

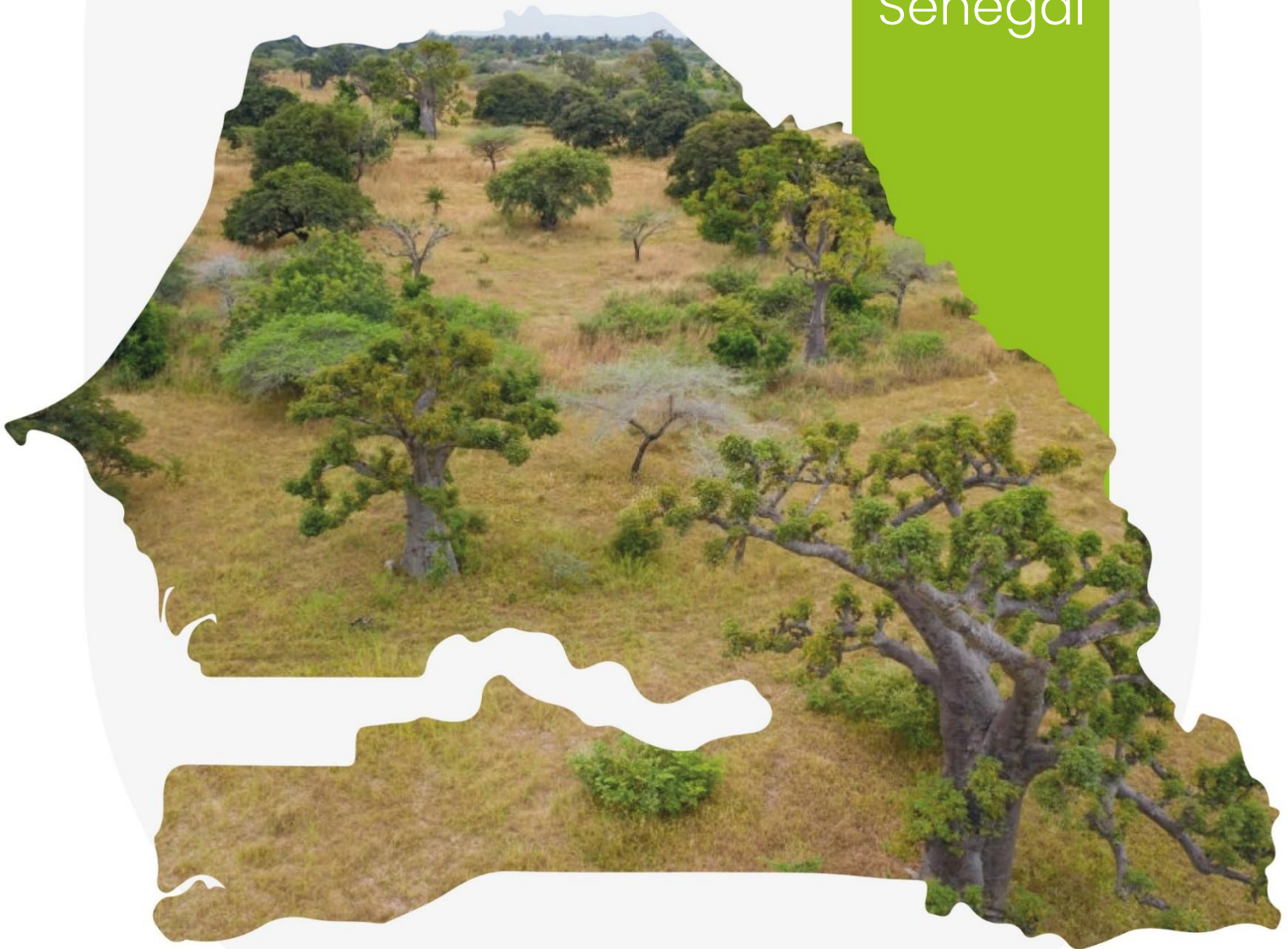


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Diagnostic Study of the Legal, Political, and Institutional Frameworks of the Great Green Wall in Senegal

Great
Green Wall
Senegal





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Acronyms

ACP	Senior Accounting Officer
ADUA	African Union Development Agency
NAMMV	National Agency of the Great Green Wall
APEFE	Association for the Promotion of Education and Training Abroad
APGMV	Pan African Agency of the Great Green Wall
ASERGMV	Senegalese Agency for Reforestation and the Great Green Wall
CDN	Nationally determined contributions
CENSAD	Community of Sahelo-Saharan States
CER	Regional Economic Community
CILSS	Permanent Inter-State Committee for Drought Control in the Sahel
CNCR	National Council for Rural Dialogue and Cooperation
CNULCD	United Nations Convention to Combat Desertification
COP	Conference of the Parties
DEEC	Directorate of the Environment and Classified Establishments
DEFCCS	Directorate of Water, Forests, Hunting and Soil Conservation
DFVP	Green Financing and Partnerships Directorate
DG	Director General
EPMRB	Directorate of Water Resources Management and Planning
DPN	National Parks Branch
EVPD	Planning and Environmental Monitoring Directorate
FEM	Global Environment Facility
RIVER	Environmental Local Front for a Green Union
FNC	National Climate Fund
GDT	Sustainable land management
GDTE	Sustainable land and water management
GIPS	Social Progress Initiative Group
GPF	Group for the advancement of women
HCCT	High Council of Local and Regional Authorities
IGMV	Great Green Wall Initiative
IPAR	Initiative Prospective Agricole et Rurale
ISE	Institute of Environmental Sciences

ISRA	Senegalese Institute of Agricultural Research
LPSEDD	Sectoral policy letter for environment and sustainable development
MAP	Millennium African Plan
MEDD	Ministry of the Environment and Sustainable Development
NEPAD	New Partnership for Africa's Development
OHM	Observatory Man Environment
OPACP	Organization of African, Caribbean and Pacific States
OSS	Sahara and Sahel Observatory
NTFPS	non-timber forest products
PANLD	National Action Plan to Combat Desertification
UNDP	United Nations Development Programme
UNEP	United Nations Environment Programme
PSE	Emerging Senegal Plan
RDC	Democratic Republic of the Congo
REDD +	Reducing Emissions from Forest Degradation and Deforestation
REPES	Network of Parliamentarians for the Environment in Senegal
ROM	Methodological Guidance Report
SAWAP	Sahel and West African Program
TDR	Terms of reference
AU	African Union
UAEL	Union of Associations of Local Elected Officials
EU	European Union
IUCN	International Union for Conservation of Nature
UNCEFS	National Union of Forestry Cooperatives of Senegal

Acknowledgements

The need to ensure the protection of our natural resources at a time when the desert is advancing in the Sahel requires significant reforms and strong measures. The Great Green Wall will increasingly constitute one of the major axes of our environmental public policies. Its preservation inevitably leads to the adoption of an important normative corpus at the national level in application of international legal instruments signed and ratified by Senegal in the field of biodiversity, climate change and sustainable development, but above all requires the participation of all actors.

Thus, for the success of the diagnostic study of the legal, political, and institutional frameworks of the Great Green Wall (GGW), all the development stakeholders made it possible to achieve the expected results in terms of reform proposals to ensure the sustainability of its projects. The GGW has become as an inter-state organization that establishes a model of Local Economic Development of the territories, more than a process open to ordinary stakeholder participation.

The study is based on consultation between the main national GGW stakeholders. In this inclusive configuration, the significant contributions of the Centre de Suivi Écologique (CSE), the Senegalese Agency for Reforestation and the Great Green Wall (ASRGM), the International Union for Conservation of Nature (IUCN) and several civil society organisations have facilitated the success of the study.

A dynamic favourable to exchanges around the objectives of the study emerged. We must salute the involvement of the Ministry of the Environment and Sustainable Development (MEDD), which played a fundamental role while becoming aware of the

importance of the mission of the parliamentarians on the Great Green Wall. This commitment of the MEDD to support this project for the benefit of parliamentarians has been a determining factor empowering them to exert their mandate.

In the context of the exemplary partnership between GLOBE Senegal and the Senegalese Agency for Reforestation and the Great Green Wall (ASRGM), the study welcomes the initiatives taken by the Government to attract foreign investments and proposes additional measures. Recalling that the action of parliamentarians should focus on the evaluation of GGW interventions to identify shortcomings and contribute to providing appropriate solutions, the study has already catalysed a dynamic of collaboration of parliamentarians with all the stakeholders, to whom I express my gratitude.

Our thanks go to Adamou BOUHARI and Eric MUGO, Task Manager and Project Coordinator respectively in the UNEP-GEF Biodiversity and Land Degradation Unit, for their tireless support to the GLOBE International Secretariat.

I would also like to express my gratitude to Mr. Rafael AYBAR and the National Steering Committee of the project for their expertise in the production of the report.

Hon. Ibrahima Baba SALL

President, GLOBE Senegal



Preface

The new environmental policy, as defined by His Excellency the President of the Republic and translated into the *Plan Sénégal Émergent* (PSE), requires improved environmental governance. By 2030, Senegal plans to achieve the objectives of the PSE in terms of sustainable development. The ambition to provide its citizens with a healthy environment inevitably requires considering a certain number of measures to combat climate change, desertification, biodiversity, and sustainable development.

The PES-Green orientates the action of public authorities towards a fundamental ideal which is the right to a healthy environment. Senegal's position requires measures to face the multiple challenges of sustainable development.

The creation of the Senegalese Agency for Reforestation and the Great Green Wall (ASERGMV) could reinforce our country's opportunity to make the GGW the engine of development to improve the living conditions of local communities. In addition, the new political orientations of territorial development and poverty reduction will be a good opportunity for the planning of strategies for the valorisation of natural capital in the regions bordering the GGW.

