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# SEASCAPE STRATEGY FOR BUILDING SOCIAL, ECONOMIC, AND ECOLOGICAL RESILIENCE

## SHIMONI-VANGA SEASCAPE

SGP (KENYA)

OCTOBER 2018



COSTAL AND MARINE RESOURCE DEVELOPMENT



KWALE COUNTY

## SUMMARY

Shimoni-Vanga Seascape located in the southern coast of Kenya (Kwale County) is endowed for its richness in biodiversity and a relatively undisturbed ecosystem. The seascape boasts of a biodiversity rich Marine Protected Area with a high potential for productivity from the adjacent co-management areas. The seascape area supports livelihoods of the communities that live and depend on it, these communities also include some of the indigenous groups recognized by World Bank as marginalized and vulnerable such as the Wakifundi (around Shimoni) and Wachwaka (around Kibuyuni) and recently citizenized 43<sup>rd</sup> Kenyan tribe the “Makondes from Mozambique”. These groups participate in tourist activities, seaweed farming and fishing. Despite the low level of education, these groups have strong cultural attachment to the sea and would benefit from interventions of the projects.

The seascape being relatively pristine compared to other degraded coastal areas in Kenya, sustaining seascape resilience is paramount. Based on baseline information collected in preparation of this report, resilience of the Shimoni-Vanga Seascape can be enhanced through the following outcomes:

- Ensuring that the integrity of habitats and biodiversity within the seascape is enhanced;
- Reduction of pressure on mangrove resource from domestic and commercial usages;
- Diversification and strengthening of alternative community livelihoods;
- Sharing and documenting lessons learned and indigenous knowledge for better use and management of seascape resources; and
- Strengthening institutional seascape governance capacity.

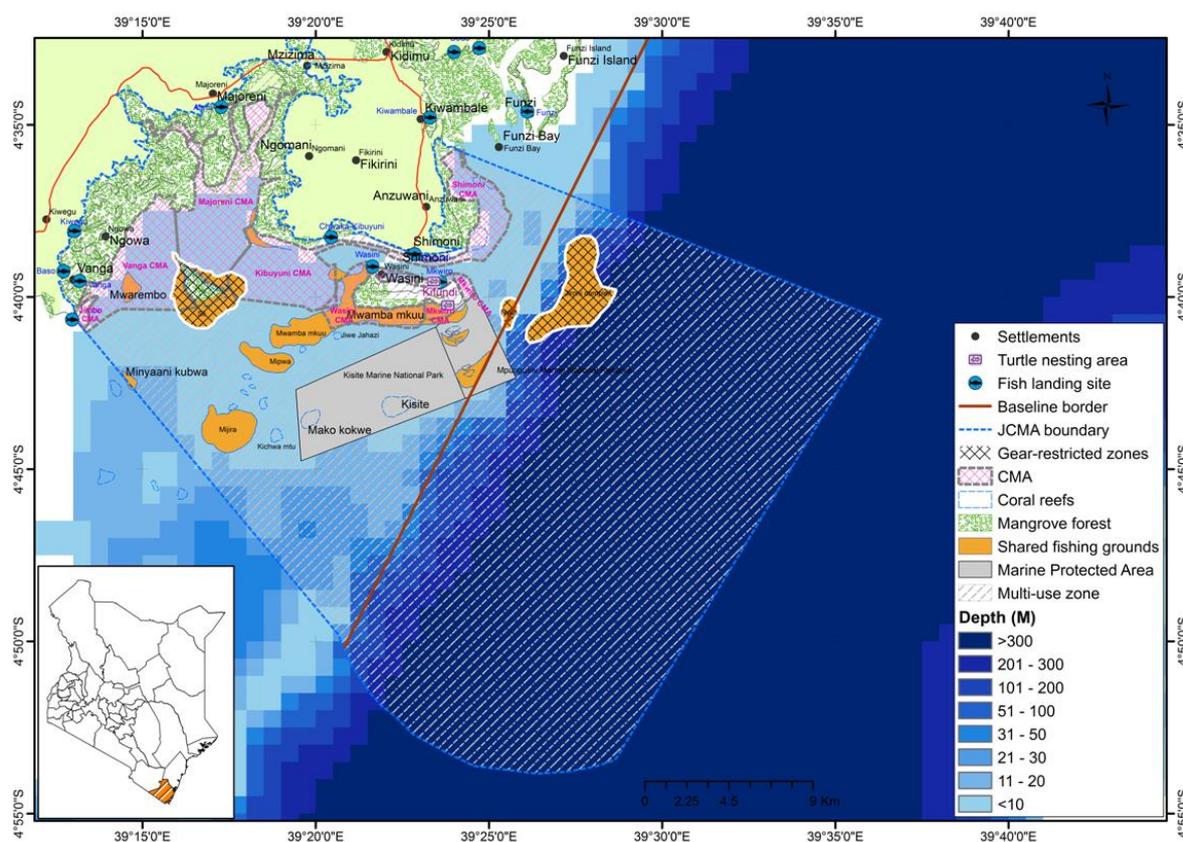
The projects will be developed with close interaction with the county and national governments to enable integration of the lessons learned in the County plans and programmes, and further as a step towards informing policies on the best practice in resource use and management in the seascape. Lessons learned can further serve as bases for future planning and development of projects and programmes in the seascape and beyond.

