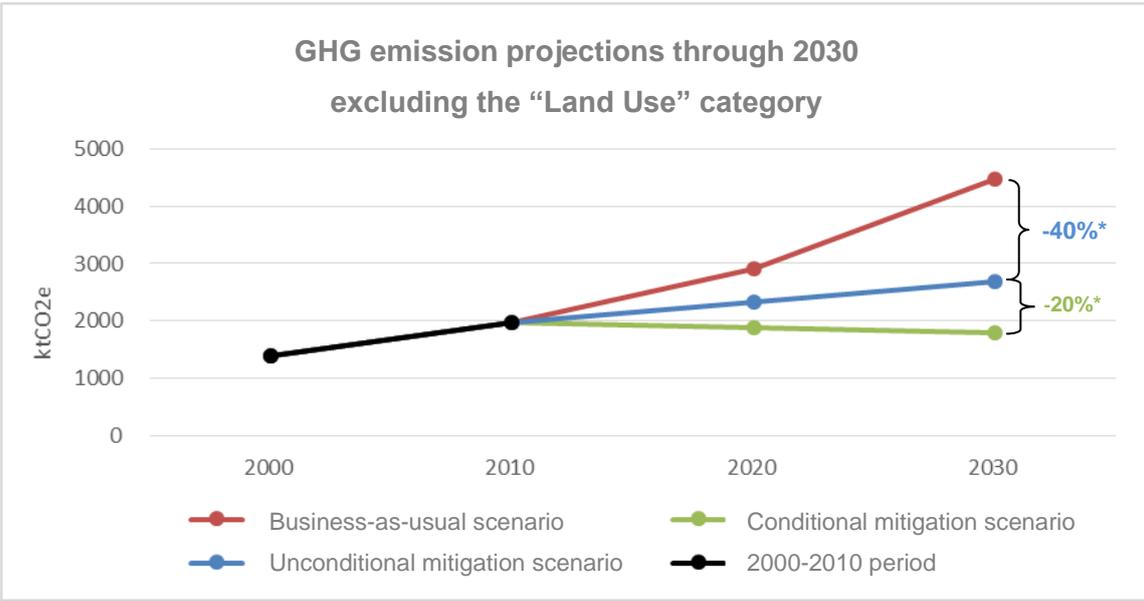


Figure 1: With no mitigation measures, the GHG emissions level will double by 2030.
 * Compared to emissions levels according to the business-as-usual scenario.

2000	2010	2020	2030
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Emissions - Business-as-usual scenario (in kt of CO ₂ e)	1400	1 974	2 905	4 475
Emissions - Unconditional mitigation scenario (in kt of CO ₂ e)			2 329 (-20%)*	2 685 (-40%)*
Emissions - Conditional mitigation scenario (in kt of CO ₂ e)			1 882 (-35%)*	1 790 (-60%)*

* Compared to emissions levels according to the business-as-usual scenario.

Assumptions and methodological approaches

Model and methodology for estimating emissions

The business-as-usual scenario was developed using the GACMO model and on linear sectoral projections. It is based on the 2000 inventory of GHG emissions, produced in accordance with the 1996 revised guidelines of the Intergovernmental Panel on Climate Change (IPCC).

Gases covered

The contribution of the Republic of Djibouti is based on estimated carbon dioxide (CO₂), methane (CH₄) and nitrous oxide (N₂O) emissions across all economic sectors. Fluoride gas emissions were not counted, because they were deemed negligible at the national level.

Geographic and sectoral scope

The selected sectors were defined on the basis of the latest GHG inventory, as per the Revised 1996 IPCC Guidelines, and cover the entire country. In view of the uncertainty in respect of the level of carbon sequestration by forest land and of emissions in uncultivated areas, the "Land Use" category was not selected.

List of selected categories and sub-categories:

- | | |
|----------------------|--|
| Energy | <ul style="list-style-type: none"> ▪ Electricity imports ▪ Consumption of fossil fuels by the industrial, residential, commercial, agricultural and transport sectors. |
| Agriculture | <ul style="list-style-type: none"> ▪ Enteric fermentation ▪ Manure management ▪ Agricultural soils |
| Waste | <ul style="list-style-type: none"> ▪ Solid waste |
| Industrial Processes | <ul style="list-style-type: none"> ▪ Cement production |

Baseline year and data

2000 was taken as the baseline year. As a result, any mitigation measures implemented after that date are not included in the business-as-usual scenarios.

