# Support to restore the Hydro-Sedimentary Balance of the Somone Lagoon in a context of Climate Change









## **PROJECT TITLE:**

SUPPORT TO RESTORE THE HYDRO-SEDIMENTARY BALANCE OF THE SOMONE LAGOON IN A CONTEXT OF CLIMATE CHANGE

#### **COUNTRY:**

Senegal

## **LOCATION:**

Somone Lagoon

## **SCALE OF INTERVENTION:**

**Territorial** 

## **INCUBATION LED BY:**













Situation of Somone Lagoon  $\ensuremath{\mathbb{G}}$  Cabinet EDE International June 2015

## **LOCAL CONTEXT AND ISSUES:**

The Nature Reserve of Community Interest of Somone (RNICS) is a RAMSAR site that was created in 1999 on the initiative of local women to combat the deforestation of the mangrove. Located 65 km south of Dakar, this iconic 700-hectare site is managed by local communities through a special committee.

Following twenty years of operation, the RNICS has successfully implemented its reforestation policy to preserve the estuary's ecosystem and biodiversity. The good status of the lagoon also benefits local business activities, in particular tourism and fishing.

However, the lagoon is currently threatened by silt deposits due to a decrease in flushing sediments resulting from the transformations of the basin and the development of tourism on the coastline. To combat climate change, a dredging project is under study. A broader, basin-scale approach is nevertheless necessary to re-establish the hydro-sedimentary balance in the lagoon, in particular upstream inflows.

#### **PROJECT GOALS:**

The project's overall objective is to contribute to the preservation of the Somone Lagoon and its ecological quality by maintaining its hydro-sedimentary dynamics and putting in place nature-based solutions. The two specific targets are:

- Retrieve sedimentary flushing and freshwater inflows by restoring the river that feeds into the lagoon.
- Improve the lagoon's resilience to climate change by building knowledge and identifying adaptation measures.

#### **SDGs TARGETED BY THE PROJECT:**



## **CHALLENGES FACING THE PROJECT:**

Lagoon – Climate change – Sediment flushing – Salinity – Mangrove – Local communities

## **SECTORS CONCERNED:**

Coastline - Biodiversity - Rainwater management - User resilience - Wetlands

#### **EXPECTED OUTCOMES:**

## **Nature-based solutions**

- Reprofiling of the Somone River to ensure sufficient freshwater inflows, limit lagoon salinity and control the build-up of silt threatening the mangrove's regeneration
- Re-vegetate the tannes upstream in the lagoon to anticipate the impacts of climate change and rising sea levels

## Modernisation and reinforcement of governance

Upstream-downstream dialogue for sharing water resources

#### **PROJECT STAKEHOLDERS:**

## Stakeholders involved:

Management Committee of the Nature Reserve of Community Interest of Somone (RNICS), bordering municipalities, users of the lagoon

## **Project leaders:**

Nature Reserve of Community Interest of Somone (RNICS), International Office for Water

## **Project operators:**

Coastal Management Department (Directorate for the Environment and Conservation Areas, Ministry of the Environment and Sustainable Development)

## **Technical partners:**

Directorate for Management and Planning of Water Resources (Ministry of Water and Sanitation), Water and Coastal Institute (Amadou Mahtar Mbow University), Seine-Normandy Water Agency

## **Funder of the incubation process:**

Seine-Normandy Water Agency

## **ESTIMATED COST OF PROJECTS IDENTIFIED FOR INCUBATION**

>100,000 to 1 million EUR

# **SHORT-TERM ACTION (3 YEARS):**

- Production and sharing of a diagnosis with the Management Committee of the Nature Reserve of Community Interest of Somone
- Dialogue with the operator and technical partners on the proposed solutions and action plan, and definition of an action plan
- Mobilisation of international experts and an intern on location
- Reprofiling of the water course
- Study of re-vegetation of tannes
- Training as part of the high labour-intensive infrastructure programme

# **LONG-TERM ACTION (10 YEARS):**

- Reinforcement of the reserve's governance
- Maintenance of the Somone River
- Implementation of additional adaptation measures



Somone Lagoon © Teranga Association