In this perspective, a legal and institutional reform defining the REDD+ framework would be an added value for the integration of strategies to combat the impacts of climate change and the Sustainable Development Goals (SDGs) into a coherent set of the Emerging Senegal Plan (PSE).

In this ambition, the President of the Republic, His Excellency Macky SALL, presided over a Presidential Council on the Great Green Wall with the objective of creating a multi-actor framework. This spirit of political dialogue, to which the President of the Republic invited all the actors, must be at the heart of the fight against the advance of the desert.

This salutary invitation from the Head of State must be underpinned by an environmental

dialogue with a focus on the creation of green jobs.

I am pleased that the GLOBE GEF6 Project "*Legislative actions to advance REDD+ and natural capital governance towards the implementation of the 2030 Agenda*", contributes to the diagnosis in the form of a review and analysis of legislation and regulations related to the implementation of the GGW.

Therefore, it satisfies a long-standing demand of parliamentarians, who have always expressed the desire to intervene based on evidence from studies rigorously conducted by experts on previously identified themes. The objective is to place the GGW at the heart of the activities of parliamentarians with a more rigorous control of the decisions of the Executive and the policies implemented in environmental matters.

To this end, the commitment of Senegal's parliamentarians will respond to the recommendations of the study as well as to the political will expressed in the Constitution to establish the environmental issue as a fundamental right.

The project's vision is to work towards capacity building for parliamentarians based on scientific studies. This vision is based on an innovative idea: evidence-based policy. This idea focuses on capacity building to help parliamentarians access knowledge, information, training tools and good practices on GGW. This analysis will serve as a basis for proposing a plan to update and refresh legal frameworks, including those related to REDD+.

It should be noted that the challenges to be met are enormous. Indeed, to stimulate reflection on the main political, multisectoral and institutional obstacles encountered by GGW interventions in Senegal is a real requirement for breakthrough governance. This experience to encourage ambitious actions for the protection of the environment is already on the agenda of GLOBE International.

The study provides a new impetus for action by parliamentarians. They need to take an action-oriented approach to accelerate the implementation of the policy and legislative frameworks for the GGW. To better address these challenges, it is imperative to promote more inclusive control strategies. These are more participatory approaches that rely on the involvement of stakeholders but above all on improving awareness in the decision-making process. That is why we are committed to this issue with the Minister of Environment and Sustainable Development to reflect on practical solutions based on the interests of the nation and Africa.

In this regard, I would like to point out that the forestry policy for the period 2005-2025 has, in its component "*Development and rational management of forests*", the ambition to meet the challenges of sustainable forest management while fighting poverty. To this end, the legal value of the report will be assessed in terms of parliamentary action, which could focus first on advocacy to ensure that the budgetary allocations for ASERGMV are increased in line with the strategic objectives set out in its action plan. Undoubtedly, a stronger impetus will be given to legislative reforms, considering the territorialization requirements of environmental policies specific to the Great Green Wall.

We are particularly grateful to:

- Rafael Jiménez Aybar, GLOBE Programme Director for technical support, advice, and guidance.

- The Honorable Ibrahima Baba Sall, President of REPES, who has demonstrated his availability and leadership in taking charge of Senegal's adherence to REDD+ and the Gaborone Declaration on Sustainability in Africa.
- Special mention should be made of Colonel Gogo Banel Ndiaye, Technical Advisor N.1 at the Ministry of the Environment and Sustainable Development, who spared no effort in the institutional support of the study, the organization of meetings, and his availability.
- Colonel Moussa Diouf, Secretary General of ASERGMV, for his availability, his open-mindedness, and his promptness in reacting each time he was asked.
- We also thank the Director of Water and Forests, Colonel Baidy BA, for his unfailing support throughout this study.
- Mohamed Diedhiou, Project Coordinator in Senegal, for his ongoing support.

This study is an important milestone in the advocacy and resource mobilization strategy for the success of the GGW.



**Hon. Aymérou
GNINGUE**

**Chairman, Benno Bokk
Yaakaar Parliamentary
Group**

Foreword

The Great Green Wall is an inescapable component of our public policies, but above all requires a multidimensional framework. The diagnostic study of the legal, political and institutional frameworks of the Great Green Wall (GGW) in Senegal", has deduced a beautiful illustration.

Our country, Senegal, is committed to making the Great Green Wall the backbone of the political, economic, social, and environmental transformation of Africa. This will to re-green the continent must be underpinned by legislative actions that take into account forestry, wildlife, protected areas, land tenure, agricultural, pastoral etc....

The GGW is facing many environmental challenges whose solutions are no longer national but rather global. This concern calls for improved environmental governance, particularly in terms of parliamentary cooperation.

Parliamentary action takes on a new dimension as elected officials play a fundamental role in meeting the challenges of conserving the environment and natural resources while maintaining sustainable economic and social development.

This is why parliamentarians must take an interest in all the environmental issues of the

GMA, including the governance of forest ecosystems.

The challenges facing States call for diligent action. Senegal, as elsewhere in the Sahelian countries, is characterized by the advance of the desert, the scarcity of rainfall, deforestation, land degradation, etc.

This has led to the phenomenon of climate refugees, with significant displacement of certain populations.

Thus, it has become imperative to think about GMV as a lever for socio-economic development and the building of a green barrier to address climate change.

It is therefore appropriate for parliamentarians to highlight green diplomacy as a means of promoting cooperation between the eleven (11) GGW states.



Haïdar El Ali

**Director General of
the Senegalese
Agency for
Reforestation and the
Great Green Wall
(ASRGM).**

*Photo credit:
<https://senego.com>*

Executive Summary

The Great Green Wall groups together several Sahelo-Saharan African States¹, and covers 7000 km, from Dakar to Djibouti. The Convention establishing the Pan-African Agency of the Great Green Wall, adopted by the Conference of Heads of State and Government of the Community of Sahelo-Saharan States (CENSAD) in Ndjamena, on 17 June 2010, was an opportunity to recall the main problems with which the countries belonging to the same geographical area are confronted and for which they expect a contribution from the States concerned

ANGMV started its activities in August 2008, in the region of Louga (Department of Linguère), with reforestation workcamps. The field operations, carried out according to a participatory approach with a strong involvement of local populations, students, and pupils with the supervision of agents of Water and Forests, have focused on reforestation and forms of restoration based on natural regeneration, defense and restoration of soils.

In Senegal, it was in December 2018, during his address to the nation, that the President of the Republic of Senegal stated the need to prepare the agro-ecological transition through the green PES. He emphasized the importance of the regeneration and protection of the forest heritage for the vital interests of future generations. The Senegalese part of the Great Green Wall is about 545 km long. In the field, the agency has always worked in close collaboration with the decentralized technical services, in particular the forestry service, and the other rural supervision services.

The Senegalese Agency for Reforestation and the Green Wall (ASERGMV) was brought to the baptismal font on July 3, 2019 by Decree No.

2019-1014 in place of ANGMV. The ASERGMV's general mission is to intensify reforestation, create ecovillages and carry out the continental project of the Great Green Wall, throughout the national territory.

In order to take advantage of the opportunities offered by climate finance, it is important to have an instrument that can improve the governance mechanism of resources (mobilization, allocation, use) combined with a coherent programmatic framework on climate change. Indeed, the climate change financing challenge requires new actors, new business models, a combination of structural incentives (e.g. carbon pricing across sectors) and appropriate financial instruments. The current institutional architecture suffers from the lack of sensitivity of the actors of the conventional financial system to the mechanisms of climate finance, and at the same time from the lack of capacity of the institutional actors involved in the environmental sector with regard to financial mechanisms. This contradiction could be overcome by strengthening the institutional system in place in terms of its mandates and expertise, in order to facilitate the removal of barriers. Furthermore, the adaptation of the climate objectives to which Senegal has committed itself through its Nationally Determined Contribution (NDC) into ambitious projects and programmes with a transformational effect on the economy, and in line with the Emerging Senegal Plan (ESP), would provide a portfolio of projects and programmes on which the country could position itself.

The main recommendations are summarized below:

Improving institutional arrangements and consistency in programming

¹ Sahelo-Saharan countries: Burkina Faso, the Republic of Djibouti, the State of Eritrea, the Federal Democratic Republic of Ethiopia, the Republic of Mali, the Islamic Republic of Mauritania, the Republic of Niger, the Federal

Republic of Nigeria, the Republic of Senegal, the Republic of Sudan, the Republic of Chad.

In order to take advantage of the opportunities offered by climate finance, it is important to have an instrument that can improve the governance mechanism of resources (mobilization, allocation, use) combined with a coherent programmatic framework on climate change. Indeed, the climate change financing challenge requires new actors, new business models, a combination of structural incentives

(e.g. carbon pricing across sectors) and appropriate financial instruments. The current institutional architecture suffers from the lack of sensitivity of the actors of the conventional financial system to the mechanisms of climate finance, and at the same time from the lack of capacity of the institutional actors involved in the environmental sector with regard to financial mechanisms.

Improve the level of domestic resources dedicated to the environmental sector in Senegal and to reforestation in particular.

The increase in the national budget for the environment sector could be an important step in mobilizing domestic and international private financing. The aim is to use some of these resources as catalytic funds that can be used to raise the private capital needed to finance large-scale projects. Most of the domestic resources allocated to the sector are dedicated to operational activities. This is due to the focus on short-term results and the small amount of funds allocated. An upward revision of this contribution, as well as the allocation of part of it to strategic aspects, could facilitate the raising of additional resources. The environment sector should no longer be considered as a net consumer of public resources, but rather as a contributor to the public and private resources needed to implement public policies in Senegal. A first step could be the development and implementation of a methodology for reviewing

public expenditure on the environment and/or climate.

