Oceans Alive Trust Kenya

Strategic Plan 2020-25

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Acronyms and abbreviations

AFEW	African Fund for Endangered Wildlife
BMU	Beach Management Unit
CBO	Community Based Organization
BP	Best Practice
CBNRM	Community Based Natural Resource Management
CCA	Community Conservation Area
CDE	County Director Environment
CEC	County Environment Committee
CEAP	County Environment Action Plan
CEO	Chief Executive Officer
CExME	County Executive Member Environment
CExC	County Executive Committee
CFA	Community Forest Association
CG	County Government
CIDP	County Integrated Development Plan
CMA	Co-Managed Area
CoK	Constitution of Kenya
CSOER	County State of Environment Report
CORDIO EA	Coastal Oceans Research & Development
DFO	County Directorate of Fisheries
DOF	Department of Fisheries
E&NRM	Environment and Natural Resource Management
EAP	Environmental Action Plan
EBM	Ecosystem Based Management
EEZ	Exclusive Economic Zone
EIA	Environmental Impact Assessment
EMCA	Environmental Management and Coordination Act
ETP	Endangered, Threatened and Protected species
ESA	Ecologically Sensitive Areas
FFI	Fauna and Flora International
FLS	Fish Landing Site
GPS	Ground Positioning System
GIS	Geographic Information System
IPLC	Indigenous People and Local Community
IUCN	International Union for the Conservation of Nature
KCWA	Kuruwitu Conservation and Welfare Association
KCW-CBO	Kuruwitu Conservation and Welfare - Community Based Organization (alias KCWA)
KCDF	Kilifi County Directorate of Fisheries
KCMA	Kuruwitu Co Management Area
KFS	Kenya Forest Service
KMFRI	Kenya Marine Fisheries Research Institute
KW-BMU	Kuruwitu Beach Management Unit
KFS	Kenya Fisheries Service
KWS	Kenya Wildlife Service
K-BMU N/W	Kuruwitu BMU Network
LAMCOT	Lamu Marine Conservation Trust
LMMA	Local Marine Managed Area
LSum	Lump Sum
MD	Managing Director
M&E	Monitoring and Evaluation
MP	Marine Parks
MPA	Marine Protected Areas
NEMA	National Environmental Management Authority
NGO	Non-governmental Organization
N/W	Network
OAT	Oceans Alive Trust
Pacs	Participants
SEA	Strategic Environmental Assessment
Sl No	Serial Number
SOER	State of Environment Report
SSO	County Social Services Officer
TOT	Trainer of Trainers
TNA	Training Needs Assessment (i.e. baseline and monitoring intervals)
UNDP	United Nations Development Program
WIO	Western Indian Ocean
UNEP	United Nations Environmental Program
WCS	Wildlife Conservation Society
WMA	Watamu Marine Association
WWF	World Wildlife Fund

Key Definitions

Artisanal fisheries: Small scale, traditional fishery that may be carried out for subsistence or commercial (i.e. for sale) purposes in which the owner is directly involved in the day-to-day running of the enterprise and relatively small amounts of capital are used.

BMU (Beach Management Unit): An official constituted organization of fishers, fish traders, boat owners, fish processors and other beach stakeholders who traditionally depend on fisheries activities, allied industries and value chains for their livelihoods who have rights of tenure to co-manage with the County, a designated CMA.

BMU Network: An association of BMUs who come together collectively at ward; sub-county; county; water body; coastline and national levels (formed under Article 4 of the 2016 Fisheries Act).

CBNRM (Community Based Natural Resource Management): Recognizing traditional and indigenous access rights, CBNRM has been advocated for the past 3-4 decades as a means of empowering community exclusivity to manage natural resources which are placed under their jurisdiction, with regulated access protected by local by-laws embedded in state laws that govern the users security of tenure.

CCA (Community Conservation Area): Any area that the resident community have declared and managed as a conservation area which can be for any natural resource, fish, wildlife, forestry or water.

CFA (Community Forest Association): An organization of community forest stakeholders, traders or processors who have been registered under the Forest Act by the Kenya Forest Service (KFS) as custodians of a traditional forest reserve, coastal forest or mangrove area.

CMA (Co-management Area): An area of beach and coastal waters gazetted by the Fisheries Director-General as falling under the joint management jurisdiction of the County, authorized Fisheries Officer, the BMU and other stakeholders.

FLS (Fish landing site): A traditional fisher landing area on the shoreline of which the Director-General in consultation with the community and county, has by notice in the gazette designated as a point for the BMU to land, process and sell fish.

LMMA (Locally Managed Marine Area): A globally accepted collective term that encompasses any initiative by local, indigenous communities to protect and sustainably manage their marine livelihood resource base and is a ubiquitous term (i.e. it can encompass CCA, CMA, CFA, Tengefu, etc.).
MPA (Marine Protected Area): Designated under the Wildlife Act as a non-consumptive use area, strictly for use as a marine park (MP) or conservation reserve for the protection of endangered species, open only to non-consumptive use, such as eco-tourism.

'Tengefu' or 'vilindo vya wenyeji': Swahili term for a traditionally designated LMMA.

Foreword

It is with great pleasure that we share the **Oceans Alive Trust (OAT)** strategic plan outlining our vision for the sustainable management of our marine resources on the Kenya coast. Over my lifetime, I have witnessed the deterioration of our fisheries and coastal ecosystems and believe I have a duty to do all I can to reverse this trend. With this as our goal, OAT was created to fill a gap and to support the protection and conservation of our coastal ecosystems focusing on increasing community resilience and improved sustainability of local, nature based livelihoods.

We draw from 17 years in locally led marine conservation having founded the **Kuruwitu Conservation and Welfare Community Based Organisation (KCW-CBO) in 2003**, the first **Locally Managed Marine Area (LMMA) and Community Conservation Area (CCA)** in the Western Indian Ocean (WIO). Today there are as many as 30 LMMA's in Kenya most of which have been influenced in some way by our early initiative at Kuruwitu. We have had hundreds of peer-to-peer exchanges from communities along the coast, some coming regionally, from as far as Djibouti and Eritrea. We have expanded our LMMA which we have grown from a humble beginnings of 30 ha to merge into a Co-Managed Area (CMA) covering an area of 100 km^2 In 2017 KCW-CBO was awarded the UNDP Equator Prize for excellence in community initiated sustainable development. In addition to our pioneering role with KCW-CBO, we have also been instrumental in supporting the **Kuruwitu Beach Management Unit (K-BMU)** in following OAT's **Ecosystem Based Management (EBM)** approach. We have 4 pillars of focus that we build our work on. These are Environmental, Economic, Social (Cultural) and Institutional (Governance).

Our focus in the next 5 years will be in Kilifi County, working with the Directorate of Fisheries and the Kilifi County BMU Network and other stakeholders to extend our expertise in order to influence and achieve greater traction of LMMAs in the County seascape. OAT is assisting the 17 BMUs within Kilifi County, helping to achieve gazetted status and assisting in the establishment and operations of affiliated CMAs and also support mangrove-based Community Forest Associations. We are in unique position to share our approach to the creation, protection, and operation of LMMA's. Our goal is to promote a devolved governance framework for participatory and sustainable management of coastal marine resources. We plan to do this by strengthening local community stewardship and user rights of BMUs and CMAs for improved ecological integrity and resilient, nature-based livelihoods within the seascape of Kilifi County, Kenya.

