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Report No: PAD3024

INTERNATIONAL DEVELOPMENT ASSOCIATION

PROJECT APPRAISAL DOCUMENT
ON A
PROPOSED CREDIT

IN THE AMOUNT OF EUR 89.1 MILLION
(US$100 MILLION EQUIVALENT) FROM THE IDA SCALE-UP FACILITY

TO

THE REPUBLIC OF KENYA

FOR A

MARINE FISHERIES AND SOCIO-ECONOMIC DEVELOPMENT PROJECT

February 18, 2020

Environment, Natural Resources & Blue Economy Global Practice
Africa Region

CURRENCY EQUIVALENTS

(Exchange Rate Effective December 31, 2019)

Currency Unit =	Kenyan Shilling
US$1 =	KES 101,35
US$1 =	EUR 0.89

FISCAL YEAR
July 1 – June 30

Regional Vice President:	Hafez M. H. Ghanem
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ABBREVIATIONS AND ACRONYMS

BMT	Bench Marking Tool
BMU	Beach Management Unit
CARA	County Allocation of Revenue Act
CDD	Community Driven Development
CECM	County Executive Committee Member
CIDP	County Integrated Development Plans
CIG	Common Interest Groups
CMA	Co-Management Area
CPIU	County Project Implementation Unit
CPSC	County Project Steering Committee
CPS	Country Partnership Strategy
DORA	Division of Revenue Act
DPO	Development Policy Operation
EEZ	Exclusive Economic Zone
EIRR	Economic Internal Rate of Return
ESIA	Environmental and Social Impact Assessments
ESMF	Environmental and Social Management Framework
ESMP	Environmental and Social Management Plan
EU	European Union
FAO	Food and Agriculture Organization
FIMS	Fisheries Information Management System
FM	Financial Management
FMDA	Fisheries Management and Development Act
FMP	Fishery Management Plan
GBV	Gender-Based Violence
GDP	Gross Domestic Product
GFDRR	Global Finance for Disaster Risk Reduction
GHG	Greenhouse Gas
GIZ	*Deutsche Gesellschaft für Internationale Zusammenarbeit*
GoK	Government of Kenya
GRS	Grievance Redress Service
HMP	*Hazina ya Pwani Maendeleo*
ICJ	International Court of Justice
IDA	International Development Association
IFMIS	Integrated Financial Management Information System
IFR	Interim Financial Report
IOTC	Indian Ocean Tuna Commission
IUCN	International Union of Conservation of Nature
IUU	Illegal, Unreported, and Unregulated
JCMA	Joint Community Management Area
JICA	Japan International Cooperation Agency
KCDP	Kenya Coastal Development Project

KCSAP	Kenya Climate Smart Agriculture Project
KeFS	Kenya Fisheries Service
KEMFSED	Kenya Marine Fisheries and Socio-Economic Development
KMFRI	Kenya Marine Fisheries Research Institute
KFMA	Kenya Fish Marketing Authority
MoALF	Ministry of Agriculture, Livestock and Fisheries
MDAs	Ministries, Departments and Agencies
MCS	Monitoring, Control, and Surveillance
METG	Monitoring and Evaluation Technical Group
M&E	Monitoring and Evaluation
MoEF	Ministry of Environment and Forestry
MoU	Memorandum of Understanding
MSP	Marine Spatial Planning
MSY	Maximum Sustainable Yield
NAP	National Adaptation Plan
NAMARET	National Mariculture Resource and Training Center
NARIG	National Agriculture and Rural Inclusive Growth Project
NCCAP	National Climate Change Action Plan
NCCRS	National Climate Change Response Strategy
NGO	Non-Governmental Organization
NPCU	National Project Coordination Unit
NPOA	National Plan of Action
NPSC	National Project Steering Committee
NPV	Net Present Value
OHS	Occupational Health and Safety
PA	Project Account
PAD	Project Appraisal Document
PDO	Project Development Objective
PF	Process Framework
PIM	Project Implementation Manual
PFM	Public Financial Management
PGM	Project Grant Manual
PPA	Project Preparation Advance
PPAD	Public Procurement and Asset Disposal
PPP	Purchasing Power Parity
PPAD	Public Procurement and Asset Disposal
PPRA	Public Procurement and Oversight Authority
PPSD	Project Procurement Strategy for Development
PTAC	Project Technical Advisory Committee
RPF	Resettlement Policy Framework
SA	Social Assessment
SDFA&BE	State Department of Fisheries, Aquaculture, and the Blue Economy
SEA	Sexual Exploitation and Abuse
SME	Small- and Medium-sized Enterprise
SMS	Short Message Service
SOE	Statement of Expenditure

SOPs	Standard Operating Procedures
STEP	Systematic Tracking of Exchanges in Procurement
SUF	Scale-Up Facility
SWIOFish	South West Indian Ocean Fisheries Governance and Shared Growth Program
TOC	Theory of Change
TOR	Terms of Reference
TTL	Task Team Leader
UNCLOS	United Nations Convention on the Law of the Sea
VMG	Vulnerable and Marginalized Group
VMGF	Vulnerable and Marginalized Groups Framework
VMGP	Vulnerable and Marginalized Groups Plan
VMS	Vessel Monitoring System
VSL	Village Savings and Loan
WSDP	Water and Sanitation Development Project

TABLE OF CONTENTS

DATASHEET

BASIC INFORMATION

Country(ies)	Project Name	
Kenya	Marine Fisheries and Socio-Economic Development Project	
Project ID	Financing Instrument	Environmental Assessment Category
P163980	Investment Project Financing	B-Partial Assessment

Financing & Implementation Modalities

[ ] Multiphase Programmatic Approach (MPA)	[ ] Contingent Emergency Response Component (CERC)
[ ] Series of Projects (SOP)	[ ] Fragile State(s)
[ ] Disbursement-linked Indicators (DLIs)	[ ] Small State(s)
[ ] Financial Intermediaries (FI)	[ ] Fragile within a non-fragile Country
[ ] Project-Based Guarantee	[ ] Conflict
[ ] Deferred Drawdown	[ ] Responding to Natural or Man-made Disaster
[ ] Alternate Procurement Arrangements (APA)	

Expected Approval Date	Expected Closing Date
10-Mar-2020	31-Mar-2025

Bank/IFC Collaboration
No

Proposed Development Objective(s)

The Project Development Objective is to improve management of priority fisheries and mariculture and increase access to complementary livelihood activities in coastal communities.

Components

Component Name	Cost (US$, millions)
Component 1 - Governance and Management of Marine Fisheries	49.80
Component 2 - Coastal Community Empowerment and Livelihoods	41.10
Component 3 - Project Management, and Monitoring and Evaluation	9.10

Organizations

Borrower:	The Republic of Kenya
Implementing Agency:	Ministry of Agriculture, Livestock and Fisheries

PROJECT FINANCING DATA (US$, Millions)

SUMMARY

Total Project Cost	100.00
Total Financing	100.00
of which IBRD/IDA	100.00
Financing Gap	0.00

DETAILS

World Bank Group Financing

International Development Association (IDA)	100.00
IDA Credit	100.00

IDA Resources (in US$, Millions)

	Credit Amount	Grant Amount	Guarantee Amount	Total Amount
Kenya	100.00	0.00	0.00	100.00
Scale-up Facility (SUF)	100.00	0.00	0.00	100.00
Total	**100.00**	**0.00**	**0.00**	**100.00**

Expected Disbursements (in US$, Millions)

WB Fiscal Year	2020	2021	2022	2023	2024	2025
Annual	2.67	16.05	25.36	27.24	22.09	6.58
Cumulative	2.67	18.73	44.09	71.33	93.42	100.00

INSTITUTIONAL DATA

Practice Area (Lead)
Environment, Natural Resources & the Blue Economy

Contributing Practice Areas
Agriculture and Food, Finance, Competitiveness and Innovation

Climate Change and Disaster Screening
This operation has been screened for short and long-term climate change and disaster risks

SYSTEMATIC OPERATIONS RISK-RATING TOOL (SORT)

Risk Category	Rating
1. Political and Governance	Substantial
2. Macroeconomic	Moderate
3. Sector Strategies and Policies	Moderate
4. Technical Design of Project or Program	Substantial
5. Institutional Capacity for Implementation and Sustainability	High
6. Fiduciary	Substantial
7. Environment and Social	Substantial
8. Stakeholders	Substantial
9. Other	Moderate
10. Overall	Substantial

COMPLIANCE

Policy

Does the project depart from the CPF in content or in other significant respects?

[ ] Yes [✓] No

Does the project require any waivers of Bank policies?

[ ] Yes [✓] No

Safeguard Policies Triggered by the Project	Yes	No
Environmental Assessment OP/BP 4.01	✓	
Performance Standards for Private Sector Activities OP/BP 4.03		✓
Natural Habitats OP/BP 4.04	✓	
Forests OP/BP 4.36	✓	
Pest Management OP 4.09		✓
Physical Cultural Resources OP/BP 4.11	✓	
Indigenous Peoples OP/BP 4.10	✓	
Involuntary Resettlement OP/BP 4.12	✓	
Safety of Dams OP/BP 4.37		✓
Projects on International Waterways OP/BP 7.50		✓
Projects in Disputed Areas OP/BP 7.60	✓	

Conditions

Type	Description
Effectiveness	Section 5.01 (a): The County Participation Agreement has been executed and delivered and all conditions precedent to its effectiveness or to the right of the Recipient to make withdrawals under it (other than the effectiveness of this Agreement) has been fulfilled.

Type	Description
Effectiveness	Section 5.01 (b): The Project Implementation Manual (PIM) has been adopted by the Recipient (through the SDFA&BE of the MoALF), and the Participating Counties, in form and substance satisfactory to the Association.

Type	Description
Disbursement	Section III.B (1b) of Schedule 2: No withdrawal shall be made for Sub-project Grants under Category (2) unless and until a Project Grants Manual (PGM) is prepared and approved by the Recipient and each Participating County, in form and substance satisfactory to the Association.

I. STRATEGIC CONTEXT

A. Country Context

1. **A lower middle-income country since 2012, Kenya has experienced steady economic growth and declining poverty incidence, but inequality remains high.** GDP growth is projected at 5.8 and 6.0 percent in 2019 and 2020, respectively.[1] Following a brief slowdown in 2017 (4.8 percent), growth has been supported by a strong rebound in agricultural output, steadily recovering industrial activity, and still robust performance in the services sector. While poverty in Kenya is below the average in Sub-Saharan Africa, still about 1 in 3 people live below the international poverty line (US$1.90 per day in 2011 Purchasing Power Parity/PPP). Kenya's Human Development Index value for 2017 is 0.590, which put the country in the medium human development category—positioning it at 142 out of 189 countries and territories.[2]

2. **Kenya Vision 2030, the country's development blueprint, has set ambitious targets of transforming Kenya into a newly industrialized, globally competitive, middle-income country.** This long-term agenda which is being implemented through successive five-year medium-term plans, has three pillars: an economic pillar that aims to achieve GDP growth of 10 percent per annum; a social pillar that aims to build a society enjoying equitable social development in a clean and secure environment; and a political pillar that aims to build a people-centered, results-oriented, accountable democratic political system. Promoting equal opportunities across the entire Kenyan territory is key to realizing this vision.

3. **One of the changes to the governance system has been Kenya's devolution, brought about by the 2010 Constitution and prioritized in the Second Medium-Term Plan (2013-2017).** [3] To narrow the deeply entrenched regional disparities and to increase government responsiveness, responsibility, and decision-making, resources and revenue generation are being transferred from the central to the local level of public authority. Under a devolved structure, county governments are envisaged to play the primary on-the-ground role in delivering services, while the national government retains a policy-making, regulatory, and research role. In the fisheries sector, most of its functions are devolved to the county level, however, concurrent functions are the shared responsibility of more than one level of government. At the coastal level, beach managements units[4] (BMUs) play a crucial role, and the government's Fisheries BMU Regulation of 2007 has changed the perception of ownership of the resource—from a top-down government driven approach, to a co-management approach, with the natural resource considered a common property for present and future generations.

B. Sectoral and Institutional Context

4. **Kenya's marine fisheries are of strategic value given the role of the sector in supporting livelihoods and contributing to food security.** Kenya has a coastline of 640km on the Western Indian Ocean, in addition to a further 200 nautical miles Exclusive Economic Zone (EEZ) under Kenyan jurisdiction. For rural coastal communities, small-scale fishing is essential to overall household well-being, providing both income and nutrient-rich food, especially since the decline in coastal tourism in recent years due to security concerns. In 2015, the marine fisheries sector employed about 27,000

[1] World Bank (2018). *Kenya Economic Update: In search of fiscal space - Government spending and taxation: Who benefits?* Edition No. 18.

[2] http://hdr.undp.org/sites/all/themes/hdr_theme/country-notes/KEN.pdf

[3] Transition to Devolved Government (Transfer of Assets and Liabilities) Regulations, 2013.

[4] See sub-component 1.2 and Box 1.

fishers, including 13,000 artisanal fishers.[5] The number of people supported indirectly by the sector as traders, processors, input suppliers, merchants of fishing accessories, or providers of related services, is considered much higher.[6] However, fishing-related activities, especially at the community level, are largely informal and dynamic, hence accurate figures are difficult to obtain. In addition, fish is a critical source of affordable animal protein[7] for consumption, particularly for coastal communities, and the sector is important for the preservation of culture and national heritage, including related industries such as tourism, and for recreational purposes.

5. **The Government of Kenya (GoK) recognizes the value of its marine resources, and the need for more effective management and protection.** The Second Medium-Term Plan (2013-2017) identified the agriculture, livestock, and fisheries sector as a priority sector, and highlights the importance of the country's marine resources and fisheries for local employment, income generation, and livelihoods of coastal communities. Efforts to harness the fisheries potential and protect the country's fish stocks by establishing measures and enforcing fishing regulations and more effective management was identified as critical.

6. **The Government's Big Four Agenda,[8] which is anchored in the Third Medium-Term Plan (2018-2022), confirms Kenya's commitment to leveraging emerging opportunities in the Blue Economy.** The GoK has prioritized the blue economy as a key component of its Vision 2030 development agenda. Recent estimates suggest that the annual economic value of goods and services in Kenya's blue economy could be worth approximately US$4.4 billion, beating the tourism sector share by more than US$1.4 billion.[9] Blue Economy as a term emerged in Kenya in May 2016, when the GoK renamed its then State Department of Fisheries to the State Department for Fisheries and the Blue Economy,[10] and established a Blue Economy Committee. The 2016 Fisheries Management and Development Act (FMDA) processed key regulatory and policy changes[11], and Kenya has become a leading country in Africa in promoting sustainable blue economic development. In November 2018, Kenya hosted a high-level Global Conference on Sustainable Blue Economy, with the main theme of delivering on the UN's 2030 Agenda for Sustainable Development through a transition to a Blue

[5] UNEP-Nairobi Convention and WIOMSA (2015). The Regional State of the Coast Report: Western Indian Ocean. UNEP and WIOMSA, Nairobi, Kenya.

[6] An estimated two million people are supported directly and indirectly by the overall fisheries sector, as fishers, traders, processors, input suppliers, merchants of fishing accessories, or providers of related services. CISP and KENWEB (2018). *Women of the Blue Economy. Gender Equity and Participation in the Management of Water Resources: Lessons from the Coast of Kenya and Somalia.* Nairobi: CISP. Estimates for the marine fisheries sector alone do not exist.

[7] In November 2018 the President launched an 'eat more fish' campaign aimed at encouraging Kenyans to increase dietary intake of fish

[8] The current administration's 'Big Four' includes: i) Enhancing Manufacturing, ii) Food Security and Nutrition, iii) Universal Health Coverage; and iv) Affordable Housing (see Official Website of the President of Kenya- http://www.president.go.ke/).

[9] UNDP, 2018.

[10] Currently renamed to State Department for Fisheries, Aquaculture and the Blue Economy (SDFA&BE), under the Ministry of Agriculture, Livestock and Fisheries (MoALF).