A second step would be the development of an environmental and/or climate change fiscal framework. These tools have the advantage of providing a (i) detailed analysis of internal and external climate funds and the systems used to manage and track expenditures, existing expenditure modalities for managing climate-related activities, (ii) financing and institutional development gaps, (iii) financing and institutional modalities associated with a comprehensive climate fiscal framework. The reorientation towards the environment sector of part of the subsidies to fossil fuel production and consumption during periods of strong easing of oil prices is also one of the financing options proposed by the "Study on the feasibility of innovative financing mechanisms for the environment sector".

Mobilize private financing by creating public incentives for mobilizing private domestic funds

It should be noted that the structure of the private financing system in Senegal is dominated by the banking system, whose mode of intervention is more oriented towards short-term financing. This type of financing may be inappropriate for large-scale projects in the environment sector, which is characterized by long-term cycles. It can, however, be an opportunity to support smaller-scale interventions that have a potential for wealth

creation compatible with the principles of environmental integrity. This option favours the development of inclusive climate finance, which can boost small and medium-sized enterprises active in the sector and counterbalance the risk of exclusion associated with the implementation of large-scale projects. However, this presupposes the existence of public incentives to raise private domestic capital.

Green bonds as a vehicle for mobilizing private financing

Its introduction in Senegal is considered technically feasible by the "Study on the feasibility of innovative financing mechanisms for the environment sector". The raising of

international and national private capital for the financing of large-scale projects labelled "green" could benefit from such an instrument. However, such an action cannot flourish at the national

level without strong technical and political leadership, the existence of endogenous

capacities and a national green bond framework to increase the visibility of this new instrument.

On the institutional level :

- Establish an instrument that can improve the governance mechanism of resources (mobilization, allocation, use) combined with a coherent programmatic framework on climate change. Indeed, the climate change financing challenge implies new actors, new business models, a combination of structural incentives (e.g., carbon pricing across sectors) and appropriate financial instruments. The current institutional architecture suffers from the lack of sensitivity of the actors of the conventional financial system to the mechanisms of climate finance, and at the same time from the lack of capacity of the institutional actors involved in the environmental sector regarding financial mechanisms.
- Create a small committee for consultation between ASERGMV, DEFCCS and MEDD to harmonise working relations between these three structures. These relations must be more fluid to achieve a common synergy towards the attainment of results, both from the agency and the structures mentioned. The MEDD and the DEFCCS are supervision and support structures.
- The pan-African agency should play a more active role in supporting fundraising, project development and monitoring and evaluation. For the time being, the APGMV focuses much more on inter-state projects, while support to national agencies in terms of fundraising and capacity building should also be among its priorities.
- Maintaining and respecting the classification of ASERGMV as category 1 with a projected annual budget of 50 billion over 5 years, i.e., 10 billion per year. This classification allows the agency to have a medium- and long-term vision, given the nature of its activities, which are based on reforestation, the development of natural services and goods and the creation of green jobs. To this end, ASERGMV should be attached to the Presidency, so as not to suffer from budgetary arbitrations and reorganizations.
- Exempt the Agency from the new reform on programmes, for which the Treasury is the sole administrator of appropriations. This state of affairs gives an extremely important power to the ACP, which thus becomes the sole signatory for the execution of the budget, without any power of counter signature by the DG. This situation contributes to weakening the ASERGMV's general management, which has no decision-making power in the management of the budget, and yet it is up to it to justify the results and achievements.

On the Technical and New Technologies Plan:

- Change the dynamics of "Régie" to a real appropriation of operations by the populations thanks to a large mobilization and participation around the privileged axes of reforestation. ASERGMV has inherited a practice of implementation under the "régie" system. Indeed, the activities were carried out by the populations who were considered as labourers and paid accordingly. This way of doing things does not guarantee sustainability because the ownership effect by the populations and other partners is not there. Indeed, the achievements of the GGW are not considered by the populations as theirs but rather those of the state. The main consequence is therefore the lack of monitoring and maintenance.
- Update the ASERGMV website and make it more attractive with information on the

paradigm shift introduced by the agency. Consideration should also be given to being more active and visible in social networks in terms of communication on the progress of activities.

- Favour the use of new technologies and innovation in the approach using drones in the passive fight against bushfires, the monitoring of livestock and pastures.

On the security and stability of the region:

The security crisis in the Sahel is multifaceted and will take time to address. However, to stabilize the region, member states and international partners have focused primarily on terrorism, even though stabilizing and recovering the region requires addressing the many complex root causes that have led to the rise of violent extremist organizations, such as Boko Haram and the Islamic State of West Africa.

Unfortunately, this focus on counter-terrorism affects the type of assistance requested and used to counter violent organizations, as well as the willingness of international partners to fund non-military strategies.

To this end, there is a need to increase funding for the civilian component to promote community-based solutions while ensuring the human security of vulnerable populations.

The decision to employ primarily military measures continues to stem from the perceived relative military capacity of member states compared to that of violent organizations. The success of non-military actors in recovery and stabilization and stability efforts depends on the physical securing of the region and the political commitment of affected states. This requires an inclusive approach based on the cooperation of governmental and non-governmental actors to develop critical infrastructure in the under-governed areas of the GMA region.

Taking into account the new challenges related to health (One Health) :

Promote the establishment of village woods composed mainly of medicinal plants to strengthen the local health system. Indeed, Covid19 had a very important impact in the non-mobilization of the budget. Given the pandemic and the priorities defined by the state, the budget has been greatly reduced in favour of health. This situation challenges the state in the management of the pandemic and the orientation that must be given to the forestry sector as a habitat and as a supplier of goods and services for the health of the populations. Therefore, the Agency has redefined its strategy by emphasizing biodiversity, habitat management, food security through a strong contribution of forest fruits and other NTFPs.

Validation workshop of this study at the National Assembly in April 2021.



Top: Colonel Gogo BANEL, Technical Advisor number 1, MEDD.

Below: President GLOBE Senegal REPES Ho. Ibrahima Baba SALL.

Introduction

1. Context of the Great Green Wall initiative

The Great Green Wall is a program of the African Union that aims to combat climate change, desertification, and poverty. It was during a summit of the Sahel-Saharan community (CENSAD) organized in June 2005 in Ouagadougou that a "*great international coalition to combat desertification*" was launched, aiming at building a "*green wall from Senegal to Djibouti to curb the desert*". The symbolic power of this slogan found an international resonance when the African Union officially seized it in 2007 to make it the "flagship project" of the African renaissance in the fight against desertification. The creation of a Pan-African Agency for the Great Green Wall (APGMV) was decided in the following months, while several Sahelian and West African inter-state organizations publicly announced their technical and financial support.

The Great Green Wall groups together several Sahelo-Saharan African States², and covers 7000 km, from Dakar to Djibouti. The Convention establishing the Pan-African Agency of the Great Green Wall, adopted by the Conference of Heads of State and Government of the Community of Sahelo-Saharan States (CENSAD) in Ndjamena, on 17 June 2010, was an

opportunity to recall the main problems with which the countries belonging to the same geographical area are confronted and for which they expect a contribution from the States concerned

With regard to the African Union Commission, it should be noted that the Great Green Wall initiative is not only about the 11 member states of the pan-African agency, but rather about countries that are not members, but are part of the initiative, including Gambia, Algeria (very active in the implementation), Egypt, Tunisia and Libya, which are founding but not active members. Another aspect worth mentioning is the fact that since 2015, the African union commission is extending the initiative to other countries and regions affected by land degradation, desertification, drought, including Cameroon and Ghana. In addition, the African Union is also working with the Southern African Development Community (SADC) Secretariat to extend the initiative to the region, which is heavily affected by extreme weather conditions, including drought.

2. Terms of reference

Context

The Great Green Wall groups together several Sahelo-Saharan African States. The Convention establishing the Pan-African Agency of the Great Green Wall, adopted by the Conference of Heads of State and Government of the Community of Sahelo-Saharan States (CENSAD) in Ndjamena, on 17 June 2010, was an opportunity to recall the main problems facing the countries belonging to the same geographical area and for which they expect a contribution from the States concerned. Among the various problems identified, we note the advance of the desert over at least 7000 km

long and 15 km wide, linking Dakar and Djibouti. In addition, there is the unfulfilled implementation of the Sendai Framework on Disaster Risk Reduction, the Addis Ababa agreements on Financing for Development, the Agenda 2030, the Sustainable Development Goals, and the Paris Agreement.

It is within this framework that a strategic partnership was established between GLOBE International and the GEF for the implementation of the GEF6 project to improve the legal environment and create favourable

² Sahelo-Saharan countries: Burkina Faso, the Republic of Djibouti, the State of Eritrea, the Federal Democratic Republic of Ethiopia,

the Republic of Mali, the Islamic Republic of Mauritania, the Republic of Niger, the Federal Republic of Nigeria, the Republic of Senegal, the Republic of Sudan, the Republic of Chad.

conditions for a common approach by all development actors. To do so, four priority areas were identified by the project, including: forest governance (REDD+); the Cancun safeguards of REDD+; environmental economic accounting; and the Great Green Wall. Three countries have been identified for the first phase of the project implementation, namely: Senegal, DRC and Nigeria.

Senegal is located at the westernmost tip of the African continent, constituting the western end of the Great Green Wall. This geographical position requires action to address the multiple challenges of sustainable development and the urgent need to develop a strategy to combat climate change, desertification, biodiversity, and sustainable development.