The six parts to our strategy are:

1. Establish education capacity to reach BMUs, CFAs, communities, schools, NGOs and religious groups
2. Anchor institutional support for LMMAs and CMAs in Kilifi County Policy, Plans and local Networks
3. Consolidate the Kuruwitu experience into easy to use toolboxes based on our 4 pillars
4. Assist the 17 members of Kilifi BMU Network to gazette their security of tenure of CMA and FLS
5. Support rollout of best practices in all areas of ecosystem management and value chain improvements
6. Build OAT's internal capacity to support these objectives in the Kilifi coastal community and beyond

I would like to thank KCW-CBO for their input, John Balarin for his skilled guidance, Samantha D. Leone for many hours of consultation and writing and Tilda Bowden for her assistance with proof-reading and editing. I would also like to express my gratitude to Al Harris (Blue Ventures), Thomas Sberna (IUCN) and Alison Mollon (FFI) for their valuable support and advice.

We hope that you will join us on this journey as a stakeholder, volunteer, donor or partner.

Des Bowden OAT,
Chief Executive Officer

1. Policy Framework

The following policy instruments, (which are hyperlinked for ease of access). Although not exhaustive, provide a foundation for OAT's work in guiding the institution's mission and ensuring that it aligns with real-world priorities. At the national scale the Constitution of Kenya (CoK 2010), supported by the Environmental Management and Coordination Act (EMCA, 1999, revised in 2015) states that '*every person in Kenya is entitled to a clean and healthy environment and has the duty to safeguard and enhance the environment.*' EMCA place emphasis that people's participation is paramount in environment and natural resource management (E&NRM). This is complemented by the Wildlife Coordination and Management Act (WCMA, 2013), Fisheries Act (2016) and the Forestry Conservation and Management Act,(FCMA 2017). Combined, these acts aim to create a conducive environment for community based natural resource management (CBNRM). They strive to establish a fair balance between people's needs and nature by ensuring that there are chances for people to benefit from engagement in CBNRM without imperilling ecosystem goods and service. It is also important to note, access rights to natural resources are further protected under the Land Act (2012). The latter emphasis is on conservation of ecologically sensitive areas and public land, by controlling the allocation of property rights (e.g. in this instance, the Act protects land grab of fish landing sites (FLS) along the beach front).

Looking to the future, particularly of the coast, the national Blue Economy Strategy prioritizes the sustainable use of marine resources. Specifically, Kenya's Vision 2030 specifically mentions the '*creation of more marine reserves and the protection of Kenya's fish stocks by enforcing fishing regulations and more effective policing of marine parks and reserves.*' To add to this, the National Oceans and Fisheries Policy (2008) recognizes "open access to fisheries" as the over-riding problem and underlines co-management and ecosystem-based approaches as the key policy guiding principles for the sustainable management of fisheries. In the same vein, the Fisheries (Beach Management Unit) Regulations (2007) highlights incentives for co-management and advocates establishing CMA. The fisheries policy is enforced by the Fisheries Management and Development Act No 35 (2016) which provides for BMUs as the instrument for '*the conservation, management and development of fisheries and other aquatic resources to enhance the livelihood of communities.*'

At the international level, various conventions have been ratified by Kenya. The country is a party to the Convention on Migratory Species (CMS, 1983) (also known as the Bonn Convention), the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES, 1975), the Convention on Biological Diversity (CBD, 1993) and the Ramsar Convention on wetlands. These 4 instruments respectively seek to (a) protect migratory species inside and outside national jurisdictions (b) regulate the trade in endangered species and (c) conserve biodiversity ensuring that it is both sustainably used and equitably shared in terms of benefits and user rights.

As regards international instruments specifically regulating marine resources, Kenya is a signatory to the United Nations Convention on the Law of the Sea (UNCLOS, 1982) which sets out the legal framework for ocean activities and maritime boundaries establishing the territorial waters up to 12 nm and sovereign EEZ rights of coastal states for up to 200 nautical miles. Equally important, the FAO Code of Conduct for Responsible Fisheries (1995) provides standards for responsible best practices in regards to aquatic resource management. At the regional scale, the Nairobi Convention (1985) sets a regional framework for member states to works towards a prosperous **Western Indian Ocean (WIO)** with healthy rivers, coasts and oceans.

Finally, Kenya is a party to the Paris Agreement (2015), which entered into force in November 2016. This agreement sets out **17 Sustainable Development Goals (SDGs)**. These SDGs are interrelated and tackle a variety of cross-cutting issues ranging from hunger and poverty to sustainable and resilient livelihoods and climate adaptation and mitigation action. Of key interest, SDG14 'Life below water', specifically underscores the need to '*Conserve and sustainably use the oceans, seas and marine resources.*' Through this global goal, OAT see its duty is to contribute to sustainable use of our oceans, which make up 70% of our planet. This clearly affirms our mandate.

2. Situation Analysis

The culture, traditions, and historic trends in livelihoods of the indigenous coastal peoples of Kenya are intrinsically interlinked with the nature of the seascape. Well before British rule, indigenous people and local communities (IPLC's) such as the Giriama, who make up the bulk of the populous in Kilifi County, already had their own traditional systems for customary tenure and management of marine resources. The seascape has been such an essential factor of life that marine-related proverbs are in common use in the area, such as '***Mlinga ndio mkoko***' – *"the shoot is the mangrove tree"* '***Tunza mikoko ikuhifadhi na majanga***' – "*protect the mangroves so that they protect you from disasters"* or yet, '***Avumae baharini papa, lakini wengine wamo***' – *"it is the shark which is most known at sea"* and many others (Shilabukha, 2015). Customary management of fishing was traditionally regulated by community elders who decided who would fish what species, how much, and where. However, the dawn of the colonial era was a pivotal point in marine resource management, and as such customary tenure of resources was reduced greatly and indigenous people and local community (IPLC) structures were ignored. Fisheries management became a top-down, government-led approach (Aswani et al., 2011; Cinner et al., 2012), a model that has largely persisted to this day, with some changes that include IPLC rights brought about with the introduction of the Fisheries (Beach Management Unit) Regulations (2007) and 2016 Fisheries Act.

Beach Management Units (BMUs), defined in the Fisheries (Beach Management Unit) Regulations (2007) as '*an organization of fishers, fish traders, boat owners, fish processors and other beach stakeholders who traditionally depend on fisheries activities for their livelihoods*,' are the entry point for the expansion of the LMMA movement within Kilifi county, and the whole coastline. These BMUs made up of IPLC members can legally implement sustainable measures for fisheries management (e.g. instilling their own by-laws on illegal fishing gear or designation with rights of protection of exclusion from "no-take zones" or CCA's). That being said, current formalization of BMUs, by state registration and gazzettement remains low in Kilifi County. The reasons behind this include, but are not limited to; scant community understanding of the legal procedures involved in setting up a CMA (Maina et al., 2011); a lack of a clear county legal framework to support the BMUs (Kawaka et al., 2017)24 had been established. Coastal communities perceive the objectives of these LMMAs are to primarily conserve fisheries and marine resources and secure alternative sources of income. In this study we examined if there are generic approaches in how these LMMAs were established, that can be used for developing national guidelines as well as have application to other locations in the western Indian Ocean region. The study involved a literature review of all documents available on the LMMAs and key informant interviews. We found LMMAs in Kenya go through five phases to become fully established and operational: i; land tenure issues resulting in land grab of FLS and fear of eviction from critical fishing locations; legal complications in gazettement of BMU registration; and the lack of clear fishing area delimitations of jurisdiction making registration complicated (Kanyange et al., 2014). Given the above, many barriers exist to the institutionalization of BMUs in Kilifi county leading to land and turf disputes and poaching by migrants unregulated enter into the designated CMA and using illegal gears like beach seines and drag nets that damage the reef.