[11] In 2016, the Fisheries Management and Development Act, 2016, established several entities under SDFA&BE, with specific mandates to undertake functions in the fisheries sector. These entities include: i) the *Kenya Fisheries Service (KeFS*): responsible for the conservation, management and development of Kenya's fisheries resources, development of standards and guidelines, monitor implementation of policies, provide education, awareness and support for conservation and sustainable use, etc.; ii) *Kenya Fisheries Advisory Council*: to advise the national government on fisheries policy related aspects, allocation and access to fisheries resources, intergovernmental agreements, etc.; iii) *Fish Levy Trust Fund*: with a mandate to provide supplementary funding for activities geared towards management, development and capacity building, awards and urgent mitigation to ensure sustainability of fisheries resources; and iv) *Kenya Fish Marketing Authority (KFMA):* with a mandate to market fish and fisheries products from Kenya, enforce national fisheries trade laws and international fisheries related trade rules, ensure that Kenyan fishery products enjoy market access at local, national, regional and international levels, etc. In addition to the above, the *Kenya Marine and Fisheries Research Institute (KMFRI)* was established in 1979 as a State Corporation with a mandate to undertake research in marine and freshwater fisheries, aquaculture, environmental and ecological studies, and marine research including chemical and physical oceanography. The KEMFSED project will include technical expertise from the above entities as needed during implementation.

Economy that is inclusive, sustainable and prosperous. Kenya pledged: i) to adopt appropriate policies, strategies and mechanisms to harness the blue economy that will create job opportunities; ii) tackle waste management and plastic pollution; iii) ensure responsible fishing; and iv) ensure safety and security in the high seas.

7. **Kenya's marine fisheries are mostly artisanal and subsistence in nature.** It is estimated that approximately 80 percent of the total marine products come from coastal waters and reefs, while 20 percent is from offshore fishing. The artisanal sector is characterized by small crafts propelled by sail, outboard motors, and paddles. As such, artisanal fishers are restricted to reefs, estuaries and lagoons, and largely to near-shore waters which host a large variety of fish species, including many small and pelagic species such as tuna, mackerel and demersal finfish, and invertebrate fisheries such as prawns, lobster and octopus. In 2016, artisanal marine fisheries production stood at about 24,000 metric tons, with demersals and pelagics dominating total landings.[12] Of the five coastal counties, Kilifi contributed the highest quantity of marine artisanal landings (12,211 metric tons, or 51 percent of total landings).[13] In comparison, total fish production in Kenya (including inland capture, marine capture, and aquaculture) amounted to about 150,000 metric tons,[14] with a market value of about US$240,000 million. Contribution of the fisheries sector to the national economy is much larger when the full value chain is considered.

8. **While fishing traditionally is a male activity, women play a substantial role in the fisheries sector, making up nearly half of the overall fisheries sector workforce.** Present throughout the value chain, women are found in harvesting, processing, marketing, trading, and leadership roles. However, persistent gender inequalities resulting from fewer educational and training opportunities, societal attitudes and cultural beliefs around gender roles, and lack of collateral and access to credit, prevent women from fully participating in economic opportunities and in decision making. Women are often limited in growing their business, mainly as producers and business owners, and few women are represented in management positions in organizations such as BMUs. A limited understanding of women's unique roles and contribution to the sector can result in a lack of recognition of their needs and interests, therefore affecting their full participation in the fisheries value chain, and more broadly sustainable development outcomes.[15] Kenya's gender inequality value is 0.549, ranking it 137 out of 160 countries in the 2017 index.[16]

9. **Weak governance has affected nearshore fisheries and has led to overexploitation and degradation.** Increased fishing effort driven by a growing population, unemployment and limited alternative or complementary livelihoods, coupled with open access to fisheries in near-shore and territorial waters and the use of destructive fishing gear (e.g., beach seines[17]), are degrading critical marine habitats and affecting the country's fish stocks. Available fish biomass will be further undermined by rising sea temperatures, consequently eroding coastal livelihood security. Several important

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[12] Production from artisanal marine fisheries was constant at about 9,000 metric tons, annually; in 2014, SDFA&BE introduced a new catch data collection methodology, which showed that catch data had been underreported. As a result, production from artisanal marine fisheries was recorded at about 23,000 metric tons, 22,000 metric tons, and 24,000 metric tons, in 2014, 2015, and 2016, respectively.

[13] Kwale county contributed 5,011 metric tons (or 21 percent of total landings), followed by Lamu county with 4,666 metric tons (or 19 percent), Mombasa with 1,726 metric tons (or 7 percent), and Tana River with 552 metric tons (or 2 percent).

[14] Ministry of Agriculture, Livestock, Fisheries and Irrigation Kenya (2016). *Fisheries Annual Statistical Bulletin 2016*. State Department for Fisheries and the Blue Economy.

[15] J. Siles, et al. (2019). *Advancing Gender in the Environment: Gender in Fisheries—A Sea of Opportunities*. IUCN and USAID. Washington, USA: USAID.

[16] In Kenya, 23.3 percent of parliamentary seats are held by women, and 29.2 percent of adult women have reached at least a secondary level of education compared to 36.6 percent of their male counterparts. For every 100,000 live births, 510 women die from pregnancy related causes; and the adolescent birth rate is 80.5 births per 1,000 women of ages 15-19. Female participation in the labor market is 62.4 percent compared to 68.5 for men. http://hdr.undp.org/sites/all/themes/hdr_theme/country-notes/KEN.pdf

[17] Seine is a type of fishing net, and beach seine is a seine net deployed from the shore or beach.

nearshore stocks including small and medium pelagic species, siganids, prawns, and ornamental reef species are fully or over-exploited, and in most cases, catches are exceeding maximum sustainable yield (MSY).[18] Kenya has recently begun introducing management of fishing effort in the artisanal and commercial sectors by implementing measures articulated in national fisheries regulations, national fisheries management plans (FMP), and local co-management area (CMA) plans, some of which were prepared under the World Bank financed Kenya Coastal Development Project (KCDP, P094692, July 2010 to June 2017). However, compliance with these measures by local fishers has been limited as they are dependent on fisheries for livelihoods, with little incentive to voluntarily control fishing efforts even in circumstances where it would be expected to enhance stocks and increase fisheries production.

10. **Mariculture, as an alternative to capture fisheries, has not taken root as projected, and requires investment and technical expertise.** Marine fish species that are most commonly farmed include milkfish and mullet, accounting for approximately 90 percent and 10 percent respectively, though still at a pilot scale. Marine shellfish culture includes mud (mangrove) crabs, prawns, and artemia, also at pilot scale. Key constraining factors include inadequate availability of fingerlings, crablets and other seeds for stocking of existing or new farms, inadequate availability of affordable feed supply, poor husbandry and technical knowledge, water scarcity due to rainfall variability and other competing users, inadequate market information, and lack of accessible credit for fish farmers.

11. **The industrial marine fisheries sector is characterized by a few industrial prawn trawlers operating beyond three nautical miles offshore.** In 2016, a total of 544 metric tons of landed prawns were reported, with a bycatch of assorted finfish and many other species. The industrial sector also includes distant-water fishing vessels (i.e., purse-seiners and pelagic long-liners), in the exploitation of tuna and tuna-like species in Kenya's EEZ.[19] [20] The Kenyan EEZ is adjacent to rich tuna grounds in the western Indian Ocean, with seasonally increased abundance of migrating tuna in Kenyan waters, including yellowfin, bigeye and skipjack tuna.[21]

12. **Industrial fishing in territorial and offshore waters faces governance challenges in the form of Illegal, Unreported, and Unregulated (IUU) fishing.** IUU activities include unauthorized targeting of fish species, failure to report to authorities on data catch and export products, violation of regulations regarding bycatch, discarding and shark finning. Capacity to monitor marine fisheries, especially offshore, is limited. Kenya is reported to be losing up to US$100 million annually to IUU fishing,[22] primarily through the activities of larger vessels operating offshore, and the elimination of IUU fishing in Kenyan waters is therefore a priority. A major step towards achieving this was initiated under the KCDP through the development of a monitoring, control, and surveillance (MCS) strategy that included the implementation of a vessel monitoring system (VMS) that is currently being used to monitor licensed foreign-flagged vessels.

13. **The economic value that Kenya generates from fish caught by licensed offshore industrial fishing vessels,**

[18] In fisheries terms, maximum sustainable yield (MSY) is the largest average catch that can be captured from a stock under existing environmental conditions. MSY aims at a balance between too much and too little harvest to keep the population at some intermediate abundance with a maximum replacement rate. Assessment of the stock was conducted through Weight of Evidence approach, Productivity Susceptibility Assessments (PSA) and knowledge experts.

[19] Kenya has not reported in full their EEZ landings to the Indian Ocean Tuna Commission (IOTC). Between 2016 and March 2018, Kenya issued 47 licenses to foreign and national tuna longline and purse seine vessels according to KeFS. While effort would have been in Kenyan waters, actual catches are not reported to the IOTC as Kenyan but are credited to the Flag State making the catch. This is an area of dispute by coastal states at the IOTC that bases catch on historical catch performance of the flag state only and does not recognize the catch as accruing to the coastal state when caught in the EEZ of the coastal state.

[20] The Exclusive Economic Zone (EEZ) is a sea zone prescribed by the United Nations Convention on the Law of the Sea (UNCLOS), over which a state has special rights regarding the exploration and use of marine resources. It stretches from 12 nm from the baseline, i.e., limit of the territorial sea, to 200 nm from the baseline.

[21] Indian Ocean Tuna Commission (2013). *Review of the statistical data and fishery trends for tropical tunas*. IOTC–2013–WPTT15–07_Rev1.

[22] Marete (2018) in Benkenstein, A. (2018). *Prospects for the Kenyan Blue Economy.* South African Institute of International Affairs.

primarily tuna-directed longline and purse seine vessels, is minimal and restricted to collection of license fees. These catches are typically landed outside of Kenya and thus few Kenyans are employed in this sector. Appropriate fish landing and processing facilities are lacking, especially following the closing of Mombasa's tuna processing facility in 2013. However, new regulations now require fishing vessels to land part of their catch in Kenya, and it is also understood that the Mombasa facility is being refurbished. Kenya expects to increase the presence of domestic operators in the industrial offshore sector, as reflected for example, in its Tuna Fishery Strategy,[23] to increase domestically-generated revenues from both fishing and downstream value chain. Considering these efforts, it will be critical to ensure the sustainable use of Kenya's fisheries resources through activities such as monitoring of fish stocks and overall fishing effort, effective MCS, estimation of profitability or resource rents, and development of effective licensing/taxation regime towards sustainable generation of resource rents and their productive reinvestment into the economy.

14. **Impacts of climate change further compound the challenges faced by the marine fisheries sector.** While the impacts of climate change are not fully understood both in terms of scope and severity, hazards posed by weather events and climate, such as sea level rise, extreme weather events, sea surface temperature change, or ocean acidification, will determine how and where fishing will be done. This will also reflect on the status of Kenya's coastal assets, both natural and socio-economic. Climate change can adversely affect the productivity of marine and coastal fisheries, affecting future catch levels and rates of recovery for fisheries, due to shifts in the availability of food, habitat, and appropriate ocean conditions for fish stocks. At the same time, coastal communities will be affected by shoreline erosion, floods, and extreme weather events, compounded by a lack of basic infrastructure and limited ability to adapt. Adaptation to climate change and resilience measures are needed to support the most vulnerable communities in their transition to alternative and more climate-resilient livelihoods.

C. Relevance to Higher Level Objectives

15. **The proposed Project responds to the GoK's priorities and goals by supporting the Kenya Vision 2030, its associated Medium-Term Plans, and the Big Four Agenda, with its focus on leveraging emerging opportunities in the Blue Economy.** The Third Medium-Term Plan and its objective of better protecting and harnessing the country's marine resources will be supported through activities targeted at strengthening institutional capacity to better safeguard marine fisheries and improving fisheries management and governance. One of the focus areas of the Big Four Agenda is advancing the capacity and competitiveness of the manufacturing sector through leveraging emerging opportunities in the Blue Economy. The Project responds to these goals by promoting the sustainable management of Kenya's marine fisheries resources and increasing access to related livelihoods.

16. **In recognition of Kenya's ongoing devolution, the proposed Project is aligned with the county integrated development plans (CIDPs) of the coastal counties.** Through extensive consultation during the preparation process, coastal county priorities are integrated in project design, and coastal counties are not only represented in the Project's implementation arrangements but will also be fully responsible for executing specific devolved sector functions.

17. **The Project is addressing climate change impacts through risk mitigation and climate adaptation, in line with the Kenya National Adaptation Plan 2015-2030 (NAP), National Climate Change Action Plan 2018-2022 (NCCAP), and National Climate Change Response Strategy (NCCRS).** During project preparation and with the support from the Global Finance for Disaster Risk Reduction (GFDRR) Fund, a climate and hazard risk assessment was carried out that identified future climate change impacts on Kenya's coastal assets and communities and developed a set of adaptation measures

[23] Ministry of Agriculture, Livestock and Fisheries Kenya (2013). *Kenya Tuna Fisheries Development and Management Strategy, 2013-2018.* Kenya

that were integrated in the Project design. The Project is aligned with the NCCAP which aims to assess climate change impacts on various sectors including fisheries and develop priority adaptation actions. The Project is also aligned with the NAP and identifies enhancing the resilience of the fisheries value chain as a priority adaptation action. The NAP represents the basis for the adaptation component of Kenya's Intended Nationally Determined Contribution (July 2015) that was submitted to the United National Framework Convention on Climate Change Secretariat.

18. **The Project is consistent with the Kenya FY2014-2018 Country Partnership Strategy (CPS),[24] and the related 2017 Performance and Learning Review that extended the CPS to FY20**. The CPS highlights the importance of the country's coastal areas, and the need to support the region through financing and infrastructure. Strengthening the capacity of coastal communities towards better managing the risks stemming from climate change is also noted as a critical goal. The Project responds to these goals by contributing to employment generation and improving the livelihoods of coastal communities. The Project is aligned with the World Bank Gender Strategy FY16-23, by including specific interventions and avenues targeting women.

19. **The Kenya Inclusive Growth and Fiscal Management Development Policy Operation (DPO, P168204, FY19) is aligned with specific activities of this Project.** The DPO supports selected priorities within the GoK Third Medium-Term Plan, and accordingly, policy and institutional reforms proposed under the DPO complement several Bank-financed operations that support the Big-Four agenda, including the KEMFSED project. Of the four reform pillars that are foundational to creating an enabling environment for the delivery of GoK's inclusive growth agenda, the pillar on enhancing farmer incomes and food security is of relevance to this Project. The DPO also complements the Project in the areas of issuing regulations for implementing the FMDA to support sustainable exploitation of fishery stocks; and on a surveillance system with up-to-date licensing information that will help in the reduction of IUU fishing and replenishment of fish stocks to the benefit of coastal fishers.

20. **The Project contributes to the World Bank Group's twin goals of ending extreme poverty and boosting shared prosperity.** Being a marine fisheries project, the geographic scope includes the coastal sub-counties of the five counties that are riparian to the Indian Ocean. The Project will provide direct support to these poor rural coastal communities by providing access to complementary livelihoods, and in parallel, engage with them to voluntarily participate in managing their dwindling resources thereby resulting in enhanced stocks and increased fisheries production. To achieve these objectives, the Project design includes activities and interventions that are timely, high priority for these communities, and contribute to the poverty agenda. The coastal region includes some of the poorest counties in Kenya, with Tana River, Kwale, and Kilifi ranking among the 14 counties with highest overall poverty and food poverty incidence.[25] For example, Tana River, Kwale and Kilifi counties show overall poverty headcount rates at 62.2, 47.4 and 46.4 percent respectively. Most of the coastal population relies on coastal and marine ecosystems for employment, livelihoods and nutrition, however, population growth, narrow diversity of income sources and mostly open-access fisheries has led to increased overfishing and near-depletion of fish stocks in nearshore and territorial waters. The Project will strengthen the management of fisheries that are priority to coastal livelihoods. However, compliance with management measures by fishers has been limited as they rely on fisheries for livelihoods with little incentive to voluntarily control fishing efforts. Provision of access to complementary livelihood activities will help in diversifying household income sources and reduce dependence on capture fisheries. Project activities related to marine fisheries governance and management are aligned with Kenya's long-term goals as outlined in its Vision 2030, i.e., transforming Kenya into a globally competitive middle-

[24] World Bank (2014). Kenya - Country partnership strategy for the period FY2014-2018. Washington, D.C.: World Bank Group

[25] According to the Basic Report for Wellbeing in Kenya KNBS 2018, Tana River, Kwale, and Kilifi represent the 8th, 13th, and 14th poorest counties in Kenya in view of overall poverty incidence, and 7th, 14th, and 8th in view of food poverty incidence.

income country. Having a fisheries governance structure in place is key to supporting the sector's transition towards becoming ecologically sustainable. Project activities related to better managing and conserving marine resources, reducing illegal fishing, and enhancing the value of fish products in value chains, will lay the foundation for increased sector contribution to the overall economy.

