

**BNCFF**

PROJECT IMPACT REPORTS

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The Blue Natural Capital Financing Facility (BNCFF) supports the development of sound, investable Blue Natural Capital (BNC) projects with clear ecosystem service benefits, multiple income streams and appropriate risk-return profiles.

This score card is part of the final assessment of the projects supported by BNCFF (2019-2021). Each score card provides an overview of a particular project, details its achievements, its success and challenges, before presenting the way forward.

# Incorporating Seagrass in a Blue Carbon Initiative in Southern Kenya



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### Project in a snapshot

Title	Incorporating Seagrass in a Blue Carbon Initiative in Southern Kenya
Country	Kenya
Project Developer	Wildlife Conservation Society (WCS) & Kenya Marine Fisheries Research Institute (KMFRI)
Vision	Restore and protect marine and coastal environments via the sale of carbon credits
Overall Project goals	Identify sites for seagrass closures, assessing seagrass carbon stocks and sequestration potentials in the Vanga-Jimbo area
BNCFF supported activities	<ul style="list-style-type: none"> <li>• Meeting with and training communities on blue carbon ecosystems and assessment</li> <li>• Measuring the health and productivity of Vanga-Jimbo seagrass beds</li> <li>• Assessing seagrass carbon stocks and sequestration potential in Vanga-Jimbo seagrass beds</li> <li>• Discussions with communities on sites for seagrass closures</li> <li>• Revising the Vanga Blue Forest (VBF) project document to incorporate seagrasses</li> <li>• Assessing fisheries gains associated with the seagrass closure</li> <li>• Reporting on seagrass carbon value and area for future revision of the VBF project design document (PDD)</li> </ul>
Main stakeholders	<ul style="list-style-type: none"> <li>• Vanga and Jimbo Beach Management Units (BMU) and local leaders</li> <li>• Vanga Blue Forest (VBF) Project</li> <li>• KMFRI and WCS</li> <li>• Government representation, notably Kenya Forest Service (KFS), Kenya Wildlife Service (KWS) and Kenya Fisheries Service (KeFS)</li> </ul>
BNC focus	Blue carbon - seagrass restoration
Duration	12 months (2021 - 2021)
Type of funding	Grant
Proof of concept	<p>WCS has over 20 years of marine research and community development experience, and has already launched work to scope potential seagrass sites in Vanga/Jimbo.</p> <p>KMFRI has a broad expertise and knowledge in the development and implementation of blue carbon projects in the Western Indian Ocean.</p>
Links/synergies	<ul style="list-style-type: none"> <li>• Contributes to UN SDGs 1 (No Poverty), 2 (Zero Hunger), 5 (Gender Equality), 8 (Decent Work and Economic Growth), 13 (Climate Action), 14 (Life Below Water) and 15 (Life on Land)</li> <li>• Contributes to climate mitigation and adaptation, biodiversity conservation</li> <li>• Opportunity to adhere to the IUCN Global Standard on Nature-based Solutions</li> </ul>

## 1. Project summary

This Initiative, led by the Wildlife Conservation Society & Kenya Marine Fisheries Research Institute, is supporting two communities, Vanga and Jimbo, to restore and protect seagrasses through the sale of carbon credits. The generated income also aims to support community water and sanitation, education and conservation efforts. Located in Kwale County of Kenya, Vanga and Jimbo are part of the 7 Beach Management Units that form the wider Shimoni-Vanga joint co-management area.

With fisheries areas of 21.7km<sup>2</sup> and 0.9km<sup>2</sup>, in Vanga and Jimbo respectively, there is high use of illegal

fishing gear, including beach seines, that threaten fisheries and severely damage seagrass.

Under this endeavor, WCS and KMFRI worked with government agencies and local communities in mapping fishing patterns and seagrass habitats, identifying new sites for seagrass closures, assessing seagrass carbon stocks and sequestration potential. Climate, community and biodiversity benefits are expected from this project, including support for local services, increased fishery stocks and resilience.



## 2. Purpose of the engagement with BNCFF

Under the Blue Natural Capital Financing Facility (BNCFF) Project, WCS and KMFRI have worked with local communities to incorporate seagrass in a Blue

Carbon Initiative in Southern Kenya and worked toward establishing new seagrass conservation areas.