In addition to issues related to weakness of IPLC institutional governance, Maina et al. (2011) specifically underline the **limited understanding among fishing communities of the importance of conservation and sustainable use**. While this may have changed to a certain degree since the publication was released, the observation remains relevant. Additionally, the **national education curriculum exhibits a pedagogical gap and does not sufficiently address issues of sustainability and the environment**. K'Odhiambo (2017)especially in pre-primary and primary schools in Kenya, and in any other place in the world, ought to have the prerequisites of environmental education indelibly instilled in the young minds of learners so that the knowledge gained acts as impetus that empowers individuals as learners and later as society adult members to take care of the Mother Earth in a sustainable manner. Education curriculum in Kenya exhibits pedagogical lacuna which does not auger well for environmental sustainability, although positivity is expressed in the country's goals of education and commitment to international conventions on environment. The paper uses analysis and prescription as the philosophic methods. It analyses what is taught in pre-school and primary schools in Kenya with a view to evaluating their authenticity in caring for the planet earth and prescribes what is deemed valuable for the education

2. Situation Analysis

curriculum of young learners from five to 14 years of age. The analysis reveals that to seal the lacuna in the educational curriculum and empower human beings to be effective and efficient development sustainers of the earth, ecopedagogy should be incorporated as the invaluable educational methodology during the early years. The paper prescribes dialogue as the ecopedagogical principle that should focus on food (F explains that *'learners in both pre- and primary schools in Kenya are not critically tutored into the issues of E&NRM. The syllabuses used do not comprehensively lean on a pedagogical base that can stimulate thought for further learning that would lay the ground for sustainable development.'* Moreover, a study of the formal educational levels achieved by household heads in Kilifi conducted by Murage & Kisaka (2015) found that **29% have completed secondary and higher education, and 36.5% have no formal education**. This is significant as it could mean the **reduced capacity of communities within the county to lobby for and access opportunities for positive change**, whether economic, social or environmental.

In addition to limited awareness of environmental and sustainability issues, **there is** a **high dependence for economic and food security on marine resources and little opportunity for income diversification**. As per a 2003 study fisheries provide up to 80% of the total income to 70% of coastal communities in Kenya (Malleret-King et al., 2003) with 90% being produced by small scale artisanal fishers (NEMA, 2017). Additionally, pressure on coastal resources is rising with the **reported number of small-scale fishers increasing over time**; whereas in 2008, the total 600 km coastline there were 12,077 artisanal fishers, in 2016 this figure had increased to 13,426 (NEMA, 2017). No doubt this figure has probably risen further since the data was collected due to population growth. Furthermore, with the current economic context caused by **COVID-19, there has been a downturn in revenues for fishers and associated trades as these rely heavily on inter-county transport and purchases from various business** (e.g. hotels, restaurants etc.) which are tourist dependent. OAT has already witnessed an influx of new fishers to the area, presumably due to the longstanding role of the inshore fishery as a fallback buffer and safety net when income and food are in short supply. These **new migrant fishers, aside from their increasing pressure on overall exploitation of the resources, may also have less knowledge of good practices and a weaker attachment and concern** for the sustainability of marine resources use and associated biodiversity conservation. It is in times like these where we are starkly reminded that there are **very few alternative income opportunities** within the area and that **Kilifi county, like all coastal livelihoods, are extremely vulnerable to shocks**.

3. State of Coastal Resources

The *State of Coast Report for Kenya* (NEMA, 2017) elaborates the extent of coastal resource degradation at national/county levels. Key contributing factors highlighted include over-exploitation of fish and mangroves; degradation from bad practices (use of illegal drag nets damaging corals) and transformation of habitat (for tourist infrastructure); pollution (Sewage and plastic wastes entering the ocean); climate change (sea rise and storm leading to beach erosion); increased demand for food and energy security caused by population growth and overall poor resource governance and management capacity. The combination of these factors has led to deterioration in critical coastal ecosystems such as damage to coral reefs, seagrass beds, mangroves, coastal terrestrial forests, sand dunes and beaches. Certain endangered species have also been affected because of the degradation of these coastal ecosystems. The following section provides a quick overview and is by no means intended to be comprehensive.

MANGROVE FORESTS

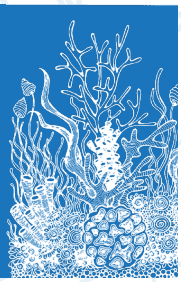
Estimated to have declined by 17.8% between 1995 and 2009 with the many losses observed in Kilifi County.

COASTAL TERRESTRIAL FORESTS

Most coastal terrestrial forests are threatened due to fragmentation resulting in loss of biodiversity.

CORAL REEFS

Mass bleaching of corals was experienced in 1997/98, 2001, and 2010. Some bleaching also occurred in 2016.



SEA GRASS BEDS

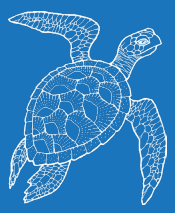
Overfishing of ocean predators led to reduction of *Thalassodebdron Ciliatum* in areas like Watamu. Other threats are beach seining, trawling, pollution and dredging.

SAND DUNES AND BEACHES

Susceptible to encroachment, sand harvesting and improper waste disposal (e.g. sewage, effluent plastic pollution etc.)

SPECIES OF CONSERVATION CONCERN

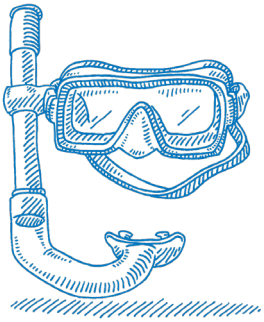
Kilifi county seascape is home to numerous species forming a rich feeding and breeding ground and acting as a migratory route for various ETP* inluding five species of marine turtles.



Note to the reader:
Please refer to NEMA (2017) for more details and relevant references

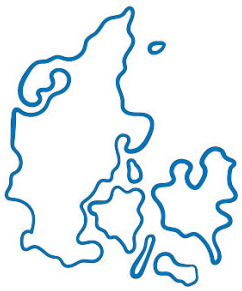
ETP stands for *Endangered, Threatened and Protected species.

4. Oceans Alive Trust



VISION

Marine conservation of Kenya coastline and IPLC coastal resource use in balance with nature to support well-being and sustainable livelihoods.



MISSION

To create, connect and catalyze co-management initiatives by providing support to BMU and coastal IPLC communities, sharing relevant knowledge, and building capacity.

MISSION

- Respecting IPLC rights and indigenous knowledge
- Provisioning of new ways to develop and support IPLC coastal resource governance
- Listen to all voices; leave no-one behind
- Nurture partnerships for knowledge sharing and to lobby for change
- Share experience and best practices (BP)
- Restore balance to nature
- Provide practical solutions for real-life problems

Oceans Alive Trust (OAT) was set-up in 2016 as the next logical step in extending the influence of the global LMMA movement in Kenya. OAT aims to share experience with other coastal fishing communities to help safeguard biodiversity and ensure sustainability of ecosystem services while protecting fisheries and key **Ecologically Sensitive Areas (ESAs)**. OAT seeks to create and support a network of like-minded stakeholders for information sharing and action. It draws on 17 years of practical, hands-on experience dealing with the challenges involved in implementing LMMAs. OAT through its network has access to a team of technical support providers each with 15 to 40 years of experience in this area.

Ecological recovery within the Kuruwitu CCA has been remarkable. Research over the years has confirmed that, compared with the 2006 baseline, there was an increase of 400% in fish biomass, 30% increment in coral reef and of 12% in seagrass coverage. The spill-over boosted the surrounding fishery, and the improved marine life increased the quality of snorkeling, leading to the establishment of eco-tourism opportunities as a new source of revenue and employment for the local community.