The data were extracted from the latest national GHG inventory, published in 2014. Data for the “Energy” category were enhanced with more precise information collected by the *Agence Djiboutienne pour la maîtrise de l'énergie* (ADME) [Djibouti Energy Management Agency].

The GWP values used were those identified by the IPCC for the preparation of national emissions inventories in accordance with UNFCCC Decision 17/CP.8.

Strategy and planning

General strategy and evolution of the legislative and regulatory framework

The Republic of Djibouti is preparing to launch its green economy strategy, the aims of which are to encourage the use of low carbon technologies that are resilient to climate change, to promote green jobs, and to take advantage of climate finance to raise funds nationally and internationally. This strategy will be developed for the economy's key sectors, in line with the long-term vision for the country.

In parallel, the Republic of Djibouti is in the process of developing a national strategy on climate change. That strategy will draw on both the National Adaptation Plan (NAP) and the National Adaptation Programme of Action (NAPA), adopted in 2006. It will incorporate changes in regulations relating to buildings, air conditioners and refrigerators.

These two complementary strategies should enable the Republic of Djibouti to attain its 2030 targets as set out herein.

Presentation of unconditional mitigation measures

Unconditional measures are scheduled or in-progress projects, all of whose funding has been defined. The information provided in the table below shows the budget forecast and is subject to re-evaluation over the course of each project.

Table 1: Presentation of funded mitigation measures

1st electrical tie line with Ethiopia	Construction of a very high voltage line with a 50 MW capacity to import electricity from Ethiopia to Djibouti. 90% of Ethiopian electricity is generated from renewable energy sources. This project was completed in 2011.
	Funding: US \$65 million, 95% financed by the African Development Bank and 5% by the Republic of Djibouti.
	Estimated reduction in emissions: 150 kt of CO ₂ e/year.
Onshore wind farms	Installation of 60 MW onshore wind turbines in Goubet. Those power plants are scheduled to be commissioned in 2025.
	Funding: Project financed by private investors, in partnership with the Republic of Djibouti.
	Estimated reduction in emissions: 100 kt of CO ₂ e/year.
Photovoltaic plant	Installation of three solar power plants in Petit Bara, Ali Sabieh and Goubet, with

	<p>an estimated photovoltaic potential of 250 MW. Those power plants are scheduled to be commissioned in 2025.</p> <p>Funding: Project financed by private investors, in partnership with the Republic of Djibouti.</p> <p>Estimated reduction in emissions: 320 kt of CO₂e/year.</p>
Geothermal pump	<p>Exploitation of geothermal energy, whose potential is estimated at 1200 MW in the region around Lake Assal, Lake Abbé and North Goubet. The power plants are scheduled to be commissioned in 2030.</p> <p>Funding: Assal project financed by a group of donors managed by the World Bank, in the amount of US \$31 million. Other projects financed by private investors, in partnership with the Republic of Djibouti.</p> <p>Estimated reduction in emissions: 6,000 kt of CO₂e/year.</p>
New railway line	<p>Construction of a 752 km railway line between Djibouti City and Addis Ababa. It is scheduled to be put in service in October 2015.</p> <p>Funding: Project financed by private Chinese investors.</p>
Energy efficiency project on 10 buildings	<p>The primary objective of this two year project is to enable the Djibouti Energy Management Agency (ADME) to study the energy consumption of 10 buildings. The project will also be used as a capacity-building tool for other government departments concerned by the issue of energy management, thanks to a South-South partnership with other countries that have made progress in that domain.</p> <p>Funding: Project financed by the UNDP.</p>
Reduction of energy consumption by public buildings	<p>The two year project aims to improve the energy efficiency of the old Cité Ministérielle building before the installation of a photovoltaic solar park on the roof of the building. The photovoltaic system will then be connected to the national grid. To significantly reduce the State's energy bill, ADME will extend the project to all public buildings in the future.</p> <p>Funding: Project financed by the Republic of Djibouti.</p>
Global Climate Change Alliance+ project (2014-2020)	<p>For a two year period beginning in May 2015, the Global Climate Change Alliance has undertaken to:</p> <ul style="list-style-type: none"> ▪ Build Djibouti's capacity to actively participate in the fight against climate change; ▪ Develop a favourable institutional framework for mitigating climate change in the energy sector. <p>Funding: Project financed by the European Union, in the amount of US \$3 million.</p>

Presentation of conditional mitigation measures

Measures that are pending financing are being studied for the improvement of the country's energy efficiency and to reduce land-use-related emissions. The fulfilment of all of the projects identified as

priorities for the country's development (Table 2) would further reduce 2030 emissions by another 20%, in comparison to the business-as-usual scenario.

