



2024 Project Update

Sine Saloum Mangroves Restoration Project

Restoration of Mangroves with Communities (MANCO), Sine Saloum Delta

Project management and M&E team



Main implementing partner:
WeForest, Oceanium, Eclasio



Germaine Neyra
WeForest Country Manager Senegal



Thibaut Vandervelden
WeForest M&E Manager, Senegal



Saliou Diop
WeForest M&E officer, Senegal



Madické Seck
MANCO project manager, Oceanium



Louis Mendy
MIPRO project manager, Eclasio



Sine Saloum, Senegal
Blue Carbon



Timeline:
2020 - 2027



Targeted ecosystem:
Mangroves



Sine Saloum Delta #6852

Marine Protected Area: AMP Gandoule

See the full team at:

www.weforest.org/about-us/#our-team

Project story

The estuarine complexes of Casamance and Sine Saloum are home to vast mangrove forests that serve important ecological and socioeconomic functions. In addition to their great diversity of flora and fauna, mangroves directly provide timber and non-timber products to communities, protect the coastline, and have provided livelihoods for generations.

However, around 41 hectares of mangrove in this area were lost per year between 1965 and 2017. Over the last 20 years, efforts have been made to conserve and restore this ecosystem throughout Senegal. Despite this, pockets of degradation exist in several places because of anthropogenic and climatic factors.

Together with the Sine Saloum Mangroves Restoration Project, the Casamance Mangroves Restoration Project aims to improve the social value of mangroves in rural communities in 17 municipalities in Senegal, known as the MANCO programme. The programme aims to restore 10,020 hectares of mangrove and improve the livelihoods of riverine communities. Its associated carbon project aims to create economic and employment opportunities in local mangrove value chains.



Key challenges in the landscape

Hydro-agricultural developments

Persistent drought

Over-exploitation of oysters, shrimps and fish

Use of mangrove wood

Sand extraction

Land silting

Climate change



Our integrated approach

Improve forest governance and stewardship through:

- Training local communities in sustainable forest and mangrove management, including reforestation techniques to enhance their capacity to manage natural resources independently.
- Supporting the ministry of environment in mangrove forest management to ensure better handling of environmental issues at the national and local level.

Conserve and restore the forest through:

- Full planting of *Rhizophora* sp. and *Avicennia germinans* mangrove trees.

Strengthening forest-friendly livelihoods and behaviors through:

- Creating an inclusive market for producers in mangrove areas through activities such as capacity building, developing strategic partnerships, establishing eco-friendly, fair and transparent mangrove value chains and enhancing synergies with other mangrove-related initiatives.
- Including communities in income-generating planting activities through benefit-sharing from carbon revenues and direct payment to communities involved in reforestation activities.

A long-term vision



Climate

The MANCO Programme will contribute to both climate mitigation and adaptation: increasing mangroves to sequester carbon while improving inland protection from severe weather events.



Nature

Restoring Sine Saloum will protect biodiversity and secure critical ecosystem services like water health and seafood availability. Improved management will enhance habitat resilience, ensuring the mangroves continue to sustain both people and wildlife.



People

Strengthened governance and mangrove-friendly livelihoods will ensure communities see mangroves as an asset: one that provides resources while being sustainably managed. Through this, the project reduces deforestation-driven income reliance while securing long-term economic stability.



Outcomes

By integrating these interventions, the project will:

- **Reverse** deforestation trends by restoring 7020 hectares of degraded mangroves.
- **Restore** mangrove-related ecosystem services.
- **Support** national authorities on mangrove ecosystem management.
- **Improve** the livelihoods of project communities by strengthening their access to the market and by giving employment opportunities by restoration activities.
- The **long-term** impact of our work will benefit people, nature and climate

Theory of Change

Existing problems in the forest and landscape

-  Unsustainable agriculture
-  Over-exploitation of resources
-  Land silting

Risks

-  Drought
-  Climate change

WeForest Interventions

Improved forest governance and stewardship

-  Community engagement and participation
-  Local stakeholder training
-  Support for ministry of environment

Project outcomes

Enhanced support for national authorities on mangrove ecosystem management.

