



Republic of Kenya

**Kenya Marine Fisheries Socioeconomic Development
Project (KEMFSED)**

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**MINISTRY OF AGRICULTURE, LIVESTOCK, FISHERIES &
COOPERATIVES**

**STATE DEPARTMENT FOR FISHERIES, AQUACULTURE & THE BLUE
ECONOMY**

**KENYA MARINE FISHERIES AND SOCIO-ECONOMIC
DEVELOPMENT (KEMFSED) PROJECT**

TERMS OF REFERENCE

FOR A CONSULTANCY FIRM

**Technical support on establishment and development of Joint Co-
Management Areas (JCMAs) in Kenya's nearshore waters of Kilifi -Mombasa
Counties**

CONTRACT NO. KE-MOALF-C1.2- 2021-011-QCBS

APRIL, 2022

1. INTRODUCTION

1.1 KEMFSED Project background

The Government of Kenya, through the State Department for Fisheries, Aquaculture, and Blue Economy (SDFA&BE) and with support from the World Bank, is implementing the Kenya Marine Fisheries and Socio-Economic Development (KEMFSED) project, which aims at supporting the country in its efforts to leverage emerging opportunities in the Blue Economy. The development project's overall goal is to **improve management of priority fisheries and mariculture and increase access to complementary livelihood activities in coastal communities**. The KEMFSED project, which will be implemented in Kenya's coastal counties including Kwale, Mombasa, Kilifi, Tana River, and Lamu, will strengthen the management of fisheries that are priority to coastal livelihoods, thereby securing stocks at sustainable levels of harvesting. At the same time, the project will strengthen coastal households' access to complementary livelihood activities toward diversifying sources of household income to reduce dependence on capture fisheries. By better managing and conserving marine and inland water resources, reducing illegal fishing activity, and enhancing the value of the fish products in the value chains, the sector is expected to enhance its contribution to the overall economy.

The project is comprised of the following three components:

- a) **Component 1: Governance and Management of Priority Marine Fisheries** will focus on improving the management of priority marine fisheries in Kenyan waters¹. In furtherance of the same PDO, fisheries governance interventions will be promoted through strengthened co-management of nearshore fisheries, and infrastructure development to support the management of fisheries at both the national and county levels.
- b) **Component 2: Coastal Community Empowerment and Livelihoods** will contribute to the PDO by strengthening livelihoods in coastal communities through a combination of technical and financial support for the implementation of livelihood, social welfare, and environmental subprojects; provision of scholarship grants and complementary capacity-building and mentoring of beneficiaries;
- c) **Component 3: Project Management** this Component will finance support for project management at both national and county levels to ensure coordinated and timely execution of project activities.

Component 1 of KEMFSED has a dedicated Sub-component 1.2 on strengthening co-management of nearshore priority marine fisheries resources. Central to that is development and strengthening of JCMAs as the basis for planning and implementing effective priority fisheries co-management interventions. That will include strengthening existing JCMAs, and establishment and development of new ones, with the aim of **improving the effectiveness of fisheries management in at least 47% of nearshore waters**,² as per the KEMFSED project results framework.

¹ likely to include (i) small-scale purse-seine; (ii) small-scale tuna, (iii) shallow-water prawns, (iv) octopus, (v) North Kenya Banks snapper fishery, (vi) basket-trap fisheries and (vii) coral reef aquarium fish.

² defined as internal waters + territorial waters = 10,860 km²

The KEMFSED project results framework further defines ‘*improving the effectiveness of fisheries management*’ as follows:

- (i) JCMA plan prepared and approved by national and county authorities;
- (ii) JCMA plan that includes, at a minimum:
 - defined and accurately mapped JCMA boundaries that have been explicitly agreed (ie. with documented, signed minutes) by BMU assemblies;
 - a JCMA zoning plan preferably containing at least one no-take fisheries replenishment area or reserve (*tengefu*) for each BMU within the JCMA, with documented consensus of BMU assembly members. Where a BMU assembly has not reached such consensus, the issues should be documented in the plan with a way forward for future designation included in the plan’s strategy;
 - contains management measures that explicitly control fishing effort (spatial or seasonal closure; gear restrictions, gear or fisher numbers etc.) for at least two priority fisheries.
- (iii) BMU surveillance reports indicate a stable or improving trend in non-compliance per patrol effort.

1.2. Fisheries co-management governance framework in Kenya

The management and conservation of fisheries resources in Kenya was centralized until 2005, when a more collaborative, community-centred ‘bottom-up’ approach was introduced. The previous top-down approach had failed due to many challenges including low levels of compliance, ineffective control of utilization and unsustainable management and conservation of the fisheries resources. In order to ensure compliance and participation of resource users in the management of the local fisheries and other marine resources, the Government of Kenya developed National Beach Management Unit (BMU) Guidelines that have been implemented since 2005. In 2007, the Fisheries (Beach Management Units) Regulations, 2007 were gazetted.

BMUs promote structured community participation in fisheries management, and consist of fishers, fish traders, boat owners and other beach stakeholders who traditionally depend on fisheries activities for their livelihood. BMUs co-manage nearshore fisheries resources under provisions of the Fisheries Management and Development Act, 2016 and the Fisheries (BMU) regulations, 2007 also taking into account BMU bylaws. Co-management responsibilities are primarily shared between county authorities and BMUs, with oversight by the Kenya Fisheries Service on issues of policy, standardisation of approaches and procedures, performance standards and capacity-building. Other stakeholders such as the tourism, forest and fisheries private sector are also partnering in the co-management system. As outlined in the BMU Regulations 2007, a BMU undertakes fisheries management activities within a designated co-management area (CMA). However, where members of adjacent BMUs routinely share common fishing grounds a joint co-management area (JCMA) is formed and fisheries management activities are undertaken jointly by more than one BMU. Fisheries management activities within a CMA are guided by a co-management plan (CMAP) or a joint co-management plan (JCMAP) which specifies fisheries management measures that are to be undertaken to ensure the sustainable utilization of fisheries in that area.

1.3. Progress to date in developing fisheries co-management in Kenya's nearshore waters

Kenya has a well-established network of marine parks and reserves under the management of the Kenya Wildlife Service (KWS). These cover 825 km² or 7.6% of Kenya's internal plus territorial waters (10,860 km²)³. Most of the remaining 90+ % of Kenya's internal and territorial waters, excluding port areas, are available for establishment of JCMAs as the primary governance instrument for nearshore fisheries management.

Under the Kenya Coastal Development Project (KCDP) 2011-17, JCMAs were established in Malindi-Ungwana Bay (covering 3200 km², involving 14 BMUs) and Shimoni-Vanga (covering 838 km², involving 7 BMUs). JCMA management plans (JCMAPs) were prepared for both during 2016-17 though only the plan for Malindi-Ungwana Bay was approved to-date. NGO partners have subsequently mobilised partial implementation of the draft JCMA management plan in Shimoni-Vanga but the JCMAP in Malindi-Ungwana Bay remains largely unimplemented to-date. Retrospectively, there is consensus that the Malindi-Ungwana Bay JCMA is too large for practical management purposes and will benefit from being subdivided into 2 or 3 separate JCMAs. The same might also be the case in Shimoni-Vanga though that is less clear. Both JCMAPs are in any case due for review by 2022. CMAs and JCMAs have also been developed in the northern half of Lamu County (covering approx. 1,000 km², involving 10 BMUs on Pate Island) over the past 5-6 years, with NGO support. Elsewhere along the Kenya coast, numerous small locally-managed marine areas (LMMAs) have been established through various NGO-supported initiatives, for example around Kiruwitu in Kilifi County, and along the northern coast of Kwale County (Fig.1 below) however there is no over-arching fisheries management regime around those small areas.

1.4. Focus on priority fisheries

KEMFSED Component 1 project interventions will be focused on improving management effectiveness in selected priority fisheries, likely to include (as relevant to different areas):

- (i) small-scale purse-seine fishery
- (ii) small-scale tuna fishery
- (iii) shallow-water prawns
- (iv) octopus
- (v) North Kenya Banks snapper fishery
- (vi) basket-trap fishery
- (vii) coral reef aquarium fish.

In the context of this assignment herein, it is therefore expected that the above priority fisheries (or priority fisheries otherwise agreed with the Client) will be the focus of fisheries situation analyses undertaken under Phase 1 of this assignment, and also of fisheries management measures at the heart of JCMA management plans subsequently developed.

Following from the above background, the State Department for Fisheries, Aquaculture, and Blue Economy (SDFA&BE), under the auspices of the KEMFSED project, wishes to engage one or more consultancy teams to support JCMA development on the Kenya coast, as a means to strengthen the effectiveness of priority fisheries management in at least 47% of nearshore waters. Accordingly, five target areas are identified for the assignment herein, each target area constituting one 'Target Areas'.