### 3. Main outputs and results



#### BIODIVERSITY AND NATURE BENEFITS

- Measurement of the health and productivity of Vanga-Jimbo seagrass beds:
  - Preliminary seagrass rapid and biodiversity assessment conducted for seven seagrass sites to determine the distribution and abundance in the seagrass meadows of Vanga Bay to inform potential seagrass conservation areas.



#### SOCIAL AND LIVELIHOOD

- Meeting with and training communities on blue carbon ecosystems and assessment:
  - Two Kenyan Interns recruited
  - Training material on seagrass and blue carbon assessments developed
  - Supplies and equipment for field activities purchased
  - Entry meeting with communities held to introduce the project, discuss the project objectives, the role of different stakeholders and how the project fits into the overall proposed blue carbon conservation activities in the project's area



#### LEGAL AND FINANCIAL

- Assessment of fisheries gains associated with the seagrass closure (baseline study):
  - Seagrass fisheries assessment conducted for 5 sites and 27 days per site using three techniques:
    - fish trapping using traditional traps
    - underwater video surveys
    - corraling fish within a set gill net

The results between techniques varied but in general indicated very low biomasses of fish in the seagrasses, much lower than 600kg/ha, which is a robust indicator of fisheries sustainability for coral reefs In Western Indian Ocean. Although there is no estimated sustainability benchmark for seagrass, these results likely indicate overfishing in Jimbo and Vanga seagrasses and the urgent need not only for improved management of these seagrasses but also for establishment and expansion of seagrass closures.
  - Assessment of seagrass carbon stocks and sequestration potential in Vanga-Jimbo seagrass beds:
    - Preliminary analysis show that the sampled areas have potential for closure due to the high seagrass productivity, however all analyses needs to be completed before engaging with communities on the site closures through a negotiated community engagement process.



#### GOVERNANCE AND TRANSPARENCY

- Report on seagrass carbon value and area for future revision of the VBF project design document:
  - The PDD for the Vanga Blue Forest was modified to include seagrass information, but real-time carbon information will only be incorporated once all the carbon samples have been analysed. The PDD will then be used as a guiding document as community agreements are developed for seagrass closures to be incorporated in the VBF carbon scheme

## 4. Success and challenges

There has been a delay in the implementation of some of the activities due to the changing COVID 19 situation in Kenya. The closure of the laboratory at KMFRI, restrictions on gathering and delay in some supplies have posed a challenge in the timely completion of the pending activities. The project, however, demonstrated great flexibility and managed to deliver most of the agreed deliverables in spite of the circumstances. It was also a great opportunity for lessons learnt, the main ones being:

- Blue carbon opportunities for sustainable financing create a strong incentive for communities to conserve. Under this project, new community interest has developed around seagrass and high levels of commitment emerged to create seagrass conservation areas that are fisheries closures;
- Collaborative learning around data collection also helped fishers visualise the challenges they

faced. Lessons learned were especially evident in collection of fish data using traditional fishing gears and created strong motivation for new closures and other fisheries management measures;

- The status of seagrass assessed had extremely low fish stocks as evidenced by close to no fish being caught in traps and low numbers in nets. This represents a major challenge facing southern Kenya, but also an opportunity as communities embrace seagrass closures.
- The project will likely result in two new seagrass closures, one in Jimbo and one in Vanga. Each community will close at least 1 km<sup>2</sup> of area. The Jimbo community has selected the area for closure (1 km<sup>2</sup>) area, and the Vanga community is discussing from a list of candidate sites that we generated.

## 5. Looking beyond BNCFF



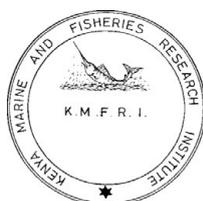
### LEGAL AND FINANCIAL

- Unlocking the potential for bundling carbon from the seagrass areas into the ongoing VBF carbon offset scheme
- Completing analysis of the carbon samples



### SOCIAL AND LIVELIHOOD

- Meeting with Jimbo and Vanga communities to firm up decisions on the closures and dialogue within BMUs to secure broadscale community support for the seagrass closures



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Photo courtesy by the Project Developer.

Since its launch in 2018, the BNCFF has become a global brand name in Ocean Impact Finance. After screening over a hundred proposals, it has supported a suite of blue Nature-based Solutions (NbS) pioneer projects with grant funding.

<https://bluenaturalcapital.org/supported-projects/>

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Ministry of the Environment, Climate  
and Sustainable Development