Climate-Smart Design for Diani-Chale Marine Ecosystem management and Improved Livelihoods for Coastal Communities

Project Proposal

Submitted by

Kenya Wildlife Service-Wildlife Research and Training Institute

WIO LME SAPPHIRE Project Steering Committee Meeting 16th March 2021

Background

Diani - Chale Marine Reserve - established in 1995.

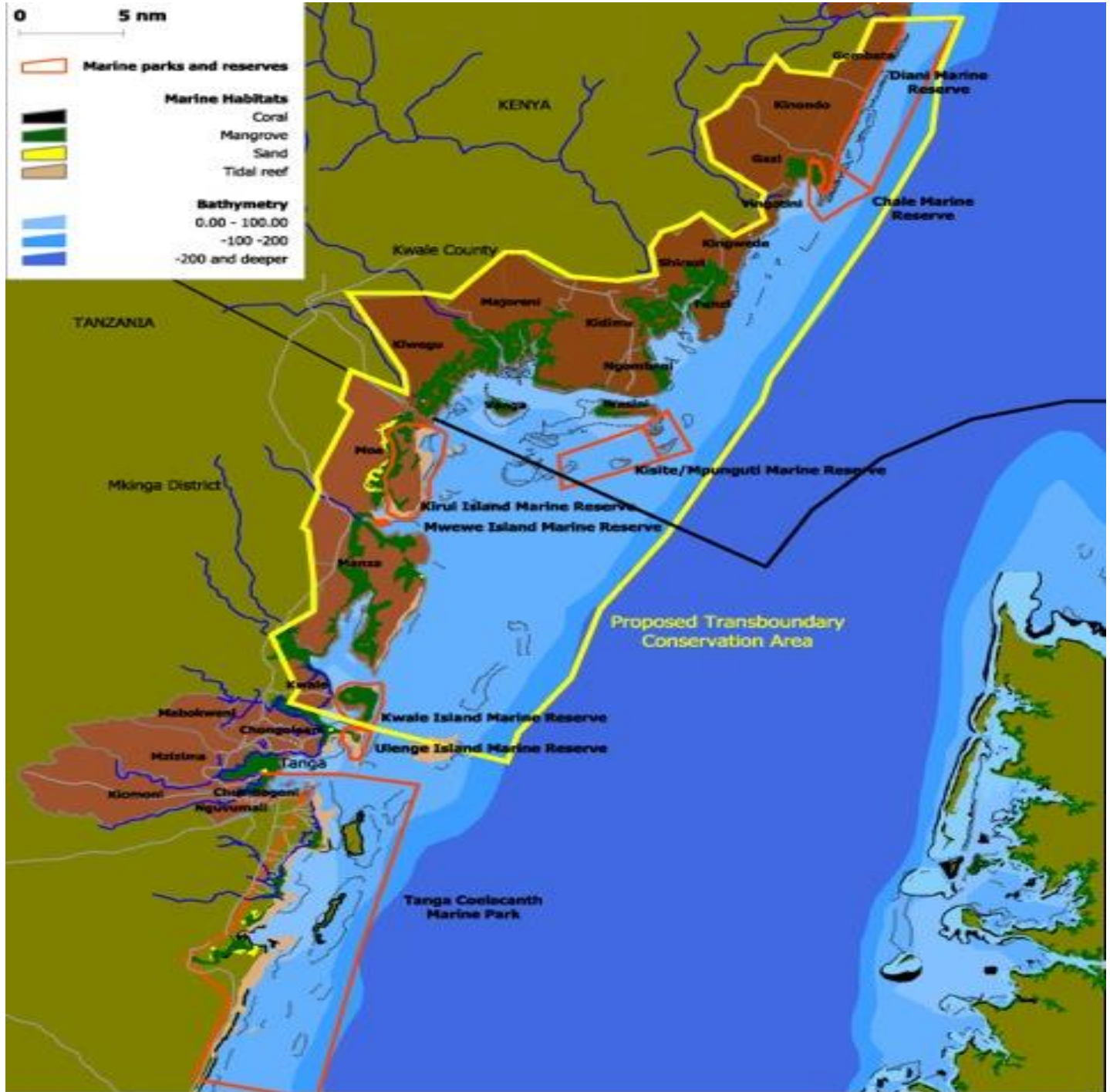
Remained a paper park for the past 26 years