21. **The proposed Project is aligned with the criteria of the IDA18 Scale-Up Facility (SUF)[26] and supports priorities of the Africa region by addressing reforms in the sector through governance and management, among others.** As designed, successful implementation of the Project is expected to contribute to transforming the fisheries sector, the coastal ecosystem and coastal communities. Distinct aspects of the Project that are transformational in nature and that will contribute to this change include: i) effective governance and management of the sector based on research, planning and measures that fishing communities adhere to that will reduce inefficiencies and help maintain a healthy stock, resulting in an improvement in socioeconomic status of the coastal communities and an increase in sector contribution to the overall GDP in the long term; ii) supporting the increase in marine fisheries and mariculture related livelihood activities in coastal communities especially by better inclusion of youth and women will result in direct and indirect benefits to these groups in terms of employment and income; and iii) productive grants to coastal beneficiaries will have a direct impact on their socioeconomic status across the coastal counties.

22. **In addition to the above activities that will contribute to transforming the fisheries sector, the Project links to several of the SUF soft prioritization filters as follows:**

(a) As the Project will be implemented in a coastal state, it is integrated with the regionality elements of the fisheries sector by including activities that are aligned with the principles of the South West Indian Ocean Fisheries Governance and Shared Growth Project (SWIOFish) Program.[27] Since fisheries are a shared resource and are by nature migratory, the results supported by the Project will *deliver benefits beyond borders*.

(b) The Project supports *resilience building* in the coastal communities by supporting the establishment of a bad weather short message service (SMS) alert system for fishers which will increase fishers' preparedness to extreme weather events and strengthening safety at sea.

(c) The Project will also provide coastal/rural beneficiaries with basic services such as water supply and irrigation to help increase their *preparedness to potential impacts of climate change events.*

II. PROJECT DESCRIPTION

A. Project Development Objective

PDO Statement

23. The Project Development Objective (PDO) is to improve management of priority fisheries and mariculture and increase access to complementary livelihood activities in coastal communities.

[26] Refer to Annex 2 for details on the Project's financial returns.

[27] The SWIOFish is a regional Bank-financed program operating in South West Indian Ocean countries including Comoros, Madagascar, Mozambique, Tanzania, Seychelles, and Maldives. Its component on enhanced regional collaboration includes Kenya among others, as an Indian Ocean coastal state. It aims at increasing the economic, social, and environmental benefits from sustainable marine fisheries. The KEMFSED project shares with SWIOFish a primary focus on improving management of priority marine fisheries and is aligned with regional aspects of SWIOFish in terms of strengthening governance in Kenya's EEZ; controlling IUU fishing through improved monitoring, control and surveillance and related training including on safety at sea; and strategic planning of national tuna fisheries and related fisheries research.

PDO Level Indicators

(a) PDO Level Indicator #1: Fisheries management plans implemented

(b) PDO Level Indicator #2: Proportion of nearshore waters under improved management

(c) PDO Level Indicator #3: Annual production in mariculture by small-scale producers supported by the Project

(d) PDO Level Indicator #4: Beneficiaries in targeted coastal communities with access to complementary livelihood activities (disaggregated by sex)

(e) PDO Level Indicator #5: Share of target beneficiaries with rating 'Satisfied' or above on project interventions (disaggregated by sex)

B. Project Components

Component 1: Governance and Management of Marine Fisheries (US$49.8 million equivalent)

24. Component 1 will support the GoK in strengthening governance and management of Kenya's renewable marine resource towards ensuring the long-term sustainability of fish stocks. Sustaining these resources, especially in view of Kenya's broader blue economy efforts, will result in optimizing the socio-economic benefits accrued by the GoK and the coastal communities who depend on these resources. This will be achieved through implementing several important interventions that are grouped into the following three sub-components: i) enhancing governance and management of marine fisheries within the broader blue economy; ii) improving management of nearshore fisheries; and iii) infrastructure development for fisheries management. Across the various activities, climate resilience and integrated climate and disaster risk reduction will be taken into consideration and where applicable integrated into sector policies, regulations, plans, and management tools supported by the Project.

25. Governance of marine fisheries will be strengthened through an improved policy and regulatory framework, and implementation of specific measures intended to protect marine resources. Relevant national and county level plans and strategies will be developed and/or updated to help optimize fisheries and their management, as well as collection and input of fisheries data into an integrated fisheries management system that will contribute towards strengthening Kenya's broader MCS systems. Research and technical support will be targeted towards enhancing available marine resources, highlighting alternate methods to sustainably exploit fish stocks, and for mariculture development. A national governance framework for nearshore fisheries co-management will be developed and implemented that will cover approximately half of Kenya's nearshore waters. Construction of select national and county fisheries infrastructure will be supported with the aim of strengthening the management and administrative capacity of key fishery institutions and enabling private investment. Artisanal fishers' safety in the face of growing climate variability will be strengthened, and climate and disaster risk reduction aspects will be integrated into relevant plans.

26. **Sub-Component 1.1: Enhance Governance of Marine Fisheries and Blue Economy (US$15.6 million equivalent).** Sub-component 1.1 aims to optimize the use of, and increase the benefits derived from Kenya's marine fisheries within the broader blue economy, while simultaneously ensuring that the long-term sustainability of these resources is not compromised. This will be achieved through: i) strengthening fisheries policy and regulation; ii) marine spatial planning (MSP); iii) strengthening the management of priority fisheries including MCS in both nearshore and EEZ, and the research needed to support decision making.

(a) *Strengthening fisheries policy and related legislation.* Mariculture policy and regulations consistent with the national objectives for aquaculture will be developed. These will be aligned with the ongoing devolution in Kenya, with regards to the specific roles that the national government and coastal counties play in the governance of marine fisheries. They will also ensure that growing climate change related impacts are adequately considered.

(b) *Marine spatial planning (MSP).* Integrated environmental management harmonized with economic development, fiscal policy and social goals, is critical for Kenya to develop its blue economy effectively. Due consideration will be given to impacts of increasing climate variability and climate-related trends in oceanography. This sub-component will support a MSP process[28] with the following elements: developing an MSP framework, undertaking strategic environmental assessments (nearshore and offshore), and zoning of areas for specific use including establishing joint community management areas (JCMAs). The MSP process is critical for developing a sustainable and climate-resilient blue economy in Kenya.

(c) *Strengthening the management of priority fisheries.* The management of priority fisheries[29] will be strengthened through implementation of fishery improvement projects for selected priority fisheries incorporating activities aimed at systematically improving stocks and related ecosystems, and strengthening their climate resilience (e.g., stock assessments, spatial assessment of habitats). This will result in improved socio-economic benefits to the fisher communities. Kenya's national tuna strategy 2013-2018 will be updated to ensure a cohesive approach toward the management and development of tuna resources, including consideration of climate change impacts, and the Project will provide support for Kenya to fulfill its commitments to the Indian Ocean Tuna Commission (IOTC). Capacity will be strengthened toward implementing the MCS strategy developed under the KCDP. Monitoring capacity will be strengthened by enhancing Kenya's existing fisheries information management system (FIMS) so it becomes an integrated national and county-level system that will facilitate fisheries related data capture and analysis for effective decision-making – not only in support of MCS, but also as a tool to improve management of the fisheries. This will also include developing alternate methods for registration, and monitoring of fishing effort including fishers, fishing boats and related gear types. Control will focus on the implementation of the regulatory conditions under which the exploitation of Kenya's marine resources is conducted. Surveillance will be strengthened through fulfilling port state measures agreement obligations, implementation of standard operating procedures, increased regional cooperation through data sharing protocols and vessel monitoring systems as well as land and sea patrols aimed at reducing IUU fishing.

27. **Sub-Component 1.2: Improve Management of Nearshore Fisheries (US$8.3 million equivalent).** The sub-component will be undertaken in synergy with related priority fisheries stock assessments, MSP and FIMS developed under sub-component 1.1. A standardized national governance framework for nearshore fisheries co-management will be developed and implemented in approximately half of Kenya's nearshore waters, through direct engagement with at least 35 of the 85 Indian Ocean BMUs.

(a) *Formulate co-management governance framework.* All relevant activities under this sub-component will be consistent with, and in support of, implementation of the Food and Agriculture Organization (FAO) Voluntary Guidelines for Small-Scale Fisheries. In support of the national governance framework for fisheries co-management, the Project will support revision of the existing 2007 BMU Regulations and preparation of national co-management guidelines and BMU standard operating procedures (SOPs). Once completed, awareness-raising and training on these governance instruments will be conducted with all the 85 BMUs. The Project will also support the national technical caucus on fisheries co-management and the Indian Ocean BMU network, to

[28] Roberts, Julian. 2018. Scoping Study on the Status of MSP in Kenyan Waters. GoK KEMFSED Project Preparation Study.

[29] Including those for snapper fisheries in the North Kenya Banks, small-scale purse seine (ringnet), small-scale line-caught tuna, shallow water prawn, octopus, and the inshore/creek basket trap

convene periodically towards ensuring a common approach across the five coastal counties.

(b) *Establish joint co-management areas (JCMAs).* Implementation of the national governance framework for fisheries co-management will include reviewing the two JCMA plans developed under the KCDP (Malindi-*Ungwana* Bay and Shimoni-Vanga) comprising a total of 21 BMUs and developing new JCMAs for two additional BMU clusters of approximately 15 BMUs. These planning processes will be participatory and consensus-driven, with facilitation by county fisheries staff and expert co-management consultants. Participatory identification of fisheries management measures will be informed by relevant analytics including fisheries resources and risk assessments, the latter including climate risks. Alongside that, BMU committees will receive training in the principles of fisheries management and threat mitigation, including climate-related threats. Implementation of the JCMA plans will be supported through a program of regular mentoring by county fisheries staff and national-level oversight. There will be a specific focus on sustainable revenue-generation and financing of BMU activities, and on periodic performance monitoring of BMUs channeled to a national database which will be incorporated into the FIMS developed under component 1.1.

Box 1: BMU, CMA, JCMA

A beach management unit (BMU) is a community-level organization of fishers, fish traders, boat owners, fish processors and other stakeholders who traditionally depend on fisheries-related activities for their livelihoods. Duties and functions of BMUs are provided for in the 2007 *Fisheries (Beach Management Unit) Regulations*, which requires a BMU to be established at each site where fish are landed, (marine and freshwater). The primary objective of a BMU is to strengthen the management of fish-landing stations, fishery resources and the aquatic environment, in collaboration with county and national authorities. This includes collection and management of relevant data and improving fishers' safety-at-sea. The law also provides for designation of co-management areas (CMA) and joint co-management areas (JCMA) areas of marine or freshwater, including fishing grounds, within which BMUs may undertake fisheries management activities jointly with the Director of Fisheries and county authorities. Currently there are 85 BMUs along the Indian Ocean coast of Kenya.

(c) *Strengthening of BMU capacity.* Under the umbrella of developing JCMAs, BMU capacity will be strengthened including on marine surveillance, safety-at-sea and boat handling and maintenance. BMUs clustered within joint co-management areas will be supported with boats and associated equipment suitable for nearshore surveillance activities, to detect and report non-compliance with agreed fisheries management measures, as well as provide capacity for sea rescue. Surveillance operations will be guided by BMU SOPs developed as part of the co-management governance framework, and by in-situ training provided to BMU surveillance teams. Safety-at-sea training will be provided to all BMUs along the Kenyan coast and, in addition, the Project will collaborate with relevant institutions to bring weather related information to the coastal communities.

28. **Sub-Component 1.3: Infrastructure Development for Fisheries Management (US$25.9 million equivalent).** The sub-component will include the construction of key fisheries-related infrastructure including: i) fisheries headquarters building in Nairobi, "Uvuvi House" or fisheries house, to house key entities undertaking and providing fisheries-related functions and services including the State Department of Fisheries, Aquaculture and the Blue Economy (SDFA&BE), Kenya Fisheries Service (KeFS), Kenya Fish Marketing Authority (KFMA), Kenya Fish Levy Trust Fund and Kenya Fisheries Advisory Council; ii) with a devolved fisheries sector and coastal counties playing a key role in the execution of activities at the coastal and community level, where required, coastal county fisheries department offices and BMU offices will be upgraded or renovated as well as other fishery related infrastructure such as landing clusters, and iii) recognizing the need to strengthen the technological and skills capacity in mariculture in Kenya, construction of a national mariculture resource and training center (NAMARET) will be supported. This new facility will undertake the much-required research

in fish breeding toward supplying commercial hatcheries with improved broodstock for fast and efficient production. The laboratory will support the scientific, experimental and technological requirements for a state-of-the-art system, and the training center will be used for capacity development and training of skills in mariculture. All construction or rehabilitation related works will be subject to detailed disaster and climate risk screening, to ensure that infrastructure investments are climate-resilient, and where feasible, promote green infrastructure technologies, and optimize adaptation benefits.

Component 2: Coastal Community Empowerment and Livelihoods (US$41.1 million equivalent)

29. Component 2 will strengthen livelihoods in coastal communities through provision of a combination of technical and financial support. This will include demand-driven sub-projects and complementary capacity-building and training of beneficiaries. Women, youth and vulnerable and marginalized groups (VMGs) will be specifically targeted by creating opportunities along the value chain. The component will contribute to Kenya's devolution agenda by assigning the primary responsibility for execution of the sub-project cycle to the five coastal counties, and by providing the necessary institutional strengthening for county fisheries and agricultural departments to deliver improved services to coastal communities. The component will enable poor coastal fisher and farmer households in 19 coastal sub-counties to increase access to non-fishing related livelihood activities. This holistic approach will be further pursued through the development of strategic partnerships with existing or new commercial enterprises, applying agriculture or mariculture related contract farming schemes benefitting smallholder out-growers.

30. The component will provide synergistic support to the implementation of component 1 and enable poor coastal households to comply with nearshore fisheries co-management regimes by improving their access to complementary livelihood activities and social welfare facilities. This recognizes that nearshore fisheries co-management plans are likely to contain measures where artisanal fishing efforts may need to be managed, including for example, establishing optimal small no-take replenishment zones while considering impacts of climate change, to secure the long-term productivity of fish stocks. While such measures are expected to enhance fisheries production and fish catches in the medium term and help mitigate the impacts of future climate variability, these may temporarily impact fishers' livelihoods in the short term. However, providing complementary livelihood activities and social welfare sub-projects will directly and indirectly benefit these households and provide incentive for compliance with such measures.

31. **Sub-Component 2.1: Enhance Coastal Community Livelihoods (US$29.1 million equivalent).** The sub-component will finance sub-projects for an estimated 20,000 eligible beneficiary households within two specific categories: i) productive or livelihood; and ii) social and environmental. Sub-projects will target informal common interest groups (CIGs) of households within eligible communities. Beneficiary groups could include existing micro-businesses that are not formally registered either as a company or cooperative. Existing Village Savings and Loan (VSLs) could potentially be eligible to receive grants for sub-projects (livelihood and social) provided they meet the criteria as outlined in the Project Grants Manual (PGM) that has been prepared and endorsed by the GoK. Both categories of grants will specifically target women, youth and VMGs and a needed, there will be in-kind contribution from the beneficiary groups.