This strategy also outlines means of knowledge management alongside monitoring and Evaluation of seascape projects.

# 1 PRIORITY AREA

## 1.1 Location of Shimoni-Vanga Seascape

The Shimoni-Vanga seascape lies in the southern coastal region of Kenya in Kwale County and covers an area of 860 km<sup>2</sup> (Figure 1). It shares the northern Shimoni boundary with Msambweni (Funzi Bay) and southern Vanga boundary with Tanzania. Surrounding the seascape are seven villages that largely depend on it for their livelihood. These are Shimoni, Majoreni, Vanga, Jimbo, Kibuyuni, Wasini and Mkwiro. The latter two are located in Wasini Island just off Shimoni village. Within these villages are found marginalized and indigenous groups of Wakifundi and Wachwaka, and Makonde migrants from Mozambique. Other than Wasini Island, the seascape is intercepted by Mpunguti ya juu, Mpunguti ya Chini, Mako Kokwe and Sii coral Islets that are uninhabited.



**Figure 1. The Shimoni-Vanga Seascape**

## 1.2 Key issues and assets

The seascape is rich in floral and faunal biodiversity, particularly corals, mangroves, seagrasses and a variety of marine mammals, crustaceans (shrimps, lobsters and crabs), pelagic and demersal fishes, cephalopods (octopus, squids and cuttlefish) and other molluscs (e.g. sea cucumbers), birds and reptiles. Sandy beaches and estuaries are also found in the area with only one permanent River (Ramisi) draining into the ocean. Local people depend on this seascape for fishing, mangrove harvesting, tourism activities and seaweed farming. Arable land, moderate rainfall and warm weather form ideal conditions for agricultural production in the area.

Main issues within the seascape can be categorized into ecological well-being, socio-economic wellbeing, governance and external factors (KCDP, 2016; COMRED, 2018<sup>1</sup>). Priority ecological issues include decreased fish populations (both in size and numbers) and habitat/species destruction/degradation while main socio-economic well-being issues are lack of alternative livelihoods, low fish earnings accruing to fishers, poor fishery and fish marketing infrastructure, low literacy levels, high dependence on fishing and tourism and limited formal access to credits. Governance issues are mainly non-compliance of fishery regulations, poor enforcement, inadequate Beach Management Units (BMU) capacity to fully participate in Monitoring, Control and Surveillance (MCS), lack of a collective voice/forum within the fishing industry, poor inter-agency collaborations and lack of political good will. Negative impacts of climate change are imminent, particularly affecting corals, mangroves and beaches.

A five year draft Joint Co-management Area Plan (JCMAP) (2017-2021<sup>2</sup>), encompassing seven village based Co-management Area Plans (CMAPs) provides a holistic framework for addressing the seascape issues. This is in addition to Kisite-Mpunguti Marine Protected Area Management Plan (2015-2025) administered by Kenya Wildlife Service, the Marine Aquarium Fishery Management Plan and the Small-Scale Purse Seine Fishery Management Plan.

### **1.3 Rationale for selection of the seascape and strategic relevance**

Selection of the Shimoni-Vanga seascape for GEF SGP intervention was informed by a number of factors. Most importantly is the existence of rich biodiversity interconnectedness that supports socio-ecological and economic needs of adjacent communities. The importance of the seascape is underscored by location within it, a Marine Protected Area (MPA), Kisite-Mpunguti Marine National Park and Reserve (KMMNP&R) which has Kenya's highest MPA coral diversity of 203 species and coral cover of 50% (Obura 2012<sup>3</sup>; Unpb. data). Further, existence of government and stakeholder led management plans, particularly the Shimoni-Vanga Joint Fisheries Co-management plan, covering a larger area of multi-level governance was another factor for consideration. Moreover, the strategic location of the seascape in a trans-boundary area offers future opportunity for bilateral cooperation between Kenya and Tanzania.

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<sup>1</sup>COMRED. 2018. Participatory Resilience Assessment for Shimoni-Vanga Seascape. Workshop report, 18-20 September 2018.

<sup>2</sup>KCDP 2016. Ecological Risk Assessment for the Development of a Joint Co-Management Area (JCMA) Plan in the Shimoni-Vanga Area, South Coast Kenya. State Department for Fisheries and Blue Economy report. 44 pp.