Thus, the creation of the Senegalese Agency for Reforestation and the Great Green Wall (ASERGMV) could strengthen Senegal's opportunity to make the GGW the engine of development to improve the living conditions of local communities. In addition, the new political orientations of territorial development and poverty reduction will be a good opportunity for the planning of strategies for the valorisation of natural capital in the regions bordering the GGW.

In this perspective, legal and institutional reforms defining the REDD+ framework would be an added value for the integration of strategies to combat climate change impacts and development objectives (DO) in a coherent set of the "Emerging Senegal Plan" (PSE).

Therefore, given the complexity of the issues and actors, the GGW has been an axis in the elaboration of the National Action Plan to Combat Desertification (NAP/CD).

In view of this situation, the improvement of legislative frameworks for the sustainable preservation of forests and natural capital becomes a key component of the project.

To provide legal solutions, an in-depth diagnosis of the legal and institutional frameworks of the Great Green Wall and of the public policies that determine the sustainability of its interventions in Senegal is necessary to improve environmental governance, a guarantee of sustainable development.

Such a diagnosis will make it possible to take stock of the situation and to propose improvements and ways of making laws and regulations consistent at the sub-regional level. The present ToR define the objectives and tasks assigned to the consultant as well as the modalities of his intervention.

Objectives of the study

The objective of this study is to conduct a diagnosis in the form of a review and analysis of legislation and regulations related to the implementation of the Great Green Wall. This analysis will serve as a basis for proposing a plan to update and update legal frameworks, including those related to REDD+.

Consultant's tasks

To achieve this overall objective, the Consultant shall:

Take stock of the legislative and regulatory frameworks at the local, national and sub-regional levels, taking into account the international conventions ratified by Senegal.

- Identify the main policy, multi-sectoral and institutional obstacles encountered by GGW interventions in Senegal³;
- Formulate reform proposals to ensure the sustainability of these projects and their replication on a large scale.

³ In particular: The degree of integration of climate change adaptation into agriculture, livestock, forestry, water and land use policies; The existence or absence of (i) a large-scale promotion of well-tested sustainable land management (SLM) techniques; (ii) an enabling fiscal environment in which resource users have incentives to adopt SLM; (iii) an innovative framework to capitalize on synergies with the private sector across the broadest range of sectors (e.g., the sanitation sector) to mobilize private finance for public goods; and the ability of existing land tenure systems to support SLM implementation.

- Analyse the current status of the existing institutional framework, namely, the New Partnership for Africa's Development (NEPAD) for a sustainable development of Africa and the Pan-African Agency of the Great Green Wall in the context of the Senegalese Agency of Reforestation and the Great Green Wall.⁴
- Take stock of available or programmed financing within the framework of the MEDD's Program Budget and analyse the impact of this financing on the operating expenses of the Agency for Reforestation and the Great Green Wall.
- Make a proposal for new, real and mobilizable resources by 2030. Great attention should be paid to the opportunities of REDD+.



Commune of Ballou. Credit: Mamadou Niang, GLOBE Senegal

In summary, all the missions were carried out in two phases:

Phase 1: Diagnosis

Methodological Guidance Report (ROM);
Literature review and analysis;
Identification and analysis of mobilized and non-mobilized resources (the opportunity of a carbon credit market in Senegal);

⁴ The aim is to prevent potential difficulties that could arise from financial capacities in the implementation of the new strategic orientations of REDD+; and to strengthen the MEDD in its inter-ministerial coordination role, which is essential for the coherent implementation of the wide range of sustainable development objectives of the 2030 Agenda that depend on ecosystem services but are beyond the scope of the REDD+ strategy.

Interview with various partners (with particular interest from "social impact investors" and philanthropists);
Nomenclature of complementary programmes and projects in Senegal;
Problem identification and analysis;
Diagnostic report.

Phase 2: Formulation of proposals and action plan

Meetings with various stakeholders;
Interim report;
Final report including attachments;
Presentation in a meeting.

The consultant, in his methodology, had to propose an intervention plan based on the different missions.

Methodology

Upon notification of the official approval of the contract, and the establishment of the Service Order for the start of the mission, a working session was held on Tuesday, May 19, 2020, at the Ministry of Environment and Sustainable Development (MEDD) and at the National Assembly to review the practical arrangements for the organization of the mission. Other issues related to administrative, financial, and technical arrangements were also discussed. On this basis, the start of the study with the sponsor took effect today.

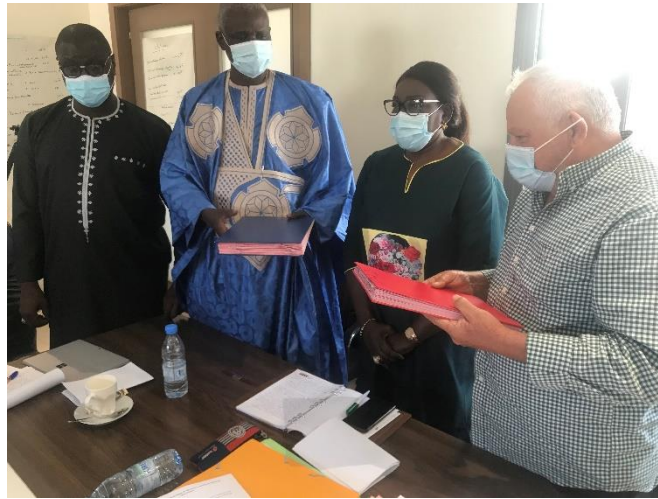
We then developed the ROM which describes the technical modalities for the implementation of the study, as well as the timetable for its execution. The ROM was finalized on the basis of comments from the GLOBE Senegal Chapter, the MEDD and the Globe Secretariat.

Following the start-up meeting with the client and the document review, we proceeded to identify the actors to be interviewed and consulted. The interview guide and the list of people and institutions to be contacted were submitted to the client for validation before the interview phase began. Without being exhaustive, the list of targets of the study includes:

- State services competent in governance, planning and green economy: DEFCCS, DPN, DEEC, DPVE, DFVP; Directorate of Agriculture, Directorate of Livestock, Directorate of Management and Planning of Water Resources (DGPPE), National Agency for Land Management, National Council for Sustainable Land Management, Senegalese Agency for Reforestation and Green Wall, etc.)
- Parliamentarians, local elected officials and advisors: REPES, UAEL, HCCT, EESC;
- The umbrella organizations: UNCEFS, CNCR, Groupe d'initiative pour le progrès social (GIPSetc.);
- Research and development institutes: IPAR, ISE, ISRA.

Depending on the targets and the nature of their intervention, several collection tools were used (interview guide or questionnaire).

To ensure that the Covid19 pandemic mission ran smoothly, the sponsor issued a letter of introduction to the resource persons. However, it is important to note that some consultations were conducted electronically and by telephone.



Signing of a partnership agreement between GLOBE Senegal and ASERGMV

The Great Green Wall Initiative

1. Institutional, policy and legal frameworks

Institutional framework of intervention of the IGMV

The African Union Commission and the CENSAD General Secretariat provide political leadership and coordination for the implementation of the Initiative in relation to the Regional Economic Communities (RECs). It is embedded in a framework of national, sub-regional and regional coherence. At the country level, GGW actions are integrated into and reinforce national development policies, the fight against deforestation and forest degradation, and the sustainable management of natural resources.

ADUA-NEPAD: NEPAD comes from the fusion of two other plans proposed for Africa: the Omega Plan and the Millennium African Plan or MAP. The Omega and MAP plans appeared in the year 2000 in order to make up for Africa's lagging development. NEPAD is a programme of the African Union, and in 2018, NEPAD became the AU Development Agency (ADA).

The Pan-African Agency of the Great Green Wall (GGWW): The Great Green Wall GGWW was created in N'Djamena (Chad) on June 17, 2010 by an international convention signed by the Heads of State and Government of the eleven (11) founding Sahelo-Saharan African States:

Burkina Faso, Chad, Djibouti, Eritrea, Ethiopia, Mali, Mauritania, Niger, Nigeria, Senegal, and Sudan, to coordinate and monitor the implementation and mobilization of the necessary resources, and also to support the member states in planning and implementation.

The APGMV is an interstate organization, with international legal capacity and management autonomy, and has four statutory bodies: (i) the Conference of Heads of State and Government, (ii) the Council of Ministers, (iii) the Executive Secretariat and (iv) the Technical Committee of Experts which supports the Executive Secretariat in the preparation of statutory sessions and the drafting of technical documents.

Its mission is to develop the strategic framework, the global action plan and to ensure the coordination of their implementation as well as the mobilization of resources. It is relayed in each member state by a national GMV structure in charge of carrying out operational activities.

The policy framework for intervention by the IGMV

It is being carried out by the African Union. The Initiative was approved by the Conference of Heads of State and Government of the African Union at its 8th^e Ordinary Session on 29 and 30 January 2007 in Addis Ababa (Ethiopia) by Declaration 137 (VIII). The 17th^e Summit held in Malabo (Equatorial Guinea) welcomed the

establishment of the Pan-African Agency of the Great Green Wall and its role of coordination and implementation agency and reaffirmed the political anchorage of the GGW within the African Union through Decision Assembly/AU/Dec.14 (XVII).

The legal framework

Its legal existence is sanctioned by Declaration 137 (VIII) of the 8th Ordinary Session of the Assembly of Heads of State and Government of the African Union held on 29 and 30 January 2007 in Addis Ababa (Ethiopia), approving the Great Green Wall initiative.