32. *Productive or Livelihood sub-projects* for small-scale producers organized into informal CIGs will be demand-driven, targeting both improved fisheries livelihood as well as complementary non-fishing livelihood activities, primarily in four areas: i) mariculture; ii) non-fishing livelihood activities such as crop and livestock production, petty trading etc.; iii) capture-fisheries value enhancement or reduction of post-harvest losses; and iv) adoption of sustainable practices in use of fishing gear as an alternative to gear contributing to over-fishing. Providing support to productive sub-projects will help bolster livelihood security in coastal communities, strengthen adaptive capacity to climate change impact related stresses, and enable communities to comply with nearshore fisheries co-management regimes. Livelihoods grants will not finance any activity that could potentially lead to overall increase in fishing effort, except where there is a clear

justification that such increase relates to adoption of innovative gear to access under-exploited stocks or adoption of more sustainable fishing practices. Such gear could potentially enhance artisanal fishers' access to tuna and tuna-like species through pole-and-line or dropline gear, and to nearshore prawn stocks beyond standing depth. During implementation, women-headed households will be targeted based on findings from the Project social assessment.[30]

33. Project preparation studies and engagement with stakeholders identified that communities in coastal sub-counties include households with fishers and farmers, or household members that practice both farming and fishing. To contribute towards socioeconomic development in poor coastal fishing communities, the Project is designed with a holistic approach that embraces the broader rural coastal community, comprising both fishing and non-fishing households. The approach acknowledges that the livelihood status of coastal fishing households is inextricably linked to the wider economy in coastal sub-counties. Accordingly, the criteria and procedures for selection of beneficiaries of productive grants, outlined in the PGM, recognize that diversifying and boosting the broader rural economy in coastal sub-counties is a pre-requisite for diversifying opportunities in fishing households. Beneficiary identification procedures will ensure avoidance of elite capture, the application process will not present a barrier to less-advantaged households (e.g., lower income, lower education, single-parent), and households will have equal access to grant support and capacity-building. Similarly, women and women-headed households will be identified and targeted for livelihood sub-project grants and supported in preparing grant proposals. All sub-projects will be screened for financial, social and environmental sustainability, including climate-resilience where relevant. Examples of the latter could include selection of drought-resistant types or strains of crops, livestock or mariculture species; or a common interest group acquiring small-scale irrigation infrastructure, subject to presence of a sustainable water supply.

34. *Innovative Productive Alliances* include support for productive livelihood related activities that will support eligible smallholder outgrowers, through strategic partnerships with existing or new commercial agriculture or mariculture related enterprises. The strategic partnerships will provide a basis for long-term sustainability of project interventions. Farmers and fishers within four existing enterprises applying fair trade and social responsibility principles (Kutoka Ardhini, Equator Kenya, Kilifi Moringa Estates, and Che Shale) will be initially supported through funding of subprojects and technical assistance. The participation of these enterprises in the Project will be governed by the PGM and a tripartite memorandum of understanding between each enterprise, the Client and the respective participating county. Additional eligible enterprises would be identified and included during implementation once the required due diligence process is satisfactorily completed. This productive alliance activity specific to mariculture will benefit from the proposed NAMARET under sub-component 1.3, which will support emerging mariculture enterprises seeking to work with community outgrowers by providing training, technical demonstration and seed supply (target mariculture species could include mud crab, prawns, artemia, sea cucumber and red seaweed).

35. *Social and Environmental sub-projects* will support investments that build social and environmental capital, similar to the successful Hazina ya Pwani Maendeleo (HMP) program implemented under the KCDP. Identification of social and environmental sub-projects will be demand-driven and requiring in-kind contribution from the beneficiary group where needed. For environment sub-projects requiring community participation in the form of labor (e.g., mangrove replanting, restoration, conservation and management), the beneficiaries will be remunerated. Sub-projects supported will be not-for-profit, however, it will be ensured that beneficiary groups develop mechanisms for sustainable operation of assets or activities in collaboration with existing county programs. Social subprojects would include for example, enhancement of community-level access to health, education, water and sanitation services. This will be especially useful to the VMGs

[30] A Social Assessment was conducted under the Project (with PPA funding) that has informed the Vulnerable and Marginalized Groups Framework (VMGF) and the Environmental and Social Management Framework (ESMF)

who often have limited access to social services. Environment subprojects would include for example mangrove planting, activities relating to pollution reduction and improvement of solid waste management. Within the demand-driven approach to identifying social and environment sub-projects, synergistic opportunities will be sought to contribute to climate change mitigation (e.g., mangrove replanting, installation of solar power on social infrastructure) and adaptation (e.g., village water supply, heat and flood-resistant designs for social infrastructure).

36. *Scholarships for formal vocational skills training and secondary school completion*. Complementing the grant schemes described above, a program of scholarship grants for youth will be implemented primarily to support formal vocational skills training, including for example technical and vocational education and training, certificate or diploma courses, all lasting not more than two years. The type of training supported will be demand-driven with an aim to strengthen longer-term capacity of communities and counties to engage in, and benefit from, coastal and blue economy development, as well as increased understanding of climate change related impacts on marine and coastal resources and ecosystems. Secondary school completion will focus on those students with good academic standing who are otherwise unable to complete Form IV due to financial constraints. Identification of beneficiaries for short vocational training will be integrated with the process of identifying sub-project production grant recipients. Where possible, girls will be prioritized as beneficiaries of scholarships. The Project's monitoring and evaluation (M&E) system will include specific indicators to track progress of recipients of scholarship grants including for example, job placement, direct application of vocational skills gained, etc. during the life of the Project.

37. **Sub-component 2.2: Support Services for Livelihood Enhancement and Capacity Development (US$12.0 million equivalent).** The sub-component will support technical assistance for the timely and successful implementation of all phases of the sub-project cycle described under sub-component 2.1, by providing capacity building and extension services in coastal counties. Support services for sub-project identification, preparation and delivery will be mainly provided by county technical officers and extension teams, and where applicable, in collaboration with staff from partner enterprises, and with training and quality-control by a specialist service provider. The sub-component will also support training of beneficiaries using a participatory integrated community development approach. Services will include:

38. *Management and oversight of sub-project delivery.* County project implementation units (CPIUs) and extension teams in each of the five coastal counties will support the implementation of sub-projects with productive, social and environmental objectives, in accordance with the PGM. The CPIU staff and consultants will assist during the sub-project cycle by providing support to extension teams: i) to raise awareness, identify beneficiaries, support sub-project application and approval processes, and provide technical assistance for subproject implementation; ii) in the development of smallholder outgrower partnerships (*see paragraph 34*); and, iii) in ensuring robust monitoring of sub-project implementation and record-keeping. The National Project Coordination Unit (NPCU) will oversee progress of sub-projects across the five counties.

39. *Community skills development*. Sectoral technical and extension staff in the five coastal counties (fisheries and agriculture) supported through a training of trainers' program, will organize delivery of demand-driven skills and micro-enterprise financial management training to beneficiaries of grants for livelihood, social and environmental sub-projects. The NPCU's training coordinator will aggregate training plans from each of the counties and annual training plans will guide the identification and selection of beneficiaries for targeted training. Affirmative selection will apply to women and VMGs. Regular technical assistance, mentoring and trouble-shooting support for all grant beneficiaries will be implemented through the strengthened county extension services. This in turn will support sustainability of interventions, lesson-learning and monitoring.

Component 3: Project Management, and Monitoring and Evaluation (US$9.1 million equivalent)

40. Consistent with the devolution framework, this Component will finance supplemental support for project management at both national and county levels to ensure coordinated and timely execution of project activities. It will include the establishment and operation of a NPCU within SDFA&BE (based in Nairobi and supported by a decentralized team located in Mombasa) and a CPIU in each of the five participating coastal counties. With functions clearly defined in the Project Implementation Manual (PIM) that was prepared and endorsed by the GoK, these units will be responsible for project oversight, coordination and reporting; support to governance structures; financial and procurement management, external/internal audits and accounting; quality control and assurance systems; environmental and social safeguards compliance; development and implementation of a communications and stakeholder engagement plan; M&E, gender informed project implementation; and technical audits and evaluation studies as needed. The NPCU and CPIUs staff will operate from a dedicated office space for the Project and will be adequately equipped to successfully perform their functions. Staff to these Units will be seconded on a full-time basis from the Ministry of Agriculture, Livestock and Fisheries (MoALF) or County structures, except for those positions where the required skills are not available. The CPIUs in all five counties will also be instrumental in supporting the delivery of community-based activities within component 2. Specific roles and responsibilities, together with project protocols and procedures are detailed in the PIM.

C. Project Beneficiaries

41. **Beneficiaries.** The Project will benefit poor households in 19 coastal sub-counties[31] of the five coastal counties of Kenya (Kwale, Mombasa, Kilifi, Tana River, and Lamu), including vulnerable groups located in the Project area such as the Tswaka, Watha, Awer, and Sanye. The primary target group would be the fishers and poor fisheries-dependent households, and rural communities with direct or indirect links to fishing activities (*see paragraph 33*). A substantial proportion of eligible households will accrue the combined benefits of project support and the higher value and guaranteed markets provided by the outgrower schemes implemented by commercial enterprises partnering with the Project. Fisheries-related benefits would be accrued through the establishment and operation of community co-management schemes and the adoption of sustainable fishing practices. Consistent with project objectives, benefits would also be generated through enabling fisheries-dependent and coastal farming communities organized as groups (BMUs, CIGs) to adopt complementary and/or alternative livelihoods. VMGs located in the Project area would also benefit from community sub-projects. In all cases, specific mechanisms would be developed for proactive targeting of women and youth. The number and eligibility criteria for selection of project beneficiaries is defined in the PIM and the PGM.

42. Additional benefits would accrue to Kenyan fishers and government through more efficient and better performing institutions, particularly at the County level, while several GoK agencies with fisheries-related mandates would directly benefit from improved policies and research, institutional strengthening, and ultimately from developing a robust Blue Economy for the benefit of the entire Kenyan population.

43. **Gender.** The gender assessment conducted under the Project indicates that men, women and youth form an integral part of the coastal fishing community. Men undertake most of the fishing on the waters, ride motor cycles, operate as tour guides, and are active in the agriculture sector (as part-time fishers/farmers), while women are involved in basic value addition and petty trading as fish dealers and mama karangas,[32] and participate in other alternative

[31] Coastal sub-counties include: Kwale (Lungalunga, Mwambweni, Matuga, and Kinango); Mombasa (Nyali, Changamwe, Jomvu, Kisauni, Mvita, and Likoni); Kilifi (Kilifi North, Kilifi South, Malindi, Magarini, Ganze, and Rabaai); Tana River (Garsen); and Lamu (Lamu East and Lamu West).

[32] Mama Karangas refers to female small-scale traditional fish mongers, who fry and sell fried fish on the streets and markets especially during evening hours—both in cities and coastal towns.

livelihood activities such as subsistence farming and sale of mats trade, mahamri (a dessert popular in coastal areas), etc. Fishing is viewed as a subsistence activity for household consumption and for small employment and business. Fewer women are represented in the seafood value chain and in management positions of the BMUs (while they are members).

44. The Project will provide opportunities and undertake several interventions that will target women (and youth) through affirmative targeting, including the vulnerable women from VMGs, disabled, women-headed households, and widows and youth in coastal communities. The Project will incorporate proactive, gender-sensitive citizen engagement (in local language) throughout the implementation of interventions, and project activities including sector investments are designed to enable gender sensitive and socially inclusive growth. Social and gender gaps are expected to be closed by providing new economic opportunities including through grants and capacity building specifically for women in the seafood value chain. Grants will include support to i) productive or livelihood sub-projects for small-scale producers organized into informal CIGs, which will target both improved fisheries livelihood as well as complementary non-fishing livelihood activities; and ii) social and environmental sub-projects building environmental and social capital. While identification of such sub-projects will be demand-led, the PGM will outline in detail the required procedures and criteria toward ensuring women are strongly represented among beneficiary groups so that women’s access to complementary livelihood activities and skilled jobs be increased, and their access to benefits is not hindered. In addition, the PGM will lay out detailed implementation procedures that ensure women participate in all stages of the sub-project cycle (e.g., planning, screening, appraisal, implementation, monitoring and evaluation, grievance redress mechanism), including decision-making processes. In addition, a program for scholarship grants will be implemented to support formal vocational skills training.[33] Identification of scholarships beneficiaries for formal vocational skills training and secondary school completion will be integrated with the process of identifying sub-project production grant recipients, with women and youth including girls to be prioritized.

45. Constraints faced by women and youth in coastal communities will be resolved by enhancing skills development through provision of targeted training in several areas including vocational, business and management, leadership, finance, accounting and book-keeping, etc. Other areas of support included in the Project are: education and awareness-raising campaigns through communication and exchange of ideas and approaches that improve the quality of life for women in fisheries; targeting women and youth and providing support/guidance (by extensionists, field officers and service providers) to prepare proposals for availing grants and targeting women-led activities. These targeted efforts will help empower women and strengthen their active participation in decision-making processes in the fisheries sector, as well as their ability to establish enterprises, cooperatives, or other formal business. The Project has included four indicators on gender in the Results Framework, which will capture gender disaggregated data, and monitor and report progress under the overall M&E reporting of the Project. The Gender Assessment study reports high incidences of teenage pregnancies and marriage in the Project area. While the Project will ensure targeted awareness training of project and county staff, extensionists, field officers and service providers on gender-based violence (GBV) and sexual exploitation and abuse (SEA), specific GBV and SEA risks and issues associated with the coastal areas will be assessed through a study to be carried out by building on similar studies prepared under other Bank-financed projects. The study’s findings and recommendations on potential GBV and SEA-related risks and issues and recommendations specific to the Project will be implemented, monitored and reported to the Bank on a regular basis.

D. Results Chain

46. **The Project's Theory of Change (TOC) is based on two problem statements**: i) weak governance of marine

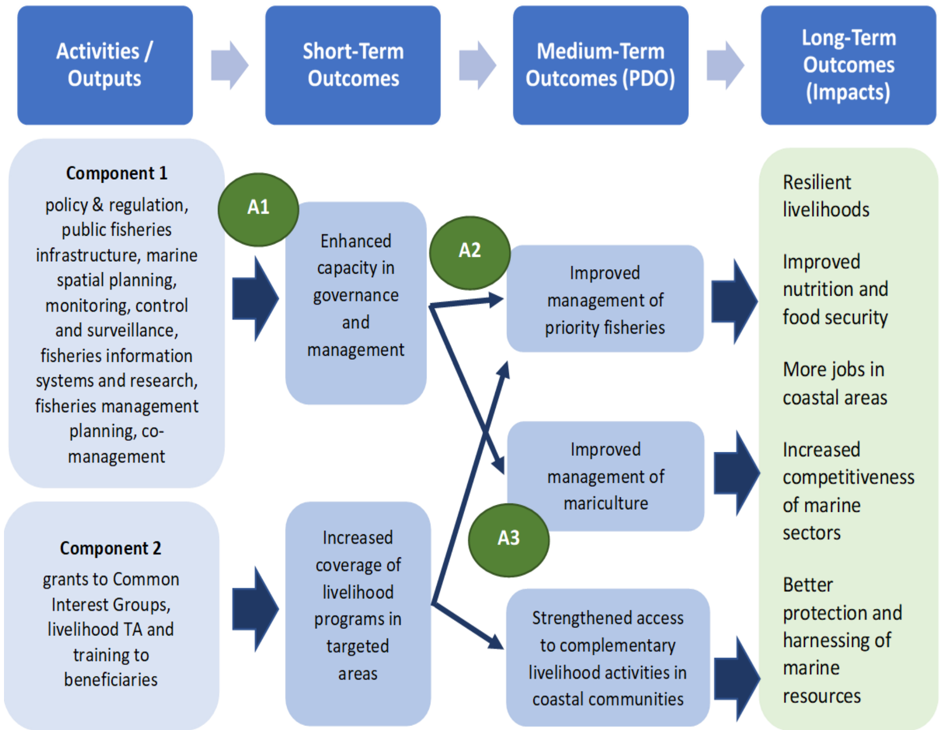
[33] Provision of child care when women are engaged in training will be considered.

fisheries adversely affects the sustainable generation of optimal benefits for the overall economy and coastal communities; and ii) coastal communities are poor, have narrow income base, and depend on fisheries for livelihoods, which leads to overfishing pressures. To address these two problems, the Project design adopted two principles: i) fisheries management needs to be strengthened in cooperation with coastal communities; and ii) in parallel, coastal communities need to be provided with complementary livelihood activities for income diversification. Accordingly, project components were designed to include fisheries management in Component 1, and community engagement and livelihood activities in Component 2.

47. **Theory of change assumptions.** With reference to the diagram, the achievement of intended outcomes will depend on meeting the following three assumptions:

(a) A1: Fisheries management measures in national-level fisheries management plans (FMPs) are explicitly incorporated into local co-management plans for action.
(b) A2: Roles and responsibilities of the national government, counties, and co-management arrangements (e.g., BMUs) are effectively coordinated.
(c) A3: Increased livelihood security is incentivizing compliance with co-management structures.

Figure 1: Theory of Change



48. **Linkages between components.** From the above assumptions and with reference to the diagram above, the Project is designed with linkages between components as summarized below:

(a) Success of sub-component 1.2. (strengthening nearshore fisheries management) depends in part, on effective implementation of component 2 (improve access to complementary livelihoods). This reflects point (c) above and implies that while access to livelihood and capacity-building are important to coastal sub-county beneficiaries, those who are dependent on fishing and fisheries-related livelihood activities (and who may be affected by management measures) will particularly be encouraged to avail of grants under component 2.