<sup>3</sup>Obura D (2012) The Diversity and Biogeography of Western Indian Ocean Reef-Building Corals. PLoS ONE 7(9): e45013. <https://doi.org/10.1371/journal.pone.0045013>

While promoting production of global environmental and local sustainable development benefits, implementation of adaptive seascape management strategies to enhance social, economic and ecological resilience the seascape strategy contributes to; i) GEF SGP Operational Phase VI<sup>4</sup> objective of enhancing socio-ecological resilience of selected landscapes and seascapes in ecologically important and sensitive areas in Kenya; ii) UNDAF/Country programme outcome “Growth and development are inclusive and sustainable, incorporating productive capacities that create employment and livelihoods for the poor and excluded”; iii) UNDP Strategic Plan Outputs 1.3 “Solutions developed at national and sub-national levels for sustainable management of natural resources, ecosystem services, chemicals and waste” and iv) GEF expected Biodiversity outcome 9.1 “Increased area of production landscapes and seascapes that integrate conservation and sustainable use of biodiversity into management”. Interventions proposed here are also aligned to SDG 7 “Ensure access to affordable, reliable, sustainable and modern energy for all”; SDG 14 “Conserve and sustainably use the oceans, seas and marine resources”; and SDG 15 “Sustainably manage forests, combat desertification, halt and reverse land degradation, halt biodiversity loss”. The strategy will also contribute to the five 2020 Aichi Biodiversity goals, by addressing at least one target in each category as follows: i) Strategic Goal A; Target 1; ii) Strategic Goal B; Targets 5&6; 3); iii) Strategic Goal C; Target 11; iv) Strategic Goal D; Target 14; v) Strategic Goal E; Target 18.

## **2 SITUATION ANALYSIS (THREATS AND OPPORTUNITIES)**

### **2.1 Economic, social, development and environmental context of the Shimoni-Vanga seascape**

Majority of the 18,000 people within Shimoni-Vanga seascape mainly depend on fishing, farming, tourism and trade for their livelihood. Livestock keeping is also practiced in the hinterland of the area. Fishing is the foremost livelihood source in all the villages, with nearly 100% of the population in Mkwiro village dependent on fishing, followed by fish trading (25%)<sup>5</sup>. Cash crop farming accounts for 22% of household incomes, while livestock production contributes 18%. There are attempts in small-scale fish processing by Beach Management Units (BMUs) at Kibuyuni, Majoreni and Shimoni. Tourism through boat tour operation, mangrove board walks and direct employment in a small way also contribute to livelihoods in the area.

There are about 2,632 fishers dependent on fishing in the Shimoni-Vanga seascape. Distribution by village is as follows; Shimoni (420); Mkwiro (180); Wasini (150); Kibuyuni (370); Majoreni (252); Vanga (1100); and Jimbo (200). The seascape fishery is multi-species and multi gear, use of illegal gears such as spear gun and beach seine has been recorded in Vanga-Jimbo and Majoreni respectively. There is also a

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<sup>4</sup>UNDP. 2017. Sixth Operational Phase of the GEF Small Grants Programme in Kenya.

<sup>5</sup> Kenya Coastal Development Project. (2016). Fisheries and socio-economic assessment of Shimoni-Vanga area, South coast, Kenya, baseline report, pp.53.

significant number of migrant fishers in the area constituting 15% of the total number of fishers in the area, with most being at Vanga and Jimbo. Fisherwomen only make up to 3% of the total fishers and are mainly found in Kibuyuni, Mkwiro and Wasini. However, participation of women in the fish value chain is significant, particularly processing and selling fish at the village level.

## **2.2 Statement of the problem**

Despite the significance of the Shimoni-Vanga seascape in terms of rich biodiversity and support of diverse livelihoods, the seascape faces a myriad of challenges. An overarching problem facing the seascape is environmental degradation due to weak community organizational capacity in collective decision making and action in building and maintaining the resilience of these socio-ecological landscapes. Current institutional support to counteract biodiversity loss is significantly weak, and where policies are appropriately targeted e.g. Community Managed Areas (CMA), there is low enforcement, inadequate financial support and technical assistance. Despite having an appropriate legal framework, destructive methods of extraction and also overexploitation of natural resources such as forests, mangroves and fish populations is persistent.

A baseline study conducted during the formulation of the Shimoni-Vanga JCMS identified a number of threats facing the seascape to include overfishing, persistent resource use conflicts, destructive fishing practices (use of beach seines) and the negative impacts of climate change. Destructive fishing and overexploitation of some key species of fish that are important in ecosystem functioning have particularly affected coral reefs and seagrass beds. Mangroves forests have faced threats from over-exploitation and illegal logging as well as climate change. Anthropogenic effects have also affected coral reefs, seagrass beds and mangroves such as sedimentation from land-use activities upstream. In addition to negative impact on human well-being due to challenges facing productivity of resources e.g. low economic returns, high school drop-out rate, prevalence of drug use and loss of cultural values have also contributed negatively to resource harnessing. Market-oriented problems are also prevalent, such poor fish handling, high post-harvest losses, lack of credit access to fishers, unreliable accruing benefits to fishers and traders, and fish value addition is nearly non-existent.

