



# Adaptation Policies, Strategies, Initiatives, and Actions in Senegal: Gaps, Challenges, and Opportunities for Locally- Led Adaptation

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SHORT ANALYSIS

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## Summary

- Senegal has embraced a sectoral and territorial approach to climate action as underlined in its National Determined Contribution (NDC) and Senegal Emerging Plan for 2035.
- The country is making significant progress in implementing its adaptation policies but continues to experience large inequalities in climate resilience interventions between sectors and territories.
- Local communities are in the process of developing and implementing several strategies, initiatives, and practices to adapt to the impacts of climate change with the support of technical services, civil society, and non-governmental organisations (NGO).
- Challenges remain with respect to accessing evidence-based knowledge and integrating indigenous adaptation practices and strategies into national and local adaptation policies and actions.

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## **Introduction**

For the past year, Senegal has held a unique position as the chair of the African Union (AU). At the COP 27 in November 2022 in Sharm El Sheikh (Egypt), [President Mr. Macky Sall](#), in his capacity as the chair of the AU, expressed the urgent need for countries to honour their climate action commitments, including climate financing commitments. He further underlined the importance of adaptation action in Africa, noting that such actions required the implementation of the Paris Climate Agreement and the African Adaptation Acceleration Programme, launched in September 2022. He also warned that the cumulative financing for adaptation planned before 2030 represents less than a quarter of the needs estimated by African countries to meet their NDCs [commitments](#).

At the national level, Senegal has been at the forefront of climate action, especially climate adaptation actions. In June 2022, the government, in collaboration with the [United Nations Capital Development Fund \(UNCDF\)](#) and the Senegal Local Development Agency (LDA), launched an initiative within the Local Climate Adaptive Living Facility (LoCAL) to serve as a mechanism for integrating the indigenous locally-led adaptation practices developed by communities into the national adaptation policies and plans. The overall objective of this initiative is to support the integration of climate change adaptation into local government planning and budgeting systems and to increase awareness and response to climate change at the local level through the Communal Development Plans (PDC) and Departmental Development Plans (PDD) ([UNCDF, 2022](#)). The government has also started revising the main development policy documents to integrate climate change into the planning and implementation of actions to be undertaken within the processes of National Adaptation Plan (NAP), the Integrated Climate Territory Plans (ICTP), and the Local Climate Change Adaptation Plans (LCCAP). However, despite this on-going progress, many challenges and untapped opportunities remain.

This article provides a brief analysis on the state of climate action in Senegal, including adaptation policies, interventions and progress achieved, challenges and priority needs of the country with particular emphasis on locally-led adaptation. The analysis is based on the mapping of the climate action landscape in Senegal including policies, practices, and strategies at national and local levels.

## **Nationally Determined Contribution: Priority Adaptation Sectors**

As underscored in the [Nationally Determined Contribution \(NDC\)](#), Senegal is progressively moving towards a sectoral and territorial approach to climate action. The NDC prioritises the adaptation needs of eight vulnerable target sectors: agriculture, livestock, fisheries, health, water resources and floods, biodiversity, and the coastal [zone](#).

In addition to the NDC, the government of Senegal has elaborated a development strategy that is clearly articulated with the Sustainable Development Goals (SDGs) of the 2030 Agenda: the Senegal Emerging Plan (PSE) for the period up to 2035 (including priorities and needs from the Sectoral Development Policy Letter (LPSD), the Multi-annual Expenditure Planning Document ([DPPD](#)), the National Sustainable Development Strategy (SNDD), the PDD, and the PDC). This plan integrates the need to consider adaptation when planning economic and social development policies to increase the resilience of the country's production systems to climate change impacts. Moreover, the policy document draws attention to climate risks and indicates the need to take into account the unconditional commitments provided for in the NDC regarding both mitigation and adaptation to climate change and to integrate them into national medium and long-term budgetary programming ([CABRI, 2021](#)).

As part of its work in this context, the Senegalese government has established a harmonised framework and a common agenda for interventions between the Senegal Emerging Plan for 2035, the SDGs of the 2030 Agenda and the NDC. These steps have been directed by the National Policy Studies and Planning Unit of the Ministry of the Economy, Planning and International Cooperation (MEPCI) and with the support of the Directorate of the Environment and Classified Establishments (DEEC), through the [National Adaptation Plan \(NAP\) of the Green Environment Fund \(GEF\) project](#). The mandate includes revising essential economic and social development planning documents, such as the LPSD, DPPD, PDC, PDD, to facilitate the integration of the climate change dimension, and to ensure better articulation, alignment, and coherence of adaptation options with sustainable development objectives and economic and social development policies ([MEDD-MEPCI 2020; MEDD, 2020](#)).

## **National Adaptation Strategies, Initiatives, and Actions**

Despite the lack of indicators to measure and verify achievements, Senegal is making appreciated progress in implementing its adaptation policies, defined according to a number

of priority sectors under the [NDC](#). The fisheries and livestock sectors have already finalised their respective national adaptation plans and stakeholders are developing climate-resilience projects to mobilise funding. The agriculture, infrastructure, flooding, and health sectors are supported by the NAP-GEF programme in carrying out vulnerability and adaptation studies in five target regions of Senegal (Ziguinchor, Kédougou, Kaffrine, Matam, and Saint-Louis), which should lead to national sectoral adaptation plans and a funding mobilisation strategy. To launch the process of developing their sectoral NAPs, other sectors such as coastal zones, water resources, and biodiversity, are being supported by partners and financiers such as the French Development Agency (AFD), the Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ), and the Luxembourg Agency for Development Cooperation (Lux-Dev).