(b) Effective management of priority fisheries stocks (sub-components 1.1 and 1.2) and availability of functioning public landing-site infrastructure (sub-component 1.3) are a precondition to enabling private sector interest and investment.

(c) Effective governance of the mariculture sub-sector in the form of clear policies and regulations (sub-component 1.1) and access to information and proof-of concept (sub-component 1.3) will encourage demand for private sector interest on mariculture (sub-component 1.3).

E. Rationale for Bank Involvement and Role of Partners

49. **The Bank has a history of partnership with Kenya in the fisheries sector and is well placed to support the sector, given its global, regional, and country-specific technical expertise and experience.** The Bank has established itself as a leading development institution in generating knowledge around oceans and fisheries,[34] and supporting governments through investment lending towards transforming and strengthening sectors relating to Blue Economy. Global programs supported by the Bank include for example the West Africa Coastal Areas Management Program (WACA, P162337, P166218), and the new PROBLUE multi-donor trust fund (TF073194) with funding of over US$115 million targeted at better understanding current trends and emerging threats to oceans together with identifying appropriate solutions for action. Projects range from large regional fisheries programs in Africa[35] to country-specific projects in other regions that include in their design, several important interventions such as tackling sources of marine pollution and supporting coastal development with emphasis on addressing erosion and effects of climate change on marine and coastal resources. The Bank has a comparative advantage in addressing wide-ranging governance and policy issues, through its convening power to help local and national level stakeholders reach consensus on a broader vision for the sector and resolve trade-offs over competing demands on marine resource use.

50. **In Kenya, the Bank brings expertise in targeting, organizing, and developing interventions that benefit the VMGs, women and youth.** Knowledge and lessons from comparable projects in Kenya, the Africa region, and across the globe, has informed the design of the Project; and will guide the Project during its implementation. For example, the Bank can build on its long-standing engagement with the GoK toward supporting Kenya's marine fisheries sector through the KCDP, a 6-year project that ended in 2017. These projects have guided the design of the KEMFSED project in several areas including improving management effectiveness and enhancing revenue generation of Kenya's coastal and marine resources, as well as strengthening of coastal livelihoods.

51. **The rationale for Bank involvement is further justified by Kenya's need for technical and financial support towards strengthening the development of its marine fisheries sector and the blue economy.** Kenya has undertaken specific actions, including the formulation of a marine fisheries project concept by the then State Department of Fisheries and the Blue Economy in 2016[36] following the establishment of a Blue Economy Committee; putting in place measures to prepare a Marine Spatial Plan that is key to supporting Kenya's ambitions to develop a sustainable blue economy; and acknowledging the critical need for boosting the coastal economy—particularly the fishing-dependent community—in the process of supporting the development of a more diversified and sustainable system for improved livelihoods and poverty alleviation. The Bank will continue to collaborate with partners in supporting the GoK in furthering its Blue Economy agenda, specifically the marine fisheries sector.

52. **Project preparation was carried out in collaboration with a wide range of stakeholders, including development partners, non-governmental organizations (NGOs), private sector representatives, among others**. The proposed Project complements ongoing and planned programs and initiatives including but not limited to those financed by the FAO, Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ), International Union of Conservation of Nature (IUCN)

[34] Recent Bank publications include: The Sunken Billions Revisited: Progress and Challenges in Global Marine Fisheries (2017) (a follow-up report to The Sunken Billions: The Economic Justification for Fisheries Reform - 2009); The Potential of the Blue Economy (2017); Trade in Fishing Services Report (2014); and Fish to 2030: Prospects for Fisheries and Aquaculture (2013)

[35] For example, the Bank is working with governments in leading and implementing multi-country fisheries programs along East Africa (South West Indian Ocean Fisheries Program/SWIOFish) and West Africa (West Africa Regional Fisheries Program/WARFP).

[36] Currently renamed to State Department for Fisheries, Aquaculture and the Blue Economy (SDFA&BE), under the Ministry of Agriculture, Livestock and Fisheries (MoALF).

and the Japan International Cooperation Agency (JICA). It also complements the European Union's (EU) Go-Blue Bridging Project, which is supporting the coastal counties in strengthening small- and medium-sized enterprises (SMEs) in the marine fisheries sector, developing skills and linking markets, and closely engages with The Nature Conservancy toward collaborating on activities relating to marine spatial planning in Kenya. The Bank received funds from the GFDRR Trust Fund to identify climate risk to Kenya's coast and communities; and with support from GIZ, the Bank is carrying out a study on marine (plastic) litter prevention that will guide related interventions during project implementation. The Bank also engaged with representatives of the marine fisheries private sector including the Association of Fish Processors & Exporters of Kenya, the Aquaculture Association of Kenya, and relevant Government agencies such as the Kenya Investment Authority and the Private-Public Partnership Unit of the National Treasury.

F. Lessons Learned and Reflected in the Project Design

53. The proposed Project design incorporates lessons learned from sector and thematic studies, ongoing and completed Bank projects,[37] and international good practice. Key lessons reflected in the Project design include:

(a) **Project implementation in a devolved[38] institutional environment**. In a country with active decentralization policies or devolution such as Kenya, strong engagement with, and proactive involvement of local (county) governments is crucial. This will require additional institutional training and capacity building efforts, which is key to enhancing local ownership, supporting implementation requirements, and providing commitment to the long-term sustainability of project interventions. The Project design has integrated important lessons on institutional, implementation, and fiduciary arrangements from recent Bank projects in Kenya with predominantly devolved functions, including the National Agriculture and Rural Inclusive Growth Project (NARIG, P153349), Kenya Climate Smart Agriculture Project (KCSAP, P154784), and Water and Sanitation Development Project (WSDP, P156634).

(b) **Project management and implementation**. The KCDP had a complex implementation structure featuring several implementing agencies (7) and this slowed down project implementation and delayed utilization of funds. The Project implementation structure will include just one implementing agency, and as required for devolved sectors, the MoALF will sign a Participation Agreement with the five participating coastal counties for implementation of county-level activities. Importantly, the roles of national and county level project coordination and implementation units, as well as steering committees will be clearly defined in the PIM.

(c) **Defining achievable project outcomes**. Recognizing issues in other fisheries projects due to complex design and over-ambitious targets and outcomes, the Project is designed to have a simple and well-defined scope with achievable outcomes. Designing fisheries projects with interventions that have good intent, often only partially achieve the desired outcome and this is largely because fisheries is a highly variable resource. The Project recognizes this potential weakness in the design and focuses on activities that can make a difference in the livelihoods of the coastal communities, bring higher-level benefits to the country, and have a good prospect of success. The Project design also recognizes that achieving growth in fisheries which is already overexploited may

[37] Kenya Coastal Development Project (KCDP/P094692); Tanzania Marine and Coastal Management Project (MACEMP, P082492); SWIOFP (P072202); South West Indian Ocean Fisheries Governance and Shared Growth (SWIOFish, P132123) Project; West Africa Regional Fisheries Program (WARF-P, P106063); NARIG (P153349); WSDP (P156634); KCSAP (P154784); Bangladesh Sustainable Coastal and Marine Fisheries Project (P161568); among others.

[38] For further details on Devolution, see Section III below on 'implementation arrangements' and footnote 40. Devolution related aspects in the fisheries sector were discussed with national government and the participating counties as well as with representatives from the Council of Governors. These included technical and fiduciary arrangements specific to the KEMFSED project, lessons learned and good practice aspects, which were integrated in the design of the Project. This also took into consideration lessons from other Bank-financed projects in devolved sectors.

not be practical, and therefore it focuses on activities that could potentially generate more value from the limited resources. Management measures will be introduced for specific priority fisheries which will result in improvements in the fish stocks, while in parallel the Project will provide non-fisheries related alternatives to the fishers. As this is a devolved sector in Kenya, specific attention was given to ensuring that roles of the national government and the counties are well-defined because cooperation between them is crucial for smooth implementation and for the Project to achieve its objectives.

(d) **Building on existing successes**. Though initiated late in the KCDP, the HMP was highly acclaimed, particularly for its contribution to coastal livelihoods mostly through a well-managed grant system that was scaled out to coastal communities. The Project builds on this successful outcome, and in addition, the promotion of sub-projects with exclusive environmental conservation objectives involving poor coastal communities will include a clear element of improved livelihoods as part of the design.

(e) **Women in Kenya are disproportionately affected by poverty during their core productive and reproductive years.** As in other African countries, Kenyan women in their mid-20s through 50s are more likely to live in poor households than men. In addition to facing gender inequality, women who are widowed or have experienced marital dissolution are more likely to be poor (compared to men), face higher rates of physical violence (compared to other women) and are disproportionately affected by diseases. These and other similar issues highlighted in the social and gender assessments that were conducted under the Project are noted, and the Project is designed to include women-targeted interventions and provide women with targeted training and capacity building in several areas including vocational, financial, business and leadership skills.

(f) **Ensuring direct and efficient flow of funds in a devolved governance environment.** Previous Bank-financed projects in devolved sectors in Kenya that involved counties as part of the implementation arrangements, adopted on a pilot basis, country financial management (FM) arrangements which involve multiple budget approval levels and fund flow stages. As the FM arrangements are continuing to evolve in Kenya, the flow of funds proved to be cumbersome, and at times contributing to delays of over two years for counties to access project funds. Noting issues and bottlenecks in the pilot FM arrangements structure, and to avoid similar delays, the Project will adopt a streamlined direct disbursement approach that has also been used in Bank-financed projects. In this case, the funds will flow from the Bank credit account to the designated account at the National Treasury, before being transferred to the Project account managed by the NPCU, and eventually to a special purpose account in each county, managed by the CPIUs.

III. IMPLEMENTATION ARRANGEMENTS

A. Institutional and Implementation Arrangements

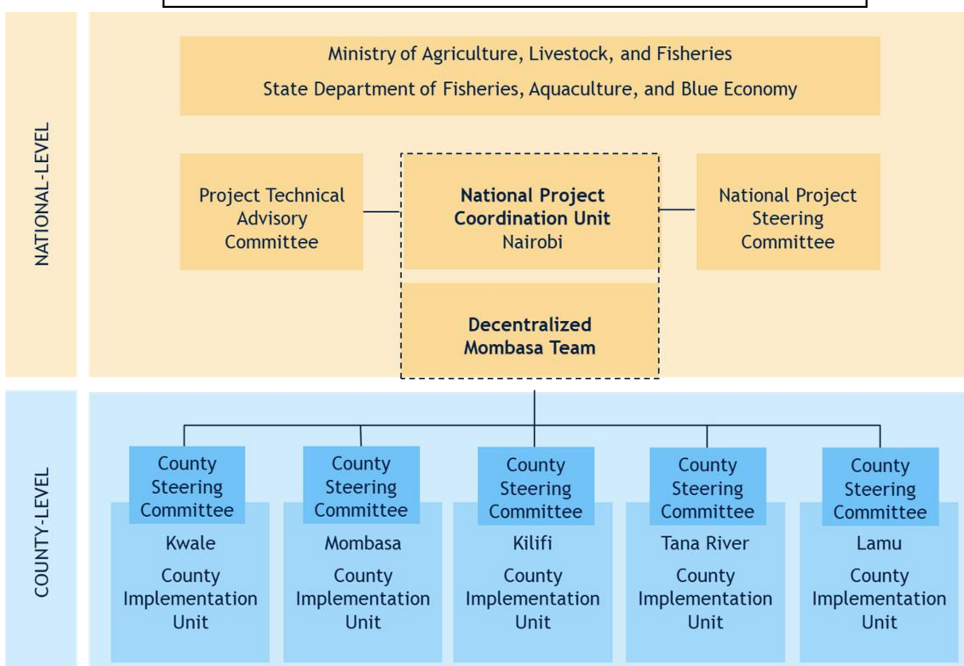
54. The Project design has taken into consideration devolution[39] aspects, considering that the fisheries sector is defined as partially devolved. Project implementation will be led by the national government with counties executing specific activities at the county level. Based on lessons learned and valuable experience from other Bank-financed

[39] Devolution in Kenya was ushered in by the 2010 Constitution and formally began in March 2013. This resulted in a shift in Kenya's institutions, as multiple powers, responsibilities, and funds have shifted from the national government to 47 elected county governments. Devolution reform seeks to tackle top-down to a more responsive, bottom-up form of government. Counties assumed responsibilities for delivering several devolved services. The fisheries sector is accepted as partially devolved, where the national and county governments have defined responsibilities, and some shared or concurrent functions.

projects (e.g., KCSAP, NARIG, WSDP) and in consultation with the GoK, the Project is designed to have a simple and efficient implementation structure.

55. **National level:** The proposed Project's implementing agency is the Ministry of Agriculture, Livestock and Fisheries (MoALF) with its State Department for Fisheries, Aquaculture, and the Blue Economy (SDFA&BE) having the overall project implementation responsibility. Project oversight and policy guidance will be provided by a national project steering committee (NPSC),[40] while a project technical advisory committee (PTAC)[41] will be responsible for providing technical advice to the NPCU on implementation aspects.

Figure 2: Institutional and Implementation Arrangements



56. A national project coordinating unit (NPCU) would be established in Nairobi to manage and coordinate project implementation activities.[42] Part of the NPCU functions would be decentralized to Mombasa, especially those supporting the counties for execution of community-based activities. The NPCU staff will be seconded to the Project on a full-time basis by the national government, and recruitment of external staff will be done only where internal capacity is limited.

57. **County level:** The five participating coastal counties would be responsible for carrying out specific activities under Component 2 at the county level, and their engagement will be formalized through county participation agreements with the MoALF. Each county would establish a county project steering committee (CPSC), responsible for decision making and providing oversight, and a county project implementation unit (CPIU), responsible for execution of project activities at the county level (see PIM for details). Unless adequately justified, the composition, roles and responsibilities of these structures will be similar in all five counties. The Project will provide support to each county for capacity building and institutional strengthening through a standard package of goods, equipment and training. CPIUs (through county field officers) or staff from the productive alliance partnerships will also provide support to communities in organizing smallholder fishing and non-fishing households into common interest groups (CIGs) for the

[40] The NPSC will be co-chaired by the Principal Secretary of SDFA&BE and the Chairman of the Agriculture Committee, Council of Governors. NPSC members will include Principal Secretaries from relevant state departments of line ministries and two Governors representing participating counties.
[41] The PTAC will be co-chaired by the Director General of the Kenya Fisheries Service (KeFS) and the Chair of the County Executive Committee Agricultural Caucus. PTAC members will comprise directors of relevant line ministry departments, director generals of relevant government entities and representatives from the Council of Governors, private sector and civil society.
[42] The NPCU will be headed by the national project coordinator and staffed with coordinators for the two project components, an M&E officer, finance officer/project accountant, procurement officer, training officer, communications/public relations officer, and environmental (including OHS) and social safeguards officers. Other specialists will be seconded as required from relevant departments on a part-time basis.

participatory identification and preparation of livelihood, social or environmental sub-projects. Community sub-project support would be provided to beneficiaries organized into CIGs to be formed in the 19 coastal sub-counties of the five project counties. County field officers will also be responsible for identifying vulnerable and marginalized members of the community through affirmative targeting approaches. In the case of the commercial enterprises that are already engaged for participation in the productive alliances, the roles and responsibilities for the implementation of sub-projects by CIG is outlined in a tripartite Memorandum of Understanding (MoU) to be signed between the SDFA&BE, the county and each partner, prior to initiating implementation.

58. Additional details on national and county institutions is provided in the PIM, which also includes details on technical aspects of all components and activities, guidance related to data collection, M&E, supervision and reporting procedures, and the procedures to fulfil FM and procurement requirements. Documents related to environmental and social safeguards, legal agreements, and Terms of Reference (TORs) for Year 1 consultancies are annexed to the PIM, towards implementation readiness. The NPCU and CPIUs will operate as per TORs, included in the PIM. The implementation of sub-projects under component 2 will be guided by the PGM which complements the PIM by describing procedures for the sub-project cycle. The PIM and PGM will be updated as necessary during the life of the Project.

B. Results Monitoring and Evaluation Arrangements

59. The M&E system will follow a results-based management approach to ensure accountability of the use of project funds; provide a means to analyze project implementation to ensure that it is aligned with outcomes; and outline flow of data and information (national and county levels). The M&E system will help in measuring project progress in: governance and effective management of fisheries, mariculture, and increased access to complementary livelihood activities in targeted coastal communities, among others. While the overall objective of the M&E system is accountability, transparency and learning, there is also a focus is on communication and dissemination of data and information on progress towards the PDO, to inform timely decision-making.