The seascape also faces challenges in a low understanding by resource users on their crucial importance role in protecting natural resources and ecosystems that provide sustenance and thus need for resilience. Concerted community actions are therefore needed for collective decision-making at a sufficient scale to impact socio-ecological resilience in a meaningful way. One way to promote collective action is the engagement of County Government to help in ensuring community resilience by integrating the seascape plans and activities in the mainstream county development plans and budgets. Involvement of the civil society to achieve these goals is also crucial. The current phase of SGP grants provides an opportunity to achieve these goals with involvement of community organizations and their

networks to take collective action while working within individual organizational frameworks. This strategic approach is expected to build capacities through an adaptive management process of analysing community problems and priorities. The process will also be helpful in project design, implementation, monitoring and evaluation of results and performance.

### **2.3 Key threats to target ecosystems in the Shimoni-Vanga seascape**

Based on Kenya's state of the coast report of 2017<sup>6</sup>, key ecosystems in the Shimoni-Vanga seascape face specific threats, the main drivers of change in the ecosystems include population growth, economic development, poverty, and low level of education. Specific threats to target ecosystems are outlined below.

#### **2.3.1 Mangroves**

The total area of mangroves in the Kenya is estimated at 61,271 ha<sup>6</sup>, 8,354 ha or 14% of total mangrove coverage being in Kwale County in which Shimoni-Vanga lie. Kenya lost 17.78% of its mangrove cover between 1985 and 2009, or 0.7% by area per year. While mangroves in the Shimoni-Vanga are relatively well preserved, most of mangrove losses have been observed in Kilifi and Tana River counties, and thus, a need for active protection action.

The key threats to mangroves in the seascape include over-exploitation of wood and non-wood products, conversion of mangroves areas to other land uses such as rice farming, infrastructure development, pollution effects and sedimentation. Climate change is also to some extent affecting the remaining mangroves, particularly through sea-level rise, aridity and influx of freshwater causing floods and sedimentation.

Among the key drivers leading to deterioration of mangroves in the seascape has been lack of cohesion amongst stakeholders in the use and management of the resource, this has further been exacerbated by a lack of recognition on customary rules and indigenous knowledge in governing subsistence use of mangrove resources by current management systems<sup>6</sup>. To avert further mangrove losses, the government has endorsed a National Mangrove Ecosystem Management Plan (2017-2027). Of key importance intervention in the plan is the focus on co-management, equitable use, access and tenure for the communities living within and adjacent to mangrove ecosystems, in line with Forest Management and Conservation Act (2016) and other environmental laws in Kenya.

#### **2.3.2 Seagrass beds**

Seagrass beds in Kenya are estimated to cover a surface area of about 33,600 ha, with the most extensive cover occurring in Lamu-Kiunga area, Malindi - Ungwana

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<sup>6</sup>GoK. (2017). State of the coast report II: enhancing integrated management of coastal and marine resources in Kenya. Nairobi: National Environment Management Authority.

Bay, Watamu, Mombasa, Diani-Chale, and Shimoni-Funzi bay. There are 12 species of seagrasses in Kenya, with all of them occurring in the Shimoni-Vanga seascape<sup>6</sup>.

The key threats to seagrass ecosystems in the seascape include destructive fishing (i.e. beach seine), over-exploitation of trigger fishes that feed on sea urchin predators which are a main threat to seagrasses, pollution, dredging and boating activities that uproot seagrasses and climate change effects. To stem further degradation of seagrasses, the Kenya government developed the management and conservation strategy for coral reefs and seagrass ecosystems, 2014-2018.

### **2.3.3 Coral reefs**

Kenya's coast has a rich fringing coral reef whose diversity increases towards southern coast, and in particular at Kisitie-Mpunguti within the Shimoni-Vanga seascape which constitute the highest number (207) of coral genera<sup>6</sup>. Marine Protected Areas (MPAs) constitute some of the most-healthy coral reefs. There has been a general increase in hard coral cover after the major bleaching in 1998, with MPAs recording higher recovery of 15-40% compared to the baseline of 8-10% in 1998. However, a recent coral bleaching event occurred again in 2016 that indicated up to 60% of corals were affected and reaching mortality of up to 20%<sup>6</sup>.

Key threats to coral reefs include:

- a. The impact of coral bleaching and mortality induced by warming of sea surface temperature is a major driver of coral declines worldwide;
- b. Over-harvesting of reef resources, particularly fish that keeps ecosystem balance in coral reefs. There are no controls on the type of fish harvested;
- c. Destructive fishing practices such as seine nets and trampling of corals by speargun fishers causes physical damage to corals; and
- d. Tourism in visited reefs result to breakages of branching corals which provide shelter to small juvenile and coral based (cryptic) fish.

The Kenyan government in an attempt to address the threats posed to coral reefs, has drafted a management and conservation strategy for coral reefs and seagrass ecosystems, 2014-2018. Other management measures to protect coral reefs have included the establishment of four (4) MPAs and six (6) reserves with Kisitie-Mpunguti MPA and reserve in the Shimoni-Vanga seascape. Local communities have also established Co-Management Areas (CMAs) that also contribute towards coral reef conservation.