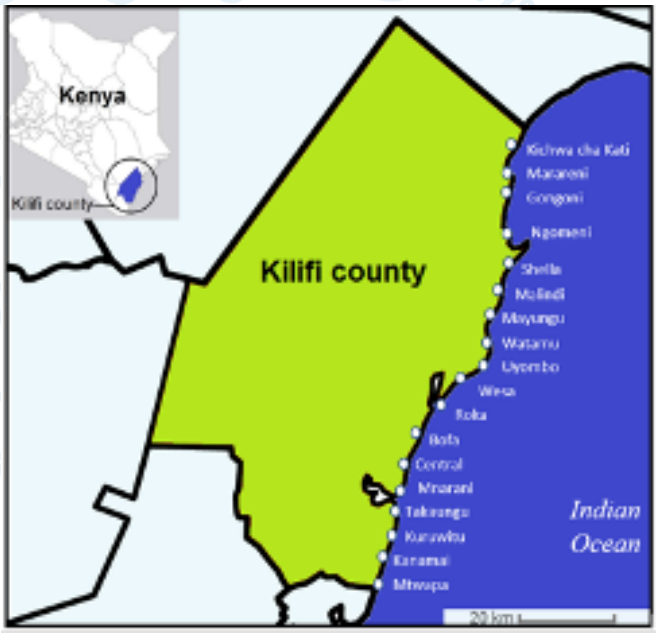
Kuruwitu has become a popular site for knowledge sharing and a living classroom for *peer-to-peer exchange*, also attracting international scholars. It has provided a model for scientific research by partners such as CORDIO EA, KMFRI and WCS. The initiative offers a case study on how to set up an LMMA and is a testament to the ecological

4. Oceans Alive Trust

and economical benefits that can be derived from locally driven IPLC coastal resource protection. With the emergence of the BMU Regulations in 2007, KCW-CBO has also had to retool itself to accommodate a transformation to expand jurisdiction under K-BMU, and adoption of the six CBNRM principle policy steps (see Appendix 1) that apply to CMAs, and that are key to secure tenure of the CCA, CFA, BMU and FLS.

OAT's vision is centered around the KCW-CBO and K-BMU model and **best practices (BP)** and a belief that these can be leveraged to greater effect through increased awareness, networking, and collaboration with other similar initiatives. OAT has already launched training programs in multiple areas of community coastal resources governance and CCA management. Alongside KCW-CBO, OAT has piloted various value-added income initiatives in eco-tourism, organic and climate smart farming, beekeeping, aquaculture, blue carbon credits and value chain improvements (e.g. in fish marketing with sales in Nairobi), all targeted at improving community welfare while maintaining sustainable resource use.

Ultimately, OAT intends to roll out the model (see Appendix 3) to 17 members of the Kilifi County **BMU Network (BMU N/W).** The targeted BMUs include Mtwapa; Kanamai; Takaungu; Mnarani; Central; Bofa; Roka; Wesa; Uyombo; Watamu; Mayungu; Shella; Gongoni; Marareni; Kichwa cha Kati; and Ngomeni (See indicative map below).



D.Bowden (2017), K.Ngala collecting the Equator prize

Working with partners committed to sustainable usage of marine resources and improved livelihoods

4. Oceans Alive Trust

A FEW OAT STAKEHOLDERS

- Coastal fishing communities in Kilifi county
- Community village elders
- BMUs
- CCAs
- The State Department for Fisheries, Aquaculture and the Blue Economy
- Kilifi County Gov. Directorate of Fisheries
- National Environment Management Authority (NEMA) and Kenya Wildlife Service (KWS)
- Ministry of Tourism
- Research bodies (e.g. KMFRI and CORDIO EA)
- NGOs (e.g. FFI, IUCN and CANCO)
- Tourism companies (e.g. hotels, tour operators)
- Coastal property developers
- The global scientific community
- Private Public Partnerships
- Residents Associations

STRENGTHS

- Solid team with 17 years experience in all areas of Environmental Based Management (EBM)
- Spearheaded LMMA movement in WIO
- Creation of a proven successful LMMA model culminating in the Equator Prize 2017
- Centrally located at Kuruwitu
- Track record trusted by community
- Parallel income generating activities
- Wide diversity of recognised partners with varied skill sets
- Long-term understanding and relationship with coastal communities
- Strong relationship and clear mandate with County governments and the Kilifi County BMU network
- Filling a gap in coastal EBM

WEAKNESSES

- Lack of funding to support the fast growing requirement in human resources
- Lack of recognition as a relatively new organisation affecting our ability raise funds
- Limited power to enforce by-laws
- Lack of funding to implement our long-term plans

THREATS

- Awareness of environmental issues is limited and not prioritised
- High levels of poverty along the Kenyan coast mean dependence of many on fishing
- Good fisheries practise are hard to enforce
- Over-exploitation of marine resources from Blue Economy initiatives
- COVID-19 has increased poverty in coastal communities - shift from conservation focus to survival
- Negative impact of corruption
- Coastal development negatively impacting ecosystems
- Negative effects of 'Territorialism" of other NGO's
- Regulations surrounding co-management still need to be refined
- Unwillingness to face change

OPPORTUNITIES

- Development of sustainable income projects and central markets
- International focus on LMMA's
- The Blue Economy and renewed interest in management of marine resources
- Blue Carbon opportunities to trade carbon credits
- Development of Kenyan coast leads to less reliance on marine resources and diversified income streams for communities
- Government support for co-management initiatives
- Grants for WIO marine projects
- Government policies to encourage sustainability in the marine conservation area
- Widespread adoption of CSR in the private sector
- Increasing awareness of the importance of environmental stewardship

5. OAT Strategic Approach

This strategy sets out the objectives OAT wants to fulfil by 2025 in promoting coastal resource co-management. Emphasis is placed on consolidating 17 years of CCA experience with KCW-CBO and more recently 5 years CMA with K-BMU. This will serve as a basis for BMU, CFA, CCA and CMA models, templates and toolboxes for knowledge sharing and training. Furthermore, tools will be developed based on learning from KCW-CBO application of the 6 policy principles of community based natural resource management (CBNRM). These will be adopted to guide securing gazettement of BMUs, CMAs and FLS. This capture, will lead to their inclusion in County policies, plans and legislations. This will in turn encourage ongoing local government support and institutionalization for the emerging 17 Kilifi County BMUs and associated Kilifi BMU Network, leading to promotion of uptake by IPLC in neighbouring counties.

The strategy also caters for living classroom, peer-to-peer exchange initiatives, and the establishment of a resource centre for model exhibits and training based on KCW-CBO and K-BMU experience. It looks to information exchange through the Kilifi County BMU Network (K-BMU N/W), inviting like-minded stakeholders, IPLC's, NGOs, CBOs and other county BMU's to join and share knowledge. In addition, the strategy focuses on the establishment of conservation clubs in coastal schools and awareness raising through religious groups and mobile field classes.

KCW-CBO and K-BMU will continue to develop as a model training site for pilot developing of alternative livelihoods (like aquaculture, tourism, climate smart agriculture, tailoring, carpentry etc) and improvements in the value chain and allied industries, sharing this and various toolkits with the 16 other BMUs in Kilifi County, and any other interested party in Kenya, or globally.

OAT'S LONG-TERM GOAL is for Kenyan coastal fisheries resources to be sustainably managed and IPLC livelihoods improved by being custodians of nature and living in harmony with coastal ecosystems services.

OAT'S SHORT-TERM GOAL is for Kilifi County coastal fishery resources to be sustainably utilized through awareness and community-based initiatives in coastal biodiversity conservation and resource use.