60. The NPCU will have the coordinating role in M&E of the Project and provide overall oversight as well as implementation support. The NPCU will be staffed with a dedicated National-level M&E specialist and each of the coastal CPIUs will include a full-time M&E specialist who will be responsible for data collection and presentation to the NPCU, and for feeding into the Project level M&E system. An independent annual technical audit will be conducted specific to component two through the life of the Project.

61. The Project will form a monitoring and evaluation technical group (METG) that will meet every quarter during the first year of the Project, and report to the NPCU. It will be chaired by the Director of the SDFA&BE and will include the national and county M&E specialists, component focal points, and other technical staff as needed. Among other tasks, the METG will: i) analyze project implementation from a technical and financial perspective; ii) coordinate data collection and reporting arrangements at all levels; iii) prepare quarterly technical progress reports and bi-annual reports to provide an overview of the status of achievements and the overall project performance to the NPCU; and iv) develop a plan for strengthening the Project's M&E function.

62. Each county will prepare quarterly and bi-annual M&E reports and submit to the NPCU which in turn will include updates of national level activities and prepare a comprehensive M&E report. The NPCU will submit the bi-annual report to the Bank well in advance of each bi-annual implementation support mission. The quarterly reports will be submitted within 45 days of the end of each fiscal year quarter, and bi-annual project progress reports no later than 45 days after the end of each calendar semester.

63. Key elements of the M&E system described in the PIM include: i) an M&E manual describing the PDO and indicators, reporting responsibilities and structure, staffing, capacity-building plan, and M&E-related activities with timeframe and budget; ii) format for annual M&E plans; iii) reporting requirements to the Bank in the form of bi-annual progress updates based on the Project results framework; iv) explanation of baseline, mid-term and completion targets; and v) outline of annual and bi-annual reports to be submitted to the Bank.

64. The results framework (see Section VI) includes five PDO indicators, one of which measures satisfaction of target beneficiaries with project interventions (corporate requirement). The satisfaction indicator is disaggregated by sex and based on perception surveys that will focus on fisheries management, job creation, access to complementary livelihoods, and value addition. Reporting of the satisfaction indicator is linked to citizen engagement through a beneficiary feedback loop. Closing of the gender gap (as identified by the gender assessment) is captured by the PDO indicator on women and girls in targeted coastal communities with access to complementary livelihood activities. The satisfaction indicator will be disaggregated by sex.

C. Sustainability

65. Kenya's commitment to the Project can be confirmed in several ways. It recognizes that now is the time to implement crucial interventions in the fisheries sector, including effective governance, to bring about transformational change that will positively impact the sector, the coast and coastal communities. Furthermore, its ownership of the Project as an integral element of its Blue Economy framework and agenda is attested by Kenya successfully hosting Africa's first ever high-level Sustainable Blue Economy Conference in November 2018. From small-scale artisanal fishers to women, youth and VMG, to industrial fishing— various types of stakeholders are expected to benefit from the Project. The Project is well aligned with Kenya's pursuit of the Blue Economy, and this is reflected in the TOC that was developed with full engagement, understanding and ownership of the GoK.

66. Project interventions integrate the required elements of sustainability in their design, towards ensuring that outcomes will be sustained beyond project closure. For example, fisheries infrastructure to be supported under the Project will be informed by comprehensive analysis to ensure that it responds to existing needs and is accompanied by business plans including details on sustainable financing. For activities that are to be carried out by GoK entities as part of their regular work (e.g., stock assessments), the Project will provide financial support only during the first years of implementation, after which, project funding will gradually be withdrawn while technical support and capacity building will continue through project closure as needed. For infrastructure such as the NAMARET, the GoK has a staffing plan where in addition to transferring select number of researchers and scientists from the Kenya Marine Fisheries Research Institute (KMFRI) once the facility is operational, they will hire additional staff. The Project will also include technical support in the form of a hatchery training specialist and a business development consultant.

67. The Project's results and the efforts towards achieving the PDO will depend on Kenya's natural resources and supporting ecosystems, as the fishing and seafood industry would not exist without healthy fish stocks, a healthy oceanographic system, and other critical components of the ecosystem. It is a known fact that reform of the fisheries sector—to create a sector that is ecologically sustainable and a net contributor to the country's economy—could take anywhere from 20-30 years, as has been the case in countries such as New Zealand, Mexico and Norway. Therefore, the design of any follow-on activities beyond the duration of the Project must be guided by this concept, and the underlying principle that while fish are a valuable, renewable natural capital, effective governance and management policies must be in place to yield maximum sustainable wealth. If the long-term goals of the Project were met, financial sustainability of the Project's results would be achieved as part of the surplus generated in the sector through sustainable utilization

and management of resources, which would be reinvested in fisheries management and the well-being of coastal communities; other parts of the surplus would be reinvested in the overall economy, creating greater opportunities for the population, including coastal residents. However, in the medium-term, these goals may only be met in part, or not at all, particularly if project interventions are not sustained with adequate levels of GoK financing for governance and fishery-related elements.

IV. PROJECT APPRAISAL SUMMARY

A. Technical, Economic and Financial Analysis (if applicable)

68. **Effective fisheries management requires wide-ranging activities to be pursued simultaneously, and accordingly, the Project is designed with a wide scope**. The technical design and approach align with Kenya's Big Four agenda, meets the principles of the 'devolved' fisheries sector, supports Kenya in conforming with its international obligations, and is expected to bring important benefits to the coastal communities and the marine fisheries sector.

69. **Improved governance and management of marine fisheries.** Like other Bank-financed projects in the sector, the Project is designed such that it provides a series of qualitative benefits associated with improved governance and management of marine fisheries and related activities.

(a) Strengthening of fisheries policy and related legislation, particularly regulations and bylaws related to bottom-up management at the BMU level, while building synergies with the broader Blue Economy policy framework as identified through MSP, will strengthen fisheries management, which is a key factor in ensuring sustainability of marine fisheries while deriving the most benefit from these resources.

(b) Development of an efficient FIMS that will facilitate access to information for effective fishery management will ensure provision of timely fishery-related advice for effective decision-making. The provision of data on country catch performance will enable Kenya to fulfill its commitments to the IOTC.

(c) Improved management of near shore fisheries through co-management of artisanal fisheries at the county level (including BMUs and other stakeholders) will result in reduced overfishing and thereby improvement of fish stocks, resulting in increased catch per unit of effort, improved quality and marketability, and higher overall catch value due to the reestablishment of high value demersal fish stocks. These fisheries play a vital role in the national economy as substantial export resource and foreign exchange earners.

(d) Improved MCS will result in reduced IUU fishing, which would in turn reduce 'leakages' in the economy from revenue lost due to illegal fishing without license in Kenya's EEZ, which is further exacerbated by illegal exports to other countries without proper reporting. Implementation of a regional approach with minimum terms and conditions will harmonize licensing of foreign vessels, optimize income from license fees and help realize the true economic benefit of the offshore marine resources to Kenya.

70. **Costs Benefit ratio of Strengthening Capacity in Governance and Management of Marine Fisheries.** Activities to be undertaken in this regard are expected to reduce under performance and boost fish stocks by increasing yields through stock rebuilding aiming towards MSY. Improved governance reduces overfishing where needed, and influences profits, for example, larger fish are caught which fetch higher per-weight prices and catching better quality fish enhances potential profit for individual fishers. The table below presents the results of a cost benefit analysis carried out for three distinct management treatments: Kenyatta beach (most intensively managed and adjacent to a 6 km^2 area that was

closed to fishing); south coast (moderately managed and had six landing sites that were greater than 30 kms from an area that was closed to fishing); and north coast (which had three landing sites, no restrictions on gear, and sites which were 1–10 kms from an area that was closed to fishing). The area with the most management measures (Kenyatta beach) had a higher cost benefit ratio. Furthermore[43], per capita incomes were 41 percent and 135 percent higher for those who fished in gear-restricted areas and near closed areas, respectively, compared with those who fished in areas with no restrictions. This suggests that the component on strengthening governance and management of marine fisheries is therefore highly beneficial and is likely to result in increased benefits to fishers in the short to medium term.

Table 1: Financial Analysis of Comparable Marine Fisheries Governance and Management

	Without Fisheries Governance and Management (WOP)			**With Fisheries Governance and Management (WP)**		
	Kenyatta	*South Coast*	*North Coast*	*Kenyatta*	*South Coast*	*North Coast*
Costs (US$/$Km^2$/year)	1,076	751	-	939	586	453
Revenue (US$/$Km^2$/year)	6,580	10,053	-	11,139	12,610	10,704
Cost/ Revenue (%)	16.4	7.5	-	8.4	4.6	4.2

Source: McClanahan, 2010

71. **Environmental benefits.** Effective management of marine resources through an ecosystem approach to fisheries and MSP will ensure the conservation of marine resources and sustain the resilience of related ecosystems. The participation of communities in building natural resource capital such as mangrove planting, reduced pollution, improved solid waste management or establishment of no-take fishing zones will enhance environmental conservation and community ownership. The Project has indirect benefits that promote sustainable landscape management practices through the activities that will be undertaken in component 2. The benefits associated with appropriate cropping practices by the smallholder farmers through partnerships will result in externalities that lead to soil conservation and restoration and maintenance of soil productivity as well as nutrient cycling. Farming activities have the potential for reducing greenhouse gas (GHG) emissions thus increasing carbon sequestration.

72. **Coastal community empowerment and livelihoods.** Livelihoods strengthening of fishers and farmers in coastal communities uses a combination of technical and financial support to target groups and through strategic partnerships with commercial enterprises. Fishers and farmers benefit by participating in contract-farming schemes to produce high-value complementary mariculture and agriculture related activities (crab farming, crops and livestock) with guaranteed markets. The table below presents the financial analysis and results of demand-driven complementary livelihood activities that would benefit the smallholder fishers and farmers. In a 'with project scenario' where cassava, sorghum, poultry and dairy are the complementary livelihood activities, the net present value (NPV) is US$28.09 million with an economic internal rate of return (EIRR) of 37 percent. In a scenario, where high value crops also augment the other livelihood activities (as is the case in the Project), the NPV of the Project is US$37.96 million with an EIRR of 45 percent. This suggests that inclusion of high value crops (through contract farming scheme) is highly beneficial and would lead to an increase the livelihoods (and income) of smallholder fishers and farmers.

[43] McClanahan, T., R., (2010). "Effects of Fisheries Closures and Gear Restrictions on Fishing Income in a Kenyan Coral Reef". Conservation Biology, Volume 24, No. 6, 1519–1528.

Table 2: Financial Analysis of Select Complementary Livelihoods Activities

	Yields (kg/acre)			Net revenue (USD) (including family labor)		
	Without Project	**With Project**	**Rate of Change**	**Without Project**	**With Project**	**Rate of Change**
Cassava	1,400	4,000	186%	145	513	253%
Sorghum	350	630	80%	128	257	100%
Poultry (eggs/hen)	560	960	71%	-18	100	668%
Dairy	5	8	60%	2,592	4,605	83%
*High value crops				1,616	2,101	30%

Source: KCSAP PAD 2017; Key informant interviews

B. Fiduciary

(i) Financial Management

73. **The Bank conducted a financial management (FM) assessment of the proposed NPCU that is housed within the SDFA&BE under the MoALF in February 2019.** The NPCU was set up at the start of project preparation to manage the Project Preparation Advance (PPA). The Ministry has experience in the management of Bank-financed projects having been the implementing ministry for the KCDP. However, the SDFA&BE is relatively new. The FM assessment also covered the five participating counties of Kwale, Mombasa, Kilifi, Tana River and Lamu. The counties are involved in the management of other Bank-financed projects including NARIG, KCSAP, Kenya Urban Support Program (KUSP, P156777), Kenya Devolution Support Program (KDSP, P156777), and Transforming Health System for Universal Care (P152394).

74. The objective of the assessment was to determine whether the implementing agency maintains adequate FM arrangements capable of ensuring that:

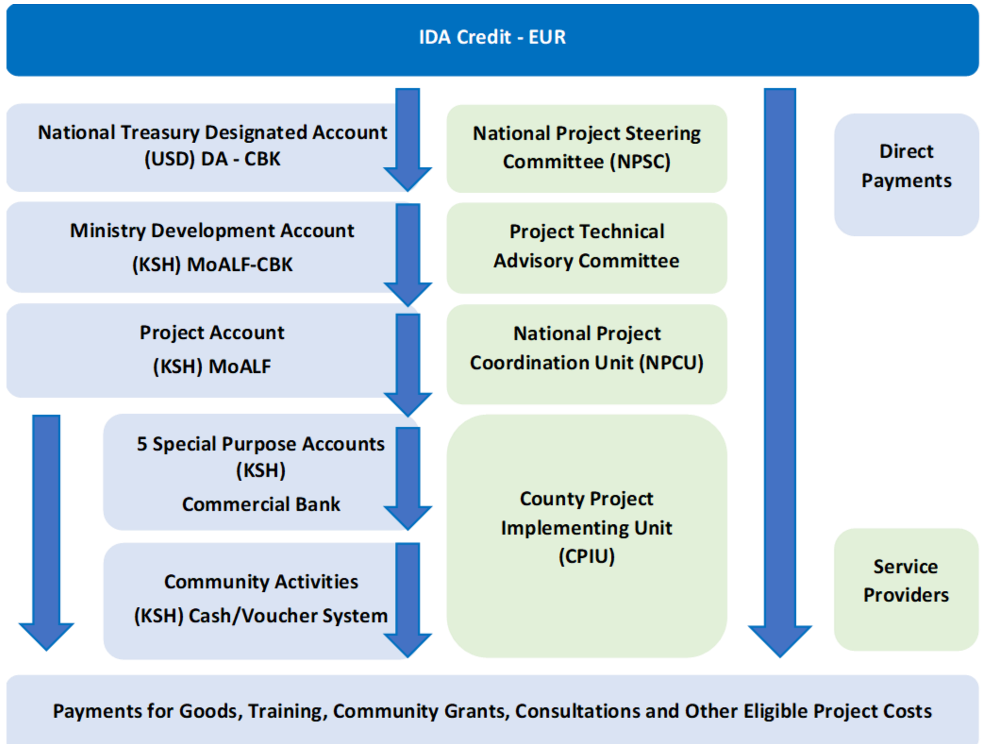
(a) Project funds and resources will be used for the purposes intended in an efficient and economical manner
(b) Project financial reports will be prepared in an accurate, reliable and timely manner
(c) Project and other resources assets will be safeguarded

75. The FM assessment was carried out in accordance with the World Bank Directive: Financial Management Manual for World Bank Investment Project Financing Operations effective from March 1, 2010, and the World Bank Guidance: Financial Management in World Bank Investment Project Financing Operations Issued and Effective February 24, 2015.

76. **The FM assessment concluded that both MoALF and the five counties have adequate FM capacity to manage the Project**. The NPCU has a full-time project FM specialist hired with PPA funds, and a project accountant designated by the Ministry. The NPCU is also supported by the Ministry's Accounting and Finance/Budget teams. The Project's FM arrangements have considered the role of participating counties in the execution of the county-level functions and accordingly, each of the County Treasuries will designate a county project accountant to the CPIU.

77. **The GoK has undertaken major Public Financial Management (PFM) reforms including the enactment of the PFM Act 2012 which has enhanced service delivery for both national and county level (devolved) activities.** Reforms include roll-out of the Integrated Financial Management Information System (IFMIS) to all counties and the development of comprehensive PFM regulations for counties. These have resulted in improved service delivery to citizens.

Figure 3: Funds Flow Arrangements



78. **However, there are some areas that require further improvement, and the National Treasury is working with the counties to address them.** These relate to broader challenges and lessons learned relating to the disbursement and accountability of funds in Bank-financed projects, especially relating to funds transferred to counties as conditional grants. Funds are budgeted at both levels of government (national and county), with multiple approval processes, including for the Division of Revenue Act (DORA) and the County Allocation of Revenue Act (CARA), and County Assembly Act and has caused extensive delays for counties to access Bank project funds. It has also adversely affected implementation of World Bank devolved projects and in a few cases, resulted in Bank project funds being utilized on activities that are not eligible for financing under the credits. Some weaknesses have also been noted in county accounting and internal controls as well as delays in financial reporting and audits. The audit reports for FY17/18 of the five participating counties were qualified on matters relating to weak accounting and internal control systems, and funds not properly accounted for. This Project has a community driven development (CDD) component and from an FM perspective, these activities generally tend to be high risk. The government is addressing these issues through a budget and funds flow review being undertaken jointly by Development Partners (including the World Bank) with the National Treasury, as well as capacity building initiatives for staff at national and county level.

