

CLIMATE AMBITION BEYOND EMISSION NUMBERS

**Taking stock of progress by looking inside
countries and sectors**

SENEGAL

Samba Fall, Aissatou Diouf, Secou Sarr

SEPTEMBER 2021

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CLIMATE AMBITION BEYOND EMISSION NUMBERS

Taking stock of progress by looking inside countries and sectors

Samba Fall, Aissatou Diouf, Secou Sarr

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The results presented in this report are outputs of the academic research conducted under the DDP BIICS project as per the contractual agreement. The academic work does not in any way represent our considered opinion for climate negotiations and also does not reflect the official policy or position of the Government of Senegal.

How is this document relevant to the Global Stocktake?

This document is part of a collective report that assesses the evolution of climate ambition in 26 countries and 3 hard-to-abate sectors through a granular and context-specific analysis of trends and progress of national and sectoral transformations.¹ This approach allows identifying what hinders and spurs action in countries and sectors, and understanding the conditions that can support enhanced ambition, which could be political, social, economic, governance.

These insights are directly relevant to four overarching functions of the Global Stocktake in support of its desired outcome, i.e. "to inform Parties in updating and enhancing, in a nationally determined manner, their actions and support in accordance with the provisions of the Paris Agreement, as well as enhancing international cooperation for climate action" (Article 14.3 of the Paris Agreement):

- Create the conditions for an open and constructive conversation on global cooperation (on e.g., technology, trade, finance, etc.), based on an in-depth understanding of the international enablers of enhanced country ambition.
- Organize a process for knowledge sharing and collective learning, based on concrete examples of actions already in place or being discussed, including best practices.
- Create space for open dialogues across different stakeholders to support better coordination of actions, based on a detailed understanding of the levers to be activated to enhance ambition in national and sectoral transitions
- Facilitate ownership by decision-makers of the climate challenge and the risks and opportunities of the low-emission and resilient transition, based on context-specific and granular analysis of barriers and enablers.

More specifically, the collective report in general – and this document in particular – can contribute to address some of the key guiding questions for the Global Stocktake², notably:

- What actions have been taken to increase the ability to adapt to the adverse impacts of climate change and foster the climate resilience of people, livelihoods, and ecosystem? To what extent have national adaptation plans and related efforts contributed to these actions (Decision 19/CMA.1, paragraph 36(c))?
- How adequate and effective are current adaptation efforts and support provided for adaptation (Article 7.14 (c) Paris Agreement)?

¹ The full report « Climate ambition beyond emission numbers - Taking stock of progress by looking inside countries and sectors" can be found at: <https://www.iddri.org/en/publications-and-events/report/climate-ambition-beyond-emission-numbers-taking-stock-progress>

² Draft Guiding Questions for the Technical Assessment of GST1 (version 20th October 2021), available at: https://unfccc.int/sites/default/files/resource/Draft%20GST1_TA%20Guiding%20Questions.pdf

- What are the barriers and challenges, including finance, technology development and transfer and capacity-building gaps, faced by developing countries?
- What is the collective progress made towards achieving the long-term vision on the importance of fully realizing technology development and transfer in order to improve resilience to climate change and to reduce greenhouse gas emissions referred in Article 10.1 of the Paris Agreement? What is the state of cooperative action on technology development and transfer?
- What progress been made on enhancing the capacity of developing country Parties to implement the Paris Agreement (Article 11.3 Paris Agreement)?
- To achieve the purpose and long-term goals of the Paris Agreement (mitigation, adaptation, and finance flows and means of implementation, as well as loss and damage, response measures), in the light of equity and the best available science, taking into account the contextual matters in the preambular paragraphs of the Paris Agreement:
 - What are the good practices, barriers and challenges for enhanced action?
 - What is needed to make finance flows consistent with a pathway towards low GHG emissions and climate-resilient development?
 - What are the needs of developing countries related to the ambitious implementation of the Paris Agreement?
- What is needed to enhance national level action and support, as well as to enhance international cooperation for climate action, including in the short term?
- What is the collective progress made by non-Party stakeholders, including indigenous peoples and local communities, to achieve the purpose and long-term goals of the Paris Agreement, and what are the impacts, good practices, potential opportunities, barriers and challenges (Decision 19/CMA.1, paras 36(g) and 37(i))?

Foreword

Henri Waisman, Marta Torres Gunfaus, Anna Perez Catala, IDDRI.