### **2.3.4 Beaches**

The Shimoni-Vanga seascape has some of the most renowned beaches in the world. They are important not only for recreation but also as nesting grounds for turtles. Beaches however face many threats such trampling, infrastructure development, beach erosion, flooding resulting from sea level rise, shoreline changes from wave action and discarding of litter. These threats mainly affect sea turtle nesting as well as the recreational and aesthetic value of beaches.

### **2.3.5 Key conservation species**

Marine mammals (humpback whales, dolphins, and dugong), birds, whale sharks and sea turtles are found within the Shimoni-Vanga seascape and form an important tourism attraction. They however face a myriad of threats such as injury from boat strikes especially during peak fishing and tourism seasons when there is increased boat traffic, incidental catches, poaching (turtles and dugong).

### **2.4 Human well-being**

Human well-being is assured through access to resources e.g. fishing grounds, beaches mangroves etc. These resources must be in a healthy state and supported by a governance framework that ensures their sustainability as well as equitable use.

However, threats to seascape resources are a great risk to human well-being, especially for a community that largely depend on seascape resources. Key threats to human well-being include loss of customary access rights, diminishing of resource-dependent incomes, competition between small-scale resource users and commercial users, youth unemployment, loss of local and indigenous knowledge, lack of access to lucrative markets.

### **2.5 Opportunities**

Some of the key opportunities in the Shimoni-Vanga seascape include:

- a. Introduction and enhancement of income generating activities among communities adjacent to mangrove forest in Jimbo, Vanga, Mkwiro and Majoreni as an incentive to conservation. These may include re-afforestation of degraded areas, integrated aquaculture and ecotourism;
- b. Introduce green energy, i.e. solar energy for drying fish, lighting, ice making and energy saving technology to reduce pressure on mangroves for domestic fuel wood by communities;
- c. Diversification and promotion of alternative livelihoods e.g. in agro-processing;
- d. Promotion of value chain development initiatives in fishing, tourism, agriculture, aquaculture and forestry;
- e. Promotion of seagrass restoration. This has been piloted in Wasini within the Shimoni-Vanga seascape (though not yet conclusive) and may provide an opportunity for up-scaling in other degraded sites upon;
- f. Promotion of coral restoration by communities. Trials of coral transplanting have been undertaken in Wasini under the Kenya Coastal Development Project and can be up-scaled to other areas;
- g. Initiation and promotion of ecotourism in the Community Managed Areas (CMAs) and within restored seagrass and coral habitats as a form of incentive for communities to conserve their resources;

- h. Help communities to tap onto climate change opportunities, such as sale of carbon credits. This has been piloted in Gazi<sup>7</sup> and there are opportunities to learn from follow on projects in other parts of the Kenyan coast;
- i. Increase awareness on the value of key habitats (seagrass, coral reefs, mangroves), their connectedness, threats facing them, and consequences of their loss and degradation;
- j. Establishment of new and enhancement of existing CMAs to increase area under coral protection. Wasini and Kibuyuni CMAs have been established already but more assistance for monitoring is needed;
- k. Promotion of preservation of local knowledge (ecological, cultural, religious)
- l. Formalization of customary access rights to resources;
- m. Tap on the Vulnerable and Marginalized Groups such as the Wakifundi and Wachwaka groups through the VMG Development Committee that already exists in Kwale County;
- n. Improvement of governance systems to enhance enforcement against destructive fishing and illegal mangrove logging; and
- o. Establishment of a multi-stakeholder forum to enhance coordination and cooperation in project initiatives, stakeholders should include National Government, County Government, Communities, Private Sector, and Development Partners working in the area, vulnerable and marginalized communities in the area.

### **3 LANDSCAPE STRATEGY (OUTCOMES AND IMPACT INDICATORS)**

#### **3.1 The seascape approach**

The overarching long-term objective of the Seascape Strategy is to build social, economic, and ecological resilience in seascapes through community-based activities. The seascape approach focuses mainly on integration of the mosaic of seascape resource uses. Management of such mosaic seascape with resources that are highly interconnected requires an integrated approach which facilitates and promotes interaction amongst resource users. The seascape approach encourages cross-community interactions and synergies among community projects, enabling harmonization of activities to optimize protection, manage trade-offs and ensure sustainability.

#### **3.2 Status of the Shimoni-Vanga Seascape**

A baseline workshop was conducted in Shimoni with one of its objective being to draw the perceived status of the seascape by the community. The Shimoni-Vanga

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<sup>7</sup>(<http://www.planvivo.org/projectnetwork/mikoko-pamoja-kenya>)

seascape status was evaluated using seascape resilience indicators<sup>8</sup>. The assessment was based on a five point scale (5-Very high, 4-High, 3-Medium, 2-Low, 1-Very low), and the trends on the indicators were measured based on a three point scale (3-Increase, 2-No change, 1-Decrease). Results are summarised below.

### **3.2.1 Seascape Diversity and Ecosystem Protection**

**Seascape diversity:** The community described Shimoni-Vanga Seascape to have a high diversity of natural ecosystems, indicating the resource diversity within the seascape to be in an increasing trend mainly because of active resource management in the seascape.

