



# National Adaptation Plans in focus: Lessons from the Republic of Senegal

**The Republic of Senegal** lies in the western part of Africa, covering an area of almost 197,000 square kilometres with a maritime facade of 700km. Senegal is crossed by four rivers including the rivers Senegal and Gambia; two important freshwater reservoirs.<sup>1</sup> Senegal's climate, influenced by the Sudano-Sahelian climate, alternates between a dry season (November - May) and a rainy season (June - October).<sup>2</sup>

The population is approximately 13.5 million, 62 percent of which is under the age of 25.<sup>3</sup> The agriculture sector employs 60 percent of the active population and contributes to 7.2 percent of the country's GDP.<sup>4</sup> Senegalese agriculture is mainly rain-fed, characterized by the predominance of cash crops such as groundnuts, cotton and sugarcane. Despite the implementation of numerous agricultural programmes, production remains insufficient to meet national food demand. The World Food Programme (WFP) estimates that 46.7 percent of the population lives below the poverty line and 50 percent

are food insecure, with some parts of the country experiencing acute malnutrition.<sup>5</sup> Senegal is ranked 162 out of 188 countries on the Human Development Index.<sup>6</sup>

.....  
*“By first taking a sectoral approach to the NAP process followed by the aggregation of all sectoral NAPs, Senegal seeks to reinforce its governance for NAPs and fully integrate climate change adaptation into development processes and budgets at all levels and in all sectors.”*

**Professor Mame Thierno DIENG**, Minister of Environment and Sustainable Development (Ministère de l'Environnement et du Développement Durable)

.....

## Climate change risks

Current predictions indicate that the average temperatures in Senegal are likely to increase by up to 1.8°C by 2035, while annual precipitation will decrease and sea levels will continue rising.<sup>7</sup> These changes are already affecting the availability of freshwater.

Climate change risks, including desertification, are predicted to have adverse effects on food security, access to drinking water, public health and livelihoods. An overall decrease in the amount of rainfall, combined with increasing variability and intensity, is expected to reduce agricultural yields by 30 percent. Once amongst the most

productive fishing waters in the world, the Senegalese coastal ecosystems are in decline due to climate change and suboptimal fishing practices.<sup>8</sup> In addition, coastal erosion threatens shoreline infrastructure and seaside tourism, which accounts for more than 50 percent of total national tourism and is dependent on the quality of the coastline.<sup>9</sup> Regular floods heavily impact the national budget and promote the emergence of many water related diseases. Between 1980 and 2009, flooding affected more than 900,000 people and caused over US\$142 million worth of damages.<sup>10</sup>



Empowered lives.  
Resilient nations.



# Groundwork for supporting the process to formulate and implement NAPs



## Policy, planning and budgeting

The Plan Senegal Emergent (PSE) is Senegal's overarching policy for economic development by 2035. It is complemented by ten-year action plans, the first one covering 2014 – 2018. Other key policies include the National Strategy for Economic and Social Development 2013 – 2017 (Poverty Reduction Strategy Paper) and the Poverty Action Plan (2017).

The Accelerated Programme for Agriculture in Senegal or Programme de Relance et d'Accélération de la cadence de l'Agriculture Sénégalaise (PRACAS) is the agricultural component of the PSE. Water resources management is a top adaptation priority, and is guided by the Integrated Water Resources Management Plan (2007 PAGIRE).<sup>11</sup>

Efforts to integrate climate change adaptation into development processes started in 2002. The National Strategy for Sustainable Development (SNDD) – adopted in 2015 – takes into consideration climate change adaptation,<sup>12</sup> while the Investment Programme (PTIP 2015 – 2017) integrates aspects of adaptation in two budget lines – agriculture, and risks and catastrophes. This is further reflected in the Multi-Year Framework of Sector-based Expenses (DPPD).

The country's National Adaptation Programme of Action (NAPA) 2006 focused on projects that protect agricultural production, coastal areas and water resources. Senegal submitted its Intended Nationally Determined Contributions (INDC) in 2015, which identified six priority sectors: agriculture, livestock, fisheries, water resources, biodiversity and health.

The National Committee on Climate Change (COMNACC) was created by a decree of the government in 2011 and 14 Regional Committees on Climate Change (COMRECC) were established to coordinate initiatives at regional levels. A multidisciplinary working group on climate services has also been established to support information sharing and develop an early warning system. The Ministry of Environment and Sustainable Development (MoE) established a Planning Unit to facilitate the mainstreaming of its initiatives into medium-term expenditure frameworks and foster synergies with poverty reduction initiatives. This presents an entry point to mobilise resources for adaptation initiatives in the mid-term.

