

# National Implementing Entities Country Exchange Hosted by Senegal

From November-December 2020, the Adaptation Fund National Implementing Entity (NIE) in Senegal hosted a virtual exchange with ten other NIEs from around the world. The Adaptation Fund's accredited NIE, the Centre de Suivi Ecologique (Ecological Monitoring Center or CSE) shared valuable lessons learned and findings with other NIEs based on the country exchange theme of coastal zone management and disaster risk reduction.

These lessons and findings included project process learnings ranging from the challenges of community participation to institutional support for newly proposed climate change policies.

The Senegal exchange also offered insight into the project implementation successes and challenges faced by the CSE. This brochure contains those successes along with summaries of lessons learned from other NIEs invited to present during the exchange.



**NIEs share lessons learned in Rufisque, Saly, and Joal along the Senegalese coastline.**



2020

## Coastal Zone Management and Disaster Risk Reduction

*Photo: Adaptation Fund partner site in Saly, Senegal - sea barrier to protect against beach erosion.*

# SENEGAL

Coastal communities in Senegal are some of the countless coastal communities around the world suffering from sea-level rise and other negative effects of accelerated climate change. Several of the beaches have already been submerged and tourism has plummeted in the notable regions of Rufisque, Saly, and Joal. The lack of tourism means household and local business incomes relying on tourism have equally plummeted. Erosion and salt-water flooding have destroyed rice fields, damaged docks and buildings, and caused silt buildups which hamper small-boat craft transit between rivers and the sea.

Around 56 percent of the coastline of Senegal is subject to an average erosion of 1.8 meters per year. Erosion is the most damaging factor along the coast of Senegal due to losses of high value urban land. This loss is estimated at US\$0.5 billion per year. The cost of erosion is expected to increase considerably in the future, as the phenomenon is likely to affect larger urban areas. Additionally, traditional rice-growing activities carried out in valleys and estuarial areas will be affected by a larger intrusion of saline waters, making the drainage of those areas even more difficult. This impact is similar in countries around the world.



*House impacted by beach erosion. photo CSE*



*Barriers such as these help prevent extreme erosion. photo CSE*

## Adaptation Fund Financing Impacts Coastal Communities

Fortunately, the tide has turned. In 2010, the CSE was accredited as an NIE of the Adaptation Fund and was then eligible to directly access climate adaptation financing. In 2010, the Adaptation Fund Board approved CSE's US\$8.6 million proposal for an integrated multi-year project in the three seaside towns, and work began in 2011. The project is entitled, "**Adaptation to Coastal Erosion in Vulnerable Areas.**"

Since the project's inception, impressive gains have been made. Some examples include more than 100 female fish sellers who have been aided by the rehabilitation of the fish drying infrastructure, the preservation of 3,000 tourism and fishing jobs, and the construction of a 3.3km anti-salt dike (the dike prevents salt water from infiltrating soil near the coast). Such progress acts as a positive beacon for the region.

Many lessons were learned as well, such as the need to fully integrate with the Senegal climate change response structure. Read further to learn how similar Adaptation Funding has benefitted other countries.

SEA-LEVEL  
RISE

# BELIZE

Belize's Adaptation Funded-project is entitled, **"Enhancing the Resilience of Belize's Coastal Communities to Climate Change Impacts."** Similar to Senegal, Belize has a significant percentage of their population living along coastal zones. The bulk of the Belizean economy takes place in these zones and includes tourism, fishing, and agricultural production.

The project is implemented by the Adaptation Fund NIE Protected Areas Conservation Trust (PACT). This NIE is highly engaged with improving coastal land for resilient habitation and sectoral activities. This includes beach stabilization and strengthening national capacity.

PACT's challenges relate well to the CSE such as addressing the public's needs based on coastal erosion. So much of the country is impacted by coastal erosion, and it is challenging to choose only certain zones with which to work. Additionally, PACT faces a shortage of technical experts in the country and a lack of resources to attain support. Finally, the impact of COVID-19 has severely limited their ability to consult with key stakeholders.

# BEACH EROSION



*House being consumed by the approaching sea in Belize. photo PACT*



*Indonesia's project has large focus on regional watershed. photo Kapabel*

# INDONESIA

Indonesia's Adaptation Funded-project entitled, **"Community Adaptation for Forest-food Based Management in Saddang Watershed Ecosystem,"** only began in October 2020 therefore, the lessons learned from the Senegal exchange are proving valuable for planning. This project has a different focus compared to the coastal erosions projects.