**Ecosystem protection:** The seascape has both formal and informal forms of protection. The community scored a medium level for the ecosystem protection and a no change trend. This was mainly the seascape has a marine protected area (Kisite-Mpunguti Marine Park and Reserve) and co-management areas for fisheries exists under the Beach Management Units (BMUs) guidelines, and Community Forest Association (CFA) guidelines.

**Ecological Interaction between different components of the seascape:** The community scored medium level for ecological interaction between different components with a no change in component interaction trend. The community based the score on inadequate involvement by authorities in resource management decision making and lack of a multi-stakeholder forum where emerging issues within the seascape can be raised and discussed.

**Recovery and regeneration of the seascape:** The community indicated the seascape ecosystems to have a high score and an increasing trend the ability to recover and regenerate over time after extreme environmental shocks.

### **3.2.2 Biodiversity**

**Diversity of local food system:** The Shimoni-Vanga seascape is predominantly occupied by fisher communities, however, this trend is changing and the diversity of local food system is on the rise, the communities has embraced farming of various food crops although at a small-scale level.

**Sustainable management of common resources:** The community felt that common natural resources within the seascape are moderately being managed in a sustainable manner, providing a medium level score and a no change trend for sustainable management.

### **3.2.3 Knowledge and Innovation**

**Innovation in agriculture and conservation practices:** The communities indicated their willingness to develop, improve and adopt new agricultural, fisheries, forestry, and conservation practices and or revitalize traditional ones to changing

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<sup>8</sup> UNU-IAS, Biodiversity International, IGES and UNDP. 2014. Toolkit for the Indicators of Resilience in Socio-ecological Production Landscapes and Seascapes (SEPLS)

conditions, including change. The community scored high and a no change trend citing a need for awareness creation on emerging innovation and practices.

**Traditional knowledge related to biodiversity:** There was a general indication by the community that there was low transmission of local knowledge and cultural traditions related to biodiversity from elders and parents to young people in the community. The community gave a low score and a decreasing trend, this is mainly because of lack of appropriate opportunities where the old can share their knowledge with the young people.

**Documentation of biodiversity-associated knowledge:** Documentation and exchange of seascape biodiversity, and associated knowledge had a medium score and a no change trend, with an indication of an urgent need for documentation of biodiversity-associated knowledge within the seascape.

**Women's knowledge:** Recognition and respect of women's knowledge, experiences and skills at household, community and seascape levels was moderate with a score of medium and a no change trend. It was felt that more involvement and participation of women in conservation matters and decision making need to be encouraged and practiced where cultural and religious barriers are not of concern.

### **3.2.4 Governance and Social Equity**

**Rights in relation to seascape resources and natural resource management:** The community indicated their customary and/or formally recognized rights over sea, water and natural resources to be moderate with a medium score and a no change trend an indication that more customary rights need to be recognized by the existing governing structures.

**Community-based seascape governance:** The score by community for community-based seascape governance was medium with a no change trend, this is mainly because institutions for management of the natural resources in the seascape exists, but there is no multi-stakeholder seascape platform.

**Social capital in the form of cooperation across the seascape:** Connection, coordination and cooperation within the seascape-scale exists but at a moderate level with a medium score and an increasing trend, thus an opportunity to further tap on social capital with involvement of different organizations and institutions.

**Social equity (including gender equity):** The access to opportunities and resources at household, community and seascape level is fair and equitable for all community members including women, the score being high with an increasing trend. There was an indication for need to further enhance equity.

### **3.2.5 Livelihoods and Well-being**

**Socio-economic infrastructure:** The community indicated the socioeconomic infrastructure to be adequate for community needs, giving a high score and an increasing trend, this is mainly because of the recent development on socio-economic by the government.

**Human health and environmental conditions:** The general health of the situation of the local people in relation to the prevailing environmental conditions was indicated to be moderate with a medium score and a no change trend. Concerns were raised on poor sanitation including lack of dumping sites and toilets, and inadequate medical expertise.

**Income diversity:** The households in the community was moderately involved in a variety of sustainable income generating activities. A score of medium and no change trend for this indicator showed a need to improve on existing income generating activities and training on new and modern fishing and farming techniques.

**Biodiversity-based livelihoods:** The community had a medium score and an increasing trend for developing innovative use of the local biodiversity for its livelihood i.e. development of mangrove board walk in Wasini island, sea weeds farming in Kibuyuni.

**Socio-ecological mobility:** Movement by households and communities between different production activities and locations exist, a medium score and an increasing trend was given by the community.