³ Tuda AO & Thoya P (in prep.) Marine & coastal areas under protection: Kenya. In WIO Marine Protected Areas Outlook: Towards achievement of the Sustainable Development Goals. WIOMSA

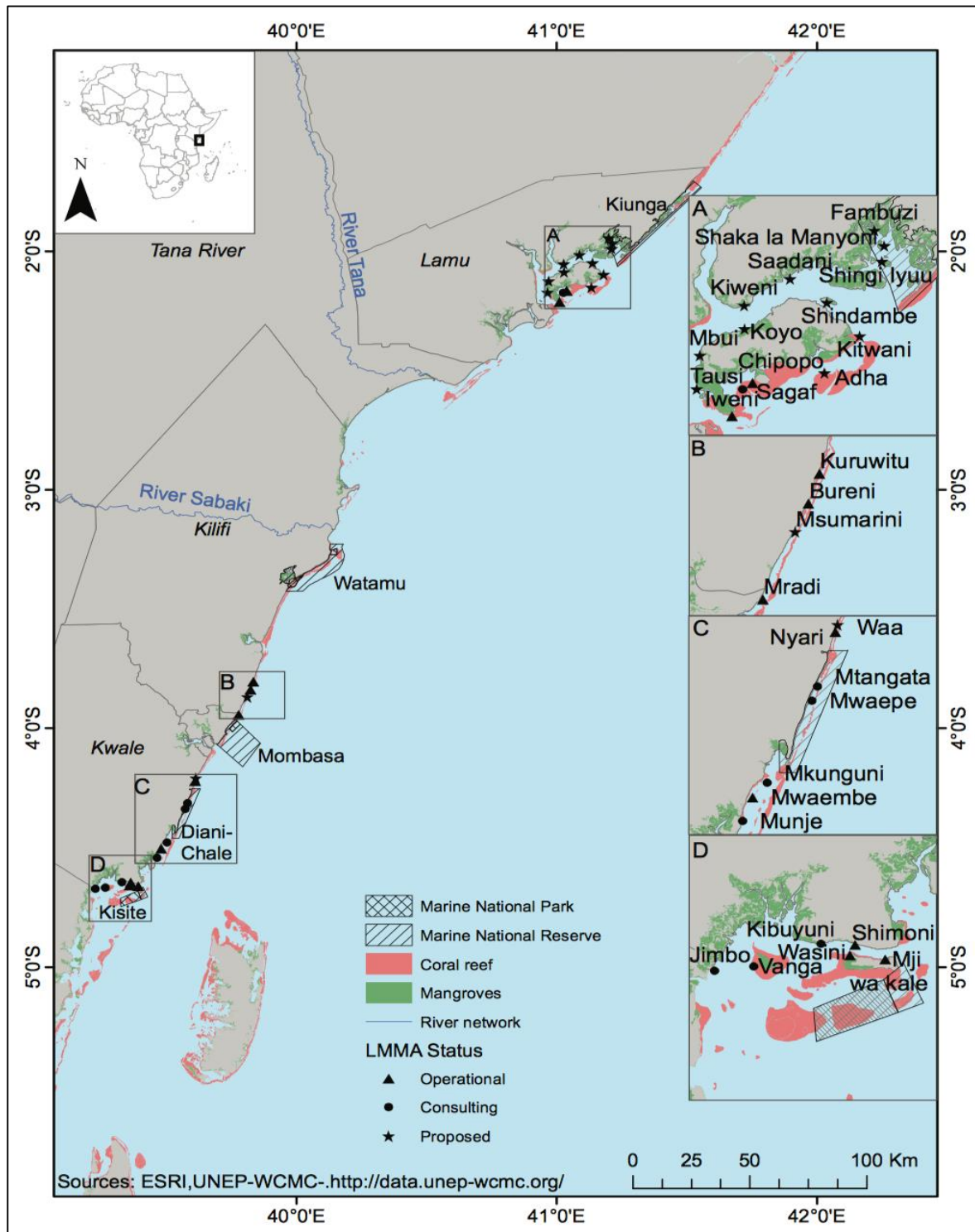


Figure 1. Kenya's Marine Protected Areas and informal conservation areas¹

2. OBJECTIVES OF THE ASSIGNMENTS

The objective of the assignments herein is to improve management effectiveness of priority fisheries in 47% of nearshore waters, through supporting development of joint co-management areas (JCMAs) within five broader target areas of the Kenya coast, as per the **4 Target Areas (Four different contracts)** as below. It is expected that consultancy firm(s) or organisation(s) will be contracted to implement assignments as per one target area or separately; if interest is expressed for more than one target area.

Appropriately qualified and interested consultancy firms or organisations are invited to express interest in one target areas (Contract). If a firm so wish to express interest in more than one target area (Contract), then it shall be done **Separately** since the consultancy will run **Simultaneously** or **Concurrently** in all four Target Areas.

Note that each target area will not necessarily comprise only one JCMA, neither it is necessary the case that JCMAs will be developed in the entirety of each target area. Rather the number and scope of JCMAs to be developed in each target area that will emerge from a preliminary Phase 1 situation analysis in each target area, as outlined in Section 3 below;

Target Area No	Contract No.	Broader target areas *	County	~ #BMUs	Existing JCMA plan
1	KE-MOALF-C1.2-2021-009-QCBS	(i) Dodori & Wange/Ndununi Creeks (ii) Amu-Mokowe	Lamu	14	No
2	KE-MOALF-C1.2-2021-010-QCBS	Malindi-Ungwana Bay	Tana-Kilifi	10	Yes, needs revision
3	KE-MOALF-C1.2-2021-011-QCBS	Bofa - Mtwapa - Bamburi	Kilifi & Mombasa	10	No
		Nyali-Likoni-Timbwani	Mombasa	9	No
4	KE-MOALF-C1.2-2021-012-QCBS	(i) Mwakamba-Chale-Funzi (ii) Shimoni-Vanga	Kwale	17	No Yes

Table 1: Target areas for Joint co-management areas (JCMA) * See Annex 1 for list of BMUs included in each target area

3. SCOPE OF WORK

The scope of work is divided into two phases:

- **Phase 1** (fisheries situation analysis including fishing patterns survey)
- **Phase 2** (JCMA establishment, management plan preparation & implementation support)

Both phases comprise a step-wise process summarised in Annex 2, and outlined in detail in this section 3 below. The process outlined reflects that expected to be contained in revised national guidelines for formation of co-management areas.

Consultants should note that the full scope of work outlined below applies, both Phase 1 and Phase 2 for the Kilifi -Mombasa target areas

PHASE 1: Fisheries Situation Analysis including fishing patterns survey

3.1.Undertake preliminary consultations with KEMFSED, SDFABE, KeFS, County Government fisheries authorities, BMUs and other relevant partners to ensure thorough and common understanding of the assignment, the agreed approach and way forward, and respective roles and responsibilities. KEMFSED, County fisheries staff will officially be responsible for leading overall JCMA development processes outlined herein and providing facilitation throughout the consultancy period. The role of consultants being to provide technical support and additional facilitation throughout, with guidance from SDFABE and KeFS where appropriate.

3.2. Conduct a background literature review of all relevant documentation including:

- (i) relevant national governance instruments including:
 - Fisheries Management & Development Act, 2016
 - Marine and Inland Fisheries Regulations
 - BMU Regulations
 - national Guidelines for the Formation of Fisheries Co-management Areas (CMAs) in Kenya;
 - national fisheries management plans for Prawns, lobster, ornamental fish, small & medium pelagics, small-scale purse seine fishery etc.
- (ii) relevant international technical literature including:
 - FAO Ecosystem approach to fisheries and aquaculture: Implementing the FAO Code of Conduct for Responsible Fisheries, RAP Publication 2009/11
 - FAO Voluntary Guidelines for Securing Sustainable Small-Scale Fisheries
- (iii) published papers, technical studies, project reports and other data relevant to the JCMA target area on topics of:
 - fisheries information (incl. catch data, frame surveys, fisheries stock assessments; value chain studies etc.)
 - marine ecology and biodiversity
 - socio-economic status of coastal communities;
 - existing CMA or JCMA management plans;
 - any past or on-going project initiatives on fisheries or marine and coastal resources management in the target area, including any relating to implementation of existing CMA or JCMA management plans;
 - infrastructure or other economic development initiatives affecting the area etc.
 - Climate change risks, adaptation and resilience for coastal communities and ecosystems
 - Ecosystem services

3.3. Review existing JCMA management plan where relevant. Consultants will undertake a desk review of the existing JCMA management plan, where one exists. The analysis will assess: (i) adequacy of the plan on paper, (ii) status of its implementation based on above literature review, and (iii) gaps and questions to be included in community and stakeholder consultations in 3.7 and 3.8 below. This review should be documented.