Table 2: Presentation of priority mitigation measures under study or pending funding

2nd and 3rd electrical tie lines with Ethiopia	Based on the first tie line created in 2011, construction of two more very high voltage lines with a combined capacity of 250 MW in order to import electricity from Ethiopia.
Thermal rehabilitation of buildings	Rehabilitation of 3,000 existing buildings (accommodation and service buildings) each year to improve their thermal performance by means of insulation.
Distribution of 5 million low energy light bulbs	Awareness raising on the use of energy saving lighting equipment (low energy bulbs) in residential areas.
Audit of administrative buildings	Diagnostic review of the lighting and air conditioning systems used in different administrative buildings.
Reduction of energy consumption by public buildings	Improvements to the energy efficiency of the old Cité Ministérielle building and installation of a photovoltaic solar park on the roof.
Reforestation with silvopasture practices	Reforestation of 1,000 hectares with the set-up of a silvopasture agricultural system.
Reduction of fuel wood consumption for cooking	Decrease in the consumption of wood for cooking, estimated at 56,100 tonnes each year, through the replacement of 1,000 units by systems that use LPG.
Development and maintenance of motorized two wheel vehicles	Set-up of a maintenance service for two wheel vehicles and awareness-raising about its use.

Secondary measures, likewise awaiting financing, are also under study (Table 3).

Table 3: Presentation of non-priority mitigation measures under study or pending funding

Energy production from biomass	Combined production plant for electricity using household waste. Supposed potential of 10 MW.
Tidal power plant	Energy production using tidal turbines in Goubet. Supposed potential of 5 MW.
Additional onshore wind turbines	Djibouti's total wind power potential is estimated at 390 MW. Installation of 11 onshore wind turbines in Goubet, producing 30 MW.
Accelerated replacement of air conditioners	Incentives for households to replace their air conditioners at the end of their life cycles by other, more efficient (Class A) units. An average of approximately 3,000 annually.
Accelerated replacement of refrigerators	Incentives for households to replace their refrigerators at the end of their life cycles by other, more efficient (Class A) units. An average of approximately 4,500 annually.
"Green Mosques"	Implementation of energy efficiency and effectiveness solutions in the country's mosques.

Reforestation with agroforestry	Installation of 1,000 hectares of agroforestry system.
Restriction on imports of older model cars	Elimination of the import of 10,000 old cars producing too much pollution.

Equity and ambition of the contribution of the Republic of Djibouti

On a global scale, the IPCC calculated the quantity of GHGs as more than 49,000 Mt of CO₂e in 2004. As a result, the annual emissions produced by the Republic of Djibouti, estimated at close to 2 Mt CO₂e in 2010, represent less than 0.005% of the global volume. In other words, its emissions are non-significant compared with worldwide emissions. Nonetheless, the Republic of Djibouti has prepared this contribution to reaffirm its belief in the principle of common but differentiated responsibilities and to take unprecedented measures in response to this issue.

As an LDC, it is vital for the Republic of Djibouti to reduce its emissions without significantly affecting the country's economic and social development. This contribution guarantees an equitable commitment. In the case of the unconditional scenario, the level of GHG per GDP point will decrease from 2.5 in 2000 to 0.8 in 2030. In addition, the planned mitigation measures will support priority economic sectors like renewable energies and energy efficiency. On its own scale, the Republic of Djibouti is making significant contributions to reducing global emissions.

The planned unconditional level of emissions reductions, planned under the unconditional scenario, is 40% compared to the business-as-usual scenario for 2030. This ambitious commitment will support other country's commitments so as to make a collective contribution to the global objective of limiting the global temperature rise to 2°C. For the Republic of Djibouti, upholding this objective will be essential, given the country's heavy exposure to the impact of climate change. Adaptation and increased resilience will remain the priority for the country.