### 3.3 Outcomes and Indicators

Seascape Outcomes	Outcome Indicators
1. Integrity of habitats and biodiversity within the seascape is enhanced	<ul style="list-style-type: none"> <li>☐ Number of hectares restored, protected, managed</li> <li>☐ Species cover percentage, relative abundance and distribution</li> <li>• Number of new tree stumps in the seascape</li> </ul>
2. Reduce pressure on mangrove resource	<ul style="list-style-type: none"> <li>• Number of alternative energy apparatus installed in the seascape</li> <li>• Number of energy saving and efficient apparatus put in use in the seascape</li> </ul>
3. Livelihoods of communities living around the seascape are strengthened and diversified	<ul style="list-style-type: none"> <li>☐ Number of successful income generating activities, both new and strengthened initiatives</li> <li>• Number of jobs created</li> </ul>
4. Knowledge management among different players is enhanced and shared	<ul style="list-style-type: none"> <li>☐ Number of best practices and lessons learned shared and adopted among seascape stakeholders.</li> <li>• Number of documentation tools/materials developed and shared amongst players and wider stakeholders</li> </ul>
5. Institutional Seascape governance capacity strengthened	<ul style="list-style-type: none"> <li>☐☐ Number of CBOs, Community Groups effectively participating in seascape decision making</li> <li>☐ Proportion of community representation in seascape decision making</li> </ul>

## 4 TYPOLOGY OF POTENTIAL COMMUNITY-BASED PROJECTS AND CRITERIA FOR PROJECT SELECTION

### 4.1 Criteria for project selection

Eligible projects should address the following in each outcome area:

**Outcome 1:** Integrity of habitats and biodiversity within the seascape is enhanced

- Protection and conservation of critical habitats and biodiversity;
- Reducing degradation of habitats and biodiversity loss;
- Increasing awareness levels among seascape communities and stakeholders; and
- Improving management of co-management areas.

**Outcome 2:** Pressure reduced on mangrove resource use as domestic and commercial use

- Increased use of alternative energy sources;
- Use of alternative commercial/domestic wood (wood lots)
- Reduced dependence on natural resources.

**Outcome 3:** Livelihoods of communities living around the seascape are strengthened and diversified

- Improving incomes of communities living around the seascape;
- Reducing dependence on natural resources;
- Enhancing communities' access to climate change economic opportunities; and
- Establishing mechanisms for financing and enhancing CSO-Private partnerships for small-scale enterprises.

**Outcome 4:** Knowledge management among different players is enhanced and shared

- Raising the level of knowledge among seascape stakeholders;
- Improving access to seascape knowledge (including local knowledge); and
- Documenting lessons learned and indigenous knowledge for better use and management of resources in the seascape.

**Outcome 5:** Institutional seascape governance capacity strengthened

- Increasing CSO capacity in Monitoring, Control and Surveillance (MCS);
- Improving coordination and implementation of projects within the seascape;
- Improving social capital in form of cooperation across the seascape; and
- Enhancing customary user rights to resources.

Projects can cover more than one outcome area. They should be innovative, replicable, address policy gaps, demonstrate gender equity and include marginalised groups and people with disabilities.

Proposed actions/activities should directly lead to achievement of stated outcomes of this call for proposals. They should contribute to SGP country level goal of "*Growth*

*and development are inclusive and sustainable, incorporating productive capacities that create employment and livelihoods for the poor and excluded”.*

## **4.2 Typology of projects**

Potential projects should address the following actions under each outcome area:

### **Outcome1: Integrity of habitats and biodiversity within the seascape is enhanced**

- Rehabilitate degraded habitats (e.g. seagrass beds, mangroves, coral reefs);
- Create awareness on the value of key habitats (seagrass beds, coral reefs, mangroves), their connectedness, threats facing them, and consequences of their loss and degradation;
- Strengthen management and resource monitoring of existing CMAs and Joint CMA; and
- Establish temporal closures to allow resource rejuvenation and biomass build-up e.g. octopus closures.

### **Outcome 2: Pressure reduced on mangrove resource use as domestic fuel wood**

- Introduce use of alternative energy sources e.g. solar energy apparatus.
- Reduced dependence on natural resources by use of energy saving apparatus e.g. cook stoves

### **Outcome 3: Livelihoods of communities are strengthened and diversified through development of innovative community-initiated enterprises**

- Introduce and enhance innovative income generating activities among seascape communities as an incentive to conservation;
- Value chain development initiatives in fishing, tourism, agriculture, aquaculture and forestry;
- Assist communities to access climate change opportunities, such as sale of carbon credits and climate change funding e.g. Global Climate Fund and Africa Climate Change Fund;
- Link community based small-scale enterprises to financing opportunities and CSO-Private Sector partnerships; and
- Introduce green energy apparatus on energy saving, and energy alternatives to cut on cost of production and reduce pressure/dependence on natural resources.

### **Outcome 4: Knowledge management among different players is enhanced and shared**

- Promote actions that preserve local knowledge (ecological, cultural, religious)

- Create community awareness that incorporates local knowledge on conservation, livelihood options, climate change, democratic and accountable governance, etc.
- Establish information centres and repositories that incorporate local knowledge
- Support capture, dissemination and sharing of lessons learnt and best practices in biodiversity conservation, livelihood enhancement and governance
- Capture and document indigenous (including marginalized & vulnerable groups) knowledge in use and management of the seascape resources

#### **Outcome 5: Institutional Seascape governance capacity strengthened**

- Strengthen Monitoring, Control and Surveillance (MCS) of existing Co-management Areas (CMAs) and Joint-Co-management Areas (J-CMA);
- Establish and support a framework for a multi-stakeholder platform to enhance coordination and cooperation in project activities;
- Improve functioning of BMUs through capacity building on governance;
- Enhance equity and gender considerations where women and youth, and vulnerable and marginalized groups are involved in decision making;
- Strengthen recognition and role of customary access rights to resources; and
- Facilitate actions that promote building of social capital to achieve cooperation.