The IGMV concerns all the Saharo-Sahelian states. It is based on the implementation of the United Nations Convention to Combat Desertification, signed in Paris on 17 June 1994, on the Constitutive Act of the African Union adopted in Lomé on 12 July 2000 and on the new vision for sustainable development created by the New Partnership for Africa's Development (NEPAD). The overall objective of the IGMV is to contribute to meeting the multiple challenges of sustainable development faced by the Saharo-Sahelian states within a strategic framework of combating desertification, the adverse effects of climate change, biodiversity conservation and sustainable development.

African and international partners of the IGMV

The African Union, the political umbrella of the IGMV, is based in Addis Ababa where the IGMV regional coordination centre is located. The international technical and financial partners for the implementation of the IGMV are:

FAO is a long-standing implementing partner. It has supported the AU and member countries in the development and planning phase of the Initiative. Its latest involvement in the GGW is through the Action Against Desertification project, which, in collaboration with the AU, EU, OPACP and other donors as well as Turkish cooperation, is supporting the expansion of the GGW in 10 countries, with actions on the ground and through South-South cooperation.

The **World Bank** and GEF have designed the Sahel and West Africa Program in Support of GGW (SAWAP), which has a total budget of US\$1.1 billion.

IUCN is implementing a project entitled "*Closing the gaps in the Great Green Wall*", which is funded by GEF and implemented by UNEP in 11 countries.

Within the framework of its implementation, the IGMV is built on a regional, federative, solidarity-based and community-based approach of the Sahelian states.

It should also be emphasized that the Great Green Wall initiative is not just about the 11 member states of the pan-African agency, but rather about countries that are not members but are part of the initiative, including Gambia, Algeria (very active in the implementation), Egypt, Tunisia, and Libya, which are founding but not active members. Another aspect worth mentioning is the fact that since 2015, the African Union Commission is expanding the initiative to other countries and regions affected by land degradation, desertification, drought, including Cameroon and Ghana. In addition, the African Union is also working with the Southern African Development Community (SADC) Secretariat to extend the initiative to the region, which is heavily affected by extreme weather conditions, including drought.

The GEF has provided US\$100.8 million to countries in the GMA to expand sustainable land and water management (SLWM) projects.

CNULCD has implemented the FLEUVE project, a regional flagship initiative involving 5 GGW countries, namely Burkina Faso, Mali, Niger, Senegal and Chad.

7 million to the FLEUVE project and other activities and projects within the scope of the GGW initiative. The EU has also share-funded the FAO-managed **Action against Desertification project** in 2014 to support the implementation of the GGW on the ground.

KEW coordinates and provides technical assistance to GMV partners in Mali, Burkina Faso and Niger.

OSS is one of the three implementing entities of the BRICKS project under SAWAP. OSS has developed an online geo-portal on sustainable land and water management (SLWM).

CILSS invests in research for food security and in combating the effects of desertification. Through the Action against Desertification

project, CILSS has supported biophysical data collection for GGW.

APEFE has been working since 2014 to build the capacity of national GGW implementation structures in Burkina Faso.

BirdLife International is involved in the conservation and enhancement of inland and transboundary wetlands of the GMA.

UNDP is supporting the GGW states in institutional, technical, and logistical capacity building.

UNEP worked with the AUC, APA and member countries to define their national strategies and action plans (2010-2013), a harmonized regional strategy (2012) and to support implementation activities on the ground (2014-2020).



Visit of GLOBE Senegal legislators to Mauritania to visit the Pan-African GMA and exchange with their counterparts on the GMA experience.

The National Agency of the GW

in Senegal

1. Objective of the GMV

The overall objective of the Great Green Wall is to contribute to the fight against the advance of the desert and the development of the Saharo-Sahelian zones, to achieve their transformation (PRPDD), capable of eradicating poverty and food insecurity.

in the long run by the installation of conditions conducive to the emergence of rural poles of production and sustainable development

2. Policy Framework: The Green PES

At present, the Emerging Senegal Plan (ESP) is the main reference framework for economic and social policy. Within this framework, the green PSE aims at the sustainable reforestation of the national territory. Axis 2 of the PES and Axis 1 of the LPSED Daim to reduce the degradation of

the environment and natural resources through Programme 1 (Fight against deforestation and land degradation), which aims, among other results, to reconstitute the vegetation cover through reforestation actions.

3. From the National Agency for the Great Green Wall (ANGMV) to the Senegalese Agency for Reforestation and the Great Green Wall (ASERGMV)

ANGMV started its activities in August 2008, in the region of Louga (Department of Linguère), with reforestation workcamps. The field operations, carried out in a participatory approach with a strong involvement of local populations, students, and pupils with the supervision of Water and Forests agents, focused on reforestation and forms of restoration based on natural regeneration, defense and soil restoration.

It was in December 2018, during his address to the nation, that the President of the Republic of Senegal stated the need to prepare the agro-ecological transition through the green PES. He emphasized the importance of the regeneration and protection of the forest heritage for the vital interests of future generations. The Senegalese part of the Great Green Wall is about 545 km long. In the field, the agency has always worked in close collaboration with the decentralized technical services, in particular,

the forestry service, and the other rural supervision services.

The Agence Sénégalaise de la Reforestation et de la Grande Muraille Verte (ASERGMV) was established on July 3, 2019, by decree No. 2019-1014 in place of ANGMV. The ASERGMV's general mission is to intensify reforestation, create ecovillages and carry out the continental project of the Great Green Wall, throughout the national territory.

ASERGMV, through its activities to restore degraded land and support the development of non-timber forest product (NTFP) sectors, will contribute significantly to increasing agroforestry production in the broadest sense, but also to the development of agroforestry product value chains, and consequently to growth, in accordance with the first pillar of the emerging Senegalese plan, "Structural transformation of the economy and growth". The same applies to the third pillar, "Governance,

Institutions, Peace and Security", which seeks to promote the viability of territories and development poles and to build the capacities of local authorities. To this end, the agency contributes to building the capacities of local

authorities to implement the competences transferred to them in the framework of forest resource management.

4. Area of intervention

In Senegal, the GMV route extends over a length of 545 km for an area of 817,500 ha. The intervention area is dominated by pastoral activity. The intervention area covers 3

administrative regions (Tambacounda, Matam and Louga), 5 departments and 16 communes. The population affected by this project is 322,221 inhabitants.

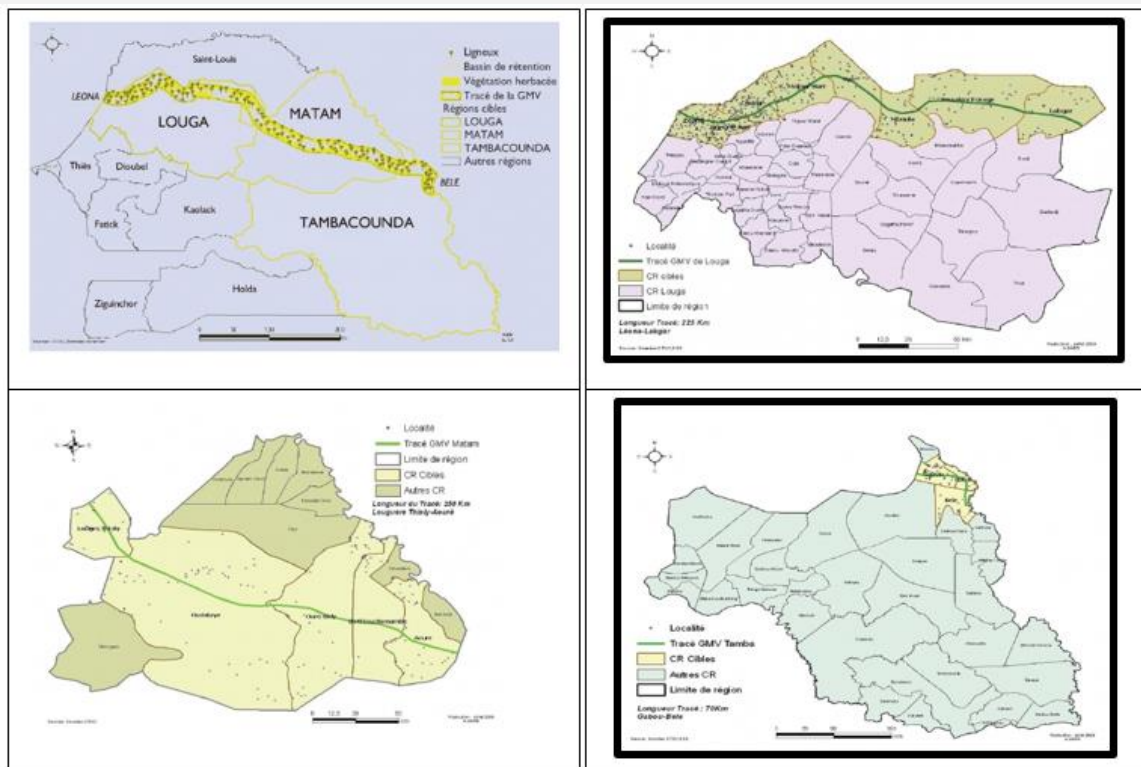


Figure 1: layout of the GMV component in Senegal
Source: DEFCCS, 2009

5. Major achievements of the GMV

The GMV's operational activities have focused on seedling production, reforestation, and bushfire control

Reforestation

The balance sheet of the efforts made between 2008 and 2017 shows 18,299,424 seedlings produced, 42,452 ha reforested, 13,250 km of

firebreaks developed, and 18,500 ha put under protection.

Defending the case

In addition to planting activities, fencing activities are being developed in the rural communities of Loughéré, Thioly, and Mboula, where areas of 10,000 and 3,000 hectares respectively have been identified and demarcated with the populations. The basic rules and procedures for controlling

access to the resources and regulating their exploitation, to avoid overexploitation, allow regeneration and ensure the sustainable productivity of the resources, are being defined by consensus by the local communities.