DJIBOUTI’S CONTRIBUTION TO ADAPTATION

Objectives, national priorities and long-term vision

In recent years, climate change has already appeared in the form of increases in average global temperature and in the intensity and frequency of extreme weather events like drought and flooding of oueds. For example, the minimum temperature recorded in Djibouti City has risen by close to 1.3°C in the space of 30 years. In addition, the geographical location of the Republic of Djibouti makes it directly vulnerable to the rising sea level, especially given that 88% of its population lives along the coastline.

These difficult conditions cause serious problems in terms of the availability of a sufficient quantity and quality of water resources, be it for the country’s human population, livestock or agriculture. The aquifer’s resources are no longer enough to meet the country’s multiple needs.

The Republic of Djibouti also boasts relatively significant land-based biodiversity (mangroves, Day Forest and endemic species). However, it is stricken by the ongoing shrinkage of its arable land and its biodiversity due to rapid desertification, which will only be exacerbated with rising temperatures. Likewise, in respect of marine ecosystems, more than half the coral cover is likely to disappear in the years to come.

This deterioration could have a profound effect on the local populations that are dependent on those resources and who already live in poverty. The various impacts of climate change engender major financial and human losses, primarily in the nation’s capital but also in the rest of the country. As a result, national adaptation priorities have been defined for 2035, broken down into multiple strategies. Concerning adaptation, this will entail:

- Reducing vulnerability to drought;
- Protecting against rising sea levels;
- Improving access to water;
- Protecting biodiversity;
- Reinforcing the resilience of rural populations.

Strategy and planning

Funded adaptation measures

<p>Global Climate Change Alliance project</p>	<p>Two projects have been carried out by means of the GCCA’s Intra-ACP (Africa, Caribbean and Pacific) programme. They involved the mapping and implementation of a reuse plan for the water treated in Douda, as well as a study on the emission factor for the electrical power grid.</p> <p>Funding: GCCA donors.</p>
<p>Support programme to reduce vulnerability in coastal fishing areas (PRAREV-PÊCHE)</p>	<p>The programme’s overarching objective is to support the populations in rural coastal zones affected by climate change in order to improve their resilience, reduce their vulnerability to such changes and promote the co-management of marine resources. The rehabilitation of mangroves will enhance their role as a shield for coastal protection against the tides</p>

	<p>and erosion. In addition, the restoration of coral reefs and mangroves will generate additional revenue through the development of ecotourism activities.</p>
	<p>Funding: International Fund for Agricultural Development.</p>
<p>Implementation of priority NAPA actions to strengthen resilience in Djibouti's most vulnerable coastal zones</p>	<p>The project will adopt an integrated approach that combines local actions to improve the resilience of the communities and the ecosystems with central actions to remove any key political and institutional obstacles. The project includes activities grouped together into three components, corresponding to the priorities defined in the National Adaptation Programme of Action (NAPA): i) policy; ii) ecosystem rehabilitation; and iii) climate forecasts and the prevention of catastrophes. Launched in 2011, this project focuses on two rural coastal communities, Khor Angar and Damerjog.</p>
	<p>Funding: UNEP.</p>
<p>Innovative desalination plant in Djibouti, fuelled by renewable energies</p>	<p>This project aims to construct a desalination plant in the capital city in order to respond directly to drinking water supply needs. This new plant, which will have a capacity of 22,500 m³ daily, easily expandable to 45,000 m³, will be fuelled by renewable energy, which is expected to be provided by a wind farm planned for the second phase of the project.</p>
	<p>Funding: European Union.</p>
<p>Rural Community Development and Water Mobilization Project (PRODERMO)</p>	<p>The project's objective is a participatory approach to managing water and agro-pastoral resources in general, in which the beneficiary communities will play an essential role in identifying, preparing, implementing, supervising, utilizing and maintaining community and sub-project investments.</p> <p>The main component of this project concerns surface water mobilization and sustainable land management. This encompasses, among other activities, the repair and construction of tanks for drinking water and livestock, the construction of two small experimental dams, and sustainable land management with a view to protecting hydraulic infrastructure and regenerating plant cover in the surrounding area.</p>
	<p>Funding: World Bank.</p>
<p>Drought Resilience and Sustainable Livelihood Programme of the Horn of Africa (DRSLP-HoA)</p>	<p>This programme is a response to the severe water shortages and prolonged periods of drought affecting the country. It helps to reduce poverty, improve food security and accelerate economic development by increasing incomes in rural environments. The area of intervention includes the Beyya Dader watershed in the Ali Sabieh Region, the Gaggade-Derela watershed in the Dkhil Region, and the Weima watershed in the Toudjourah-Obock Region.</p>
	<p>Funding: African Development Bank.</p>
<p>SHARE - Drinking Water: Improving access to drinking</p>	<p>This programme contributes to the attainment of the Millennium Development Goals (MDGs) by improving access to drinking water and through capacity-building in peri-urban areas in Djibouti and three</p>