Country commitments as reflected in enhanced Nationally Determined Contributions submitted to the UNFCCC are insufficient to put the world on track to achieve the collective objective of the Paris Agreement to hold temperature increase below 2 °C or 1.5 °C above pre-industrial levels. Furthermore, concrete policies and actions adopted by countries on the ground are often not sufficient to achieve these NDC targets. These conclusions highlight the need to increase ambition and to provide convincing evidence to accelerate action in the immediate and short term to give effect to this ambition. Yet these assessments are not sufficient to effectively guide the progressive increase of ambition, as organized by the cyclical process of the Paris Agreement.

APPROACH

With this imperative in mind, this report adopts a different, complementary, perspective on climate ambition. It seeks to open the box of emission pathways, by considering multiple dimensions of the conditions that will make these pathways possible. These are technical, economic, political, social and governance considerations in need of attention to enable the required far-reaching and systemic transformation towards the long-term goal. On the one hand, the revision of emission targets needs to be directed by an assessment of how drivers of emissions should change to trigger transformation. On the other hand, converting emissions' targets into pertinent concrete implementation requires well-designed policy packages and investment plans that are also informed by a clear and detailed understanding of the starting point, priorities and interplays between the available levers of transformation.

This bottom-up assessment aims at contributing to the process of collective learning in support of the progressive increase of collective ambition, as inserted at the core of the Paris Agreement paradigm. Approaching climate ambition through the lens of underlying transformations calls for reflecting the heterogeneous nature and the multi-faceted aspects

of transitions in different sectors and countries. This forces a move away from a purely global perspective and adopts a more granular approach based on country and individual sector perspectives. Thus, the report explores trends and progress on these transformations, as locally observed over the past years, notably since the Paris Agreement. This 'backwards looking' approach can help identify where developments are going in the right direction, where they should be accelerated and where major tensions remain that should be addressed as a priority to avoid undermining the transition. The picture of the state of the ambition discussion, firmly embedded in the country and sectoral realities, can provide means for reflection and action within the international climate community, particularly to inform focus areas for advancing the collective ambition agenda.

STRUCTURE OF THE REPORT

This country report describes the recent evolutions of domestic discourses on climate ambition, national climate policy, national governance and concrete policies and actions with a significant effect on GHG emissions. The chapter highlights a selection of striking and structurally important elements to advance the transformation towards carbon neutrality from an in-country perspective.

This report is part of a full series of 26 country chapters and three sectoral chapters. The full report includes a "summary for decision-makers" to present 10 cross-cutting messages emerging from the country and sector analysis, as a guide to the selection of priorities for collective action in the post-COP26 period.

You will find the full report at: https://www.iddri.org/sites/default/files/PDF/Publications/Catalogue%20Iddri/Rapport/DDP_beyond%20emissions%20report.pdf

CLIMATE AMBITION BEYOND THE NDC TARGETS, AN ASSESSMENT FROM INSIDE THE COUNTRIES AND THE SECTORS

This chapter has been written thanks to the support of the International Climate Initiative (IKI) of the German Federal Ministry for the Environment, Nature Conservation and Nuclear Safety (BMU).

Since the entry into force of the Paris Agreement in 2016, progress has been made in the development and implementation of Nationally Determined Contributions (NDCs). However, the country still faces major and multifaceted challenges that deserve special attention and appropriate responses. This work on Senegal (West Africa) is an attempt to take stock of the implementation of the NDC, the evolution of the discourse on climate change, governance of climate change and the flagship actions and measures launched in the country.

SECTION I: THE EVOLUTION OF CLIMATE CHANGE DISCOURSE AT THE NATIONAL LEVEL SINCE 2016.

In view of the official declarations and documents as well as the actions taken continuously at the national and sectoral levels, the Government of Senegal and non-state actors seem to be entering a new political era in which they grasp the importance and urgency of

the fight against climate change. A generalized awareness is noted on the perception of climate change with regard to its adverse effects on the vulnerability of populations and ecosystems

The achievement of the Sustainable Development Goals and the implementation of development policies, particularly Phase 2 of the Plan Sénégal Émergent (PSE) (2019-2023), which projects a trend towards emergence by 2035, remain highly dependent on current and future climate trends. This is notably reflected in projections made in the context of the revision of Senegal's NDC (NDC, 2020), which estimates that the trend increase in temperature (from +1.17° to +1.41°C), the decrease in average annual cumulative rainfall (from 89 mm in general and 16 mm in Northern Senegal) and the frequent occurrence of extreme events (heat waves, drought, flooding, etc.) will have a negative impact on GDP and poverty levels in the short, medium and long term (World Bank, 2017; NDC, 2020).