Lack of proper ecosystem management structures for the Diani-Chale MPA and adjacent marine ecosystem has indeed resulted in degradation of the marine resources, biodiversity loss and loss of livelihoods (fisheries)

We will focus on enhancing conservation and management of the Diani-Chale marine reserve and adjacent marine ecosystem in order to benefit from the fisheries spill-over effects of protection on adjacent fisheries.

The site is part of the proposed Kenya- Tanzania Transboundary Conservation Area.

Contribute effort towards developing a network of marine conservation area within the TBCA


0
5 nm
Marine parks and reserves
Marine Habitats
Coral
Mangrove
Sand
Tidal reef
Bathymetry
0.00 - 100.00
-100 -200
-200 and deeper
KENYA
Kwale County
TANZANIA
Mkinga District
Diani Marine Reserve
Chale Marine Reserve
Kisite/Mpunguti Marine Reserve
Kirui Island Marine Reserve
Mwewe Island Marine Reserve
Kwale Island Marine Reserve
Ulenge Island Marine Reserve
Proposed Transboundary Conservation Area
Tanga
Tanga Coelacanth Marine Park

The project will contribute to the following global biodiversity targets and Sustainable Development Goals (SDGs):

- Aichi Target 11: By 2020, 10% of coastal and marine areas, especially areas of particular importance for biodiversity and ecosystem services, are conserved through effectively and equitably managed, ecologically representative and well connected systems of protected areas and other effective area-based conservation measures, and integrated into the wider landscapes and seascapes.
- Currently kenya at 8%

- Global Biodiversity Framework: By 2030, realise 30% coastal and marine areas effectively managed.

- **SDG 14.2:** By 2020, sustainably manage and protect marine and coastal ecosystems to avoid significant adverse impacts, including by strengthening their resilience, and take action for their restoration in order to achieve healthy and productive oceans.

- **SDG 15.5:** Take urgent and significant action to reduce the degradation of natural habitats, halt the loss of biodiversity and, by 2020, protect and prevent the extinction of threatened species.

Design principles

- **Good governance:** A good governance system is key to achieve conflict-free, effective, and successful MPAs.
- this process will be led by Kenya Wildlife Service which will work with a multi-stakeholder project steering committee.
- **Communication and awareness raising:** MPAs are an important avenue to promote environmental education, to increase the efforts of local communities to protect natural resources, and to secure ownership of management and conservation actions. We will develop a communication and information programme.
- **Participatory decision making:** Multi-stakeholder participatory decision-making is an excellent tool for improving political support, ownership, responsibility, and democracy for natural resource management.

- **Science based management:** The proposed actions will be guided and supported by an explicit scientific rationale.
- **Effective adaptation planning:** The effects of climate on marine resources have become increasingly apparent. Therefore, integrating adaptation into existing MPA planning processes will helps ensure that climate considerations are fully taken into account and acted upon. In addition, this approach will ensure that the ecosystem-based adaptation actions that will be prescribed will reduce human induced stress to the marine ecosystem and support conservation for sustainable development.

General objective:

By 2023 the Diani-Chale marine ecosystem is sustainably managed and contributing to sustainable blue economic growth, food security, job creation and poverty reduction.