<p>water</p>	<p>regional administrative centres. This project will also conduct a preparatory study in advance of a rural action.</p>
	<p>Funding: European Union.</p>
<p>Water supply project between Djibouti and Ethiopia</p>	<p>This cross-border project aims to build a water pumping plant and aqueducts for the conveyance of water from Ethiopia in order to supply the Ali Sabieh, Dikhil and Arta Regions, along with Djibouti City. It will have a capacity of 100,000 m³/day, or 1,157 l/sec, carried to the border between the two countries. A reservoir of 20,000 m³ will be built in Djibouti. The project's objective is to provide the populations with access to affordable drinking water.</p>
	<p>Funding: Republic of Djibouti.</p>
<p>Development of agro-pastoral perimeters as a strategy for Djibouti's poor rural communities' adaptation to climate change</p>	<p>The project's objective is to diversify and bolster resilience to climate change among the agro-pastoral practices used in the rural regions of Djibouti. It is based on three components:</p> <ul style="list-style-type: none"> ▪ Long-term, guaranteed access to water resources within a context of climate change; ▪ Shaded agro-pastoral perimeters to support and diversify the climate resilience of agro-pastoral systems; ▪ Secure access to funding for climate resilience, in the interest of the development of agro-pastoral companies.
	<p>Funding: UNDP.</p>
<p>Strategic Individual Sanitation Plan for the Dikhil Region</p>	<p>This Strategic Individual Sanitation Plan aims to identify improved, sustainable sanitation solutions for populations without access to a collective sanitation service (sewer system) in:</p> <ul style="list-style-type: none"> ▪ Rural settings that are scattered, often nomadic, or just beginning to settle down; ▪ The district administrative centres of Ali Sabieh, Dikhil, Arta-Wea, Tadjourah and Obock; ▪ The peripheral neighbourhoods of Djibouti, particularly those to the west of Ambouli Oued.
	<p>Funding: World Bank and UNICEF.</p>
<p>Support for adaptation to climate change among rural communities in mountainous regions</p>	<p>This project helps to strengthen the resilience of Aidalou Assamo populations in the face of shocks related to climate change.</p>
	<p>Funding: UNDP.</p>
<p>Pastoral system security project – PSSP/SHARE (2014)</p>	<p>This project aims to boost the security of pastoral systems and strengthen the resilience of pastoral populations in the coastal district of Tadjourah to external shocks. This is based on the reinforcement of</p>

	<p>pastoral communities' livelihoods through investments in water and animal health, the diversification of sources of livelihoods, and institutional capacity-building for State services and the rural communities.</p>
	<p>Funding: European Union.</p>
<p>Set-up of pilot solar projects to fight poverty</p>	<p>This project, steered by the Secretary of State in charge of National Solidarity and the ADDS (Djibouti Social Development Agency), provides solar electricity to rural areas as an instrument for poverty reduction. Various mechanisms have been rolled out in Djibouti City and in the countryside, including personal kits, street lights, a mini power plant, drinking water supply and solar-powered light bulbs.</p>
	<p>Funding: Republic of Djibouti.</p>
<p>Implementing Adaptation Technologies in the Fragile Ecosystems of the Tadjourah and Hanlé Plains</p>	<p>The project's objective is to set up climate change adaptation measures to protect and enhance the resilience of the local communities and the ecosystems in the Tadjourah and Hanlé Regions.</p> <ul style="list-style-type: none"> ▪ Component 1: Protection against water-related climate change; ▪ Component 2: Rehabilitation of ecosystems (plant cover in Hanlé and Tadjourah, and mangroves in the coastal zone of Tadjourah); ▪ Component 3: Sustainable, resistant means of subsistence; ▪ Component 4: Incorporation of adaptation to climate change as part of the development and resilience of the communities.
	<p>Funding: UNEP.</p>
<p>Support project for the resilience of rural populations</p>	<p>The funds allocated under the 11th European Development Fund (EDF) will target the following sectors:</p> <ul style="list-style-type: none"> (a) Water and sanitation; (b) Food security. <p>The actions planned for those two sectors will aim for the equitable development of the country's rural and underprivileged areas, with an emphasis on strengthening the resilience of vulnerable populations. The proposed actions will be subject to climate change impact reduction requirements, dictated by strict environmental criteria. As the country contains a number of already weakened ecosystems, any work done to improve food security and water resources management will need to endeavour to preserve the environment from a perspective of sustainable development.</p>
	<p>Funding: European Development Fund.</p>