79. **To avoid some of the issues identified above, the Project has adopted a single-budgeting and direct-disbursement approach.** Under this arrangement, project funds will be subject to one budget process. Accordingly, funds would be transferred from the designated account at the National Treasury to the Project Account (PA) opened by the NPCU. From the PA, funds will be transferred directly to the special purpose account opened in a commercial bank (one in each county) and managed by the CPIUs (see figure 3). Moreover, the Kenya Fisheries Management and Development Act (FMDA) No.35 of 2016, provides a legal backing for the Project, and its design, implementation and funds flow arrangements align with the Act.

80. **The CPIU staff, including full-time project accountants, will be put in place with full accountability for use of Bank funds at the county-level.** The designation of the CPIU staff and the opening of the commercial bank project account form part of the minimum eligibility criteria required for the CPIU to access Bank funds. The fiduciary arrangements for the CDD grants including the funds flows and comprehensive internal control procedures are outlined in the FM procedures manual (which forms part of the PIM) and the PGM. The implementation of these manuals is expected to

reduce the fiduciary risk exposure for project funds at national, county and community levels. The Ministry and county internal audit departments will conduct an annual risk-based fiduciary review of project activities. In addition, the Bank will conduct in-year FM supervision reviews and hold regular capacity building training for project teams, including the internal and external auditors.

81. The Project will adopt the statement of expenditure (SOE) method of disbursement with documentation of expenditures undertaken on quarterly basis. The MoALF will prepare and submit to the Bank semi-annual unaudited interim financial reports (IFR) within 45 days after the end of the calendar semester. The MoALF will also submit, within six months after the end of each financial year, audited project-specific annual financial statements and a management letter of internal control weaknesses. The IFR template, the annual financial statements format, and the audit TOR are included in the FM procedures manual (part of the PIM).

(ii) Procurement

82. **Procurement Regulations.** Procurement will be carried out in accordance with “The World Bank Procurement Regulations for IPF Borrowers, dated July 2016 and revised in November 2017 and August 2018”, hereafter referred to as ‘Procurement Regulations’. The Project will also be subject to the World Bank’s Anti-Corruption Guidelines, dated July 1, 2016. Component 2 of the Project follows a CDD approach and accordingly, procurement at community level will follow the “Guidance note for design and management of procurement responsibilities in community-driven development projects March 15, 2012”.

83. **Project Procurement Strategy for Development (PPSD).** A PPSD has been developed to improve implementation of the Project and help in achieving results. The PPSD has informed the preparation of a Procurement Plan setting forth the selection methods to be followed by the GoK during project implementation in the procurement of goods, works, and non-consulting and consulting services financed by the Bank. The Procurement Plan will be updated at least annually or as required to reflect the actual project implementation needs and improvements in institutional capacity.

84. **The Systematic Tracking of Exchanges in Procurement (STEP).** The Project will use the STEP in the implementation of the Project. This is a planning and tracking system, which would provide data on procurement activities, establish benchmarks, monitor delays and measure procurement performance.

85. **Procurement Profile.** The procurement profile for the Project comprises of contracts for the procurement of works, goods, consulting services and technical advisory services and small non-complex and low value contracts to be executed under CDD-type operations.

86. **Procurement Risk Assessment.** A procurement capacity and risk assessment for the MoALF and the participating counties of Kwale, Mombasa, Kilifi, Tana River and Lamu was carried out by the Bank in February 2019, using the Procurement Risk Assessment Management System. Findings from the assessment have informed the procurement implementation arrangements, identification of key issues, procurement risks and risk mitigation, capacity building, procurement systems enhancement measures and the establishment of the Bank implementation support plan.

87. At the national level, a NPCU has been established with a full-time procurement officer who is supported by an experienced procurement consultant conversant with Bank Procurement Regulations and procedures and the use of STEP. During project preparation, the NPCU implemented a US$2 million PPA and has to-date, disbursed more than fifty five percent of the funds. The requisite training and capacity building on the Bank’s Procurement Regulations and use of STEP has been provided to the NPCU staff.

88. Procurement implementation arrangements will be replicated at the county level. At the county level, the

assessment revealed systemic and institutional constraints and weaknesses comprising inadequate staff capacity, poor organization of the procurement function, lack of a conducive working environment, lack of experience in the implementation of Bank-financed operations including the use of STEP, weak contract management and procurement records management systems, limited supplier market capacity, and lack of adequate procurement oversight. The delay in the issuance of attendant Regulations to guide the implementation of the Public Procurement and Asset Disposal Act 2015 (PPAD) was a major constraint and bottleneck to effective implementation of procurement decisions.

89. The procurement regulations for IPF Borrowers provides that when approaching the national market, the country's own procurement procedures may be used if deemed acceptable to the Bank. Considering the applicable method thresholds for Bank-financed operations for the country, it follows that most if not all procurement activities to be carried out at the county level will follow national procurement procedures with limited Bank procurement oversight. It is therefore imperative that appropriate systems, processes, oversight and complaints handling mechanisms, and staff capacity are put in place for effective project implementation and enhanced procurement performance.

90. Activities for livelihood support to communities will follow a CDD approach using simplified procurement methods and arrangements that are elaborated in the World Bank approved and GoK endorsed PGM and PIM (includes procurement-related aspects). County level interventions and support to communities are also defined in the PGM.

91. The assessment further revealed that all the five participating counties are using the IFMIS-based e-procurement platform for procurement processing in compliance with the Presidential Directive of June 2018, although they are at different stages of implementation. Whereas use of electronic procurement through the IFMIS platform may increase transparency and accountability and further enhance efficiency, procurement under the Project will continue to be carried out through STEP under the use of a paper-based system as IFMIS-based e-Procurement system is not assessed by the Bank. Once the e-procurement function is fully operational and tested, the government may request the Bank to conduct an assessment to allow its use for procurement under the Project.

92. In accordance with the PPAD Act 2015, the Public Procurement and Regulatory Authority (PPRA) is tasked with the responsibility of carrying out annual procurement reviews and audits including enforcement of standards developed under the Act. However, due to resources constraints, the PPRA has not carried out reviews in some of the counties assessed since their establishment. The assessment could therefore not establish the overall functioning of the procurement systems and procurement oversight in these counties.

93. **Use of National Procurement Procedures.** All contracts following the national market approach shall follow the procedures set out in the PPAD Act of 2015. The PPAD Act sets out the rules and procedures of public procurement by Ministries, Departments and Agencies (MDAs) and Counties and provides mechanisms for enforcement of the law. Under the PPAD Act, the PPRA has been established in addition to the Public Procurement Directorate in the National Treasury. The PPRA has oversight and regulatory functions, including undertaking procurement reviews and audits. There is a Public Procurement Complaints Administrative Review and Appeals Board (Appeal Board) under the secretariat of PPRA that deals with complaints received from bidders or consulting firms following national market approach. The provisions of PPADA have been assessed and found to be consistent with the World Bank Procurement Regulations, Section V, Para 5.4, National Procurement Procedures.

94. **Procurement of Goods and Non-Consulting Services.** Goods and non-consulting services to be procured under the Project would include, among others, the procurement of motor vehicles and motor cycles, office and IT equipment, IT software & information systems, office furniture, conferencing facilities, printing services, that are necessary for coordination and timely execution of project activities.

95. **Procurement of Works.** Works contracts to be procured under the Project comprise the construction of an office building to house the various fisheries agencies, the NAMARET, construction and/or rehabilitation of fisheries related infrastructure such as fish landing sites in selected areas and upgrading of county fisheries and BMU offices. Livelihood projects for informal small-scale producers and enterprises and targeted social services delivery projects will also be undertaken at the community level.

96. **Procurement of consultancy services**. Consulting services to be procured under the Project include but are not limited to: i) technical and financial feasibility analysis, ii) monitoring and evaluation, iii) technical audits, iv) training and capacity building, v) third party procurement audits, and vi) technical assistance. Project implementation support consultants may also be hired to augment existing capacity within the implementing agencies in accordance with the provisions of Para 7.32 of Procurement Regulations following GoK's own hiring and remuneration procedures acceptable to the Bank. However, until the GoK submits its hiring procedures to the Bank, the NPCU and CPIU staff will be hired following Bank procurement regulations.

97. **Standard Procurement Documents.** When approaching the international market, procurement will be undertaken using the Bank's Standard Procurement Documents. When approaching the national market, procurement will be undertaken using National Standard Bidding Documents with appropriate modifications and additional annexes to address the Bank's Anti-Corruption Guidelines, universal eligibility, and the Bank's right to inspection and audit.

98. **Operating Costs.** Items under this category would be procured using the GoK's national procurement and administrative procedures acceptable to the Bank. The GoK would also pay from the Project proceeds, costs associated with operational travel, accommodation, per-diems, office consumables and maintenance, motor vehicle maintenance, and remuneration for project implementation support consultants.

99. **Beneficial Ownership Pilot.** The Project procurement does not involve procurements within the Bank (Operations Procurement Review Committee) thresholds, hence beneficial ownership pilot will not be applicable.

100. **Record Keeping and Management.** All records pertaining to the award of tenders, including bid notification, registers pertaining to sale and receipt of bids, bid opening minutes, bid evaluation reports and all correspondence pertaining to bid evaluation, communication sent to/with the Bank in the process, bid securities, and approval of invitation/evaluation of bids, would be retained by the GoK and uploaded in the STEP on a timely basis.

101. **Disclosure of procurement related information.** The following documents shall be disclosed on the Ministry website: i) procurement plan and updates; ii) invitations for bids for goods and works for all contracts; iii) request for expression of interest for selection/hiring of consulting services; iv) contract awards of goods, works, non-consulting and consulting services; v) monthly financial and physical progress report of all contracts; and vi) reports on actions taken to address any complaints received on a quarterly basis.

102. The following details shall also be published in the United Nations Development Business and the Bank's external websites: i) General Procurement Notice before making available the initial bidding opportunity; ii) invitation for bids for procurement of goods and non-consulting services following open international market approaches; iii) request for expression of interest for selection of consulting services following open international market approaches; and iv) contract award details of all procurement of goods and works and selection of consultants using open international market approaches.

103. **Fiduciary Oversight by the Bank.** The Bank shall undertake a prior review of contracts as per the prior review thresholds set out in the PPSD/procurement plan. All contracts not covered under prior review by the Bank shall be subject to post review during project implementation support missions and/or special post review missions, including

missions by consultants or third-party institutions hired or appointed by the Bank. However, the Bank may conduct, at any time, Independent Procurement Reviews of all the contracts financed under the credit if it determines the need for such a review based on assessment of risk.

104. **Contract Management.** High risk and high value procurements will be identified in the PPSD for additional increased contract management support and indicated in the procurement plan. The Ministry will develop key performance indicators for such identified contracts and the indicators would be monitored during actual execution of contracts. The Bank team would provide additional due diligence and independent review of the contract performance of such identified procurements. The Project will be implemented by the fully staffed NPCU and CPIUs at the ministry and county levels respectively. However, the NPCU would be responsible for overall coordination and project/contract management.

105. **Frequency of Procurement Supervision.** Two missions for procurement support and supervision of the proposed Project are envisaged per year.

C. Safeguards

(i) Environmental Safeguards

106. **The Project is expected to have several positive environmental and social impacts and socioeconomic benefits at both the country level and coastal counties.** The scale of project interventions is not expected to result in significant adverse environmental, health or social impacts. However, some activities could result in negative impacts, which are expected to be site-specific, temporary, and reversible in nature. Potential project interventions that could cause adverse environmental impacts include: construction of a building (Uvuvi House) in Nairobi as headquarters to house the newly established fisheries entities as per the 2016 Fisheries Management and Development Act, under the MoALF (including Kenya Fisheries Advisory Council, Kenya Fisheries Service, Kenya Fish Marketing Authority, Fish Levy Trust Fund, among others); NAMARET in Kwale county; rehabilitation/minor extension of county fisheries offices where needed; rehabilitation of landing sites where justified; upgrading of select BMU offices; and complementary livelihood related environmental and social sub-projects at the community level.

107. **In view of the Project's potential impacts on the environment and overall environmental risk associated with proposed Project activities, the Project is classified as environmental Category B based on findings during project preparation**. The Bank's environmental safeguard policies triggered by the Project include Environmental Assessment (OP 4.01), Natural Habitats (OP 4.04), Forests (OP 4.36) and Physical Cultural Resources (OP 4.11). Since the exact locations and site-specific details of activities and scope of works and community-level physical interventions were not identified at the time of appraisal, an Environmental and Social Management Framework (ESMF)[44] was prepared and publicly disclosed in-country and on the Bank's website on June 27, 2019. The ESMF provides detailed guidelines and processes for identification and screening of activities for critical environment and social risks; procedures for evaluating environmental risks and impacts; guidance for developing site-specific environmental and social impact assessments (ESIAs) and environmental and social management plans (ESMPs) that will include mitigation measures to address the potential environmental and social impacts of sub-projects, once the activities, location and scope are identified. It also proposes institutional arrangements for safeguards implementation and capacity building measures for community,

[44] However, since the site/location for construction of a marine hatchery and training center under the NAMARET was identified during preparation, an ESIA was prepared by the GoK, approved by the Bank, and publicly disclosed on July 17, 2019.

county and national levels. By following the procedures outlined in the ESMF, a site specific ESIA and/or ESMP will be prepared for all sub-projects based on the results of screening. These reports will be publicly disclosed prior to finalization of the design and commencement of any construction. During sub-project preparation, the Project implementing teams will apply findings from the ESIA/ESMP to further improve project designs and minimize adverse impacts, while maximizing positive impact on people and the environment.

108. With Kenya being a signatory (September 1982) to the UN Convention on the Law of the Sea (UNCLOS), as required under OP 4.01, in September 2017, the Bank undertook an assessment of the legal framework of the Republic of Kenya (Fisheries Management and Development Act, 2016) to evaluate its alignment with key provisions of the UNCLOS. It concluded that the Kenyan legal framework is aligned with key provisions of the UNCLOS and with the World Bank guidance note on IBRD/IDA financing of fisheries enforcement activities. Under component 1 of the Project, MCS activities are designed in accordance with requirements of the UNCLOS and the World Bank guidance note. In addition, an MoU of cooperation between agencies involved in surveillance operations and the Project will be signed. The signing parties will include the State Department of Interior, under the Ministry of Interior Coordination of National Government, and the SDFA&BE (project implementing agency). The MoU will be signed in conjunction with the credit signing. Furthermore, following the communication between Kenya and Somalia in relation to OP/BP 7.60 on Projects in Disputed Areas, specific project activities were redesigned to exclude interventions in the area under dispute (see paragraph 117 below for further details).

109. The ESMF utilizes the Project Grievance Redress Mechanism to ensure handling of environment-related concerns of Project Affected People are integrated in the overall project grievance handling and resolution.

110. **The ESMF includes specific provisions for additional Bank safeguards policies applicable to this project—OP 4.04 Natural Habitats, 4.36 Forests and 4.11 Physical Cultural Resources.** The Project may include activities of planting or restoring of degraded mangroves in some coastal counties. As noted in the ESMF, any activity related to planting and/or restoring of degraded mangroves will be undertaken in accordance with the 2017-2027 National Mangrove Ecosystem Management Plan, prepared by the Ministry of Environment and Forestry (MoEF) and Regional Development Authorities. Large-scale impact on mangroves is not anticipated. Physical cultural resources policy is triggered as a precautionary measure since some project activities may be in areas which may not have been subjected to archeological surveys and whose cultural resources are therefore unknown. The ESMF includes a sample chance-find procedure to be included into sub-project specific ESIAs, and in all civil works contracts. In addition, although during project preparation it was confirmed that OP 4.09, Pest Management policy is not triggered for this project, as a precautionary measure, the Project ESMF includes guidelines for avoiding the use of bactericides and pesticides when possible (and use non-chemical, biological solutions) and provide guidelines and mitigation measures in cases when this would not be avoidable.