3.4. Facilitate orientation of Co-management Planning Committee (CPC). The County Fisheries Director will establish a *Co-management Planning Committee (CPC)* for the target area including national, county, BMUs and other non-government and

community representatives. Where the target area is already established as a JCMA, the Co-management Planning Committee will be the existing *JCMA Co-Management Committee* (or equivalent as per revised BMU Regulations, 2021). As part of this assignment, consultants in support with KEMFSED Project (organise and facilitate 1-2 day workshops), in collaboration with county and SDFABE and KeFS partners to deliver orientation and training to members of the CPC to ensure they understand the process to be followed, and their respective roles and responsibilities. The workshop will also be an opportunity to get input from CPC members in planning the timing and implementation of the further process set out below.

3.5. Prepare an Inception Report: The report should contain:

- (i) proposed step-wise approach and methodology, including detailed methodologies and draft survey instruments (as appropriate) for;
 - Ecological assessment (including climate change risks) (3.6 below)
 - Fisheries Socio-economics & KAP Assessment (3.7 below)
 - Fishing Patterns Survey (3.8 below)
 - sensitisation of communities on fisheries no-take replenishment zones (3.8[ii] below)
 - development of JCMA plan objectives and theories of change (3.8[iii] below)
- (ii) summary of literature review in 3.2 above;
- (iii) summary of review of existing JCMA plan in 3.3 above, where relevant;
- (iv) consultants' team composition and respective roles;
- (v) detailed timeframe for implementation of all activities, drawing on discussion and agreement reached under 3.3 above.

The Consultants will submit a draft Inception Report to SDFABE and KeFs, present the draft at a seminar with SDFABE and KeFS and the relevant JCMA planning committee for discussion, and revise in line with comments received.

3.6. Conduct an ecological assessment (including climate change risks) of each target area. The assessment should generate a report containing broad-scale maps of all critical habitats (including coral reefs, seagrass, mangroves, soft-bottom and intertidal areas) and estimating the area of each; and which also identifies marine areas likely to be of particular ecological importance to fisheries productivity, e.g., spawning and nursery grounds, breeding aggregation sites etc. and yet are more vulnerable to climate change risks (the latter type of information may also be generated from, or complemented by, the socio-economic assessment below). The above assessment should be based on both literature review and additional field surveys or data collection **where needed**. Where mapping of critical habitats etc. is already **adequately** published or reported elsewhere there is no need to repeat, provided available maps and associated data can be replicated in the output required herein with due acknowledgement to sources.

Consultants will submit a draft report to SDFABE, KeFS and the JCMA Co-management planning committee for comment, and make revisions for the final report.

3.7. Conduct a Fisheries Situation Analysis (including socio-economics survey and KAP assessment). The situation analysis should be conducted in collaboration with KEMFSED and County fisheries department and should cover all coastal communities with a beach management unit (BMU) within the target area, as well as other selected stakeholders. The analysis should incorporate a focus on relevant priority fisheries in the target area. The analysis should be based on both review of existing available data

and literature as well as additional primary data collection where needed. Primary data collection is expected to combine interviews with representative focus groups, ensuring representation across gender, age and fishing gear types and other stakeholders; as well as individual or household level sampling where appropriate.

The resulting report should profile each BMU stakeholder category (fishers, traders (including women '*mama karanga*'), boat owners, and others (Craft and gear repairers, processors, input suppliers, etc) and views of other selected stakeholders, in terms of:

(i) *Broad livelihood patterns:*

- patterns of sources of household income within the community;

(ii) *Fishing activities*

- numbers of fishers (disaggregated by fishing gear), fish traders, boat owners, processors etc,
- identify (a) *priority fisheries* relevant to the target area and (b) up to 10-12 particular species that are relatively economically important to each community (including seasonal variations), based on analysis of catch composition data, and verified by sampling fishers' perceptions;
- main fish marketing channels within the community, disaggregated by priority fisheries and species;

(iii) *Status of fisheries & related ecosystems*

- actual trends in total landings (disaggregated by species groups) and catch-per-unit-effort (disaggregated by gear type) at landing sites within the target area based on available historic SDFABE and KeFS catch data and/or other published studies;
- fishers' perceptions of 10-year trends in fish stocks and availability, disaggregated by priority fisheries and species, and reasons for such trends;
- awareness of locations of critical marine habitats important for life-cycle and productivity of commercially important fish species.

(iv) *Fisheries management*

- fisheries management measures currently under implementation;
- fishers' perceptions of threats, risks and issues with respect to each priority fish stock or species and/or gear type, including awareness of and attitudes towards unsustainable /illegal fishing practices;
- fishers' perceptions as to management measures needed to address above issues;
- perceptions of broader challenges and opportunities in terms securing a sustainable livelihood from fishing activities in that community;
- awareness of the potential fisheries benefits of permanent fisheries no-take/replenishment reserves and/or temporary (octopus) closures as a means of enhancing fisheries productivity and resilience, and attitudes towards such areas;
- awareness and understanding of existing JCMA plan, where relevant, its content, acceptability and status of implementation.

The resulting report should fully detail methodology as well as results. Consultants will submit a draft report to SDFABE, KeFS and the JCMA planning committee for comment, and make revisions for the final report.

- 3.8. **Conduct a Fishing Patterns Survey.** The objective is to map all important fishing grounds within the target area, and illustrate, in a series of maps, patterns of fishing activity in each major fishing ground, disaggregated by: (i) fishing gear, (ii) origin of fisher (i.e., BMU of origin if within the county, or county of origin if from outside) and (iii) season (kusi/kaskazi). It is expected that the final output will organise and present

data in a series of maps indicating use of particular gears, by season, by fishing ground and by community/BMU of origin, **along lines of sample map in Annex 3.**

It is expected that data will be collected through a process of systematic consultation with focus groups comprising representatives from all relevant fishing gears, in each BMU community. Data collection can probably be integrated with 3.6 above. As part of this survey, community leaders, BMU leaders and fisher representatives should also be consulted as to which other fishing communities and BMUs they provisionally consider it would be appropriate to join with in a JCMA, based on (i) sharing of common fishing grounds; (ii) social and cultural ties; and (iii) logistical considerations in terms of conducting regular joint meetings between BMU leaders.

Alongside qualitative data collection from fisher focus groups, all significant fishing ground locations should be geo-referenced through a boat-based survey involving fisher informants. Geo-referencing of fishing grounds should be done so as to allow them to be mapped as polygons surrounding the full extent of the fishing ground, not as single points.

Reporting of the fishing patterns survey should be integrated with the fisheries situation analysis in section 3.6 above, but as a distinct section within the report fully detailing methodology as well as results.

3.9. Determine boundaries of proposed JCMA within the target area with the help of Project by facilitating a consultative process with all relevant stakeholders, to obtain consensus on the extent and composition of one or more JCMA. The extent and boundaries of JCMA should be based on three criteria:

- (i) fishing patterns, sharing of fishing grounds and the resulting common interest between neighbouring BMUs in achieving effective management of their common, shared resources;
- (ii) social and cultural relations between neighbouring BMU communities;
- (iii) logistical considerations in terms of being able to conduct routine management consultations between BMU leaders, as well as other joint management activities such as surveillance.

Point (i) above will draw on findings of the Fishing Patterns Survey (3.6 above), therefore draft maps of fishing patterns and views of consulted stakeholders need to have been documented and made available. Consensus on JCMA boundaries is expected to be reached through a process of further consultation with representatives of all relevant national, county, BMUs and other stakeholders. Proposed JCMA boundaries, and the implied BMU partnerships, arising such consultations will then be shared with BMU assemblies for consent and/or alternative proposals. Consent by BMU assemblies should be documented, witnessed and verified by County fisheries authority and any other relevant leaders. Alternative proposals should be justified against the above-mentioned criteria and might then require additional iterative consultations.

3.10. Consult with Client and County partners to select focal areas for JCMA establishment. Consultants will present summarised findings of Steps 3.6 to 3.9 above, including proposed JCMA areas/boundaries within each target area, to the Client and relevant County partners, at a seminar convened by the Client.

The Client will subsequently provide consultants with written confirmation of the area for JCMA establishment and management planning, and the BMUs to be included. In the event that the scope of the proposed JCMA area differs significantly from that

covered by financial provisions in the consultants' contract, the Client will consider the need for renegotiation and contract amendment.