EXPECTED OUTCOMES:

1. Establish education capacity to reach BMUs, communities, schools, NGOs and religious groups
2. Anchor institutional support for CCAs and CMAs in Kilifi County Plans and BMU Network
3. Consolidate the Kuruwitu experience into easy to use toolboxes based on 6 CBNRM policy principles
4. Assist the 17 members of Kilifi BMU Network to gazette their security of tenure of CMA and FLS
5. Support rollout of best practices in alternative livelihoods and value chain improvements
6. Build OAT's internal capacity to support these objectives in the Kilifi coastal community and beyond

OUTPUT 1: Coastal fishery biodiversity conservation increased through community understanding of environmental and social issues

OUTPUT 2: Coastal fisheries resources sustainably managed through institutionalization of the BMU co-management network and county engagement

OUTPUT 3: Inshore coastal fishery resource degradation reduced through consolidation and sharing of Kuruwitu CBO/BMU model for CMAs

OUTPUT 4: Kilifi coastal fishery resources sustainably managed through mobilizing and securing tenure and gazettement of the 17 BMU CMAs

OUTPUT 5: Resilience of coastal livelihoods is improved through climate smart and COVID-19 buffered value chain additions

OUTPUT 6: Kilifi LMMAs supported through strengthening of OAT's internal capacity

6. Strategic Priorities

Output 1: Coastal fishery biodiversity conservation increased through community understanding of environmental and social issues

Ambition: Coastal IPLC will voluntarily engage in coastal fishery biodiversity conservation and sustainable use as a result of having an increased understanding of their dependence on nature and the importance of associated environmental, economic and social issues.

Strategic Priorities:

a. Coastal Resource Center and exhibits established at Kuruwitu, operational as a living classroom
b. Peer-to-peer learning undertaken of the county and 17 BMU Network leaders on their CMA roles and responsibilities
c. Coastal school conservation clubs supported through field trips to Kuruwitu visitor center
d. Community awareness and field visits to Kuruwitu CBO/ BMU conducted to raise appreciation of nature
e. Coastal religious groups supported with biodiversity conservation extracts from Bible and Koran
f. Kilifi BMU Network information platform established, linking stakeholders, sharing experience
g. Local and international scholars offered hands-on internships to gain experience in CMA
h. OAT to offer technical assistance to support other CCAs and BMUs along the Kenyan coast

6. Strategic Priorities

Output 2: Coastal fisheries resources sustainably managed through institutionalization of the BMU co-management network and county engagement

Ambition: Coastal fisheries resources are sustained through integration into county policies, plans and legal frameworks so that barriers to formalization of BMUs and CMA are reduced.

Strategic Priorities:

a. Status of coastal fisheries resources in Kilifi County documented as a state of environment report (SOER)
b. Kilifi CIDP undergoes strategic environmental assessment (SEA) to strengthen fisheries in CIDP III
c. Kilifi County supported to tailor coastal resource policy and fisheries legislation to local requirements
d. Kilifi BMU Network supported to undergo 6 policy principles to gazette its 17 BMU members, CMAs and FLS.
e. Kilifi BMU Network leadership trained, made functional and successfully govern and protect the joint CMA
f. Kilifi fisheries frame surveys and catch data supported to guide CMA planning and to monitor progress

Output 3: Inshore coastal fishery resource degradation reduced through consolidation and sharing of Kuruwitu CBO/BMU model for CMAs

Ambition: The dependency of the Kuruwitu community on coastal fisheries resources is reduced through consolidation of the 6 CBNRM policy steps, leading to gazettement of the 17 BMUs, CMAs and FLSs and sharing of best practices in a variety of alternative livelihood opportunities. The Kuruwitu CBO/BMU model is taken up by other communities, which leads to a reduction in degradation of coastal fishery resources (See 'The Kuruwitu Model' Appendix 2).

Strategic Priorities:

a. KCW-CBO/KBMU capture their experience as a toolbox of models/templates of the 6 policy steps for CMA
b. KCW-CBO share toolbox and assist the K-BMU to develop the 6 steps and secure gazettement of tenure
c. KCW-CBO/BMU share toolbox through living classroom and peer-to-peer exchange with the County and other 16 BMUs of K-BMU N/W.
d. KCW-CBO/BMU as a pilot test site, develop models of alternative livelihoods, eco-tourism, etc.
e. KCW-CBO/BMU document BP in user-friendly guides in order to add to the for peer-to-peer sharing and capacity building

Output 4: Kilifi coastal fishery resources sustainably managed through mobilizing and securing tenure and gazettement of the 17 BMU Network CMAs and FLS

Ambition: 17 BMUs supported to secure user rights of CMA and FLS, with security of tenure measures established and BMUs active in conservation and sustainable use of the near-shore fishery ecosystems within the Kilifi BMU Network CMA.

Strategic Priorities:

a. 17 BMU Network members supported, to adopt a Constitution and register as a CBO
b. 17 BMU Network members supported, to establish their CMA boundary jurisdiction
c. 17 BMU Network members supported, by county frame survey and catch data to conduct resource assessment
d. 17 BMU Network members supported, to adopt a CMA management plan
e. 17 BMU Network members supported, to adopt CMA by laws
f. 17 BMU Network members supported, to secure gazettement of CMA and FLS
g. 17 BMU Network members functional, and manage their CMAs based on Kuruwitu -CBO/BMU models and county support

6. Strategic Priorities

Output 5: Resilience of coastal livelihoods is improved through alternative, climate smart and COVID-19 buffered, value chain additions

Ambition: The livelihoods dependent on the artisanal fisheries value chain and allied industries are improved and made more resilient to shocks such as climate change and COVID-19.

Strategic Priorities:

a. KCW-CBO/K-BMU alternative livelihood models documented and made available to the other BMU's to adopt
b. 17 Kilifi BMU's supported to invest in pilot trials of selected BP alternative livelihood options
c. 17 Kilifi BMU's supported in establishing their value chain operations
d. 17 Kilifi BMU's supported in pilot trials testing protection of a core ESA as CCA (e.g. coral reefs, mangroves, seagrass beds, etc.) before expanding

6. Strategic Priorities

Output 6: Kilifi LMMA supported through strengthening of OAT's internal capacity

Ambition: OAT seeks financial support to grow its staff and operations to be able to support the 10,000 fishers along the 265 km Kilifi coastline, progressively covering some 200,000ha of territorial waters of the CMA, encompassing beach, mangrove forests, coral reefs, riparian areas, seagrass beds and nearshore waters of the continental shelf.