Implemented by the NIE Environmental and Climate Change Adaptation Consortium (Konsorsium Adaptasi Perubahan Iklim dan Lingkungan or KAPABEL), the main objective of this program is to increase resilience to food security of the cSaddang Watershed ecosystem community. This project is an effort to adapt to climate change, which focuses on strengthened social forestry, improved coastal governance, strengthened cross-cutting policies, and capacity building.

The level of area at risk due to climate change associated with the disaster level in the Saddang Watershed area shows that 93 percent of villages in the watershed are vulnerable to climate change.

KAPABEL is still integrating its approach within the target communities, so their lessons learned are fairly limited at this time. However, they are in a good position to plan for any anticipated challenges based on the exchange with the CSE.

# NIGER

In land-locked Niger, their project focuses more on the food security situation in the Dosso Region of the country. The **"Enhancing Resilience of Agriculture to Climate Change"** project is implemented by the NIE Banque Agricole de Niger (Agricultural Bank of Niger or BAGRI). This project aims to provide a sustainable solution to the issue of low agricultural production and food insecurity. The project is a pilot project, which aims to strengthen the resilience of populations and to prevent reactionary adaptation that eventually becomes detrimental to the farmers. It targets the problem of expenses related to water collection together with the management of water resources. During the exchange, BAGRI noted that participants of the program were aged 15 to 35 years and were 50 percent female.

The country's agricultural production is faced with the adverse impacts of climate change due to insufficient water availability. The weather variability and climate change have a direct impact on food security, especially in rural areas combined with difficulties in pumping and accessing the water.

# FOOD SECURITY



*The Niger project places a strong focus on diversifying livelihoods to improve female farmer income.  
photo: World Bank*

The main objective of the project is to strengthen the resilience of agriculture and to support food security in Niger through the promotion of modern irrigation techniques. The project focuses directly on about 200 pilot-farmers groups using small-scale irrigation.

BAGRI shared its successes with the project thus far. The strong organization of the Dosso regional council helped to ensure the financing was directed to the correct households. Additionally, strong monitoring and evaluation tools were put in place, which helped assure accountability.

Areas they plan to improve include somewhat feebly organized rural populations, a lack of qualified technicians to advise the young farmers, and limited knowledge of the agricultural sector by the newer farmers.

Bagri advises the other NIEs to ensure the largest inclusion possible of community beneficiaries plus strong cost sharing devices to improve project targeting. Regardless of their challenges, they believe the project can be scaled up capitalizing on the experiences of this first stage.

# KENYA

Kenya's project entitled, **"Integrated Program to Build Resilience to Climate Change and Adaptive Capacity of Vulnerable Communities in Kenya,"** seeks to enhance the resilience and adaptive capacity to climate change for selected communities.

The project is implemented by the National Environment Management Authority (NEMA), which is an Adaptation Fund NIE. Similar to the CSE Senegal project, the project implementers seek to rehabilitate and protect the mangrove ecosystem and stabilize the shoreline in the most vulnerable coastal areas. In the Nyando River Basin (located in the Kenyan Kisumu County) project implementors also address the construction of canals and dikes to control flooding. Based on their experiences with the project, NEMA shared the following lessons learned:

1. Similar to the CSE, stakeholder involvement is essential to success in achieving program objectives.

2. Programs should remain flexible due to the ever-changing aspect of climate change.

The project challenges include under-budgeting for infrastructure construction, long procurement processes, and unreasonable community expectations. NEMA noted the CSE's multi-layered techniques for including community participation, and hopes to apply similar approaches in Kenya.



*The use of small-scale hydroponic farming has become a success across the Cook Islands.  
photo: Melina Tuiravakai*

# COOK ISLANDS

The Cook Islands are vulnerable to a wide variety of natural disasters, such as cyclones, and numerous climate change impacts including extensive beach erosion. Implemented by the NIE Pa Enea Action for Resilient Livelihoods or PACT, the **"Strengthening the Resilience of our Islands and our Communities to Climate Change"** project aims to strengthen the ability of Pa Enea (the outer Islands) and all Cook Island communities, to make informed decisions and manage anticipated climate change driven pressures in a proactive, integrated, and strategic manner.

In a more agriculturally focused approach, the Pa Enea residents are being trained to undertake small-scale agriculture in the form of household agriculture plots. These will allow for crop diversification, including new climate-resilient crops, and are also expected to improve the overall health and livelihoods of the communities. Similar to the CSE approach, these activities were designed by the community and the Island Council. The involvement of the community from the initiation stage provided local buy-in and ownership of the project.

PACT recommends robust training for other NIEs, plus capacity building along with encouraging the use of native foods and organic farming. PACT also recommends tapping traditional knowledge for more sustainable solutions and noted that they must plan on bulk buying of local products and strengthening their existing private sector structures.

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