Restoring and conserving at-risk forests

-  Tree planting

Increased mangrove cover and biodiversity in the Sine Saloum Delta.

Introducing forest-friendly livelihoods and behaviours

-  Market system support
-  Employment opportunities
-  Carbon benefit sharing

Improved income through strengthened access to the market and employment opportunities from restoration activities.

Long term impact

Climate



Stored and sequestered carbon

Nature



Thriving biodiversity and intact ecosystems

People



Sustainable and resilient communities





2024 Major Achievements

A mini-buoy pilot study began in the 2024 plantations to test their utility in providing hydrological suitability data. Next to the other biophysical data (e.g., soil, pH, salinity, etc.), hydrological information has the potential to increase our understanding of what underlies seedling survival and establishment in a mangrove ecosystem.

The project intervention was scaled up from the 9 nine "communes" engaged in the pilot phase to 16, and new products were selected for livelihood activities, including shrimp, onion and rice. This is additional to the salt, honey and fish that were already part of the 1st phase, so synergies between these activities will be explored.

First phase enterprise groups received training, coaching and value chain support in business planning, marketing, aquaculture, salt qualification study, market prospection and more.

Seven enterprise groups involved in honey, madd and oysters have seen their turnover increase by 40%.

Participatory guarantee systems for sustainable honey and oysters are under development; committees have been set up and protocols have been drafted.



Case study

In December, 21 beneficiaries (10 men, 6 women, 5 young people) active in the onion and tilapia sectors participated in an exchange visit to Push'Agri Farm in Sandiara, a model integrated farm combining agriculture and aquaculture. This immersion allowed participants to discover an innovative entrepreneurial approach, focused on diversifying activities, optimizing resources, and sustainably managing a farm. They learned how to structure a profitable production by integrating efficient techniques for tilapia farming, onion cultivation, and economic cycle management. The goal was to equip them with the tools to sustain and expand their own businesses, with post-visit support to apply these strategies locally.



2024 activity update



Improved forest governance and stewardship

- A workshop was held to present the results from Phase 1 of the MANCO program and validate Phase 2.
- Support was given to the Ministry of Environment for the **mapping** of Senegal's mangrove forests.
- The project HSSE management plan was updated and new security measures implemented.
- M&E Standard Operating Procedures (SOPs) were improved.
- Partners and community leaders were trained in **first aid**.



Restoring and conserving at-risk forests

- **69.40 hectares** of mangrove trees were planted: 6.20 ha hectares of *Avicennia germinans* and 63.20 *Rhizophora* sp.
- A post-planting monitoring campaign assessed the quality and progress of full reforestation efforts in **4,137 hectares** of 2020-2023 *Rhizophora* plantations.



Introducing forest-friendly livelihoods

- Project support was secured for **5 business groups**, which received a total of 2,900,000 FCFA in microcredit for business development.
- Project facilitators received training on entrepreneurship and ADM approaches (market systems analysis and market for the poor).
- Socialization meetings were organized in the seven new project intervention communes, with **217 participants** attending.
- Selection of key value chains to be supported by the Phase 2 of the project, including shrimp and salt.
- Establishment of an entrepreneurial pathway, leading to the formation of 11 business groups trained in business plan development, **11 business groups** trained in business strategy creation, and 15 in company formalization.



Progress tracker

See end of report for our progress tracking methodology



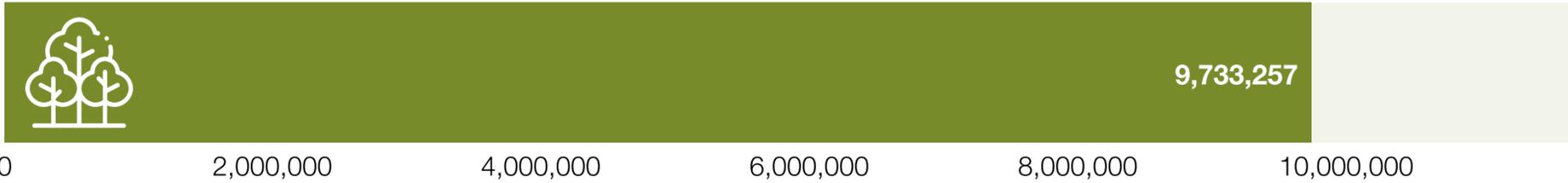
Anticipated CO2 sequestered in the future from project activities