There is a wealth of adaptation initiatives in the country in different geographical areas, the most important of which are the ambitious projects financed by the Green Climate Fund on salt land management in the Fatick region, together with the International Union for Conservation of Nature (IUCN) and the Centre for Ecological Monitoring (CSE); coastal erosion and flood management in Saint-Louis and Dakar with the AFD; and the resilience of agricultural production systems in the Ferlo area and the groundnut basin with the Food and Agriculture Organization (FAO), the World Food Programme (WFP), and the United Nations Development Programme (UNDP). Currently, some priority adaptation sectors in Senegal are developing and submitting numerous climate-resilience project proposals to different climate funds with the support of the Designated National Authority (DNA) at DEEC and the National Accredited Entity (NEA).

Faced with the recurrence and severity of extreme climatic events, Senegal is also working on a loss and damage mechanism to support its disaster risk management strategy through an assessment of the costs of action and inaction. In doing so, it is prioritising adaptation actions with high impact potential for the country's economic and social development.

### **Adaptation Strategies, Initiatives, and Practices at the Local Level**

In addition to the national adaptation policies, communities have developed several strategies, initiatives, and practices to adapt to the impacts of climate change. Work on these strategies has been supported by technical services, civil society organisations (CSO), and

non-governmental organisations (NGO). The main results and findings from three case studies on locally-led adaptation initiatives in the areas of agriculture, coastal zones, and health demonstrate the capacity of communities to identify and implement key adaptation strategies.

Within the model of the climate-smart village of Daga Birame, women farmers and communities co-identify and implement adaptation strategies such as development of a community plot, construction of a borehole powered by photovoltaic solar panels, sharing climate information with the "Jokolanté" initiative, and Assisted Natural Regeneration (ANR) practices and reforestation. They have been supported in this work by scientists from the Senegalese Agricultural Research Institute (ISRA) and technical development services (the National Agency for Civil Aviation and Meteorology (ANACIM), the National Agency for Agricultural and Rural Advice (ANCAR), the Directorate of Agriculture (DA), and the Regional Directorate for Rural Development (DRDR).

Another initiative in local adaptation was developed by the island community of Dionewar and concerns adapting to coastal erosion impact through the TEFESS project using the Epis Maltais Savard system protection, with the support of Nébédjay organisation and the Delegation of the European Union in Senegal and the CSE, under the supervision of the DEEC. The actions included developing oyster farming among women; establishing protective structures such as piles, dykes, and bunds; developing reforestation activities with local species; and promoting environmental education for children in schools.

The last case study is in the health sector. The initiative is related to strategies and practices to deal with health impacts of heat waves in Widdou Thingolly. It was implemented with the support of organisations such as sports and cultural associations (ASC), the Health Development Committee, the National Red Cross, the Ministry of Health through the Health District, the Directorate of Civil Protection, ANACIM, the CSE, and the Great Green Wall Agency. The actions being conducted are related to implementing a heat wave early warning system with a server for sharing climate information, the village reforestation actions in concessions and public spaces, the construction of heat-protection buildings (Nubian vaults), and community-free consultations, etc.



These examples demonstrate that local communities understand climate change issues and have capacities to identify responses and, with the support of technical services and development organisations, to participate in implementing local adaptation strategies. However, they lack access to the technical and financial means to make any actions more effective and sustainable. Indeed, local communities feel that their adaptation strategies and practices are not sufficiently supported by the central government in the context of global climate action, even though their initiatives and actions are well aligned with priority adaptation sectors of the NDCs and other national and international social and economic development goals.

### **Challenges, Priorities, and Needs in Climate Adaptation**

Climate change is perceived as a disrupter of the economic and social development process to which sectors and territories must adapt in a context of low resource mobilisation capacity. Thus, adaptation to climate change in Senegal raises many challenges at the national and local levels in relation to the implementation of the national adaptation policies according to the country priority sectors ([UNEP, 2021](#)).

A first challenge concerns access to evidence-based knowledge on climate change. This access could inform climate policies by connecting the science produced by the research community and the action of practitioners on the ground. Measures would include developing climate services, training a critical mass of experts, supporting vulnerability and adaptive capacity assessments, and developing adaptation plans for sectors and territories.

A second challenge lies in the weakness or absence of climate change consideration when planning and implementing economic and social development policies. This weakness raises the question of equity and climate justice across sectors and territories as shown in the studies conducted within the NAP-GEF project in 2021 ([PNA-FEM, 2021](#)).

A third challenge relates to taking into account endogenous adaptation practices developed by local communities. The evidence, including that generated from this project, shows that local communities are actively engaged in adaptation in key sectors such as agriculture, livestock, fisheries, coastal zones, floods, biodiversity, and health. However, this knowledge and the strategies and initiatives are not sufficiently tapped for them to inform policy or implementation process for national and global climate action.

A fourth challenge is related to the financing needs of Senegal's NDC, estimated at USD 14.5 billion by 2030. With regard to distributing the overall cost of adaptation between the expected contributions from external donors and those of the national counterpart, it must be emphasised that the climate financing mechanism in Senegal remains very uncertain ([MEDD-GCF, 2020](#)).

### **Outlook and Conclusions**

While the NDC is well aligned and coherent with sectoral development policies at the national level, climate governance actors need to be aware that effectiveness and performance in climate change adaptation require good articulation and synergy between NDC priority options and local development plans. This research demonstrates that achieving sustainable adaptation priorities and responding to needs will depend on the capacity of stakeholders to integrate the climate risk dimension and adaptation actions into development policy planning at the local level. Indeed, better synergy and alignment between NDC adaptation options and local development plans, as well as the integration of local knowledge, community practices, lived experience and initiatives, could help support better coordinated, efficient, and effective climate action, especially at the local level.

### **About the Author**

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