At the sectoral level, the effects of these climatic factors are reflected in a downward trend in agricultural production (e.g. decrease of more than 30% of cereal production by 2025), the decline in fodder resources, continued degradation of land, etc. (CDN, 2020). In addition, the increase in sea surface temperature since 1980 (0.04 to 0.05°C) combined with the alarming rise in sea level and the average retreat of the coastline of about 1.25 to 1.30 m/year (DEEC, 2005) are factors that reinforce the climate risk in the coastal zone (salinization of agricultural land and groundwater), Senegalese fisheries (scarcity of important resources such as sardinella), etc.

Faced with the dilemma of the urgency of climate action and economic objectives, Senegal is resolutely committed to identifying and implementing climate change resilient options while at the same time working towards achieving the Sustainable Development Goals and the PSE 2.

The evolving and alarming picture of Senegal's climate situation has been identified as a real challenge and even a major risk to the operationalization of strategic pillar n° 1 and n° 2 of the PSE 2, which are respectively related to the structural transformation of the economy and the strengthening of human capital, social protection and sustainable development. Such impacts of climate change on its socio-economic

structure and frameworks and on its development ambitions urges to the need to a strategic and political evolution of the consideration and integration of the climate dimension. On the other hand, it has been identified that action taken to address climate change can help achieve better economic objectives. In accordance with the economic analysis recently undertaken during the revision process of NDC, (NDC, 2020), the deployment of climate technology options prioritized into the NDC will contribute to the expected economic impacts of the pillars of the PSE 2. Indeed, the NDC implementation might lead to a significant increase on GDP (annual growth rate of 9.1% and 7.1% respectively by 2023 and 2035) and on the poverty index (reduction of 9.4% and 6.3% over the same time horizons). This new political trend was recently materialized by the development of the Green PSE under the leadership of the Head of State.

Since the entry into force of the Paris Agreement, the involvement of non-state players, in this case local authorities, has increased because they are increasingly impacted by climate hazards at the territorial level and in the activity sectors of grassroots communities.

To curb climate change effects and develop adaptation measures, local elected officials are asserting their positions and concerns by actively participating in the various spheres of dialogue and influence on climate change at the national and international levels. On the other hand, associations and individual actors of the national private sector have made significant progress in the perception of the importance of climate change in view of the opportunities provided by the funding mechanism put in place (Green Climate Fund-GCF, Adaptation Fund-AF)) for the investment of structuring projects on the priority technological options of the NDC. In this perspective, the support of the Senegalese National Designated Authority for the accreditation of La Banque Agricole to the GCF reflects the political will and trends of Senegal's interest in further boosting the interest and commitment of private actors in the mobilization of financial resources to implement climate actions in line with the Senegalese NDC. The recent meeting with the Ministry of environment with the LBA outlined the evolving political to enhance the climate finance access for private actors (**Box 1**).

Box 1. Meeting with the Ministry of Environment and Sustainable Development

La Banque Agricole (LBA) confirms its commitment alongside public authorities in the implementation of Senegal's climate programme

....Access to the climate fund via La Banque Agricole (LBA) is an opportunity for Senegal to mobilize private investment for the climate in addition to public funds. During the meeting, the authorities reiterated their commitment to a synergy of actions in order to contribute efficiently to the achievement of the objectives of the Nationally Determined Contribution (NDC),

Source : <https://www.cncas.sn/index.php/mediatheque/actualites/rencontre-avec-ministere-de-lenvironnement-et-du-developpement-durable>

Box 2. As part of environmental protection, 9 new forests have been declared classified forests in 4 regions

They cover a total area of 84,726 ha distributed in the regions of Kolda, Matam, Tambacounda and Sédhiou. This decision aims to consolidate the Green PSE and the realization of the continental project of the Great Green Wall.

Source: <https://lequotidien.sn/protection-de-lenvironnement-9-nouvelles-forets-classees-dans-4-regions-2/> article published on March 2, 2021.