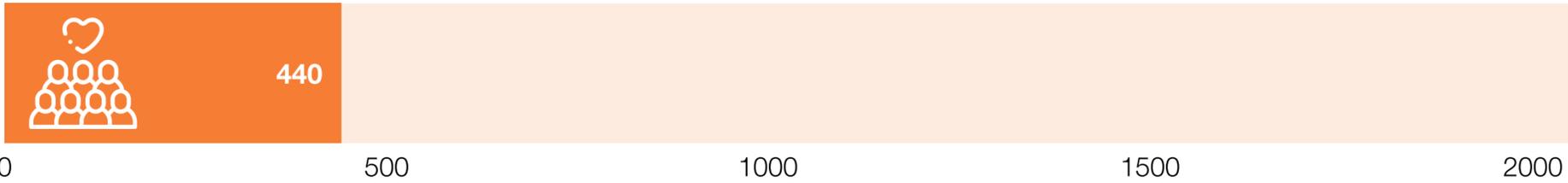
Hectares planted, conserved and restored



Number of trees conserved and restored



Number of households engaged in alternative livelihoods activities



Trees planted to date



Woody species in project to date



■ For forest conservation and restoration ■ For forest-friendly livelihoods





2024 Challenges

In 2024, there were challenges due to overlapping project zones with other initiatives, especially around ensuring fair benefit-sharing and avoiding duplication. Going forward, coordination with other carbon and restoration projects will be improved.

Although local authorities' involvement is crucial to enforce conservation efforts, there is still a need for capacity building and institutional support to ensure effective governance.

A major lesson from 2024 was that the regular monitoring of reforestation outcomes enabled rapid adjustments in site selection, planting methods, and maintenance techniques to improve long-term reforestation success.

Looking ahead to 2025

2025 will be an evaluation year, focusing on assessing the project's impacts on biodiversity through monitoring activities related to birds, mollusks, fish, and water quality. Additionally, the impacts on both the environment and communities will be evaluated, including market access support activities, awareness-raising, and training initiatives. The amount of carbon stored will also be assessed in preparation for the first verification audit of the project according to VCS+CCB standards.

Supporters & Partners

2024 project partners

Oceanium Association focused on the plantation and monitoring activities, and awareness-raising activities for project stakeholders.

Eclosio were involved in the project's livelihoods component of the project.

Ministry of Environment, Sustainable Development, and Ecological Transition of Senegal focused on project global monitoring, law enforcement and mangrove forest conservation.

With thanks to our supporters in 2024:



Contact us

Visit www.weforest.org or for more information or email: contact@weforest.org



How we measure and forecast our impact

Baseline

For the sake of simplicity, the progress bars in this report show a baseline of zero. This represents the concept that the area covered by WeForest forest and landscape restoration (FLR) activities was zero; thus the associated trees conserved and restored, carbon stored and households impacted through WeForest intervention was also zero.

In reality, when a WeForest project begins, our Monitoring, Evaluation and Learning team undertakes a detailed survey on forest structure and regeneration through establishing Permanent Monitoring Plots, and conducts an extensive questionnaire on livelihoods, to establish meaningful baseline values. You can read more about our full MEL activities [here](#).

Hectares planted, conserved and restored

Progress up to 2024

Verifiable cumulative total since the project began of all mapped intervention sites, also known as polygons, of:

- 1) Conservation forest areas, such as forest reserves
- 2) Restoration forest areas, such as Assisted Natural Regeneration and planting areas
- 3) Agroforestry areas on community/farm land

End of Project Target

Target number based on the potential area of land able to be conserved, restored and planted in the project area under the known and expected conditions at project start. However, it is subject to change based on unforeseen opportunities or challenges that may arise.