OBJECTIVES	OUTCOMES	OUTPUTS	ACTIVITIES
SO1) Develop an effective **climate smart co-management framework** for Diani-Chale marine ecosystem by 2023.	**1. Diani- Chale marine ecosystem is effectively conserved and managed through climate smart ecosystem-based management framework**	**1.1 By 2023, Diani- Chale integrated marine ecosystem and fisheries management plan developed.**	Baseline assessment using the Protected Area Management Effectiveness Tracking Tool (METT). Assess climate change impacts and vulnerability assessment. Comprehensive biodiversity assessment Mapping and resource use zonation. Stakeholder consultations & validation workshops
		1.2 By 2022, capacity is built to support long-term community engagement in sustainable management (conservation, protection, restoration and sustainable utilization) of Diani-Chale marine ecosystem, consisting of 5 Beach Management Units (BMUs).	Village level Community sensitisation, education and awareness campaigns. Capacity building through training and equipping 10 local community scouts to support community -based monitoring, control and surveillance (MCS). Develop monitoring, control and surveillance (MSC), and financial sustainability plans. Procure equipment to support community based MCS.

OBJECTIVES	OUTCOMES	OUTPUTS	ACTIVITIES
SO2) Co-create with communities, innovative fisheries management plans and nature based enterprises to **support local livelihoods** and enhance economic growth in Diani – Chale by 2023.	**2. Improved fisheries productivity for food security and livelihood for the vulnerable coastal fisher community.**	**2.1 By 2023, recover fisheries habitat and nursery areas by establishing temporary fishing closure areas (targeting high value octopus) and enhance fisheries replenishment to nearby fishing grounds in the marine reserve.**	Train Beach Management Units members on marine resource governance, sustainable fishing practices, business development, financial management, fish post-harvest technology and marketing. Build the capacity of the local fishers to undertake fishing area closures through peer-to-peer exchanges and experiential learning. Identify, map and demarcate the temporary fisheries/octopus closure areas. Procure and install demarcation buoys in selected fisheries/octopus closure area.
		2.2 By 2023, at least two high value fisheries based livelihood enterprises established (e.g. within the octopus fisheries market value chain) for improved livelihood and well-being of	Develop business plans for identified livelihood options; and, facilitate linkages to financial services. Promote market linkages for community fisheries related enterprises to ensure regular uptake of products and at fair prices. Establish an octopus harvesting plan from the fisheries closure areas.

OBJECTIVES	OUTCOMES	OUTPUTS	ACTIVITIES
SO3) Demonstrate the feasibility of **reducing pressure on mangrove** forests through promotion of alternative livelihood activities (mangrove ecotourism etc.) other than direct exploitation of mangrove wood resources.	**3. Demonstrated approaches of reducing pressure on mangrove forests through creation of alternative livelihood activities**	**3.1 Mangrove based alternative livelihoods activities identified and initiated**	Identify and prioritise, through participatory appraisal surveys, appropriate mangrove based livelihood opportunities for Diani – Chale area. (linked to activity 2.2.1 above) Establish a technical working group to promote mangrove ecotourism in the project area
SO4). Establish demonstration projects on **ecological mangrove restoration.**	**4. At least 5 ha of degraded mangroves in Diani-Chale are restored through improved ecological approaches**	**4.1 Degraded mangrove forests of Diani-Chale are rehabilitated through enhanced restoration approaches**	Assess and map the ecological settings of the degraded sites requiring restoration. Develop capacity on ecological mangrove restoration among community and other stakeholders. Restore degraded mangrove areas using participatory approaches. Design and establish a simple community participatory

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SO5) Develop communication, education and public awareness programme that support sustainable utilization and management of marine resources	**5. Enhanced communication, publicity and knowledge management regarding Diani-Chale ecosystem**	**5.1 Communication and publicity materials developed**	Design and publish and officially launch the Diani-Chale integrated ecosystem management plan (involves printing and communicating the management plan developed under outcome 1) Develop appropriate information and awareness materials (posters, brochures, short videos) to raise awareness and communicate the project interventions. Procure equipment (cameras, portable projector, screen, laptop) to support documentation and communication. Develop 2 Scientific publications and policy briefs. Develop an information repository database.