SECTION II: THE EVOLUTION OF CLIMATE CHANGE GOVERNANCE IN SENEGAL AND THE ENTRY INTO FORCE OF THE PARIS AGREEMENT

Notwithstanding the institutional and sectoral constraints and challenges noted, the domestic processes and institutions put in place for the development and submission of Senegal's CPDN prior to CoP21 and mobilized for the NDC revision in 2020 mark a major turning point in the improvement of the governance framework for climate action.

With regard to the effects and potential for adaptation and mitigation at the sectoral level, the MEDD, through its Environment and Classified Establishments (DECC), which is the focal point for the UNFCCC, used all of its power to influence and facilitate by coordinating the in-

volvement, commitment and, above all, the technical contribution of all the sectoral ministries/departments in the analysis and development of the CPDN. In addition to the need to update sectoral data, this new situation in the power generation sector has prompted, among other factors, a revision process of the INDC submitted in 2015, involving all sectoral ministries and the Climate Change National Committee (COMNACC) (**Box 2**).

Indeed, the other component of climate governance in Senegal is represented by the COMNACC which is subdivided into thematic working groups (adaptation, mitigation, technology transfer, market mechanism, capacity building). Indeed, this consultative entity made up of experts from the public sector, private entities, NGOs, university researchers, etc. contribute their technical expertise in the ex-ante review, implementation, monitoring and evaluation of most climate change adaptation and mitigation programmes and actions. In addition to its highly appreciated technical contribution to the climate negotiation sessions (SBs and CoPs), **the major innovation of the COMNACC lies in the recent appointment of a non-state actor, ENDA ENERGIE (NGO), to chair the committee.** This institutional evolution marks a dynamic of openness and collaboration of state authorities towards non-state actors in order to better take into account the challenges and needs of assistance in the fight against climate change

This revision process coordinated by the MEDD resulted in an inclusive political validation in 2020, marking the strengthening of the institutional framework in place, but also the inclusion of elected officials and parliamentarians despite their rather limited involvement in the climate governance bodies in place.

To mitigate forest and land degradation trends, , the creation of the Senegalese Agency for Reforestation and the Great Green Wall is a key axis of the Green PSE marking an important milestone to improve the vegetation cover and regenerate degraded terrestrial and forest ecosystems in Senegal (**Box 2**).

In the post-2015 context of the Paris Agreement, it is important to note the significant effort made by Senegal's political authorities to take into account the effects of climate change, but also the need for urgent climate actions to be implemented in the short term. However, the integration or even long-term planning of the fight against climate change remains a major challenge given the complexity and slowness of man-

agement procedures at the decision-making level and the limited institutional arrangements for the decentralization of powers at the territorial level.

The collaborative approach adopted for NDC helps connect the climate discussion with economic planning, notably in the context of PSE2, and financial mechanisms.

In addition, the review process from INDC to the submission of the 2020 NDC was marked by a strengthening of the political and institutional architecture of climate change governance, notably through the strategic collaboration and active participation of the departments and directorates in charge of economic planning and the bodies in charge of the PSE 2. The contribution of their technical expertise has instilled a new approach to prospective analysis of the effects of climate change and climate action on macro and microeconomic aggregates and on the strategic axes of the Priority Action Plan (PAP) of the PSE 2.

This collaborative approach was initiated through the mobilization and commitment of the sectoral ministries, which mainly consisted in developing sectoral strategies for the implementation of the NDC with the support of technical and financial partners. It is in this perspective that the SAGA project led by the FAO in collaboration with the MAER (Ministry of Agriculture and Rural Equipment) and the MEDD has been initiated to mainstream agriculture into the national adaptation program (NAP-Ag) which aims to support the adaptation component of the NDC. Considering the importance of technology transfer, the Designated National Entity being the Focal Point of the CTCN (Climate Technology Centre & Network) coordinates the elaboration and implementation of technical assistance projects in accordance with the technology transfer needs expressed by state and non-state actors.

In addition to the role of IPCC focal point in Senegal played by the ANACIM (National Agency for Civil Aviation and Meteorology), the role of Designated National Authority for the GCF and the Adaptation Fund is ensured by the DECC. This national mechanism put in place has facilitated and led to the accreditation of the CSE (Centre de Suivi Ecologique) to the financial mechanism (GCF and AF) to facilitate the mobilization of financial resources for micro-projects. Being aware of the growing demand and the multiple institutional and legal constraints, the Designated National Authority

(DNA) of Senegal, through the readiness programme of the GCF, was able to facilitate the accreditation of La Banque Agricole to the GCF, especially to boost the access of the national private sector to medium and large investment portfolios that would allow the deployment of priority technologies of the NDC.