Strategic Priorities:

a. Maintaining a portfolio of fund-raising opportunities, applying for grants as and when they arise
b. Nurture international partnerships with like-minded parties (i.e. IUCN; FFI; WCS; CORDIO etc.)
c. Nurture local core funding partners and stakeholders (e.g. Vipingo Ridge, Centum, La Ferge etc.)
d. Hire experienced specialists, technical and extension staff to cater for the rollout of this strategic plan

7. Strategic Work Plan

Sl No	Description	Indicators	Y1	Y2	Y3	Y4	Y5	Total
1	**Output 1: Coastal fishery biodiversity conservation increased through community understanding of environmental and social issues.**							
	a. BMU Resource Center and Exhibits established.	Center established	1					1
	b. Peer-to-peer learning undertaken of the 17 BMU Network leaders	Nos BMU Trained	17	17	17	17	17	17
	c. Coastal schools conservation clubs supported	Nos School clubs	5	10	17	17	17	66
	d. Community awareness programs and field visits to Kw-CBO	Awareness programs	10	10	10	10	10	50
	e. Coastal religious groups supported with biodiversity conservation	Nos Religious Groups	2	5	10	17	17	51
	f. Kilifi BMU Network information platform established.	Network Members	5	10	10	10	10	45
	g. Local and international scholars offered hands-on internships	Nos Interns	5	5	5	5	5	25
	h. OAT offer technical assistance to support other CCAs and BMUs.	Other BMUs supported	0	2	4	5	5	16
2	**Output 2: Coastal fisheries resources sustainably managed through institutionalization of the BMU co-management network and county engagement.**							
	a. Status of coastal fisheries resources in Kilifi County documented as SOER.	Fisheries SOER	1		1		1	3
	b. Kilifi CIDP undergoes SEA to strengthen fisheries in CIDP III.	CMA in CIDP III		1				1
	c. Kilifi County supported to tailor fisheries policy and fisheries legislation.	Policy and Laws	1	1				2
	d. Kilifi BMU Network supported to undertake 6 policy principles to gazette	BMU N/W Gazette	0.5	0.5				1
	e. Kilifi BMU Network leadership, trained an made functional	Leaders Trained	17	17	17	17	17	85
	f. Kilifi fisheries Annual frame surveys and catch data supported.	Frame/Catch survey	2	2	2	2	2	10
3	**Output 3: Inshore coastal fishery resource degradation reduced through consolidation and sharing of Kuruwitu CBO/BMU model for CMAs.**							
	a. Kw-CBO/BMU consolidate their experience as a toolbox of models/templates.	6 step Toolbox	1					1
	b. Kw-CBO share toolbox and assist the Kw-BMU to develop the 6 steps.	Kw-BMU 6 steps	1	1				2
	c. Kw-CBO/BMU share toolbox through living classroom and peer-to-peer exchange	Other BMUs NW	1	17	17	17	17	17
	d. Kw-CBO/BMU is a pilot test site, develops -models of alternative livelihoods,	A Lhoods models	1	2	2			5
	e. Kw-CBO/BMU document BP in user-friendly guides for peer-to-peer sharing.	A Lhoods guides	1	2	2			5
	f. Kw-CBO/BMU emerge as an economic model that is copied by others.	Economic Analysis	1					1
4	**Output 4: Kilifi coastal fishery resources sustainably managed through mobilizing and securing tenure and gazettement of the 17 BMU Network CMAs and FLSs.**							
	a. 16 BMU Network members supported, to adopt Constitution and register BMU	BMU Constitutions	1	17	17	17	17	17
	b. 16 BMU Network members supported, to establish their CMA boundary jurisdiction	CMA Boundary	1	17	17	17	17	17
	c. 16 BMU Network members supported, with frame survey and catch data.	Resource assessments	1	17	17	17	17	17
	d. 16 BMU Network members supported, to adopt a CMA plan	CMA Plans	1	17	17	17	17	17
	e. 16 BMU Network members supported, to adopt a CMA by laws	CMA By laws	1	17	17	17	17	17
	f. 16 BMU Network members supported, to secure gazettement of CMA and FLS	CMA & FLS Gaztted	1	17	17	17	17	17
	g. 16 BMU Network members functional, and manage their CMAs.	BMU Operations	1	17	17	17	17	17
5	**Output 5: Pressure on fishery resources reduce and coastal livelihoods resilience improved through climate smart and COVID-19 buffered value chain additions**							
	a. Kw-CBO/BMU alternative livelihood models made available to the other 16 BMU	BMU with A Lhoods	1	17	17	17	17	17
	b. 16 Kilifi BMU members supported to invest in pilot trials.	Pilot trials	1	17	17	17	17	17
	c. 16 Kilifi BMU members supported in establishing their value chain.	BMU with value chains	1	17	17	17	17	17
	d. 16 Kilifi BMU members supported in protection of a core pilot ESA	CCA established	1	17	17	17	17	17
6	**Output 6: Kilifi LMMAs supported through strengthening of OAT's internal capacity.**							
	a. Maintaining a portfolio of fund raising opportunities, applying for NGO grants.	NGO Grants applied	2	2	2	2	2	10
	b. Nurture international partnerships (ie IUCN, FFI, WCS, CORDIO, etc).	International partners	2	3	4	5	5	5
	c. Nurture local core funding partners(ie: Vipingo Ridge, Mombasa Cement, Hotels,	Local partners	2	4	8	10	10	10
	d. Hire ~~of~~ specialist technical and extension staff to cater for the rollout.	Staff	10	10	10	12	12	12

8. Budget

Output	Description	Budget USD
OUTPUT 1	Coastal fishery biodiversity conservation increased through community understanding of environmental and social issues.	1,000,500
OUTPUT 2	Coastal fisheries resources sustainably managed through institutionalization of the BMU co-management network and county engagement.	69,240
OUTPUT 3	Inshore coastal fishery resource degradation reduced through consolidation and sharing of Kuruwitu CBO/BMU model for CMAs.	394,155
OUTPUT 4	Kilifi coastal fishery resources sustainably managed through mobilizing and securing tenure and gazettement of the 17 BMU Network CMAs and FLSs.	540,940
OUTPUT 5	Pressure on fishery resources reduce and coastal livelihoods resilience improved through climate smart and COVID-19 buffered value chain additions.	1,529,200
OUTPUT 6	Kilifi LMMAs supported through strengthening of OAT's internal capacity.	1,195,400
TOTAL		4,729,435

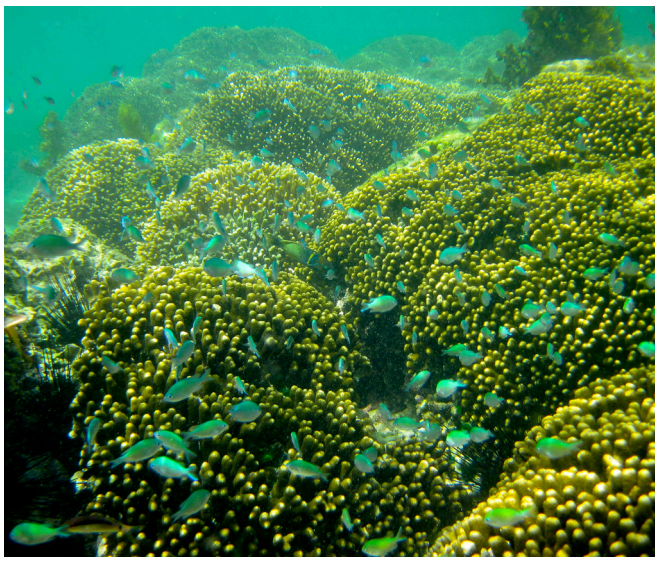
OAT Strategic Plan Cash Flow: 2020-25

Cash Flow	Y1	Y2	Y3	Y4	Y5	Total (Ksh 000)
Budget (Ksh000)	105,920.5	118,116.0	77,791.0	75,291.0	95,825.0	**472,943.5**
Budget (USD000)	1,059.2	1,181.2	777.9	752.9	958.3	**47,294.4**

9. Risk and Assumptions

OAT recognizes that this strategy is ambitious, but it builds on the 17 years of experience of spearheading change in establishing Kenya's first LMMA at Kuruwitu. OAT has a competitive edge in long-term experience and local knowledge in its partnership with KCW-CBO and K-BMU. The OAT Team has a reputation for tenacity and are confident they can deliver.

COVID-19 restrictions may limit some of the planned face to face interactions, however, virtual opportunities, web-based training and social distancing and provisioning of mask requirements are being considered to overcome restrictions.