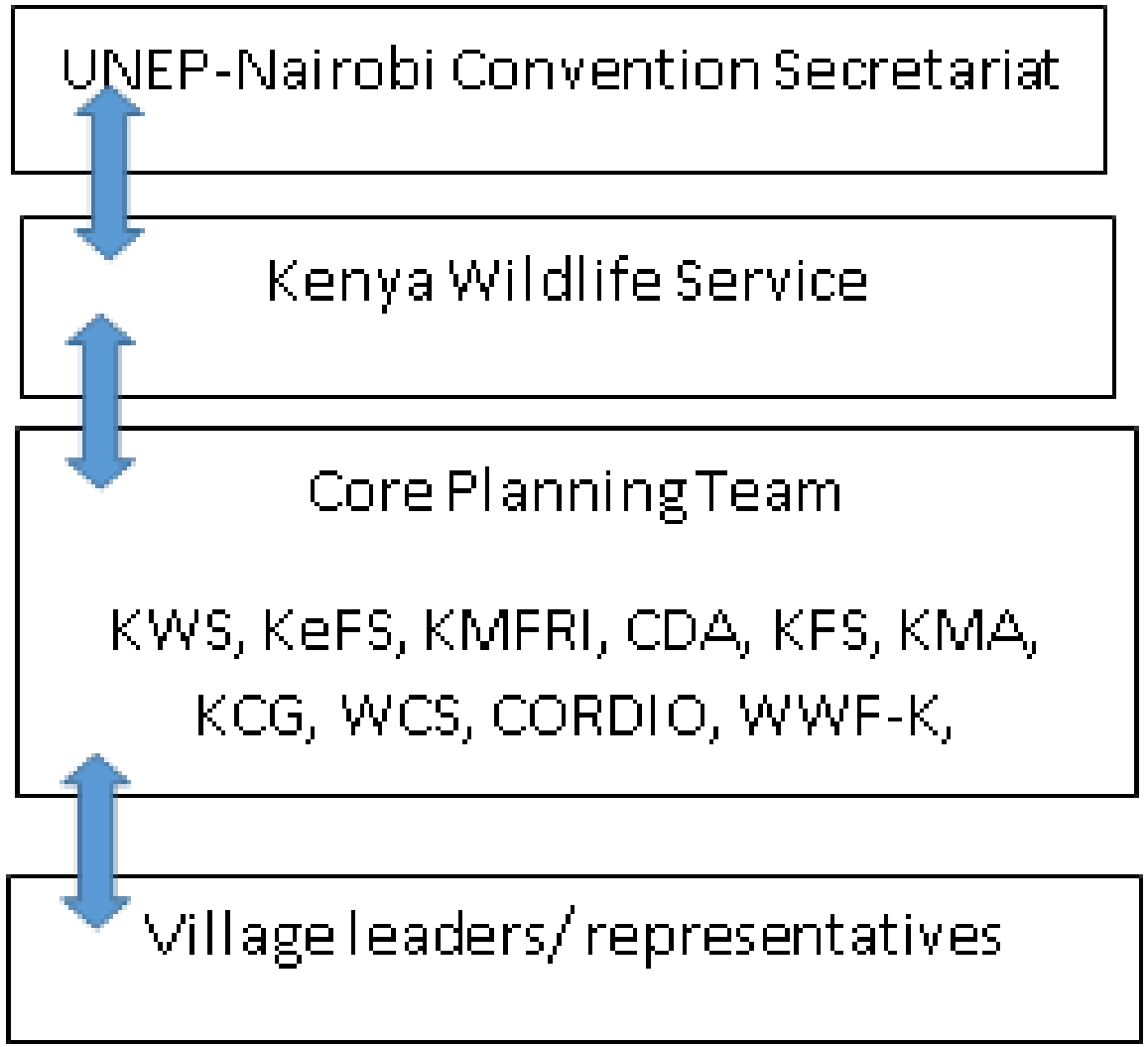
OBJECTIVES	OUTCOMES	OUTPUTS	ACTIVITIES

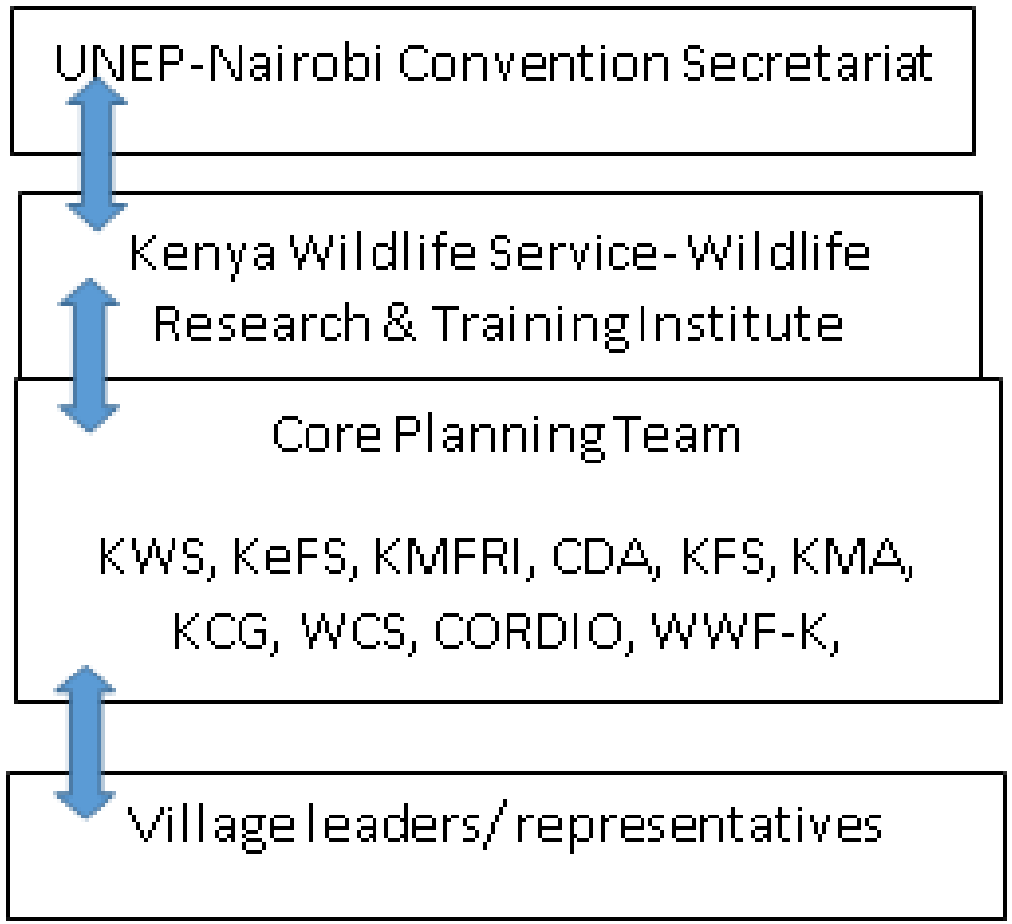
Key Project Indicators

- Area (7,500 hectares) under effective management as determined by the Management Effectiveness Tracking Tool (METT) score
- One integrated ecosystem -fisheries management plan developed
- No. of temporary fisheries closure areas (hectares)
- No. of fisheries business models developed and implemented
- No. of beneficiaries (disaggregated by gender)
- No. of communication and awareness materials.
- Information database developed

Key Project Indicators

- No. of mangrove based alternative livelihoods opportunities prioritized
- A recognizable increase in public awareness on mangrove conservations issues
- Area of mangrove restored through participatory approaches
- Biomass of mangroves and associated resources increased
- Mangrove monitoring program in place
- No. of communities trained in ecological mangrove restoration