For the purposes of preparation of technical and financial proposals, applicants should **provisionally** assume areas for JCMA development in each target area will be as below:

Target Areas	Provisional areas for development of (1 or more) JCMAs under Phase 2
Target Areas 1	Amu-Mokowe-Kiongwe (8 BMUs)
Target Areas 2	Kipini-Marereni-Ngomeni (6 BMUs)
Target Areas 3	Bofa-Mtwapa (7 BMUs)
	Nyali-Likoni-Timbwani (9 BMUs)
Target Areas 4	Chale-Funzi (8 BMUs)
	Shimoni-Vanga (7 BMUs) - selected activities only

Table 2: Provisional JCMAs within the 4 Target areas for the purpose of proposal development

PHASE 2: JCMA establishment & management planning

3.11. **Implement a programme of BMU sensitisation & training in conjunction with the county fisheries officers, including:**

- (i) *Collaborate with above consultants, KEMFSED, KeFS and County fisheries staff in preparing a BMU training plan,* targeting BMU executive committee and assemblies within target area(s) agreed with the Client as per 3.10 above, including on;
 - a) BMU governance & operations, including related governance instruments
 - Fisheries Management & Development Act, 2016
 - BMU Regulations (revised version of 2020/21)
 - Revised National CMA guidelines (2021/22)
 - BMU Standard Operating Procedures developed under KEMFSED
 - BMU performance monitoring and reporting
 - Existing BMU Training manuals that include (i) Training methods, (ii) BMU Orientation, (iii) Fisheries co-management, (iv) MCS and (v) Fish handling
 - b) BMU leaders skills training on (i) leadership & (ii) conflict management
 - c) Principles of priority fisheries management, including:
 - Basic fish biology and reproduction
 - Priority fisheries in the area, their ecology and importance to livelihoods
 - Importance of critical marine habitats to fisheries production, including focus on habitats of importance to local priority fisheries
 - General impact of fishing on fish stocks
 - Impact of destructive & unsustainable fishing gears on stocks & habitats
 - Options for controlling fishing effort to achieve maximum sustainable production of priority fisheries (eg. seasonal & temporal closures, gear restrictions, licensing and vessel effort control, quotas etc.)
 - Importance of data for management of priority fisheries, including catch monitoring and stock assessment

- (ii) Participate in training of trainers on national fisheries co-management instruments organised by KeFS and facilitated by separate consultants contracted under KEMFSED;

- (iii) Implement the BMU training plan, in conjunction with KeFS, County fisheries officers with BMUs within target areas agreed for Phase 2.

Note: aside from direct costs of consultants (time & travel expenses), training costs relating to participation of KeFS, County staff and BMU trainees, including venue costs, will be covered separately and directly by KEMFSED and should not be budgeted within this contract

- (iv) Prepare a BMU training report detailing implementation of BMU training undertaken above, challenges encountered and how they were addressed, and evaluating outstanding need for further training;
- (v) Ensure stakeholders understand the proposed JCMA development process; primarily targeting fishing communities (BMU executive committees and assemblies) but also private sector fisheries marketing and tourism sector stakeholders. This step should be conducted early in the process, prior to implementation of the three studies in 3.6 to 3.8 above, comprising consultations with community and BMU leaders in each coastal community within the JCMA, and public meetings with BMU assemblies;
- (vi) Sensitise fishing communities on benefits of fisheries no-take replenishment areas and identify proposed area(s) for each BMU. The findings of the Fisheries Situation Analysis (3.7 above) on attitudes towards fisheries spatial closures or no-take replenishment zones should enable assessment of baseline levels of awareness and acceptance of the concept of fisheries no-take replenishment reserves, and against which to plan a sensitisation programme, and measure its effectiveness (ie. through a repeat rapid survey of attitudes after sensitisation).

The objectives of the sensitisation will be to increase positive attitudes towards fisheries spatial closures or no-take zones. Sensitisation should include awareness-raising and dialogue with BMU leaders and fishers of different gear types, as well as exchange visits to BMUs within Kenya with existing positive examples of fisheries no-take zones (e.g., Wasini, Kiruwitu). It should also include other appropriate awareness-raising and communications activities and cultural events, drawing on experience of other similar past NGO initiatives in Kenya.

Further to the above sensitisation, consultants should facilitate a process with BMU Executive Committees provisionally to identify possible locations for such zones. The aim should be for each BMU within any JCMA to include at least one fisheries no-take zone within the JCMA plan. The process should draw on findings of the Ecological Assessment (3.6 above) and Fisheries Situation Analysis (3.7 above) through the following steps:

Identify priority fisheries relevant to the target area and, within that, up to 10 or so target fish species of high economic importance to fishers in the BMU/landing site, based on catch composition data and discussion with fishers (see 3.7);

- For each priority fishery and/or priority fish species, identify critical marine habitats thought to be of particular importance for the life cycle of that species. This should be done with reference to findings of the ecological assessment (3.4 above), and through discussion with fisher focus groups. Analysis and discussion should cover spawning grounds, nursery habitats for fingerlings and

refuge habitats for mature, high-spawning adults. Consultants should document the analysis;

- Identify proposed sites: based on the above analysis, consultants should facilitate BMU Executive Committees and BMU assemblies to agree on proposed area(s) for fisheries no-take replenishment areas, at least one significant area per BMU.

3.12. Facilitate a programme of stakeholder consultations on JCMA planning to identify objectives and management priorities and measures for each priority fishery relevant to the JCMA. This should be done separately for each JCMA as per directions provided by the Client in section 3.10 above (i.e. in case there is more than one). In conjunction with members of the respective JCMA planning committee(s) the following steps will be undertaken through a consultative stakeholder process:

- (i) Conduct an Ecological Risk Assessment: consultants will facilitate an ecological risk assessment (ERA) through a consultation workshop with members of the JCMA Management Committee together with additional representatives from BMU Executive Committees (5 office-bearers from each BMU) within the JCMA. Key findings of the three surveys outlined in 3.6 to 3.8 above should be presented/provided to the JCMA Co-Management Committee. Such findings (in particular from Section 3.7[iv] above) will provide a basis for identifying issues and challenges posing a threat or risk to each priority fishery within the JCMA, and then rating such risks in terms of severity and likelihood or immediacy.

Results of the above process will be documented in the form of a draft Ecological Risk Assessment (ERA) report.

- (ii) Develop fisheries objectives and theories of change for each priority fishery within the proposed JCMA: consultants will facilitate appropriate planning discussions through a consultation workshop with the JCMA Co-Management Committee with additional representatives from BMU Executive Committees (5 office-bearers from each BMU) within the JCMA.

Building on the ecological risk assessment in 3.10(iii) above, as well as findings from the Fisheries Situation Analysis - in particular, community responses on priority management measures (3.7 [iv] above) – consultants will facilitate further planning discussions in order to identify the following, for each fishery identified as a priority for the JCMA (as per Section 3.6[ii] above):

- *a fisheries-related objective statement* articulating a desired outcome (e.g., increase sustainable production of specified priority fishery target spp);
- *one or more measurable indicator(s)* by which to measure achievement of above objective (e.g., estimated tonnes landed per year) related to the priority fishery;
- *mid-period and end-period targets* (e.g., increase by X % by YR 3 and YR 5);
- *fisheries management issues & challenges* relevant to the priority fishery (drawn from ecological risk assessment (ERA));
- *proposed management measures* relevant to the priority fishery (e.g., spatial closures, temporal closures, gear restrictions, effort restrictions, habitat or species protection etc.) which address each management issue above and thereby achieve fisheries objective(s). This should integrate both national management measures contained in fisheries regulations and FMPs as well as

new proposed measures specific to the JCMA, where needed (such as a fisheries no-take replenishment reserve);

- *proposed development measures* by which to achieve objective (e.g., improvements to fishing gears, landing infrastructure, market value etc.);
- *measurable indicator(s)* by which to measure progress in implementing management and development measures;
- *behavioural change* – for each proposed management measure above, identify what key behavioural change is needed, and by whom;
- *barriers or constraints* – for each behavioural change identified above, identify what are the main barriers or constraints to such change;
- *proposed actions* – for each barrier or constraint to behavioural change, identify proposed actions that will mitigate the constraints or overcome barriers.
- *measurable indicator(s)* by which to measure progress in facilitating behavioural change and implementation of proposed actions

(iii) Document outcome of above consultations: For each JCMA identified in the target area (3.9 above), consultants will separately document the outcomes and outputs from the above awareness-raising [(ii) above] and management planning discussions [(iii) and (iv) above] in a *JCMA Ecological Risk Assessment and Management Priorities Report*. Consultants will submit a draft version to KeFS and the JCMA Planning Committee for comment, and incorporate feedback into a revised draft report.