## Preparing for adaptation planning

Senegal has submitted three National Communications to the UNFCCC (1997, 2010, 2016), the third of which informed its INDC. A Technological Needs Assessment (TNA) was conducted in 2012 providing guidance on the evaluation of adaptation measures in agriculture and water resources.

The Senegal government is also part of the support project for science-based NAPs for Least Developed Countries in Francophone Sub-Saharan Africa. Implemented by GIZ, the project focuses on strengthening institutional and governance frameworks, enhancing scientific capacity for NAPs, and improving access to funding and regional knowledge networks.

## Implementation of adaptation actions

Senegal has a wealth of experience in implementing adaptation projects. Some of the main projects include:

- **Storm Water Management and Climate Change Adaptation Project (2012-2019)**, implemented by the government and the Municipal Development Agency with support from the World Bank.
- **Adaptation to Coastal Erosion in Vulnerable Areas (2011-2014)**, funded by the Adaptation Fund and implemented through CSE, Senegal's accredited entity.

- **Climate Change Adaptation Project in Watershed Management and Water Retention (2012-2016)**, funded by the LDCF with support from IFAD.
- **Strengthening Land & Ecosystem Management Under Conditions of Climate Change in the Niayes and Casamance Regions**, funded by the LDCF with support from UNDP.
- **Mainstreaming Ecosystem-based Approaches in Climate-resilient Rural Livelihoods in Vulnerable Areas through the Farmer Field School Methodology**, funded by the LDCF with support from FAO.

## Institutional arrangements

The NAP process in Senegal is managed by the MoE through its Climate Change Division. The Ministry of Economy, Finance and Planning (MoEFP) through its General Division on Planning and Economic Policies and General Division on Finance is also increasingly taking a leading role since its involvement in the preparation of Senegal's INDC. The coordination of the NAP process builds on existing institutional arrangements, such as the COMNACC and COMRECC. In addition, Senegal is in the process of establishing a unique steering committee to bring together all relevant stakeholders, including support partners and communities.



## From a sectoral approach to the NAP process to multi-sectoral aggregation

With support from the U.S. Agency for International Development programme Senegal started developing six local climate adaptation plans in 2011, guiding the formulation of the first sectoral NAP for the fisheries sector in 2016.

Also, under the science-based NAP project, sector vulnerability assessments are being developed for agriculture, water resources and coastal areas. These studies will be strengthened with the GEF NAP project that will develop the NAPs of the respective sectors.

# The process to formulate and implement NAPs in Senegal

## Support programmes

The NAP process in Senegal is supported by the US Agency for International Development (USAID), the Global Environment Facility (GEF)-funded joint UNDP-UN Environment National Adaptation Plan Global Support Programme (NAP-GSP), the Green Climate Fund (GCF) and Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ).

## Challenges

Despite the identification of entry points in the PSE to integrate climate change adaptation, and a strong multi-year budgeting framework, budget gaps remain, alongside insufficient information to guide reallocation

of budgets to address adaptation. Economic impact assessments are required to build political traction for implementing proactive responses and climate risk management. Few economic assessments in Senegal showcase the economic impacts of climate change with and without adaptation and there is limited institutional and technical capacity to interpret the impacts of climate change on various sectors. In addition, significant efforts are still required to integrate climate change adaptation into all the key climate-sensitive sectors.

July 2015

The NAP process was officially launched. A national training workshop on NAPs organized with the support of the NAP-GSP provided the opportunity to consult relevant stakeholders and prepare a stocktaking report

Jan 2017

A NAP proposal was approved by the GEF-LDCF

2018

A GCF NAP readiness proposal is under preparation to support the formulation of other sectoral NAPs. An updated road map is also being prepared

October 2011

Through the USAID/COMFISH initiative, a process to develop a NAP in the fisheries sector was initiated

October 2016

A NAP for the Fisheries and Aquaculture Sector was developed as an outcome of the USAID/COMFISH initiative

April 2017

Senegal joined the regional project on Science-Based Support of the NAP Process in Francophone LDCs in Sub-Saharan Africa (PAS-PNA)

By 2022

Senegal seeks to finalize all sectoral NAPs and aggregate them into a National Adaptation Plan

## Successes

- **Ensuring good governance at all levels.** Vertical integration is being promoted as local governments are actively engaged in the process. More information can be found in the NAP-Global Network Senegal Snapshot.<sup>13</sup>
- **Working with different partners to maximise support for the NAP process.** Senegal has successfully mobilised support for its NAP process, with coordination amongst all partners to ensure synergies.
- **Placing stakeholders' engagement at the heart of all adaptation efforts.** Senegal has always adopted a top-down approach that has engaged and connected communities and civil society with researchers.
- **Facilitating permanent access to climate-relevant data.** This requires institutional capacity building along with the full engagement of the MoEFF.