Opening and maintenance of firewalls

In the vastness of the Ferlo, bush fires start at the end of the rainy season and in many places. To deal with this scourge and ensure the protection of the often well-filled herbaceous carpet, firebreaks linking localities and around the plots of land in the GMV zone are opened each year over a total annual length of 1500 to 2000 km for a width of 20m.

In terms of bushfire control, a total of 13,250 km of firebreaks have been opened and maintained. Appropriate communication strategies and tools (information, training, awareness-raising, etc.) have been developed to control bushfires, and lines of collaboration have been defined with research structures for the proper conduct of early fires in the various areas covered.

Improvement and strengthening of production systems

The positive impacts expected from the construction of the Great Green Wall to combat biodiversity loss, land degradation and desertification and to strengthen the resilience of populations and ecosystems to the harmful effects

of climate change have a real chance of succeeding if they are in phase with at least two issues directly linked to the livelihoods of the riparian populations:

- Meeting domestic needs for wood and non-wood products;
- Increased household income through the promotion of sustainable income-generating activities and the installation of basic socio-economic infrastructure.

It is a controlled concentration of a certain number of activities, based on local resources and dynamics.

The market gardening activities have enabled the women to produce crops, some of which they consume themselves and some of which are marketed by the members of the women's promotion groups (GPFs). The income obtained enables the women who work in the village multipurpose gardens to set up a revolving credit facility, giving them the opportunity to engage in various other activities (petty trade, In addition, the introduction and establishment of multi-purpose gardens with market gardening and fruit production activities is being developed with the introduction of drip irrigation systems, fed from surplus boreholes. These multi-purpose gardens involve the provision of farmland by the commune authorities. Market gardening and fruit-growing activities are carried out in the multipurpose gardens of Widou, Téssékéré, Labgar and Mbar

hut rearing, etc.). Beekeeping is a new activity that is developing in the multipurpose gardens. These are gardens of 5 to 7 ha located near villages with a borehole, around which the herders' camps are spread over a radius of 15 km. These gardens are surrounded by a fence that protects them from livestock and are equipped with a drip irrigation system connected to the borehole. The gardens grow dry season crops (eggplant, lettuce, cabbage, onions, tomatoes, potatoes, jaxatu, okra), as well as fruit trees (lemon, mango, coconut, orange, and jujube). Toubab, with areas planted with mango and other fruit trees (mandarin, zizyphus, guava, etc.). Other multi-purpose gardens have been established in Kadiar, Syer, Koyli Alpha, Mbaye Awa, Mboula and Kodialal from 2012. Beekeeping has been initiated in Koyli Alpha in association with the JPV since 2014. To this end, twenty (20) hives have been installed with a production of 60 liters in 2016 of which thirty (30) were sold

6. Impacts of GMV

Improvement of the living environment

This improvement in the living environment is characterized by the socio-economic impacts of GGW in Senegal, notably

- Increased income and purchasing power of beneficiaries, especially women;
- Emergence of a new female leadership and implementation of a local microcredit policy;
- Establishment of a revolving credit, offering the opportunity to diversify activities (small trade, hut breeding...);
- Qualitative change in the diet of the population and strengthening of food security in the area;
- Meeting domestic needs for wood and non-wood products;
- Increase in forage reserves in reforested plots open to harvesting;
- Limiting the transhumance of certain families and increasing the schooling of children;
- Free consultations and distribution of medicines to the populations of the GMV zone thanks to the UCAD-Observatoire Homme Milieu (OHM) partnership

Agricultural and livestock development

In Senegal, the Ferlo region has experienced severe droughts since the 1970s, causing acute socio-economic disruptions. Transhumant pastoralism continues to be the main source of income for the vast majority of the population, as the major droughts have reduced the role of traditional [rainfed agriculture](#). Pastoralists have refocused their activities on livestock and are increasingly relying on small ruminants (goats, sheep). The latter have the advantage of providing a cash reserve needed to buy water from the borehole

management committees and agricultural products from the weekly markets supplied by producers in the Senegal River valley. (Ancy et al, 2009).

But this small ruminant population is putting increasing pressure on natural resources, especially water and pasture. In this context, many national and international programs have been mobilized in the Ferlo to try to reverse the trend. The latest of these, the Great Green Wall, has set up parallel reforestation plots and a series of targeted development projects, the most successful of which are the multipurpose village gardens.

Gender in GMV activities

In the Ferlo zone, livestock, an essential marker of wealth and social dignity, is essentially a male asset, which limits women's access to an income of their own. These gender inequalities are not only measured in terms of income. In an already very deficient diet, women consume fewer vegetables and less meat than men because they reserve the largest share of the collective bowl for them. Moreover, these women are more affected by the arduousness of domestic work: they must fetch water from a well,

sometimes 15 km away, to supply the camp. Finally, women are socially and politically marginalised because the main interlocutors of the institutional authorities are the herders, i.e., the men.

Through a system of multi-purpose gardens targeting women, the GMV aims to reduce gender inequalities that are added to all the forms of precariousness that characterize the populations of the Ferlo.



GLOBE Senegal to visit the Pan-African Agency of the GMV in April 2021

Recommendations

1. On the role of parliamentarians

In accordance with the provisions of the Constitution, in particular in its article 59, the deputies have the prerogatives of voting on the law, of controlling the action of the government and of evaluating public policies. Armed with these constitutional powers, parliamentarians are thus key players in the promotion and strengthening of GMV in Senegal.

To this end, parliamentarians could focus their efforts on advocacy to ensure that the budgetary allocations for the agency are increased in line with the strategic objectives set out in its action plan. One of the appropriate frameworks for these advocacy actions is the budget orientation debate (DOB) which, in principle, takes place two months before the budget is examined. This is the formal political framework where deputies can influence the budgetary orientations envisaged on the projected evolution of expenditure and revenue, both in terms of operation and investment. It is also the place where the assumptions used to construct the draft budget are specified.

The importance of the DOB therefore requires appropriate preparation upstream to provide parliamentarians with all the information related to the implementation of the GGW, thus enabling them to have a file of arguments to influence the decisions that will be taken.

Still on the budgetary level, the local authorities crossed by the GMV should benefit more from

allocations intended for field actions. And for good reason, the budgets of municipalities in rural areas are often quite modest and do not allow for the support of field actions. For this to happen, it is also necessary for the central State to rethink its usual financing methods and for donors and other operators such as NGOs to be more attentive to decentralizing the financing intended for GGW actions; this should be done in accordance with the new challenges (natural resource management and land use planning), at the level of the local authorities.

Parliamentarians can also play an important role in the processes of revising the legal and fiscal framework for the promotion of GGW actions. Indeed, although Senegal has a general legal framework that allows the GGW to develop its initiatives, significant efforts are still needed to support legislative reforms in this perspective. In this regard, an in-depth analysis and synthesis of the points that could be the subject of draft laws or revision of legal texts should be conducted with all relevant actors.

Finally, the action of parliamentarians should focus on the evaluation of GMV interventions to identify shortcomings and contribute to providing appropriate solutions. To this end, an annual evaluation mission of the projects and programmes should be conducted to take stock, with all the stakeholders, to make relevant recommendations available to the parliamentary authorities.

2. On community involvement

The GGW is a pan-African initiative whose vision is based on guiding principles including community empowerment and participation. Through this principle, it is a matter of establishing "the conditions for ownership and management of activities by grassroots

communities and local authorities are created⁵". The involvement of communities is therefore a sine qua non condition for the success of interventions and the achievement of results.

⁵ NAMMW's Strategic Development Plan, 2016-2020

The participation and empowerment of communities should be based first and foremost on strengthening their individual and collective capacities. To this end, the Agency should develop and implement training, education and awareness-raising programmes adapted to the different categories of actors. Local authorities should be involved in the implementation of this crucial capacity-building component for local actors to provide them with the technical skills and abilities to conduct field activities.

Based on a participatory approach, local actors should be trained to master the technologies for combating land degradation and desertification. This will allow the dissemination, scaling up and sustainability of the results of projects and programmes.

In total, the participation of local communities will be facilitated by a wide dissemination of knowledge through training workshops/seminars and through pilot actions in the field.

Community involvement also implies the mobilization of financial resources for actions with high socio-economic and environmental

added value. The provision of these resources should strengthen local communities at the grassroots level in terms of sustainable forest management and use, essential socio-economic infrastructure that can contribute to climate change adaptation and the strengthening of their resilience and natural and human ecosystems.

Also, platforms for consultation and exchange between local actors are essential at the decentralized level to harmonize interventions. These frameworks for dialogue between local actors will make it possible to rationalize interventions and avoid the dispersion of efforts.

In addition, non-timber forest product chains should be developed in the area covered by the GGW route based on the value chain approach to generate income for local populations. Such an approach not only promotes the strengthening of the participation of local populations but also encourages the conservation of natural resources while valorising the goods and services of the forests, but also creating substantial income for the communities.

3. On financial resources and mobilization opportunities

The resources needed for the agency's budget come from:

- The State budget allocation
- Funds from financial and technical partners
- The revenues financed by its activities
- Donations, legacies, and miscellaneous contributions.

The balance of available or programmed financing within the framework of the MEDD Programme Budget is presented below:

Wording Chapter	Source of funding	LFI 2020	Budget 2021	Budget 2022	Budget 2023
Senegalese Agency for Reforestation and GGW	BCI	970 269 040	2 000 000 000	1 015 561 140	1 134 003 554
Reforestation program & ecosystem restoration	BCI	150 000 000	2 010 725 000	1 185 863 448	1 331 171 339
Source: MEDD					

Within the framework of the programme budget, the above amounts are provided for ASERGMV and the Reforestation and Ecosystem Restoration Programme from BCI funds. The technicians estimate that ASERGMV would need a minimum of 5 billion FCFA per year over 10 years to carry out its mission. Additional funding needs are respectively 1, 3 and 3 billion in 2021, 2022 and 2023.