(iv) Share key proposed management measures back to BMU assemblies for awareness and feedback: consultants, together with County fisheries staff and BMU leaders on the JCMA Management committee, will facilitate feedback sessions with each BMU Executive Committee and each BMU assembly. A summary of proposed management measures for each priority fishery will be presented for discussion and feedback. Feedback will be documented.

(v) Incorporate feedback from BMUs. The consultants, in consultation with the JCMA Co-Management Committee, will incorporate BMU feedback, as appropriate, into a revised, final version of the *JCMA Ecological Risk Assessment and Management Priorities Report* for each JCMA in the target area.

Summary minutes of all consultations outlined under paras (i) to (vi) above should be prepared, including recording numbers of participants by gender.

3.13. **Map JCMA boundaries** including the outer boundary and all internal boundaries of management zones agreed with stakeholders, including fisheries no-take zones, for inclusion in the final JCMA plan.

3.14. **Prepare a draft JCMA plan (JCMAP)**. In collaboration with the JCMA Co-Management Committee, and drawing on the desk review of existing JCMA Plan (where relevant), the Ecological Assessment, the Fisheries Situation Analysis, the Fishing Patterns Survey, and the JCMA Ecological Risk Assessment and Management Priorities Report, consultants will prepare a draft JCMA plan for each JCMA in the target area.

Note that the draft JCMA management plan must conform to the minimum requirements outlined in these TORs in Section 1.1 above, relating to targets in the KEMFSED Results Framework.

The format of the JCMA plans should furthermore contain key sections as follows;

- (i) *Introduction with description of the process for developing the plan;*
- (ii) *Background description of JCMA target area:*
 - Geographic scope of the plan including map(s) of management area
 - Ecological description of the management area
 - Socio-economic description, including stakeholders and livelihoods
 - Governance environment including summary of relevant policy, legal and institutional framework
- (iii) *Description of fisheries resources*
 - Key priority fisheries relevant to the JCMA and, within that, main target species within each priority fishery
 - Production & catch trends, catch composition & stock status, highlighting relative importance of priority fisheries
 - Description of fishing activities & effort, including summary of main fishing patterns by constituent BMUs/communities within the JCMA
- (iv) *Fisheries risk/ threat assessment (including climate change related risks)*
- (v) *Objectives of the management plan*, comprising objectives for improved management of each relevant priority fishery
- (vi) *Theories of change for achievement of each priority fishery objective*, including:
 - Management measures (describing fisheries-related behavioural change) including maps of proposed use-zones
 - Barriers to behavioural change
 - Intervention strategies to address barriers to behavioural change
 - Monitoring plan with indicators and mid and end-targets for 5-yr period for each of the above layers in theories of change;
- (vii) *Governance & institutional arrangements* for implementation of JCMA plan
- (viii) *Implementation of the plan* and rules for review
- (ix) *Linkages with other legislations* e.g. on aquaculture, environment, Forestry, Wildlife, Oil & Mining, and Water etc.

- 3.15. **Develop draft bylaws.** Consultants will work closely with relevant legal officials in the County government to draft bylaws that enforce relevant aspects of each draft JCMA plan (e.g., no-take zones, gear restrictions etc.).
- 3.16. **Prepare summary infographic versions of each JCMA plan** along the lines of example in Annex 4, both in English and Kiswahili.
- 3.17. **Translate each draft JCMA plan and related by-laws into Kiswahili**
- 3.18. **Conduct stakeholder validation** on the draft JCMA and by-laws and, in collaboration with the JCMA Management Committee for each JCMA in the target area, incorporate feedback into the draft JCMA management plans, as appropriate. Stakeholder validation will involve representatives of the respective BMU Executive Committees and assemblies together with other stakeholders/representative groups (at both national and county) who are not part of the assemblies within the JCMA. The project will facilitate stakeholders participation.
- 3.19. **Present final draft JCMA plans and by-laws to JCMA Co-management Committees** to be forwarded through the County Executive Committee Member (Fisheries) to the Director General, KeFS for endorsement

3.20. **JCMA baseline and KEMFSED results monitoring.** Consultants will build capacity of County fisheries officers and, where relevant BMU executive committees, in collecting and documenting data for the following two monitoring protocols:

- i) *KEMFSED Results Framework*: specifically PDO Indicator 2 (Proportion of Kenya's nearshore waters under improved management) assessed against three criteria: a) JCMA plan prepared and approved by national and county authorities; b) JCMA plan includes, at a minimum: (i) defined boundaries agreed by communities; (ii) at least one no-take area agreed by communities; and (iii) management measures for at least two priority fisheries that explicitly control fishing effort (spatial or seasonal closure; gear restrictions, gear or fisher numbers etc.); and c) BMU surveillance reports indicate a stable or improving trend in non-compliance per patrol effort.

Data to be collected for YR0 (baseline), YR1 and YR 2 of KEMFSED project;

- ii) *JCMA monitoring plans*: baseline data to be collected for all indicators contained in approved JCMA plans prepared under this consultancy, and baseline monitoring reports prepared for each.

3.21. **Plan and implement stakeholder sensitization & awareness on endorsed JCMA Plans** and approved by-laws. Consultants in collaboration with the Project will prepare a plan for a stakeholder sensitisation and awareness-raising campaign in each JCMA within the target area. The campaign(s) should primarily target coastal fishing communities but also other relevant stakeholders, and should focus on key management measures and governance arrangements contained in the JCMA plan(s), including appropriate dissemination of full versions and summary infographic versions of the JCMA plans themselves, as well as bylaws, in each JCMA in the target area. The campaign plan will be submitted for comments and approval by the JCMA Management Committee and, subsequently, to the Client (KeFS) for approval. Sensitisation and awareness-raising campaign activities should not be confined only to meetings but should also include a coherent and creative programme of communications materials and events over a period of 3-6 months. Production costs of communications materials (t-shirts, brochures etc.) will be covered separately by the Client.

Upon approval of the plan(s), consultants will implement the sensitisation and awareness-raising campaign(s) in each JCMA, in close collaboration with KEMFSED, County fisheries officers and BMU leaders. Subsequently, consultants will prepare a report on implementation of the campaigns including images of communications materials produced and a photographic record of community events.

3.22. **Propose and implement any other activities necessary to ensure effective management is achieved in target JCMA area(s)**, as per criteria in the KEMFSED Results Framework, as outlined in Section 1.1 above. In particular, ensuring fulfilment of the criterion requiring that:

BMU surveillance reports indicate a stable or improving trend in non-compliance per patrol effort.

Activities towards achieving this might include, but need not be limited to:

- (i) Building capacity of BMUs to collect baseline data required for JCMA monitoring and evaluation (M&E) plan (derived from 3.12[ii] above), thereby enabling BMUs to understand and assess JCMA plan implementation progress and JCMA management effectiveness;

- (ii) Facilitating BMUs within target JCMA areas to collect and safely store other BMU performance data, including patrol surveillance data, and establishing a baseline as early as possible. This should include ensuring that BMU performance data is regularly and efficiently channelled to the national web-based fisheries co-management monitoring system to be established by KeFS and coastal counties under KEMFSED. Any related BMU monitoring protocols should be included in BMU training prepared and delivered under 3.11 (ii) and 3.11 (iii) above;
- (iii) Liaising with KeFS and county fisheries staff to encourage prompt delivery of MCS training and provision of MCS-related equipment under KEMFSED to BMUs in target JCMA's;
- (iv) Activities directly targeting individuals or groups of fishers engaged in non-compliant fishing activities including awareness-raising or other measures to incentivise or dissuade them from engaging in illegal fishing practices, as appropriate and by agreement with KeFS and the County Fisheries Director;
- (v) Other activities as appropriate, again by agreement with KEMFSED, KeFS and the County Fisheries Director.

4. APPROACH AND METHODOLOGY

Consultants' approach to this assignment will comply with the following points:

- (i) The process of developing the JCMA plan should be consultative and participatory involving BMUs, government agencies, NGOs and any other relevant resource users.
- (ii) The consultant will work closely with the County and National fisheries staff implementing the project. County fisheries departments and County Fisheries Directors should have overall ownership of the processes outlined herein. As such, the role of consultants in liaison with the Project is to facilitate, support and build capacity in county fisheries staff, rather than to lead the process directly.
- (iii) The process should be closely aligned with the FAO ecosystem approach to fisheries (EAF).