The integration of non-state actors (local institutions, private sector, NGOs) in governmental processes has been improved but remains a key gap and a strategic need in the governance of climate change to address both climate action benefits and economic development ambitions.

At the territorial level, it must be recognized that the process of administrative decentralization has certainly allowed regional entities to develop a first generation of territorial climate plans (Fatick, Ferlo, Dakar), but the synergy and integration of local government climate action into the existing national institutional framework still remains a major challenge for climate governance (Box 3). Aware of the opportunities of climate finance and also being the main impacted by the effects of climate change, grassroots actors (local authorities, NGOs, etc.) continue to reaffirm their importance in the fight against climate change by participating as best they can in the dialogue and consultation bodies set up at the national level and by participating more and more in the national delegations on international climate negotiations.

The establishment of platforms or multi-stakeholder associations also represents a driver of information and networking for stakeholders and strengthens and completes the institutional mechanism of governance of climate action. The Climate Change in Agriculture and Food Security (C-CASA) platform and COPERES

Box 3.

"Despite the many efforts made by Senegal, the state of play at the local level (communes and departments) reveals the lack of new development plans in line with the new vision and issues related to climate change. The central place foreseen for communities in the texts in force in terms of involvement in the development and implementation of public policies is not always occupied by them in a practical way on the ground.

Source: Excerpt from the « Plaidoyer pour la reconnaissance du rôle majeur des autorités locales dans la lutte contre les effets du changement climatique Exemple du Sénégal » of the Association of Mayors of Senegal (2015)

(Conseil Patronal des Énergies Renouvelables du Sénégal) have largely contributed to the coordination of the sharing of good practices in climate action and the commitment of the private sector in the respective fields of agriculture and renewable energy. But, despite the efforts made by the government to improve the governance of climate change and taking into account its cross-cutting nature, a number of challenges remain and relate mainly to the absence and/or weakness of mechanisms in place, including

1. Vertical alignment to enable local governments to localize the NDC and thus contribute significantly to the achievement of its ambitions. The localization of the NDC at the level of the territories inevitably requires the appropriation of the climate policy by local governments through decentralized learning processes for the empowerment of local actors.
2. The weakness of the decentralization policy and the compartmentalization of the mechanisms and processes to combat climate change
3. Institutional and sectoral compartmentalization, which is promoted as a way to ensure a holistic and efficient approach to climate actions, continues to reinforce the weakness of organizational arrangements to take advantage of all the intersectoral and multi-actor synergies.
4. Lack of harmonization and monitoring and evaluation mechanisms for the contributions of non-state actors in achieving the ambitions of the NDC.
5. Limited access of non-state actors to climate finance and technology transfer mechanisms
6. The positioning of MEDD as a State ministry given its cross-cutting dimension will ensure an appropriate services delivery and enhance the national government architecture (a matter of precedence) especially for climate change matters. It's a way to provide strong responsibilities to the MEDD by moving as a simple ministry to a state ministry

SECTION III. CONCRETE ACTIONS AND POLICIES IMPLEMENTED

Considering the importance of the urgency of climate action and the objectives of the PAP of the PSE 2, the operationalization of the sectoral ambitions of Senegal's NDC relies mainly on the integration of

adaptation and mitigation objectives through the development and implementation of State policies, plans, programmes, projects and the initiatives of non-state actors.

In view of the trend of the adverse effects of climate hazards, Senegal, through the MEDD, has undertaken since 2015 the development of the NAP (National Adaptation Plan) following a partnership approach between the sectoral ministries and bilateral and multilateral cooperation agencies or institutions.

After the NAP on fisheries developed with the assistance of the United States Agency for International Development (USAID), a second generation of sectoral NAPs (on agriculture, water resources, livestock, infrastructure, disaster risk/flood management, biodiversity, health, etc.) has been initiated with the financial and technical support of partners.

Since 2016, an important assistance is provided through BMU/GIZ funds to support the elaboration of vulnerability assessment and NAP process for the agricultural sector, water resources and coastal zones in Fatick district (in centre of Senegal). In addition to these sectors, the recent project funded by the GEF and launched in Mars 2020 will allow the Government of Senegal to elaborate the NAP on livestock infrastructures, disaster risk and health sector. To complement such dynamic of adaptation planning process, the PAN project approved through GCF readiness pipeline has been also started in 2020 and will be focus on livestock, biodiversity & tourism and water resources (AFD, Quebec/FAO, GCF, GEF/UNDP).