Adaptation measures pending funding

<p>Creation of a second</p>	<p>The creation of a single desalination plant will not suffice to meet the</p>
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desalination plant	population's drinking water needs, which totalled some 593 million m ³ in 2011. As a result, the rapid launch of the construction of a second desalination plant could be envisaged.
Repairs to water mains	Water loss within the water supply network is estimated at more than 30%. This is a considerable loss, further aggravating water shortages. Bringing the mains up to standard therefore appears to be a vital step. Such an investment has not yet been costed, however.
Construction of new dykes	The safety of the coastal zone is crucial to Djibouti's development. Faced with rising sea levels, many cities that are vulnerable to this threat, such as New York and the majority of Dutch cities, have already prepared dyke construction investment plans. This solution has not yet been studied for Djibouti, but it could certainly be considered. For informational purposes, the plans launched by the Netherlands amount to a total of more than €20 billion, for exposure similar to that of Djibouti.
Construction project for a dam in the Ambouli watershed	Djibouti City, the national capital, is regularly threatened by devastating floods from the Ambouli watershed, with the loss of human life and serious material and economic damage. The construction of a dam in that watershed could considerably reduce the effects of flooding and could also serve to restock the groundwater that supplies the capital.

IMPLEMENTATION METHODS

Capacity-building

Given the weakness of its economic and financial capacities and the scale of its funding needs for poverty reduction, environmental management and sustainable development, Djibouti is one of the potential beneficiaries of this initiative. To be able to seize that opportunity, the country set itself the objective of developing a National Strategy for a Green Economy, which will enable it to better incorporate climate finance into its development, as well as a national strategy for preserving biodiversity and another on climate change in order to boost its resilience in respect of the harmful effects of climate change, whilst contributing to global efforts to reduce greenhouse gas emissions.

Need for technology transfers

The majority of the options presented above, such as the construction of a geothermal, wind or photovoltaic power plant, will necessitate major technological transfers. It is therefore crucial for the Republic of Djibouti to establish long-term partnerships with university centres or private companies capable of supplying those technologies. At present, an important partnership with the German Cooperation is providing Djibouti with technical and financial support for the promotion of renewable energies.

Funding needs

In a 6% growth scenario, the investment required to maintain an emissions level similar to that of 2010 (conditional scenario) is more than US \$5.5 billion. The unconditional scenario, which is already financed, either by means of the national budget or through the support of the international community, represents approximately 70% of that amount.

For the measures forming the conditional scenario, whose cost is estimated at US \$1.65 billion, it has yet to be determined the proportion of that investment that could be covered domestically. The national strategy for energy procurement and management, currently under development, should provide better visibility on this point. Nonetheless, considering the level of investment required, it is very likely that Djibouti will need to access international funding to cover a large proportion of that investment.

The adaptation projects currently being implemented account for a budget of nearly €100 million. That sum represents just 12% of the total amount that will need to be invested in adaptation under the 2°C Scenario, and a mere 7.5% in the case of the 4°C Scenario.

These figures show that investing in adaptation measures is a crucial issue for the Republic of Djibouti. The country will not be able to raise the necessary funds on its own. As a result, the mobilization of the international community will be vital.

Details of the implementation methods are provided in a dedicated document entitled “*Guide de mise en œuvre pour la Contribution Prévues Déterminées Nationales*” (“Implementation Guide for the Intended Nationally Determined Contribution”).