5. EXPECTED DELIVERABLES, TIMETABLE, AND PAYMENT SCHEDULE

Key deliverables under this assignment include:

- 5.1. Review of all relevant documentation including national governance instruments and others as per 3.2 above
- 5.2. Review of existing JCMA management plan (where appropriate) as per 3.3 above
- 5.3. Inception Report as per 3.5 above, to be submitted within the first 7 days after signing the contract;
- 5.4. Quarterly progress Reports that contain an update of progress against the workplan contained in the Inception Report including: (i) status all steps outlined in section 3 above, (ii) challenges faced and how they have been addressed, (iii) plans for the coming quarter, including support needed from the Client and/or county authorities. . These reports will be made available to the County co-management committees in order to ensure quality technical content and ascertain that the consultancy objectives are addressed;
- 5.5. Ecological Assessment report for the target area as per 3.6 above
- 5.6. A Fisheries Situation Analysis & Fishing Patterns Survey Report for the target area as per 3.7 and 3.8 above

- 5.7. *A BMU training report* as per 3.11 (iv) above;
- 5.8. *A JCMA Ecological Risk Assessment & Management Priorities Report*, as per 3.10 (iii) to (vi) above, for each JCMA to be established in the target area;
- 5.9. *JCMA Plan*, in English, for each JCMA to be established in the target area that takes into account the Ecosystem Approach to Fisheries (EAF), incorporating:
 - (i) summary ecological risk assessment/ fisheries management issues in the JCMA
 - (ii) fisheries management objectives for each priority fishery
 - (iii) theories of change by which to address each objective, including:
 - detailed management measures (describing behavioural change)
 - barriers to behavioural change
 - Interventions to address barriers to behavioural change including surveillance and enforcement, awareness-raising, training of BMU executive members etc.
 - (iv) monitoring framework with mid and end-term targets (5-year timeframe) against which to measure progress against objectives, behavioural change and intervention
- 5.10. *By-laws for each JCMA* to support enforcement of management measures contained in each JCMA plan;
- 5.11. *Full Kiswahili versions* of each JCMA plan and related by-laws
- 5.12. *Summary infographic of each JCMA plan*, in English and Kiswahili, for awareness-raising with communities and other stakeholders;
- 5.13. *Plan(s) for sensitisation and awareness-raising campaign(s)* for each JCMA
- 5.14. Reports on status of KEMFSED Results Framework PDO 2 indicator for YR0, YR1 & YR2
- 5.15. Baseline Monitoring Reports(s) for each JCMA management plan
- 5.16. *Sensitisation and awareness-raising campaign report(s)* for each JCMA
- 5.17. *Final technical report* detailing the process undertaken and progress made, with the following format (English):
 - Executive summary
 - Background to the assignment and the target area
 - Objective of the assignment
 - Progress made (including detailed timeline of all activities & numbers of participants by gender) and outputs achieved as per Scope of Work in ToRs
 - Constraints encountered and how there were addressed
 - Recommendations for future similar work (JCMA development)
 - Appendices as appropriate (eg. Minutes of consultation & training meetings including lists of participants in various stakeholder consultations)

Time frame and Payment Schedule: The assignment will be done in two Phases; PHASE I - 4 Months and PHASE II - 11 Months;

Deliverable	% Payment	Q1			Q2			Q3			Q4			Q5		
PHASE I = 4 months																
1. Inception Report	10%															
2. Review of relevant documentation	20%															
3. Review of existing JCMA management plan (if relevant)																
4. Ecological Assessment report	20%															
5. Fisheries Situation Analysis & Fishing Patterns Report	30%															
6. Monthly progress Reports inc. KEMFSED RF PDO 2 indicator	20%															
PHASE II = 11 months																
7. Ecological Risk Assessment & Management Priorities Report	10%															
8. JCMA Management Plan for each JCMA (English)	20%															
9. Kiswahili versions of each JCMA plan																
10. Final draft of by-laws for each JCMA	20%															
11. Summary infographic of each JCMA plan, English & Kiswahili																
12. Plan(s) for sensitisation & awareness campaign(s)	20%															
13. BMU training report																
14. Baseline Monitoring Report for each JCMA	10%															
15. Quarterly progress Report including KEMFSED Result Framework PDO 2 indicator	10%															
16. Progress reports on JCMA plan implementation ¹																
17. Final technical report	10%															

Table 3: Payment schedule as per the deliverables

¹ = including sensitization campaigns to raise awareness of JCMA management plan measures and any other activities under 3.22

6. REPORTING, SUPERVISION AND CLIENT RESPONSIBILITY

The technical supervision and approvals for this consultancy will be made by KEMFSED, SDFABE and KeFS through the JCMA Co-Management Committees chaired by County Director of Fisheries established at Counties. The consultant will provide an update on a monthly basis with regards to progress.

NB; For the purpose of clarity, any workshops and facilitation cost will be client (KEMFSED) Responsibility. This will allow the consultant to concentrate and handle the Technical Part of this assignment.

7. SUBMISSION OF APPLICATION AND QUALIFICATIONS

7.1. Qualifications of the applicant firm:

The task shall be carried out by qualified firms, institution or organisation with substantial, demonstrable, organisational experience in:

- (i) successful past collaboration with national and county fisheries authorities in Kenya;
- (ii) successful implementation of bilateral or multi-lateral donor-funded projects;
- (iii) small-scale fisheries governance and co-management in Kenya, including working with beach management units (BMUs);
- (iv) community engagement and mobilisation of coastal communities in Kenya;
- (v) the specific target areas or Target Areas for which interest is expressed;
- (vi) fisheries management applying an eco-system approach to fisheries (EAF);
- (vii) data-led analysis of fisheries issues;
- (viii) broad environmental management issues in coastal Kenya.

7.2. Qualifications of proposed team members:

The applicant firm is expected to identify and propose a team containing team members with minimum qualifications as outlined below. The firm is free to propose additional team members as it deems appropriate.

(i) Team Leader

- minimum advanced degree, preferably Master of Science or equivalent, in fisheries, marine sciences or related natural resources management;
- at least 10 years relevant experience on marine fisheries management in Kenya, including working with coastal communities, and with good understanding of co-management and Ecosystem Approach to Fisheries (EAF) approaches to fisheries;
- significant demonstrable experience leading projects funded by international donors; .
- demonstrable experience in development, preparation and drafting of fisheries management planning documents;
- demonstrable experience in planning, co-ordination and oversight of ecosystem assessments and fisheries-related surveys, including related sampling approaches;
- highly competent communication skills to engage with the appropriate spectrum of government and non-government stakeholders across the range of relevant professional, cultural and gender groups;
- demonstrably strong report writing and analytical skills.
- strong IT literacy and competency
- fluent English and Kiswahili language skills.

(ii) Community Engagement Specialist

- minimum advanced degree, preferably Master of Science or equivalent, in community development, natural resources management, gender related aspects or related discipline;
- at least 10 years relevant experience working with coastal communities in Kenya including strong experience facilitating community dialogue and consultation;
- advanced communication skills necessary for engaging with the appropriate spectrum of government and non-government stakeholders across the range of relevant professional, cultural and gender groups;
- significant demonstrable experience planning and delivering governance training to community beneficiaries, preferably in a Kenya coastal community context;
- strong understanding of county and coastal community governance systems in Kenya;
- strong experience and understanding of social inclusion approaches to community engagement;
- strong experience with approaches to specific-issue community sensitisation, awareness-raising and related communications techniques and materials development; experience of co-management approaches to fisheries preferred;
- demonstrably strong report writing and analytical skills.
- strong IT literacy and competency
- fluent English and Kiswahili language skills.

(iii) Fisheries Analytics Specialist (can be divided into more than one team member if needed)

- minimum advanced degree, preferably Master of Science or equivalent, in fisheries or marine science or related scientific discipline;
- at least 10 years relevant experience in collection, analysis and management of fisheries data and information in context of small-scale fisheries in Kenya;
- specific demonstrable experience in planning, implementing and reporting on fisheries-related surveys including marine habitat surveys; quantitative sampling of target communities for socio-economic surveys; qualitative focus-group data collection; and related data management and analysis;
- specific demonstrable experience planning and implementing fishing patterns mapping surveys or other spatial mapping of resource-use behaviour;
- competence and experience with GIS mapping software required (or otherwise an additional team member with such experience must be included in the team);
- significant demonstrable experience of past involvement in projects funded by international donors;
- demonstrably strong report-writing experience, specifically on analysis and presentation of fisheries data and information;
- strong IT literacy and competency
- fluent English and Kiswahili language skills.

iv) Environmental and Safeguards Specialist

- Have Masters' degree in Environment science, Natural Resources Management or any other equivalent and relevant qualification from a recognized institution;
- Have a Bachelor's degree in Environmental Science, Natural Resource Management , Climate Change or any other equivalent and relevant qualification from a recognized institution;

- Have worked for a minimum period of ten (10) years in the fields of Environmental, Natural Resources, Marine Resource, solid waste management and social assessment for development projects.
- Have Experience of at least five years with operational environmental safeguards policies of the World Bank (especially Operational Policy (OP) 4.01 Environmental Assessment);
- Be well versed with project compliance with environmental safeguards requirements and National Environment Management Authority (NEMA) compliance procedures;
- Be registered with National Environment Management Authority (NEMA)
- Be familiar with Donor Funded Project and Coastal Kenya and have thorough Knowledge of environmental issues in relation to the project area;
- Have working knowledge on Occupational Health and Safety methods;
- Have broad understanding of national environmental legislation, both at the national and county level;
- Have excellent oral and written communication skills.
- Have Certificate in computer application skills from a recognized institution
- Be fluent in English and communication in Kiswahili will be an added advantage.