Aiming globally to contribute to the implementation of the adaptation component of the NDC, these sectoral NAPs conducted with the line ministries have made it possible to have exhaustive vulnerability studies, to improve the skills of state and non-state actors on adaptation planning and, above all, to contribute to the identification and deployment of technologies for land and water management, etc.

The extent of recurrent flooding in Senegal causing inestimable loss and damage has led to a new consideration of climate change in urban planning and development programmes. Coastal erosion in Senegal seems to be a major issue and one of the national priorities because it negatively affects not only the fishing sector but also constitutes a significant concern for

the hotel industry. Aware of this climatic problem of high economic and social importance, Senegal, under the impetus and the real commitment of the President of the Republic has just concluded a financing agreement with the EU which should allow, in 2023, the elaboration of a sectoral NAP for the coastal zone. Given the marked and ongoing climate vulnerability of the agriculture sector, a recent analysis of climate change adaptation policy instruments and actions (Typoclim Project 2019-2013) shows the particular attention given to this sector occupying more than 60% of the active population. In the post-2015 era, state actors with the support of financial partners have implemented several communication instruments, including the geoportal of climate projections in 2017 by the CSE, ANACIM and IRD, allowing policy makers and project leaders to better plan and integrate current and future vulnerability in the identification and implementation of climate change adaptation options.

Sectoral plans and programmes integrating climate risks and defining adaptation options have been developed, notably for the agriculture sector .

These include the Sectoral Policy Letter for Water Resources Development (2016-2025) which identified clearly the main climatic risks on water resources such as the sea level rise, recurrent flooding, etc. and had proposed to integrate weather and climate services into adaptation planning process. In addition to incentives for continuous research on improved seeds through the West African Agricultural Productivity Program (WAAPP), technical assistance has been initiated for adaptation in the sector in question, such as the vulnerability studies conducted through AFD's Adapt'Action facility. Similarly, the agricultural sector has been able to benefit from hybrid support combining simultaneously communicational means and incentive or financial support for the deployment of adaptation technologies such as the development of hydro-agricultural infrastructures, the integration of solar pumping, retention basins, the integration of climate information or land management. This has been made possible through specific programmes and projects mainly led under by the coordination of the ministry of agriculture and funding throughout multilateral agencies such the GEF, UNDP, etc. Such adaptation projects in the agricultural sector include

including the Programme for Strengthening Resilience to Food and Nutritional Insecurity in the Sahel (P2RS), the Project for the Restoration of Saline Lands for the Improvement of the Resilience of Ecosystems and Communities in the Groundnut Basin (PROGERT), the Project for the Strengthening of Land and Ecosystem Management in the Niayes and Casamance (PRGTE). The PRACAS (Programme d'Accélération de la Cadence de l'Agriculture Sénégalaise 2014-2017), being the major agricultural project of the PSE, includes adaptation technologies even though the design angle of this programme was more focused on the expectation of food and nutritional security. This observation is also valid for most sectoral development and socio-economic resilience projects where the integration of climate change was more justified to reduce the adverse effects of climate hazards.

To address the effects of climate change and the challenges of degradation of productive natural resources (water, land and soil), the initiative "Dynamique pour une transition agro-écologique au Sénégal" (DYTAES) launched by a group of non-state actors, has led a consultative approach of co-construction, support to development and scaling up of agro-ecological models in Senegal. In addition to the synthesis note for policy makers already produced (DYTAES), this initiative constitutes a multi-stakeholder platform that could play a significant role in the implementation of agro-ecological technologies that could contribute to the operationalization of climate change adaptation and mitigation objectives in the agricultural sector.

Several actions and partnerships have been established in recent years to organize international cooperation on finance and technologies in support of the implementation of mitigation actions in Senegal.

Regarding mitigation actions, after the political validation of the NDC in 2020, Senegal has just reached a new milestone in the operationalization of the NDC through the recent signature with the Swiss Confederation (July 6, 2021) of a bilateral cooperation agreement specifically related to Article 6.2 of the Paris Agreement. Even though the guidelines of this article are still being negotiated at the UNFCCC level, this voluntary partnership framework allowing for the exchange of Internationally Transferred Miti-

gation Outcomes (ITMOs) is a very strong signal of Senegal's commitment to access the carbon market and could serve as a good practice in West Africa. In order to address the difficulties in accessing multilateral climate finance funds, this clear political will on the carbon market would represent a significant niche for financing climate change mitigation measures already prioritized in Senegal's NDC, ranging from the promotion of energy mix (**Box 4:** Taïba Ndiaye wind park) to the deployment of eco-industrial parks and also the importance given to waste management and recovery. Moreover, the recent discoveries of the potential for oil and gas exploitation that should begin in 2022 have instilled, among other things, a new dynamic and appreciation for the governance of climate change because it could represent more than 50% of emissions in 2022.