UNEP-Nairobi Convention Secretariat
Kenya Wildlife Service
Core Planning Team
KWS, KeFS, KMFRI, CDA, KFS, KMA,
KCG, WCS, CORDIO, WWF-K,
Village leaders/ representatives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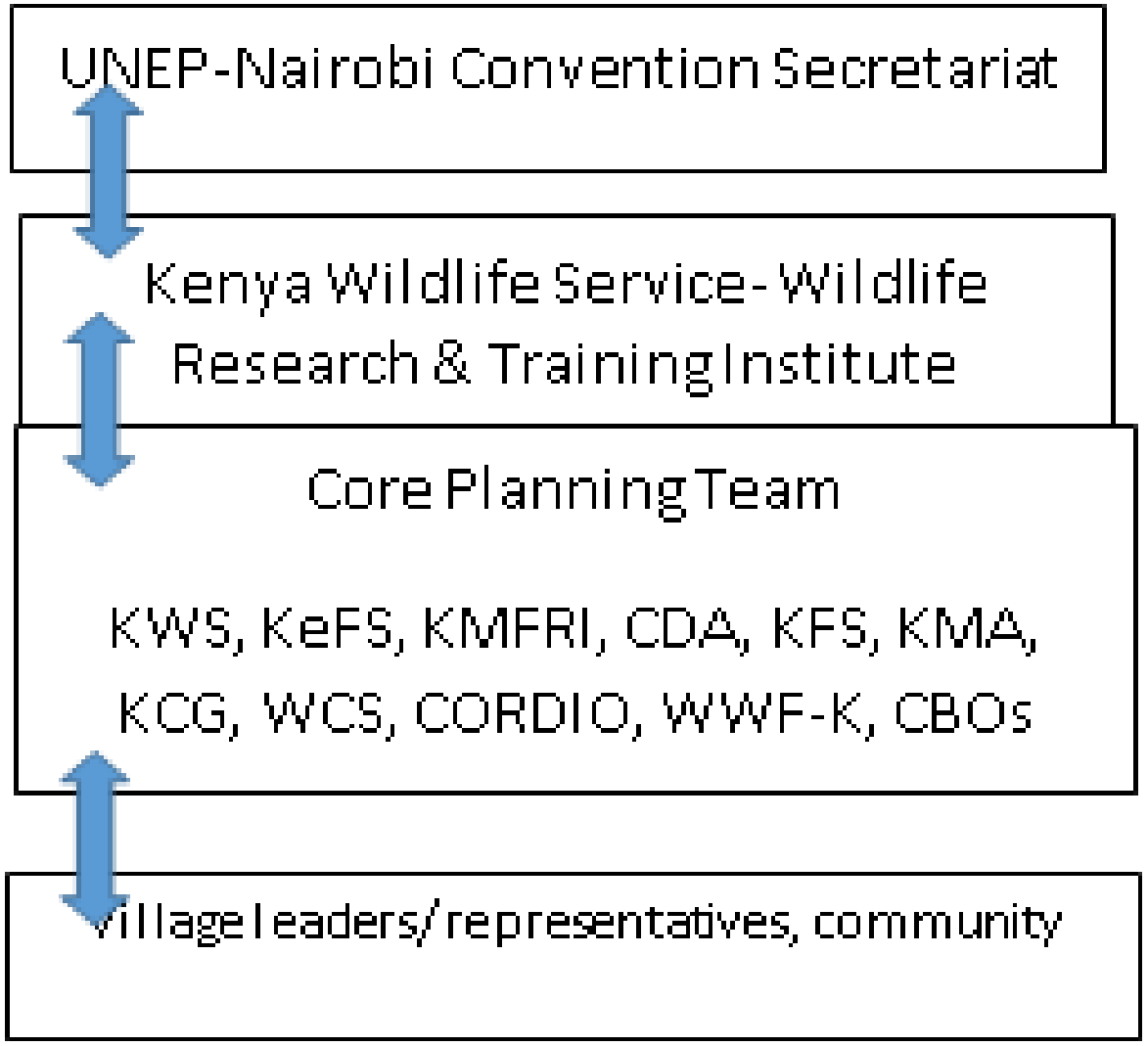
Project implementation and management arrangement



BUDGET

Requested Fund	USD 85,160
Fund from other sources including own contribution	Kenya Wildlife Service-Wildlife Research & Training Institute (in-kind contribution) - USD 35,200 Kenya Marine & Fisheries Research Institute (in-kind contribution) - USD 14,300 Wildlife Conservation Society (WCS) - USD 31,100
Total project budget	USD 165,760