Annex 1: List of BMUs in each Target Areas

<p>Target Areas 1</p> <p>Dodori & Wange/Ndununi Creeks</p> <ol style="list-style-type: none"> 1. Kiangwe 2. Ndununi 3. Kibaoni 4. Matondoni 5. Kipungani 6. Mgiini <p>Amu-Mokowe-Kiongwe</p> <ol style="list-style-type: none"> 7. Amu 8. Shela 9. Bandari salaam 10. Kiongwe Mjini 11. Mea 12. Ndambwe 13. Mkunumbi 14. Mashundwani 	<p>Target Areas 2</p> <p>Malindi-Ungwana Bay</p> <ol style="list-style-type: none"> 1. Kipini 2. Ozi 3. Chara 4. Marereni 5. Gongoni 6. Ngomeni 7. Kichwa cha kati 8. Shella 9. Mayungu 10. Watamu
<p><u>Target Areas 3</u></p> <p>Bofa - Mtwapa - Bamburi</p> <ol style="list-style-type: none"> 1. Bofa 2. Takaungu 3. Kilifi Central 4. Mnarani 5. Kuruwitu 6. Kanamai 7. Mtwapa 8. Marina 9. Kidongo 10. Bamburi (Mombasa MPA) 	<p>Nyali-Likoni-Timbwani</p> <ol style="list-style-type: none"> 11. Nyali 12. Old Town 13. Mkupe 14. Kitanga Juu 15. Timbwani 16. Mtongwe 17. Mwangala 18. Likoni 19. Shika Adabu
<p>Target Areas 4</p> <div> <p>Mwakamba-Chale-Funzi</p> <ol style="list-style-type: none"> 1. Mwakamba (Diani MR) 2. Mwaepe (Diani MR) 3. Gazi 4. Chale 5. Mwandamu 6. Mkunguni 7. Mwaembe 8. Munje 9. Bodo 10. Funzi </div> <div> <p>Shimoni-Vanga</p> <ol style="list-style-type: none"> 11. Shimoni 12. Wasini 13. Mkwiru 14. Kibuyuni 15. Majoreni 16. Jimbo 17. Vanga </div>	

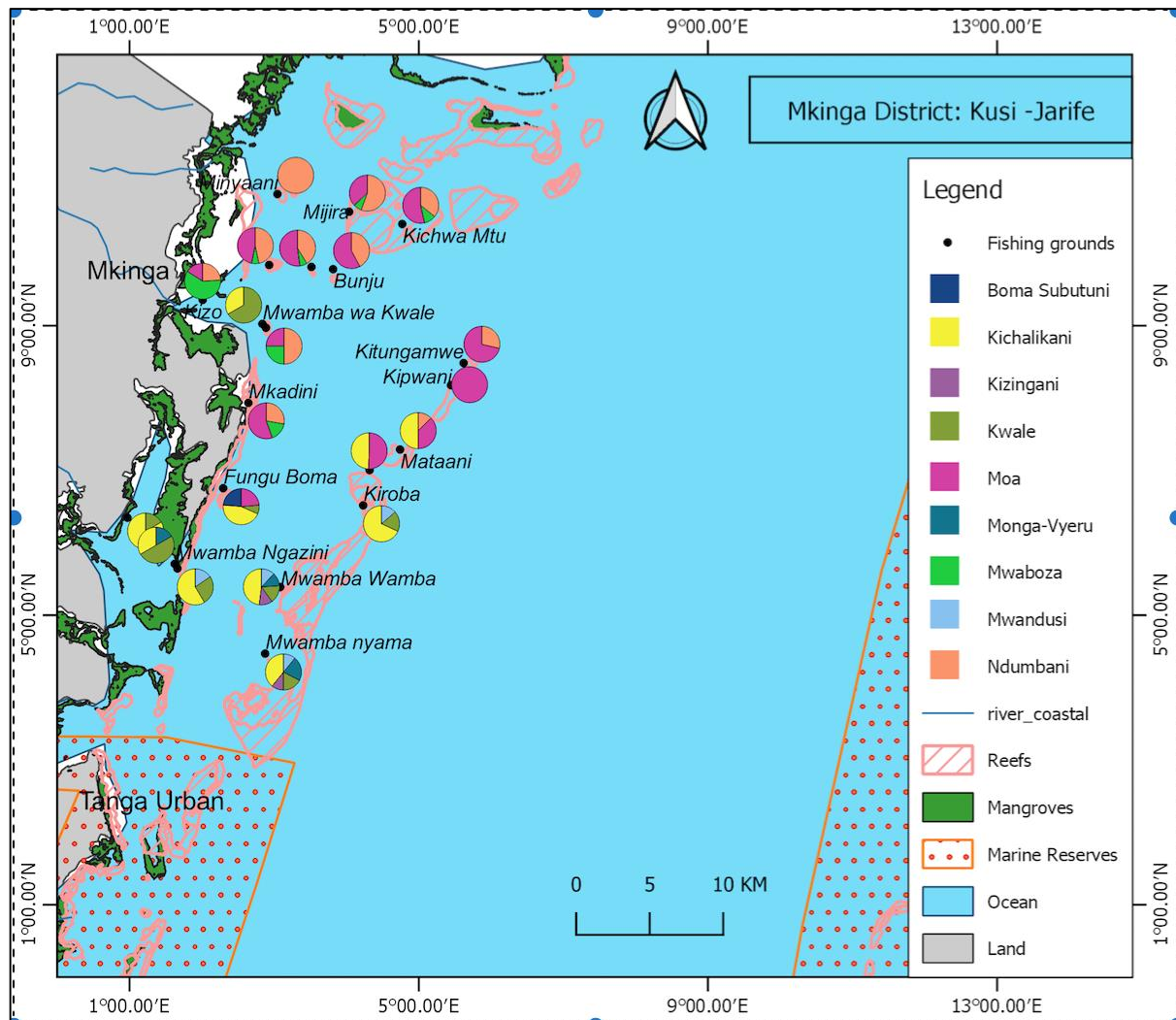
Annex 2: JCMA Development Process

STEP	RESPONSIBLE	NOTES
1. Establish a <i>Co-Management Planning Committee (CPC)</i> for the broader target area	County Director(s), SDFABE, KeFS SDFABE, KeFS, consultants	A target area would usually encompass more than one JCMA, could be an entire county or large scale physical coastal area <i>CPC</i> comprises reps from County Fisheries Dept(s), SDFABE/KeFS, BMU Chairs, other relevant GoK institutions (eg. KWS, KFS, NEMA), NGOs/CSOs and fisheries & tourism private sector
2. Train/orient the <i>Co-management Planning Committee</i> on JCMA process		
3. Review background literature relevant to target area	CFOs ⁴ & consultants	Where appropriate (ie. where existing JCMA plan exists)
4. Review existing JCMA plan progress and gaps		
5. Sensitise communities/ stakeholders on JCMA process	CFOs & consultants	with support of <i>Co-management Planning Committee</i>
6. Ecological assessment	Consultants & CFOs	<i>Fisheries Situation Analysis</i> and <i>Fishing patterns survey</i> can be combined into an integrated output/report
7. Fisheries situation analysis		
8. Fishing patterns survey		
9. Determine boundaries of proposed JCMAs	Co-management Planning Committee	With further approval of County government(s) and SDFABE/KeFS
10. Establish <i>JCMA Co-Management Committee(s)</i>	County Fisheries Director(s)	Similar composition to <i>CPC</i> above but customised for each JCMA with additional representation from each BMU (2-3 pax per BMU)
11. Training & sensitisation of BMUs on BMU governance, JCMA development, fisheries management principles and value of fisheries no-take reserves	Consultants with CFOs	A <i>programme</i> of training and awareness raising in each BMU community
12. Conduct Ecological Risk Assessment		Steps 10 & 11 to be conducted through 1-2 workshops involving the <i>JCMA Management Committee</i> with additional representation from BMU Executive Committees (ie. 5-6 pax from each BMU). Should draw on results of Steps 4,5,6 & 9
13. Undertake JCMA management planning (define objectives, management measures, M&E targets, interventions etc)		
14. Share output from Steps 10 & 11 to BMU Executive Committees & BMU assemblies for feedback	CFOs, consultants, BMU leaders	Meetings in each BMU community
15. Prepare JCMA plan based on Steps 10, 11 and 12	Consultants with CFOs	With input from JCMA Management Committee
16. Review and approval process	County Director(s), SDFABE, KeFS	