10. OAT Team

Jointly, the KCW-CBO/OAT partnership team has wide knowledge and experience of LMMA management. The team bring experience in establishing and managing business ventures; experience in project development; and using biodiversity conservation approaches such as Ecosystem Based Management (EBM), Ecosystem Risk Assessment of Effects of Fisheries (ERAEF), Payment of Ecosystem Services (PES) and Risk Based management (RBM) that integrate both ecological and social-economic aspects in the management of natural resources. Various members of the team have pioneered use of LMMAs/CCAs in the conservation of marine biodiversity within Kenya as well as support in development of CMAs and JCMA in many areas along the Kenya coast. They have experience in program management with a focus in community development. They have designed and managed numerous community led-projects within the seascape ranging from environment, governance and health projects through participatory approaches and experience in managing various donor funds including UNDP- GEF /SGP, European Union and USAID. Members of the team have worked in aquatic resource management, fisheries and aquaculture, with BMUs throughout the region. Whilst working on various community-led marine projects 3 members of the OAT have been instrumental in achieving the UNDP Equator Prize in 2008 and 2017 through projects that the initiated. The partnership has close working relations with the wider stakeholder network including research institutions, NGOs and government departments.

THE BOARD

Ali Kaka (Chairman); Des Bowden; Claudine Mathis-Herd; Brett Seivwrite; Julie Church.

OPERATING TEAM

Des Bowden, CEO: 17-years working with coastal communities. Initiated the community led approach to management of marine resources. Co-founder of KCW-CBO in 2003 (Equator Prize winner 2017) and Oceans Alive Trust (2003) and 30-years running successful enterprises in East Africa.

Mercy Mbogho, Programme Manager and Fund administrator: 15-years' experience in community development. Skills include mobilizing resources from different donors through proposal writing, managing income generation activities, managing different donor funds, budget development and budget control, finance management and reporting to the board of directors, donors and relevant stakeholders.

John Balarin, Technical advisor: 40-years as team leader, senior advisor to donor projects in aquatic E&NRM, mostly in Africa and pioneer of 6 CBNRM Toolkits for BMUs.

Katana Ngala, Marine Trainer and coral reforestation: Katana is a trained guide and expert in species identification. Runs research and training programmes from the education centre. Manages coral restoration projects and subsequent training.

Zayat Mohammed, Environment Officer: Working with the community in awareness and education as to the benefits of conserving natural resources. Daily operations in all areas of the marine.

Charles Nyale, Fisheries Outreach Officer: 10-years' experience working with the fishing communities along the coast in various roles. He has been Chairman of the K-BMU from 2018-2020 and is presently Chairman of the Kilifi County BMU network and leads a team working with 17 BMU's in Kilifi County.

Dickson Juma, Community Outreach Coordinator: Co-founder of KCW-CBO in 2003. Initiated the community led approach to management of marine resources. 17-years working in different capacities with KCW-CBO from Chairman to his present position as Project Manager. As a fisherman himself Dickson has a unique perspective and insight into the issues facing coastal communities.

Daniel Yawa, Community Education Coordinator: 7-years' experience teaching at various coastal institutions with a bachelor degree in education arts. He is the Youth representative to the CDF Committee in Kilifi County.

Julie Church, Marine Co-ordinator: 25-years' experience of marine protected area management, coral reef fish monitoring, marine eco-travel and social enterprise. Worked for WWF in Kiunga Marine National Reserve and founder of Ocean Sole – a flip flop recycling company.

10. OAT Team

Saeed Balala, Fisheries/ Aquaculture Co-ordinator: 7-years' experience working on community related projects throughout the Kenyan coast including one of the first community awareness programmes in aquaculture.

Shida Shoka, Womens Group Co-ordinator: Respected elder within the Kuruwitu community. Travelled to New York to collect the UNDP Equator prize on behalf of KCW CBO and was trained in communications whilst she was there.

Saumu Jefwa, Production and retail manager: Heading up the community craft program, training and operations and running of the retail outlets.

ADVISORY BOARD

Dr Ali Kaka – Chairman of the OA Board: A veteran conservation leader of the East African region. 23-years with the Kenya Wildlife Service during which he served in almost all terrestrial and marine national parks in Kenya. 9 years as Executive Director of the East African Wildlife Society the oldest local membership based non-government conservation organization in Eastern Africa. Regional Director of the IUCN Office for the Eastern and Southern Africa Regional Office.

Dishon Murage: Natural resource expert with over 16-years working experience in formulation and implementation of projects and programs in coastal and marine resource conservation within coastal East Africa. Specific areas of expertise: Participatory natural resource planning and management, resource governance, monitoring and evaluation.

Samantha D. Leone: Samantha is currently an intern as a Technical Assistant at the Conservation Finance Alliance (CFA), she holds an MSc with honors in Environment and Resource Management as well as an MBA in International Trade. Multicultural, multilingual and raised at the Kenyan coast, she has a direct understanding of cultural subtleties and the challenges existing in OAT's area of operation.

Grazi Cruz – Enterprise manager: Strategist in communication in the digital environment, media management, social media and website, financial planning and project management as CRM.

Appendix 1 - The 6 Policy Principles to Success in CBNRM

THE 6 POLICY PRINCIPLES TO COMMUNITY BASED NATURAL RESOURCE MANAGEMENT (CBNRM)

Co-management is described as the participation of the community stakeholders jointly with Government in a legal, co-shared responsibility over the sustainable management, protection and conservation jurisdiction of a designated natural resource. Whatever the resource, be it fisheries, forestry, wildlife, water etc., the principles of community based natural resource management (CBNRM) are the same and can be clustered into 6 key policy requirements, namely:

1. **A Legally Constituted Group/Society/CBO:** The collective group of licensed stakeholders (i.e. fishers, forest user, hunters, etc.) form a legal entity a CBO, that can sue and be sued, that both has a Constitution that outlines its defined membership, its committees, roles, functions, finance management and benefit sharing. Is legally endorsed/registered or gazette by the government body administering the natural resource or is a CBO/NGO registered under the society act and that has clear lines of collaboration with local administration structures and rules of operation, elections and finance management.

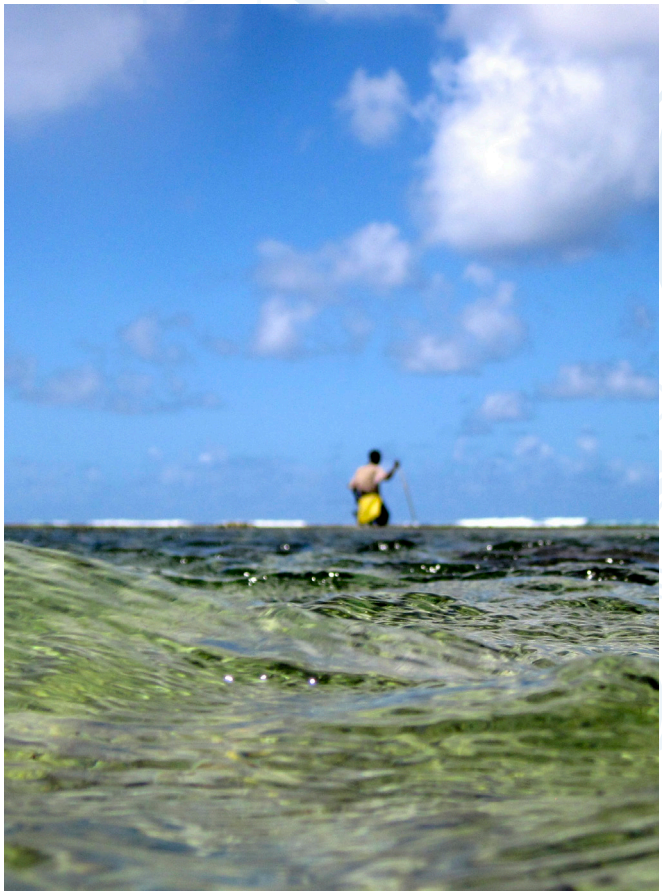
2. **A defined boundary of jurisdiction:** The CBO has a clearly defined boundary, of the co-management area (CMA) that is demarcated as a GIS map and has GPS coordinates long lines that falls under either their exclusive traditional use or legal rights to resource ownership and stewardship.