The sectoral policy letter for the environment (2016-2020) does not set any targets for the allocation of resources from the national budget over the period covered. It should be noted, however, that between 2006 and 2019, the sector's budget has undergone an appreciable downturn in both internal and external resources. A negative correlation can be observed between the State budget, which has continued to increase over the same period, and the budget dedicated to the environment, which is decreasing. This paradox is reflected in the existing asymmetry between the share of the national budget dedicated to the environment (0.5% in 2018) and the sector's contribution to the country's total value added (estimated at 1.9% in 2017).

In Senegal, the existence of several programming documents in the field of the

environment does not provide a good overview of the real financing needs of the sector. The methodologies for estimating financing needs and the assumptions on which they are based are not always provided in the existing programming documents, which makes it difficult to carry out a comparative analysis of the information due to the absence of explicit estimation methodologies.

This shows the magnitude of the challenge and the need to:

- Conduct forward thinking on alternative financing options,
- Establish innovative instruments that can have an accelerating effect on the country's investment needs around reforestation,
- Develop a rigorous methodology for estimating the costs (from planting to monitoring) of reforestation that considers technical (engineering), opportunity, transaction, and implementation costs, to inform future planning processes, and to base policy choices in this area on sound scientific evidence.

4. Funding mobilisation strategy

- The mobilization of funding could be based on 3 strategies:

Improving institutional arrangements and consistency in programming

To take advantage of the opportunities offered by climate finance, it is important to have an instrument that can improve the governance mechanism of resources (mobilization, allocation, use) combined with a coherent programmatic framework on climate change. Indeed, the climate change financing challenge requires new actors, new business models, a combination of structural incentives (e.g., carbon pricing across sectors) and appropriate financial instruments. The current institutional architecture suffers from the lack of sensitivity of the actors of the conventional financial system to the mechanisms of climate finance, and at the same time from the lack of capacity of the institutional actors involved in the environmental sector regarding financial mechanisms. This contradiction could be overcome by strengthening the institutional system in place in terms of its mandates and

expertise, to facilitate the removal of barriers. Furthermore, the adaptation of the climate objectives to which Senegal has committed itself through its Nationally Determined Contribution (NDC) into ambitious projects and programmes with a transformational effect on the economy, and in line with the Emerging Senegal Plan (ESP), would provide a portfolio of projects and programmes on which the country could position itself. This is the purpose of the National Climate Fund (NCF) currently being set up as part of the Green PES. The challenge will be, apart from mobilizing resources for large-scale programs, to define and put in place mechanisms that promote the development of financial intermediaries active in the field and provide access to basic financial services (savings/deposits, loans) for populations with poor access.

Improve the level of domestic resources dedicated to the environmental sector in Senegal and to reforestation in particular

The increase in the national budget dedicated to the environment sector could be an important step in mobilizing domestic and international private financing: the objective is to use part of these resources as catalytic funds that can be used to raise the private capital needed to finance large-scale projects. Most of the domestic resources allocated to the sector are dedicated to operational activities. This is due to the focus on short-term results and the small amount of funds allocated. An upward revision of this contribution, as well as the allocation of a portion to strategic aspects, could facilitate the raising of additional resources. The environment sector should no longer be considered as a net consumer of public resources, but rather as a contributor to the public and private resources needed to implement public policies in Senegal. A first step could be the development and implementation of a methodology for reviewing

public expenditure on the environment and/or climate.

A second step would be the development of an environmental and/or climate change fiscal framework. These tools have the advantage of providing a (i) detailed analysis of internal and external climate funds and the systems used to manage and track expenditures, existing expenditure modalities for managing climate-related activities, (ii) financing and institutional development gaps, (iii) financing and institutional modalities associated with a comprehensive climate fiscal framework. The reorientation towards the environment sector of part of the subsidies to fossil fuel production and consumption during periods of strong easing of oil prices is also one of the financing options proposed by the "*Study on the feasibility of innovative financing mechanisms for the environment sector*".

Mobilize private financing by creating public incentives for mobilizing private domestic funds

Senegal's 2018 and 2019 Doing Business reports show good progress in Senegal's business environment compared to previous years, albeit with a slight regression from 2018 (negative 1 rank point change). Major reforms were carried out in 2018 and two in 2019 covering business creation, electricity connection, transfer of property, payment of taxes and enforcement of contracts. However, the "Getting Loans" domain has stagnated in recent years with a relatively low score (30) in 2019, compared to the average score for sub-Saharan African countries of 42.08 and Cote d'Ivoire of 70.

It should be noted that the structure of the private financing system in Senegal is dominated by the banking system, whose mode of

intervention is more oriented towards short-term financing. This type of financing may be inappropriate for large-scale projects in the environment sector, which is characterized by long-term cycles. It can, however, be an opportunity to support smaller-scale interventions that have a potential for wealth creation compatible with the principles of environmental integrity. This option favours the development of inclusive climate finance, which can boost small and medium-sized enterprises active in the sector and counterbalance the risk of exclusion associated with the implementation of large-scale projects. However, this assumes the existence of public incentives to raise domestic private capital.

Mobilizing private finance through the creation of public incentives for the mobilization of international private funds

The post COP 21 context was marked by political mobilization around climate issues and the establishment of new opportunities for financing the sector, remains more than ever favourable to the transformation of the current model of environmental management. The conservation and management of natural resources remain the pillars of the preservation of natural capital whose rational exploitation is the engine of an economic and social

development that does not compromise the sustainability of resources. However, the environment sector, because of its cross-cutting nature and the opportunities it offers, can position itself as one of the main contributors to the creation of added value, through the mobilization of international private capital, particularly in the sectors of renewable energy, energy efficiency, sustainable agriculture, and the creation of jobs in innovative sectors.

Green bonds as a vehicle for mobilising private financing

A green bond is a bond where the proceeds of the issue are used exclusively to finance, in part or in full, new and/or ongoing green projects that comply with the four principles of the use of funds (green projects), the project selection and evaluation process, the management of funds, and reporting (annual report on the use of the bond issue proceeds). In other words, it is a classic bond issue in which the issuer makes commitments on the use of the funds raised (intended for projects contributing to the ecological transition) and reflected through the publication of an annual report. These debt securities can be issued by a State, a company, or a local authority with the aim of borrowing money. The global green bond market has grown exponentially over the past five years. Issuance exceeded USD 160 billion in 2017, and USD 167.6

billion in 2018. In Africa, the market has made a tentative start in South Africa and Morocco and is being developed in Nigeria and Egypt. It remains relatively weak on the continent due to modest capital markets, limited investor demand for green offerings, and a lack of information. Its introduction in Senegal is considered technically feasible by the "*Study on the feasibility of innovative financing mechanisms for the environmental sector*". The raising of international and national private capital for the financing of large-scale projects labelled "green" could benefit from such an instrument. However, such an action cannot flourish at the national level without strong technical and political leadership, the existence of endogenous capacities and a national green bond framework to increase the visibility of this new instrument.

Private equity impact funds

The Green Climate Fund (GCF) is a global fund created to assist developing countries to limit or reduce their greenhouse gas (GHG) emissions and adapt to climate change. It aims to promote the transition to renewable energy through key investments in developing countries for new low-carbon markets or to address the adverse effects of climate change.

However, while it is the world's largest dedicated climate finance fund, the GCF alone cannot meet the vast financing needs required to shift the energy paradigm away from unsustainable, carbon-intensive sources such as fuelwood. That is why it is working closely with businesses to mobilize private sector funds for more investment in renewable energy. To this end, impact private equity funds for small and medium-sized enterprises (SMEs) serving low-income communities in developing countries are currently in place in sub-Saharan Africa. They have a proven track record of identifying and executing investment opportunities in the clean energy, agriculture and healthcare sectors that have an impact on the environment and livelihoods.

That's why Acumen Fund, Inc. which is a US-based impact investment fund, in conjunction with FVC, has created a new investment fund called KawiSafi, to promote off-grid solar energy in East Africa. FVC and Acumen have put companies into action to create new markets in renewable energy, which could help address the lack of access to energy in Africa.

For example, KawiSafi will invest in 10-15 clean energy companies, initially in Rwanda and Kenya, providing solar home technologies. The goal is to shift from fossil fuels and fuelwood to clean, low-carbon energy, using capital from the Global Fund to Fight AIDS, Tuberculosis and Malaria as

leverage for investment, and grants to establish a technical assistance mechanism.

For example, in Rwanda 70% of the population lives off-grid, and even a massive investment planned by the government will leave over 3.5 million people without electricity. Energy costs are high for both on-grid and off-grid customers due to heavy reliance on imported oil and kerosene. In Kenya, 80% of the population lives off-grid and 35 million people do not have access to affordable and reliable electricity. Lighting costs are very high for off-grid rural Kenyans, who spend about 26% of their income on kerosene, which is expensive, dangerous, and harmful to health. FVC plans to eventually extend its work to Uganda, which has even lower levels of electrification and relies heavily on firewood for cooking, which drives deforestation.

It should be noted that the KawiSafi portfolio will be the first global climate change fund targeting low-income populations in developing countries. Investments of \$2 million to \$10 million per company will be made in 10 to 15 small and medium-sized clean energy companies. Lack of electricity and high kerosene consumption will be addressed through clean and affordable solar home energy solutions such as solar lanterns, solar home systems and solar mini-grids.