#### **4.3 Selection criteria for NGOs/CBOs**

NGOs/CBOs to be funded should demonstrate capacity and previous track record of working on issues of relevance to this call for proposals. Prior working experience with communities within the Shimoni-Vanga seascape and knowledge of the seascape is a pre-requisite. Marginal and vulnerable groups will be guided to develop projects relevant to them and conservation of the resource.

### **5 MONITORING AND EVALUATION PLAN AT THE LANDSCAPE LEVEL**

In terms of monitoring and evaluation of individual projects, a project monitoring and evaluation plan identifying indicators for the success of the individual projects will be developed. Through a participatory process facilitated by the strategic partner, the community will develop monitoring and evaluation plan, select indicators familiar to their locality and activity areas for easy monitoring of individual projects. The community plans will be integral to the overall project monitoring and evaluation plan. The project performance will be monitored against the set objectives and activities timelines. A work plan will be developed to guide on the implementation of the project activities both at supervisory level and individual projects implementation level.

Impacts of community projects will be measured using the Satoyama initiative indicators on resilience. A mid-project evaluation will be conducted to determine the success of the project. The feedback of the evaluation will help measure progress on the different objectives, of which non-progressive objectives will be adjusted or redesigned for the project success through relevant and amicable adjustments.

A participatory monitoring process will be applied throughout the project process, the community will be part of the project monitoring plan development and data collection, the result of the data analysis will then be communicated and presented to the community and relevant stakeholders as necessary

## **6 KNOWLEDGE MANAGEMENT PLAN AT THE SEASCAPE LEVEL**

### **6.1 Capturing, sharing, and disseminating of lessons learned and good practices identified through the project**

Case studies will be developed from the funded projects, to maximize on opportunities, the Strategic Partner (SP) will undertake the following:

- Regular field visits will be conducted in the field to document activities of the various project groups;
- Lessons learned will be captured through short documentaries, pamphlets, newsletters;
- Projects that demonstrate exceptional results will be given an opportunity to present their lessons at the multi-forum level, agricultural shows and any other opportunity that may arise in the project period;
- Lessons learned will also be captured on the project reports;
- Project groups will be encouraged to visit other successful groups for experience exchange and benchmarking; and
- Peer tutors from successful groups that share common interests with the communities in the Shimoni-Vanga seascape will be used in training the project teams.

### **6.2 Informing and influencing policy at the local, regional and national levels by SGP Country Programme**

- The project will work closely with the County Government for easier integration of County planning into the project activities;
- Gaps in the effective implementation of the projects will be identified and the relevant policies consulted for improvement and inclusion at the local, regional and national levels;
- There are several fisheries management plans that have been developed that have an impact on the fisheries management in the Shimoni-Vanga seascape and the lessons learned from the projects can be used to enhance the management practices advocated in these policies. Such policies include the Ring Net, Lobster and Aquarium Fisheries Management Plans and the lessons learned can be used in the revision of these policies at a National level; and

- The lessons learned from the projects can be cascaded to the regional level through the Nairobi Convention network as the Shimoni- Vanga seascape is part of a transboundary area between Kenya and Tanzania.

### **6.3 Replication and up-scaling of good practices and lessons learned for landscape management to support sustainable socio-ecological production activities at the country, landscape and community levels**

- From the lessons learned SGP Country Programme can orient its strategy on developing projects that up-scale or enhance the lessons learned for sustainability purposes
- Some of the projects that will be supported will capture indigenous knowledge from the communities and these will be used to support adaptation to climate change and foster resilience

### **6.4 Analyzing and capturing experience at the landscape level through case studies**

- Each project will be treated as a potential case study and the knowledge harvest will be initiated at the planning stage where the consultations and discussions in project development will be documented. During the planning phase, baseline information will also be collected for monitoring change over the project lifetime. During the activity phase of the project, there will be documentation (written & video clips) and monitoring of activities. An in-built evaluation process will be used to assess progress made in achieving the goals of the project and any remedial actions that are taken to re-shape the project to achieve the intended success.
- As communities groups are prone to conflict, the mechanisms for complaints and grievance handling will be documented and best practices shared with other communities. The networks used by the project teams that lead to success will be documented as well as the strategies for sustainability. Technical assistance provided by governmental and non-governmental actors will also be documented as well as the possibility of mainstreaming this assistance within the project frameworks.
- During the documentation process, the integration of women and youth in the project will be highlighted to ensure that the stories and experiences of these vulnerable groups in communities are accommodated in the lessons learned.