3. **A Resource assessment:** A science based study, linked to local state/county statistics (e.g. frame surveys and catch assessment) providing info-graphic data of the state of the resource, its anthropogenic pressures, its productive potential and current use level. It is a natural assets inventory of the area that forms the basis for a co-management plan and as a baseline for decision-based monitoring of trends and adjustments to by laws.

4. **A Co-management Plan:** Based on the assessment, the CBO can develop a clearly described plan of action outlining their intent and approach to manage the resource within their CMA jurisdiction. Outlined are closed community conservation areas (CCA) or closed seasons, setting take off rates and fish size limits, gear types and numbers, stakeholder roles and responsibilities, monitoring and data collection for informed management decisions, etc.

5. **By Laws:** Within the governing resource sector legal framework, the CBO, based on its management plan makes legal provision for protection of its rights and its planned activities, allowing it to police its members and exclude non-members, and penalize defaulters and poachers. To confiscate illegal gears and to collect revenue, fees and fines.

6. **User Rights:** To ensure security of tenure, irrevocable legal rights are afforded the CBO enshrined in the governing legislation and are officially gazetted as having exclusive user rights to the CMA, including tenure of fish landing sites (FLS).



Appendix 2: Kuruwitu Model

The graphic below is inspired from the success of Kuruwitu. As Oceans Alive Trust (OAT) our goal is to replicate this model along the Kenyan Coast starting with Kilifi County.

Community Conservation Areas
Community designate and set aside a marine protected area for conservation and regeneration of biodiversity

Climate-smart Farming
Permaculture projects are implemented at the community level increasing food security and providing an added to source of income

Ecosystem-based Aquaculture
Aquaculture projects are developed with economic considerations in mind and in line with the blue economy plans diversifying income sources for the community and increasing food security

Eco tourism
Eco-tourism attract local and international visitors providing a source of income to the community and supporting the case for increased coastal conservation

Ocean plastic recycling
A circular approach is taken to plastic waste with waste being collected and recycled reducing Ocean beach letter and creating plastic recycling associated income for the community

Community education
Communities educated on the environment particularly marine coastal issues and is sensitive to the importance of sustainable fisheries management

Species conservation
Specific endangered species are protected EG activities are carried out to protect turtle sites

Appendix 3: Sources and Further Material and Resources

African Environmental Film Foundation (AEFF), *Kuruwitu – A Revival of a Kenyan Reef* [video], 2018. Available online here.

African Environmental Film Foundation (AEFF), *Kuruwitu - Between A Rock and A Hard Place Documentary Trailer* [video], 2011. Available online here.

Bowden, D., *Kuruwitu Conservation and Welfare Association (KCWA)* in PANORAMA – *Solutions for a Healthy Planet*, 2018. Available online here.

Bowden, D., *Oceans Alive Trust (OAT)' in PANORAMA – Solutions for a Healthy Planet*, 2018. Available online here.

Bowden, T., *Empty to Plenty Kuruwitu Kenya* [video], 2018. Available online here.

CORDIO, *Locally Managed Marine Areas (LMMAs) in Kenya: A Detailed History of Their Development and Establishment*, 2015. Available online here.

CORDIO, *Locally Managed Marine Areas (LMMAs) in Africa*, 2015. Film available online here.

Griffin, T., *A Coastal Model: The Kuruwitu Conservation and Welfare Association* in *The WIOMSA Magazine, People and the Environment*, 2012. Available online here.

IUCN, *A Socio-economic Assessment of Sustainable Livelihood Opportunities for Communities of Kuruwitu and Vipingo, Kilifi District, Kenya, incorporating livelihood intervention strategies and proposals for the development of alternative income generating activities*, 2005. Available online here.

KCWA, *About Us*, n.d. Available online here.

KCWA, *Facebook Page*, n.d. Available online here.

Mwakanema, L., Kimakwa, E., and Nyanje, D., *Community-Based Marine Conservation Initiative in Coastal East Africa. Important lessons from Kuruwitu in Kenya* in *The WIOMSA Magazine, People and the Environment*, 2015. Available online here.

References

Aswani, S., Christie, P., Muthiga, N. A., Mahon, R., Primavera, J. H., Cramer, L. A., Barbier, E. B., Granek, E. F., Kennedy, C. J., Wolanski, E., & Hacker, S. (2011). The way forward with ecosystem-based management in tropical contexts: Reconciling with existing management systems. *Marine Policy*, *36*(1), 1–10.

Cinner, J., Daw, T., Mcclanahan, T., Muthiga, N., Abunge, C., Hamed, S., Barabara, M., Rabearisoa, A., Wamukota, A., Fisher, E., & Jiddawi, N. (2012). Transitions toward co-management: The process of marine resource management devolution in three East African countries. *Global Environmental Change*, *doi:10.1016/j.gloenvcha.2012.03.002*. https://doi.org/10.1016/j.gloenvcha.2012.03.002

Kanyange, M., Kimani, P., Onyango, P., Sweenarain, S., & Yvergniaux, Y. (2014). *Performance assessment of beach management units along the coastlines of Kenya and Tanzania* (SF/ 2014/ 47). Indian Ocean Commission.

Kawaka, J., Samoilys, M., Church, J., Murunga, M., Abunge, C., & Maina, G. (2015). *Locally Managed Marine Areas (LMMAs) in Kenya: A detailed history of their development and establishment*.

Kawaka, J., Samoilys, M., Murunga, M., Church, J., Abunge, C., & Maina, G. (2017). Developing locally managed marine areas: Lessons learnt from Kenya. *Ocean & Coastal Management*, *135*, 1–10. https://doi.org/10.1016/j.ocecoaman.2016.10.013

K'Odhiambo, A. (2017). Analysis of ecopedagogy: Prescription to seal lacuna in environmental education curriculum for young learners in Kenya. *International Education and Research Journal*, *3*(4), Article 4. http://ierj.in/journal/index.php/ierj/article/view/810

Maina, G., Osuka, K., & Samoilys, M. (2011). *Opportunities and challeneges of community-based marine protected areas in Kenya* (CORDIO Status Report). CORDIO EA.

Malleret-King, D., King, A., Mangubhai, S., Tunje, J., Muturi, J., Mueni, E., & On'ganda, H. (2003). *Review of Marine Fisheries Resources for Kenya.* https://agris.fao.org/agris-search/search.do?recordID=GB2012105458

Murage, S., & Kisaka, J. (2015). Socio- Economic Factors and Students Retention and Completion rates in Public Secondary Schools in Kilifi County, Kenya. *African Journal of Education,Science and Technology*, *Vol. 2, No. 2*, 95–102.

NEMA. (2017). *State of Coast Report for Kenya: Enhancing Integrated Management of Coastal and Marine Resources in Kenya*. National Environment Management Authority.

Shilabukha, K. (2015). *Indigenous knowledge and management systems for marine resources among the Giriama of north coastal Kenya*. University of Nairobi.

UNDP. (2019). *Kuruwitu Conservation and Welfare Association (KCWA), Kenya* (Equator Initiative Case Study Series). UNDP.

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