Senegal should therefore seize this funding opportunity as part of its greenhouse gas emission reduction strategies. To this end, the Senegalese Agency for Reforestation and the Great Green Wall, the future REDD+ Secretariat, the Ministry of Environment and Sustainable Development, and the Ministry of Energy should develop partnership relations with KawiSafi to access innovative financing and advance, among others, the objectives of the Great Green Wall.

5. On the institutional level

Coherence between the agency's missions, synergy and resources

- Establish an instrument that can improve the governance mechanism of resources (mobilization, allocation, use) combined with a coherent programmatic framework on climate change. Indeed, the climate change financing challenge implies new actors, new business models, a combination of structural incentives

(e.g., carbon pricing across sectors) and appropriate financial instruments. The current institutional architecture suffers from the lack of sensitivity of the actors of the conventional financial system to the mechanisms of climate finance, and at the same time from the lack of capacity of the institutional actors involved in

the environmental sector about financial mechanisms.

- Create a small committee for consultation between ASERGMV, the DEFCCS and the MEDD to harmonise working relations between these three structures. These relations must be more fluid to achieve a common synergy towards the attainment of results, both from the agency and the structures mentioned. The MEDD and the DEFCCS are supervision and support structures.

- The pan-African agency should play a more active role in supporting fundraising, project development and monitoring and evaluation. For the time being, the APMV focuses much more on inter-state projects, while support to national agencies in terms of fundraising and capacity building should also be among its priorities.

- Maintaining and respecting the classification of ASERGMV as category 1 with a projected annual

budget of 50 billion over 5 years, i.e., 10 billion per year. This classification allows the agency to have a medium- and long-term vision, given the nature of its activities, which are based on reforestation, the development of natural services and goods and the creation of green jobs. To this end, ASERGMV should be attached to the Presidency, so as not to suffer from budgetary arbitrations and reorganizations.

- Exempting the Agency from the new reform on programmes, for which the Treasury is the sole administrator of appropriations. This situation gives an extremely important power to the ACP, which thus becomes the sole signatory for the execution of the budget, without any power of counter signature by the DG. This situation thus contributes to weakening the ASERGMV's general management, which has no decision-making power in the management of the budget, and yet it is up to it to justify the results and achievements.

6. On the technical and new technology front

- Change the dynamics of "Régie" to a real appropriation of operations by the populations thanks to a large mobilization and participation around the privileged axes of reforestation. ASERGMV has inherited a practice of implementation under the "régie" system. Indeed, the activities were carried out by the populations who were considered as labourers and paid accordingly. This way of doing things does not guarantee sustainability because the ownership effect by the populations and other partners is not there. Indeed, the achievements of the GGW are not considered by the populations as theirs but rather those of the

state. The main consequence is therefore the lack of monitoring and maintenance.

- Update the ASERGMV website and make it more attractive with information on the paradigm shift introduced by the agency. Consideration should also be given to being more active and visible in social networks in terms of communication on the progress of activities.

- Favour the use of new technologies and innovation in the approach using drones in the passive fight against bushfires, the monitoring of livestock and pastures

7. On security and stability in the region

The security crisis in the Sahel is multifaceted and will take time to address. However, to stabilize the region, member states and international partners have focused primarily on terrorism, even though stabilizing and recovering the region requires addressing the many complex root causes that have led to the rise of violent extremist organizations, such as Boko Haram and the Islamic State of West Africa.

Unfortunately, this focus on counter-terrorism affects the type of assistance requested and used to counter violent organizations, as well as the willingness of international partners to fund non-military strategies.

To this end, there is a need to increase funding for the civilian component to promote community-based solutions while ensuring the human security of vulnerable populations.

The decision to employ primarily military measures continues to stem from the perceived relative military capacity of member states compared to that of violent organizations. The success of non-military actors in recovery and stabilization efforts depends on the physical security of the region and the political commitment of the affected states. This requires an inclusive approach based on the cooperation of governmental and non-governmental actors to develop critical infrastructure in the under-governed areas of the GVWR region.

To this end, an inclusive approach with activities focusing on poverty alleviation and food insecurity should be the priority. However, these activities should be embedded in nature-based solutions to increase the resilience of ecosystems and people to the adverse effects of climate change.

8. Considering the new challenges related to health (One Health)

Deforestation endangers flora (natural habitat for fauna), but also human safety (landslides, mudslides, and floods...), food security and health.

The international health crisis of Covid-19 demonstrates the threat that epidemics pose to human health, as well as to social stability and the global economy. And there is every reason to believe that the frequency of the emergence of new infectious diseases and pandemics could increase in the years to come.

Human activities have played an important role in these health crises. They are responsible for deforestation around the world, disrupting biodiversity and creating optimal conditions for pathogenic micro-organisms from animals to pass to humans.

In the face of these health challenges, the ASERGMV's action should include Promote the establishment of village woods composed mainly of medicinal plants to

strengthen the local health system. Indeed, Covid19 had a very important impact in the non-mobilization of the budget. Indeed, given the pandemic and the priorities defined by the state, the budget has been greatly reduced in favour of health. This situation challenges the state in the management of the pandemic and the orientation that must be given to the forestry sector as a habitat and also as a supplier of goods and services for the health of the populations. Therefore, the Agency has redefined its strategy by emphasizing biodiversity, habitat management, food security through a strong contribution of forest fruits and other NTFPs.

Raise awareness and advocate with leaders and actors for a strong involvement in reforestation. To support the actors involved in the field with the populations for the preservation and the restoration of the forest ecosystems

Meeting of Senegalese GLOBE legislators with Mauritanian legislators in Nouakchott to share knowledge and experiences of the GEF6 project in April 2021.



CONCLUSION

The present study has made it possible to see in depth the achievements of ANGMV, and to be able to identify prospects for success for ASERMV, which will have to capitalize on the successes of its predecessor, and to draw lessons on the difficulties in the technical approach.

The latest report prepared by IUCN under the Earth Systems framework could not provide better key points of conclusion for this study.

1. Mobilising domestic private funding

This is a guarantee of sustainability, but it is very difficult if no accompanying measures are taken. Indeed, this type of financing may be inappropriate for large-scale projects in the environmental sector, which is characterized by long cycles. It can, however, be an opportunity to support smaller-scale interventions that have a potential for wealth creation compatible with the principles of environmental integrity. This option favours the

The development of inclusive climate finance that can boost small and medium-sized enterprises active in the sector and counteract the risk of exclusion associated with the implementation of large-scale projects. However, this requires public incentives to raise domestic private capital.

2. Valuation of ecosystem services

The potential of considering ecosystem services in the context of large-scale SLM use is not well exploited in the context of land restoration through the Great Green Wall. This situation is certainly due to the lack of reliable data and studies on the values of dryland ecosystems. A reflection in this sense is thus necessary for all the parties

The lack of reliable metadata on land degradation for inclusion in national strategic planning leads to institutional misinterpretation of the extent and causes of declining ecosystem health. The potential for tree-based restoration

in agroforestry systems in the region is significant and well communicated. However, other ecosystems are found in the mosaic of landscapes that make up the Great Green Wall (grasslands, wetlands, steppe, etc.) and require special programmatic and policy attention. Protecting and enhancing these values through land restoration will require a thorough understanding of their potential at scale, as well as effective cross-sectoral communication to help identify investment options for Great Green Wall countries.

3. Role of the private sector in investing in nature-based solutions

A range of private sector entities are investing directly in land restoration or in sectors indirectly related to restored landscapes or SLM practices in the Great Green Wall geographical area. Currently, funding from the NGO, CBO and domestic private sector is essential either to initiate investments or to reduce risks to entice private investors to join public-private financing partnerships. The availability of international

private sector finance for restoration within the Great Green Wall is not currently a bottleneck, as evidenced by a growing number of investments secured primarily through voluntary carbon market mechanisms or impact investments. Specific barriers to scaling up investment in international private sector financing of Great Green Wall SLM activities are:

- Lack of investment readiness, particularly the absence of advanced business plans or models for NGO-led initiatives or expertise in sustainable land management for agribusinesses seeking to establish sustainability criteria in value chains related to restored landscapes.
- Lack of integrated multi-sectoral approaches, partnerships, and investment plans, especially to build the coalitions and partnerships needed to reduce risks

The ambitious goals of the Great Green Wall can only be achieved by capitalizing on the potential of the private sector, both as a source of capital for investment in land restoration and as a key actor, influencing sustainable landscape management. To catalyse this role, ASERGMV

and create market signals that attract international private investors.

- Limitations faced by smallholder farmers in accessing key services (i.e., finance, technical assistance) and high individual transaction costs; and
- The unavailability of public funding at spatial and temporal scales relevant to the land restoration market. There is also a current trend towards large-scale funding of investments through national agencies.

and public sector actors should prioritize investment in strong public institutions, cross-sectoral coordination mechanisms, and specific integrated investment plans to guide and support private sector investments in the Great Green Wall.

4. Environmental externalities

The environmental externalities associated with current agricultural systems need to be better understood and valued, as do the values associated with ecosystem restoration. Improving the availability and targeting of public finance as a means of mitigating investment risk and stimulating innovation in restoration

solutions is also an imperative for donor agencies.

Finally, to catalyse the role of markets in scaling up restoration, concerted efforts are needed to invest both in stabilizing conflict-prone areas of the Great Green Wall and in nurturing dryland markets and value chains associated with ecosystem restoration.

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ANNEXES

Resource persons interviewed

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Colonel Bocar Thiam, Director of Community Marine Protected Areas

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Colonel Papa Assane Ndiour, Head of the Monitoring and Evaluation Division, DEFCCS

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Great Green Wall Senegal