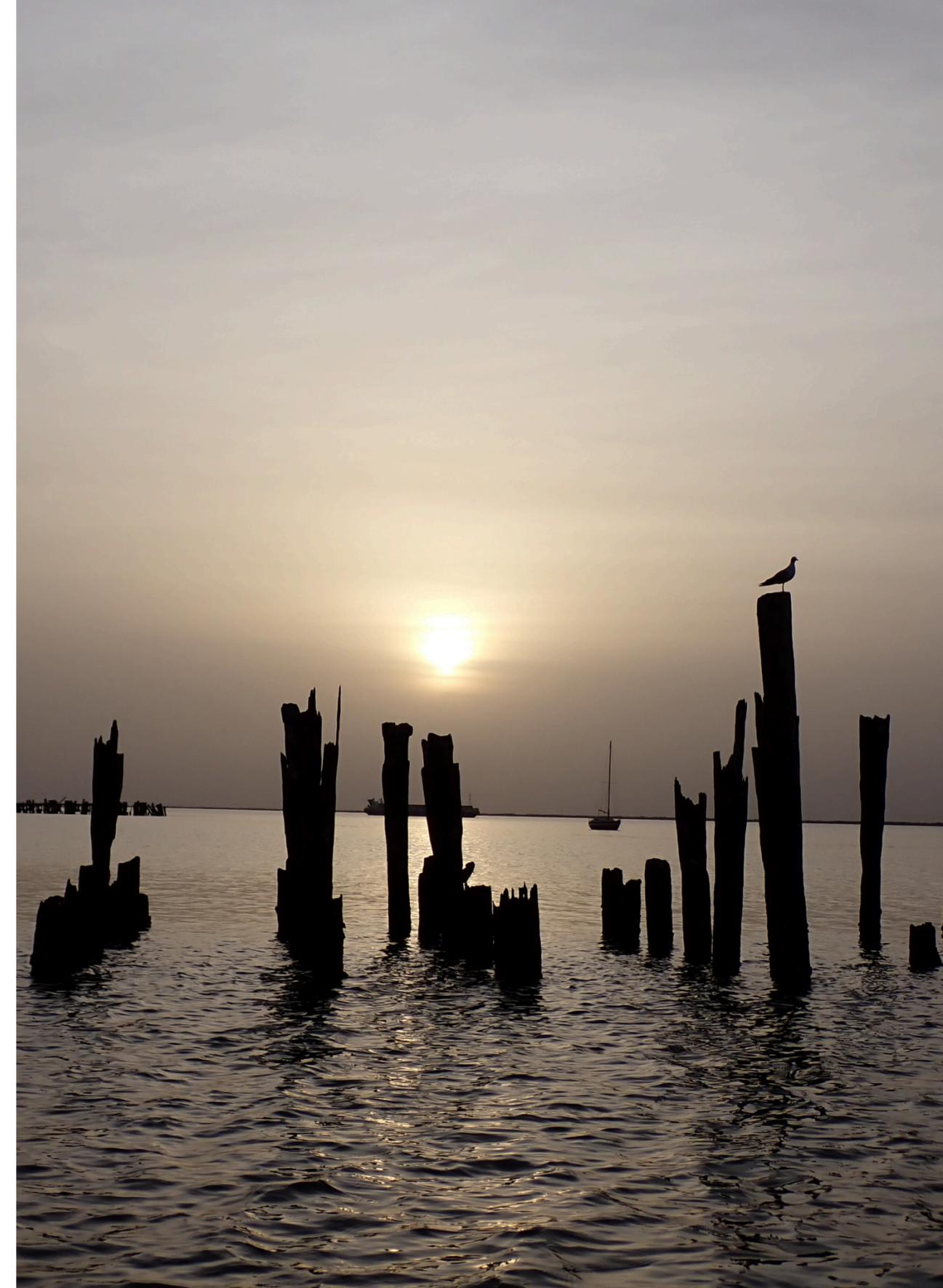
Anticipated tons of CO2 to be sequestered through project activities

Progress up to 2024

Extrapolated tons of CO2 calculated from the measured areas of different types of land use (for example forest or agroforestry) under “Hectares of forest planted, conserved and restored” to date, and the average amount of projected long-term CO2 per hectare provided from literature review for each land use type in their locations. Although totalled, please note the methodology for calculating these CO2 projections are specific to land-use type, and span a period corresponding to the expected time taken for the trees to reach maturity, which varies between locations.