In view of the need for financing estimated at more than US\$13 billion by 2030, Senegal, through the NDA, has benefited from preparatory support programmes with the GCF in 2016 and 2020 respectively, which resulted in the development of the 2018-2030 country programme document, the development of a portfolio of concept notes, project proposals and, above all, the accreditation of the LBA in order to boost the commitment of the private sector in the implementation of climate actions.

In terms of technology transfer, the CTCN (Climate Technology Centre and Network) through the Designated National Entity and ENDA ENERGIE based in Senegal, a member of the CTCN consortium, provided technical assistance in the execution of two requests in line with the NDC which focused on the deployment of co-generation and tri-generation technologies in the tertiary sector and on the deployment of eco-industrial parks.

Strategic planning exercises with sectoral deep dives are launched in Senegal to guide decisionmaking towards low-carbon and resilient systemic transformations, with particular focus on the energy sector given notably opportunities and risks from recent important discoveries of oil and gas.

In addition, the GHG emissions profile in Senegal has often been characterized by the predominance of the agricultural sector, estimated at more than 45% in 2010 (base year of the GHG inventory), followed

Box 4. Taïba Ndiaye Wind Park

The President of the Republic, Mr. Macky Sall, presented the park as a way to achieve the goal of providing electricity to everyone in the country and to combat global warming. Taïba Ndiaye "will avoid the release of 300,000 tons of carbon dioxide per year. With the momentum we have launched since 2014, we are now at 22% of renewable energy available on our entire national grid," he will say. The park will supply nearly 2 million Senegalese, out of a population of 15 million, with 450,000 megawatt hours per year - the amount of energy produced in one hour by one megawatt -. The president mentioned the possibility of a new contract to further increase this capacity.

Source: https://www.lepoint.fr/afrique/energie-le-senegal-rebondit-sur-l-eolien-25-02-2020-2364331_3826.php

by the energy sector (34.8%), waste (11.2%) and industrial processes (8.7%). By 2030, the results of the NDC clearly indicate a substantial change in the profile of GHG emissions in Senegal, which would be more than 50% dominated by the energy sector. This would be mainly due to the new strategy focused on oil and gas exploitation (gas-to-power) to curb, on the one hand, the poor access to modern energy services in urban and rural areas and, on the other hand, to boost the industrialization dynamic of Senegal's economic fabric. In a perspective of carbon sobriety and resilience in the context of an oil producing country, the MEDD (Ministry of Environment and Sustainable Development) and MEP (Ministry of Energy and Petroleum) intend to collaborate through an initiative called DDP (Deep Decarbonization Pathways) to better explore and thus guide the strategic choice of sustainable economic development trajectories. This project funded by AFD (Agence Française de Développement) through the 2020 Facility to be implemented jointly by IDDRI (Institut du Développement Durable et des Relations Internationales) and ENDA ENERGIE is in line with the main purpose of Article 4, Paragraph 19 of the Paris Agreement. In addition to the energy transition, this analytical prospective initiative will also enable policy makers in the priority sectors of the CDN (agriculture, forestry, waste, industry, etc.) to have a long-term low-emission development strategy and resilient to climate change. This strategy should be based on systems and trajectories of systemic transition for the short, medium and long term.

Box 5: LAUNCHING THE CLIMATE CHANGE PROJECT

The City of Dakar is committed to the fight According to Soham El Wardini (Mayor of the City of Dakar), this fight against climate change is very important and it is part of the government's project to mitigate climate change. To do this, much cleaner energy infrastructure will be built. «The most important for us is the bioclimatic buildings that we will build at the center of Ouakam (...),» announced the mayor of Dakar.

Local actors, notably cities, are taking growing leadership on planning and implementing climate actions.