## The process to formulate and implement NAPs

The Conference of Parties (COP) to the United Nations Framework Convention on Climate Change (UNFCCC) established the National Adaptation Plan (NAP) process in 2010, to enhance country-led planning and preparedness for climate change adaptation (CCA) in the medium and long-term. The objectives of the NAPs are to reduce vulnerability to the impacts of climate change and to facilitate the integration of adaptation into all levels of development planning. The NAP process is multi-sectoral, involving Ministries of Environment as well as Planning and Finance, in addition to other key ministries. By bringing greater institutional integration and coordination to adaptation planning, NAPs can enhance ongoing national development planning processes, safeguard development gains, and build resilience.



## Opportunities and next steps

The development of the NAP Fisheries has provided crucial experience in the development of a NAP. This is underpinned by coherent sectoral prioritisation, and strong political will to address adaptation. There is significant knowledge of climate change and climate change adaptation issues within ministries in Senegal. Identifying stakeholders in the process has been a key milestone in the process.

A common steering committee for all NAP-supported activities, which brings together all partners, including the NAP-GSP, GIZ, the GEF and the GCF, is being established. This helps to ensure coordination and complementarity of support received.

The NAP process in Senegal is proceeding in alignment with the NDC goals. Initial activities will develop technical and functional capacities of climate and hydrological monitoring centres, and build the necessary instruments to prioritise climate change adaptation into national and subnational budgets and plans.

## Key documents

- Plan Senegal Emergent (Senegal's overarching development policy)
- Senegal Intended Nationally Determined Contribution, 2015
- Senegal Third National Communication, 2016

## Notes

<sup>(1)</sup> <sup>(2)</sup> <sup>(8)</sup> <sup>(11)</sup> Senegal stocktaking report, 2015.

<sup>(3)</sup> <sup>(4)</sup> <sup>(7)</sup> <sup>(9)</sup> <sup>(10)</sup> Senegal INDC, 2015.

<sup>(5)</sup> World Food Programme Senegal country page. Accessed in May 2018. Available at <https://www.wfp.org/node/3576/4026/409746>

<sup>(6)</sup> UNDP. Human Development Index report, 2016.

<sup>(7)</sup> Third National Communication, 2016.

<sup>(12)</sup> Government of Senegal. Third edition of the national conference on sustainable development. 31 May 2018. Available at <https://www.sec.gouv.sn/actualite/C3%A9/troisi%C3%A8me-%C3%A9dition-de-la-conf%C3%A9rence-nationale-sur-le-d%C3%A9veloppement-durable>.

<sup>(13)</sup> Guerdat, P., & Dazé, A. Linking sectoral adaptation planning processes at national and sub-national levels: Lessons from Senegal. Available at <http://napglobalnetwork.org/resource/snapshot-linking-sectoral-adaptation-planning-processes-at-national-and-subnational-levels-lessons-from-senegal/>



**1**

sectoral NAP document already developed for the Fisheries and Aquaculture Sector

**8**

priority sectors identified in the INDC

**14**

Regional Committees on Climate Change (COMRECC) established

**\$ 14.6**

billion estimated for addressing adaptation in Senegal by 2035 (source INDC 2015)

**23**

adaptation options identified in the INDC for 2016-2023

## About the NAP-GSP

The joint UNDP-UN Environment National Adaptation Plan Global Support Programme (NAP-GSP) was launched in June 2013, financed by the Global Environment Facility (GEF) Least Developed Countries Fund (LDCF), and the Special Climate Change Fund (SCCF). The NAP-GSP, together with partners, are assisting developing countries to identify technical, institutional and financial needs to integrate climate change adaptation into medium and long-term national planning and financing. The NAP-GSP provides technical expertise and guidance on country NAP processes, and opportunities for knowledge exchange on NAPs.



### Email:

Rohini.Kohli@undp.org  
Mozaharul.Alam@unep.org

### For media enquiries / dissemination:

Esther.Lake@un.org

### Website:

<http://globalsupportprogramme.org/nap-gsp>