End of Project Target

As above, but using the target (and not current) number of hectares planted, restored and conserved and their respective area totals as a parameter for calculations. As this parameter is subject to change, the associated CO2 target may also change over time.



Number of trees conserved and restored*

Progress up to 2024

Extrapolated number of trees calculated from the measured areas of different land use types (for example conservation areas, restoration areas or agroforestry) under “Hectares planted, conserved and restored” to date, and the average tree densities observed for each land-use type when mature, known through our MEL activities or scientific literature.

End of Project Target

As above, but using the target (and not current) number of “Hectares of forest planted, restored and conserved” and their respective area totals as a parameter for calculations. As this parameter is subject to change, the associated trees conserved and restored target may also change over time.

*Estimations based on average numbers per hectare

Trees planted to date (2024)

Total

Actual counted number of planted seedlings and saplings of woody (tree and shrub) species in the project to date.

Trees planted for forest-friendly livelihoods and behaviors

Only woody species directly planted for livelihood improvement. This also includes woody fruit, fodder & timber trees, and woody cash crops, exclusively planted on community or farm land.

Trees planted for forest conservation and restoration

Only woody species that were directly planted for ecological reasons, aiding restoration of the natural forest ecosystem.

Woody species in project to date (2024)

Total

Actual observed number of woody (tree and shrub) species:

- Regenerating in the conservation/restoration zones (i.e. in the Permanent Monitoring Plots) and
- Planted, either for restoration or livelihood improvement
- Growing as mature trees in the conservation/restoration zones (i.e. in the permanent monitoring plots).
- Please note, these numbers are not exhaustive and the true species richness is likely to be higher.

Tree species for forest-friendly livelihoods and behaviors

Only woody species directly planted for livelihood improvement. This also includes woody fruit, fodder and timber trees, and woody cash crops, exclusively planted on community or farm land.

Tree species for forest conservation and restoration

The woody species observed in the project area that are not used for livelihood improvement purposes. Where species are used for both livelihood improvement and restoration (which is sometimes the case, as we use native species as much as possible), they have been counted under ‘forest-friendly livelihoods and behaviors’.

Terminology

Conservation

Where native forest canopy cover is still intact, we focus on protecting the forest from any threats and disturbances, such as overgrazing, unsustainable wood extraction and fire.

Restoration

Assisted Natural Regeneration (ANR): Where there is reduced forest cover but high potential for natural regeneration, we aim to accelerate natural recovery, typically through preventing soil degradation, reducing competition with weeds, and protecting young trees.

Tree planting

Where there is reduced forest cover and little regeneration potential, we actively plant native trees at a density that corresponds with the regeneration potential.

Agroforestry and tree crops

Where agricultural landscapes exist, WeForest promotes the planting of trees for livelihood improvement. These trees can be used either for direct consumption or sale (fruits, timber, fuelwood) or to support other crops or livestock (agroforestry). Native tree species are prioritized but, where necessary, non-native species may be used.

Mammal and bird species sighted to date

Numbers are included where we have a good level of biological monitoring, for example using camera traps or audio devices - please note that numbers are unlikely to capture the full species richness of the project area and that the absence of reporting does not imply the absence of species.

Other notes

WeForest works in close cooperation with local partner organisations, institutions, community-based organizations and local people. Therefore, our impact can never be fully separated from the work of our partners. WeForest acknowledges that the presented impact numbers cannot be solely attributed to our work, but is also supported through the hard work contributed by all our local partners.