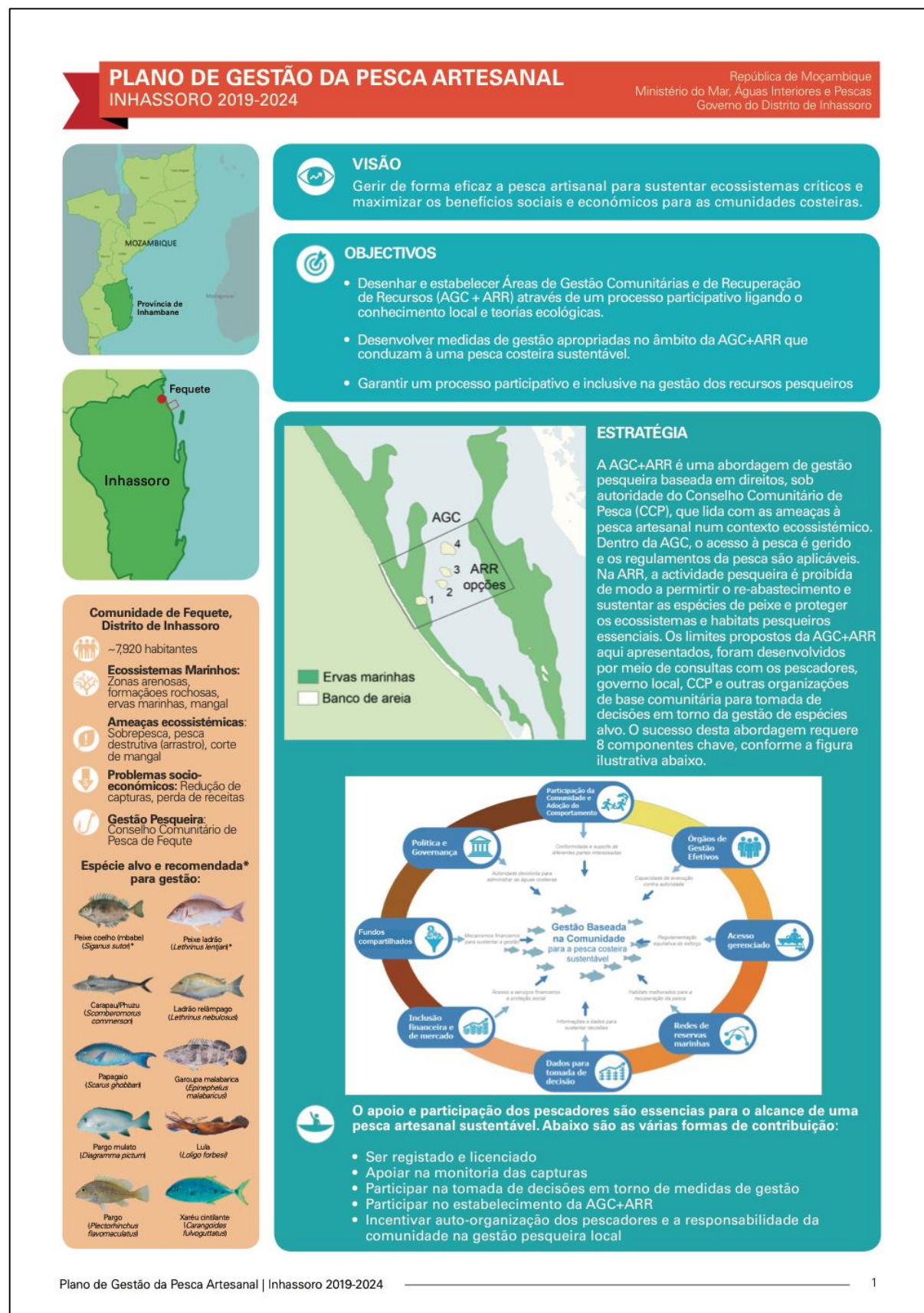
⁴ CFO = County Fisheries Officers

Annex 3: Example of fishing patterns mapping

Map below shows spatial use of large-mesh gillnets (*jarife*) during the SE monsoon season (*kusi*), by village (BMU) of origin, in Mkinga District in northern Tanzania. Taken from a fishing patterns survey conducted by Ministry of Livestock & Fisheries and partners during 2019. Similar maps were generated for usage of each fishing gear in both NE and SE monsoons seasons.



Annex 4: Example summary infographic of management plan



METAS E MEDIDAS DE GESTÃO



Regras de manejo e regulamento para o peixe coelho (Mbabe) - (*Siganus sutor*)



Regras e regulamentos definidas pela comunidade

- 45 dias de veda a partir de 15 de Julho à 30 de Agosto
- 45 dias de defeso a partir de 16 de Fevereiro à 15 de Março



Outras medidas de gestão

Recomendações da comunidade e do governo:

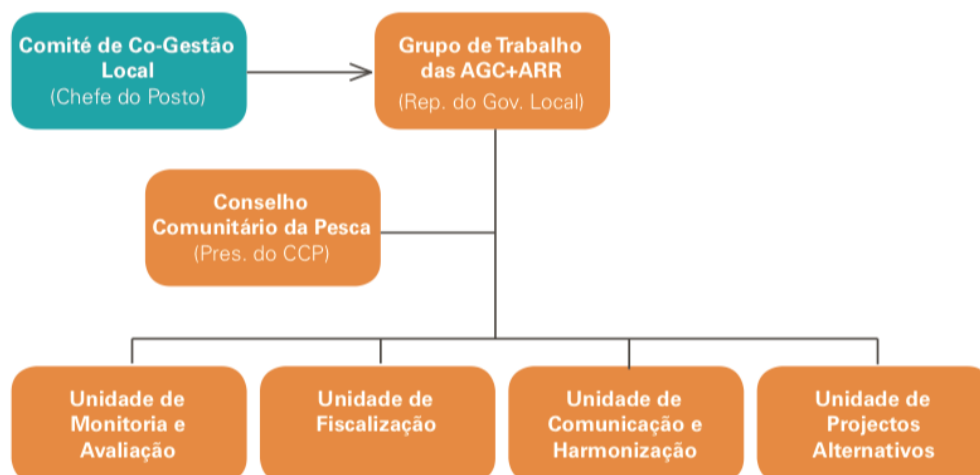
- Recomendado malha de 1.5 polegadas
- Não a pesca nos domingos
- Não a pesca no período noturno
- Não ao uso de rede de emalhar
- Não a novos licenciamentos à pesca de arrasto
- Limitado o arrasto à 1 lance por dia na maré alta
- Proteção total à espécies protegidas



Dentro dos limites da ARR serão aplicadas as seguintes medidas de controlo:

- Excepto em casos de emergência, dentro da ARR não será permitida passagem de embarcações;
- As seguintes actividades serão proibidas dentro da ARR:
 - o Todas actividades pesqueiras, extracção do recurso e outras práticas ilegais
 - o Mergulhar com luvas ou outros equipamentos que possam danificar os habitats
 - o Entrada de usuários não registados e não creditados;
 - o Destruição de habitats e colecta de recursos marinhos;
 - o Actividades que possam causar poluição marinha ou que sejam destrutivas à saúde e desenvolvimento da ARR
 - o Mergulho com recurso à compressores artefactos destrutivos
- As populações de peixe e limites da ARR serão revistos a cada 5 anos de modo a assegurar que eles estejam a proteger efectivamente as espécies críticas;
- A proibição da actividade pesqueira pode ser parcialmente levantada/abolida pela autoridade local sob as seguintes circunstâncias:
 - o Quando autorizadas por lei ou por decreto ministerial após assinatura do acordo de pesca
 - o Quando o manancial dentro da ARR está em nível controlado e que a actividade de pesca restrita e controlada pode ser autorizada

ESTRUTURA DE IMPLEMENTAÇÃO DO PLANO COORDENADO PELO CCP



Agradecimentos

CCP de Fequete; Ministério do Mar, Águas Interiores e Pescas (MIMAIP);
Governo do Distrito de Inhassoro; Banco Mundial; Fundo de Desenvolvimento Nórdico; RARE



FISH
FOREVER