Complementing the efforts of sectoral authorities and departments, the development of Sustainable Energy Access and Climate Action Plans (SEACAP) by the cities of Dakar and Pikine, within the framework of the Covenant of Mayors of Sub Saharan Africa (CoM-SSA) under European Union funding, has allowed the identification of appropriate renewable energy technology options (Box 5). Although the implementation of these territorial climate action planning instruments still requires additional financial and technical resources, these local government initiatives represent local climate solutions that can contribute to achieving the adaptation and mitigation objectives of Senegal's NDC.

In the same perspective, NGOs have developed and implemented programmes and projects similar to the EIPC (Programme de Bonne Gouvernance Écologique dans l'Entente Intercommunale de la Petite Côte (EIPC) pour une Gestion Intégrée des Zones Côtières (GIZC) led by ENDA ENERGIE with the support of the European Union in collaboration with the Jeunes Volontaires de l'Environnement (JVE Sénégal). This programme has enabled the communes of Mbour, Saly, Ngaparou, Malicounda and Somone to develop a Territorial Climate and Energy Plan (PCET) with a portfolio of inter-communal projects for a low-carbon and climate change resilient development.

Despite positive signs of progress, number of challenges remain when it comes to implement consistent and strategic action on climate change aligned with socio-economic objectives.

Despite all the efforts to combat climate change in Senegal, the measurement, reporting and verifica-

tion (MRV) of climate actions and support received and/or needed still remains a significant challenge, although monitoring and evaluation initiatives are being developed at the sectoral level. In terms of transparency (Article 13 of the Paris Agreement), one of the challenges of operationalizing the NDC lies in the consistent and regular accounting of proven solutions and technological options deployed by local authorities, private actors, green solution incubators, etc. In addition, resilient and low-carbon economic development requires a better coordination of the national institutional architecture by further promoting the strengthening of the skills of non-state actors and their coherent involvement in all of the forums of strategic influence on the fight against climate change (e.g. CoP 26) and access to technological (CTCN) and financial mechanisms (GCF, AF, etc.).

Despite the reaffirmed high-level political will in favor of the fight against climate change and the frequent references to climate change in speeches, including those of non-state actors (local authorities and civil society organizations), number of major challenges persist when it comes to translating them into concrete actions.

The operationalization of the political will expressed by decision-makers on climate change is still limited by institutional, administrative and technical obstacles throughout the financing chain of the defined climate actions. These constraints include, among others: i) the difficult access and mobilization of financial resources from sectoral departments, local authorities and private actors, ii) the ambiguous and uncoordinated process of planning and executing of the financing lines granted. As a result, political discourse largely fails to translate into an integrative approach to climate measures and actions in which they could also contribute structurally and substantially to critical socio-economic issues for the country, such as the fight against youth underemployment, migration and social inclusion. Also there is not a clear understanding and ownership in all decision-making spheres and sectors in Senegal of the positive impacts and financing opportunities of climate change adaptation and mitigation measures.

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DDP

The DDP is an initiative of the Institute for Sustainable Development and International Relations (IDDRI). It aims to demonstrate how countries can transform their economies by 2050 to achieve global net zero emissions and national development priorities, consistently with the Paris Agreement.. The DDP initiative is a collaboration of leading research teams currently covering 36 countries. It originated as the Deep Decarbonization Pathways Project (DDPP), which analysed the deep decarbonization of energy systems in 16 countries prior to COP21 (deepdecarbonization.org). Analyses are carried out at the national scale, by national research teams. These analyses adopt a long-term time horizon to 2050 to reveal the necessary short-term conditions and actions to reach carbon neutrality in national contexts. They help governments and non-state actors make choices and contribute to in-country expertise and international scientific knowledge. The aim is to help governments and non-state actors make choices that put economies and societies on track to reach a carbon neutral world by the second half of the century. Finally, national research teams openly share their methods, modelling tools, data and the results of their analyses to share knowledge between partners in a very collaborative manner and to facilitate engagement with sectoral experts and decision-makers.

www.ddpinitiative.org

IDDRI

The Institute for Sustainable Development and International Relations (IDDRI) is an independent, not-for-profit policy research institute based in Paris. Its objective is to identify the conditions and propose tools to put sustainable development at the heart of international relations and public and private policies. IDDRI is also a multi-stakeholder dialogue platform and supports stakeholders in global governance debates on the major issues of common interest, such as actions to mitigate climate change, protect biodiversity, strengthen food security, and to manage urbanisation. The institute also participates in work to build development trajectories that are compatible with national priorities and the sustainable development goals.

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