(ii) Social Safeguards

111. **Social impacts resulting from project activities are expected to be positive, however for any potential negative social impacts, mitigation measures will be proposed and implemented.** Positive social impacts expected include: enhanced economic growth and benefits-more fisheries-related activities will bring more jobs and income to the fishermen; improved nutrition and food security; empowerment of beneficiaries (fishers and non-fishers) by providing access to grants and complementary livelihoods in fisheries and non-fisheries sectors; source of employment to the fishers including women in fisheries related value addition activities; capacity building, awareness raising and training to enhance skills and knowledge of the fishers in various activities; and promotion of ecotourism related activities and businesses. Potential negative social impacts include: temporary loss of employment and livelihoods especially indigenous people in the Project area (including ethnic minorities); physical displacement of local communities due to

land acquisition; land grabbing at fish landing sites; changes to land rights and/or restricted access to resources because of the Project development; and road safety and occupational health and safety (OHS) related risks at construction sites; impacts on cultural heritage/archaeological interest/existing ecologically sensitive areas; gender-related risks.

112. **The Bank's social safeguards policies triggered by the Project include: Indigenous Peoples (OP 4.10) and Involuntary Resettlement (OP 4.12).** Since the exact location of works are not identified at this stage[45], social safeguards instruments that are prepared to meet the requirements of the triggered policies include Resettlement Policy Framework (RPF), Process Framework (PF), and Vulnerable and Marginalized Groups Framework (VMGF), following a Social Assessment (SA) and Gender Assessment. The SA was undertaken as a requirement for the preparation of the VMGF. These reports guide the design of the Project since a separate Vulnerable and Marginalized Group Plan (VMGP) will not be prepared. The preparation of these instruments was founded on a robust stakeholder engagement process, and all instruments were publicly disclosed in-country and on the Bank's website on June 27, 2019.

113. **Four of the five project coastal counties (Tana River, Lamu, Kilifi and Kwale) are home to VMGs who meet the criteria of OP 4.10** in terms of language, culture, attachment to given lands and being subordinate to the more dominant communities among whom they live, as well as other Vulnerable Groups. These groups include, Kwale county: Vanga, Wasini, Twasa, Watha, Wakifundi/Wachwaka; Kilifi county: Watha, Watha Marereni; Lamu county: Awer and Wasanye; and Tana River county: Wasanye. Consultations were carried out with these groups, however, due to insecurity in Lamu county, Awer and Wasanye were consulted in Lamu town. The Project VMGF builds on the VMGF and SA that were developed under the KCDP. The VMGF includes lessons learned and was publicly disclosed in Kenya and at the Bank's website on June 27, 2019. Low level of education among the VMGs has made it difficult for them to participate in economic activities and access formal employment.[46] This has hindered their economic empowerment as compared to the dominant communities. VMGs are viewed as inferior and referred to as "jamii duni wenye wamebaguliwa" or discriminated communities that live in isolation. A separate VMGP will not be prepared for the VMGs as there will be affirmative targeting of these groups to benefit from project activities. Free Prior and Informed Consultations that lead to broad community support for the Project was carried out for the VMGs.

114. **Land acquisition and/or involuntary resettlement are not expected under the Project.** Under subcomponent 1.3 the Project will construct an office building in Nairobi to house the fisheries entities, and a NAMARET will be constructed in Kwale County - both buildings will be sited on public/government land. The safeguards reports note that while all landing sites are on public land, some of them may have been illegally acquired. A project preparation study has identified characteristics of landing sites along the coast, which will inform the Project of specific landing sites for potential upgrading under the Project, based on well-defined criteria (including availability of public land). A final decision for intervention will depend on sound technical knowledge (fisheries-related e.g., volume of landings, type of fishery, proximity to other sites) combined with further community consultations. While resettlement of households can be avoided, some economic displacement and restriction of access to resources may be possible, for which a Process Framework is being prepared. Since the exact locations of project interventions are unknown at this stage, a framework approach has been adopted through which the Project developed an RPF to outline the types of compensation required for the Project activities and guide preparation of the Resettlement Action Plans, should the need arise during project implementation. The RPF was publicly disclosed in Kenya and on the Bank's website on June 27, 2019.

[45] As noted in footnote 45, an ESIA was prepared for NAMARET. There will not be any resettlement or land acquisition, and construction of the NAMARET buildings will be on public/government land and the Bank has reviewed the title deed.

[46] All potential beneficiaries (fishers, farmers, VMGs, women and youth) will be provided guidance in the local language by county extensionists and field officers in each of the counties, and support to prepare proposals.

115. **Citizen Engagement and Handling Grievances.** The Project explicitly seeks to support engagement of coastal sub-county communities including women and VMGs, who derive livelihoods from fishing and related activities and are targeted for interventions under the Project, i.e. target beneficiaries. Engagement of target beneficiaries aligns to and supports the Project's approach to demand-side social accountability. Through consultations, the approach to manage fisheries and mariculture and providing complementary livelihood options will be discussed and adjusted (methodology is outlined in the PGM, specific to Grants). Feedback mechanisms will be developed to ensure transparency, accountability and learning as well as a continuous dialogue with target beneficiaries and other stakeholders. During implementation, there will be a focus on improving the capacity of county and national structures to close the feedback loop and report on action taken to address concerns and issues. The specific elements of the framework for citizen engagement include: i) support to engagement of local communities using fisheries and related resources; ii) support to community engagement in determining local priorities; iii) support to a feedback mechanism from target beneficiaries; iv) support to build the capacity at county and national levels in engagement with target beneficiaries to address concerns and issues raised as well as to reflect these in the revisions of relevant management plans; and v) specific third-party monitoring to ensure transparency and feedback on these activities—this includes a sample-based process survey administered by a third party and an engagement forum with the target beneficiaries. Through focused discussions on the results of the survey, a feedback loop will be created. The protocol and mechanisms for elements of this citizen engagement framework is detailed in the PIM. The quality of its implementation and progress will be monitored both at county and national level through supervision and dialogue.

116. A communications strategy will be prepared and implemented through the Project life. A project specific Grievance Redress Mechanism supports traditional/cultural governance structures and beneficiaries, and other stakeholders will be informed on the procedures, documenting of grievances, timeline for response, etc. Bi-annual project progress reports submitted to the Bank will be required to report on the implementation of the GRM and citizen engagement.

117. **Other Safeguards.** In addition, the Project has triggered the World Bank's policy on Projects in Disputed Areas (OP/BP 7.60). Kenya and Somalia are in dispute over the delimitation of maritime spaces claimed by both states in the Indian Ocean. Kenya claims the maritime boundary as being parallel to the line of latitude, whereas Somalia is of the view that the boundary should extend to the southeast as an extension of the land border. As required by OP 7.60, the GoK sent a letter to Somalia, on September 6, 2018, informing of the proposed Project, its objective and scope, and requesting Somalia's no objection to carrying out the Project. Somalia responded on October 31, 2018, by referring to the pending proceedings before the International Court of Justice (ICJ) and suggesting that neither party should conduct any activities, including those associated with the Project, in any area that is under dispute, until the ICJ renders its judgement. In view of the continued dispute and Somalia's response to the notification of the Project, the Project has been redesigned to ensure relevant activities exclude interventions in the area under dispute. Specific interventions that were redesigned include i) activities targeted at collecting fisheries catch and effort data; ii) strengthening of surveillance and enforcement capacity; iii) implementation of activities targeting emerging fisheries; and iv) implementation of Kenya's national monitoring, control, and surveillance strategy including surveillance patrols and preparation of action plans. In line with paragraph 3(b)(ii) of OP 7.60, the Project documentation bears a disclaimer stating that, by supporting the Project, the Bank does not intend to make a judgment on the legal or other status of the territories concerned or to prejudice the final determination of the parties' claims. At the same time, it is expected that the two countries continue working together at the technical level toward finding a solution that may include implementing the Project in the disputed area, despite the ongoing process at the ICJ. If, at some point in the future, an agreement was to be found, the Project will be restructured to include the disputed area.

118. The OP/BP 7.50 on Projects in International Waterways will not be triggered by project activities. OP/BP 4.03 (World Bank Performance Standards for Private Sector Activities) is not applicable to the Project, as it is not expected that any of the activities would qualify as private sector activities, based on the criteria set forth by the policy: i) an activity is designed, constructed, operated and/or owned, by a Private Entity, is productive and is necessary to meet the development objectives of the member country in which it is implemented; ii) the Private Entity is fully responsible for identifying, assessing and managing the environmental and social risks associated with the activity; and iii) the Private Entity has a generally recognized capacity to identify, assess and manage the environmental and social risks associated with the activity.

(iii) Grievance Redress Mechanisms

119. Communities and individuals who believe that they are adversely affected by a World Bank supported project may submit complaints to existing project-level grievance redress mechanisms or the World Bank's Grievance Redress Service (GRS). The GRS ensures that complaints received are promptly reviewed in order to address project-related concerns. Project affected communities and individuals may submit their complaint to the World Bank's independent Inspection Panel which determines whether harm occurred, or could occur, as a result of World Bank non-compliance with its policies and procedures. Complaints may be submitted at any time after concerns have been brought directly to the World Bank's attention, and Bank Management has been given an opportunity to respond. For information on how to submit complaints to the World Bank's corporate GRS, please visit http://www.worldbank.org/en/projects-operations/products-and-services/grievance-redress-service. For information on how to submit complaints to the World Bank Inspection Panel, please visit www.inspectionpanel.org.

V. KEY RISKS

120. The overall risk is rated substantial.

(a) **Political and Governance – Substantial.** While the political environment has stabilized following a prolonged election period in 2017, challenges associated with the ongoing devolution and interface between national and county governments remain and have a substantial likelihood of adversely affecting the PDO. Challenges include those associated with transfer of responsibility, decision-making, resources and revenue generation, service delivery, among others. To mitigate this potential risk, the Project implementation structure is designed to include county representation and participation in the decision-making processes and in project implementation. County representation will be included in both the national level project steering committee and technical advisory committee. Another significant risk that the Project could face is potential Al Shabaab related terrorist attacks along coastal Kenya, especially affecting Lamu county bordering Somalia and the touristic coastal areas in Mombasa and Kilifi counties. These threats may also affect travel of Bank team to the coastal counties during project implementation. These risks will be mitigated by identifying and using appropriate communication and implementation support methods including possible third-party monitoring and support.

(b) **Technical Design of Project – Substantial.** The Project has been designed with input from several technical and feasibility studies carried out under a PPA for the Project, and lessons learned from other Bank-financed fisheries projects. The components and sub-components are designed to target Kenya's specific needs, and at the same time aligning them with similar fisheries projects in the region and ensuring that they result in Kenya's compliance with its international obligations. The Project design has also considered the devolved nature of the sector, and integrated good practice measures based on comparable projects (water, agriculture). However, for successful implementation of the Project, collaboration between various levels of the government is needed, especially in view of devolved functions. To address this foreseen risk, all Bank-GoK meetings throughout project preparation stage included county representation; meetings were held with county executive committee members (CECMs) (responsible for fisheries and agriculture sectors), chief officers and fisheries directors at the coast during all Bank missions to obtain their buy-in through project design and preparation stages, and to keep them updated on preparation progress. This systematic and substantial upstream engagement that was carried out and concerns reflected in project design, are expected to mitigate or minimize any potential issues during project implementation.

(c) **Institutional Capacity for Implementation – High.** There is a high likelihood that weak institutional capacity for implementing and sustaining the operation may adversely affect the PDO. While the previous State Department of Fisheries had experience in working with the Bank under the KCDP, the recently created SDFA&BE has limited experience in implementing Bank-financed projects. The NPCU that will be housed within SDFA&BE will need to include diverse technical expertise of seconded staff or consultants. Both the national government and the participating coastal counties which will play a key role in implementing the Project, have limited technical, fiduciary and administrative capacity. This, combined with the ongoing challenges resulting from transitioning to a decentralized governance framework, puts the Project at a high risk in terms of institutional capacity. As a mitigation, project design includes substantive capacity building and training for stakeholders both at national and county levels—technical and fiduciary. Capacity building will continue through the Project life as needed to enable these institutions to effectively undertake their tasks. If found necessary, the Project will also support GoK staff in taking short, technical training courses that will strengthen their individual and professional capability and benefit the Project. Mitigation measures will include close monitoring of project implementation by the Bank through continuous support and mentoring where needed.

(d) **Fiduciary – Substantial.** The GoK is committed toward establishing new mechanisms to prevent, investigate and prosecute corrupt practices, in compliance with the United National Convention against Corruption. Meanwhile, there is a continued risk that fraud and corruption could potentially affect fiduciary compliance with Bank policies. While the FM and procurement assessments confirmed that both MoALF and the SDFA&BE have adequate capacity to manage the Project, the procurement assessment noted systemic and institutional constraints and weaknesses at the county-level, comprising of inadequate staff capacity, poor organization of the procurement function, lack of conducive working environment, lack of experience in the implementation of Bank-financed operations including the use of STEP, weak contract management and procurement records management systems, limited supplier market capacity, and lack of adequate procurement oversight. A strong fiduciary governance framework has been put in place and clearly stipulated in the PIM, which will be reviewed periodically to enable continuous strengthening. In addition to targeted training, the risk will be mitigated by the Project recruiting procurement and FM consultants to support the fiduciary teams in their tasks.

(e) **Environment and Social – Substantial.** Environmental risks: SDFA&BE has some experience, while the coastal county governments have limited experience in applying the Bank's environmental safeguard policies. While the Project is expected to primarily yield significant positive environmental and social benefits, some project activities such as new construction and infrastructure upgrading could pose temporary negative impacts. Given that the nature of the activities including their design and location are not finalized during preparation, the Project follows a framework approach to managing safeguards. During implementation, as the designs of individual investments are prepared, sub-project specific ESIAs and ESMPs will be developed, consulted upon and disclosed prior to commencement. The NPCU and the five CPIUs will include environment and social safeguards specialists to oversee implementation of Bank safeguards-related management plans. With regards to potential impacts of climate change, all infrastructure works (new construction and/or rehabilitation) will be screened for disaster and climate risk while construction designs will be required to be climate-resilient following best practices beyond prevailing standards.

Social risks: The Project followed a framework approach, various stakeholders were consulted, and social safeguards instruments are prepared including RPF, PF and VMGF. In addition, building on the experience of several Bank projects (KCDP, Regional Pastoral Livelihoods Resilience Project/RPLRP/P129408, KCSAP, NARIG), a social assessment (SA) was carried out that informed the preparation of a VMGF which has addressed potential impacts on VMGs during implementation. Since promotion of sustainable fisheries management could potentially restrict temporary access to fish resources, the PF outlines measures to address impacts on affected persons to improve, or at least maintain their livelihoods, while also preserving the sustainability of the natural resource. Project design has considered the role of women, youth, and VMGs, and the SA has informed the design and will also guide project implementation.

The Project launch will include a workshop on the Bank's safeguard policies and during implementation, the Bank will provide refresher training as needed to national and county staff and bring awareness to coastal communities on good practice environmental and social safeguards measures. A Grievance Redress Mechanism has been prepared, which will be applied for any persons affected by the Project.

(f) **Stakeholders – Substantial.** Opposition from stakeholders could have a negative impact on the achievement of the PDO. Weak governance, particularly evident in the current open-access nature of most nearshore fisheries, has led to overexploitation of some fisheries and resource degradation. Where fishing effort may need to be managed to promote medium-term recovery of fish stocks, the livelihoods of fishing households and others that are closely connected to the artisanal fisheries economy may be affected. To mitigate these and other similar risks, the Project has had extensive and meaningful stakeholder consultations during the preparation stage, and during the preparation of the environmental and social safeguards reports. The Project will provide grants for livelihood sub-projects to coastal communities (fishers and farmers), women, youth and VMGs through extensionists. County extensionists and field officers will assist in preparing grant applications and sub-project proposals. The Project will continue to i) closely engage with relevant stakeholders, most prominently fishing communities, including investing resources in communications activities to ensure high levels of stakeholder awareness; ii) seek and incorporate citizen feedback throughout project implementation (citizen engagement strategy will be implemented); iii) adopt a strong participatory approach to fisheries co-management to ensure that all management measures are discussed and adopted by consensus; and iv) accompany the promotion of sustainable fisheries management with grant support, technical assistance and capacity building for complementary livelihoods, in particular targeting households in coastal fishing communities.

VI. RESULTS FRAMEWORK AND MONITORING

Results Framework
COUNTRY: Kenya
Marine Fisheries and Socio-Economic Development Project

Project Development Objectives(s)

The Project Development Objective is to improve management of priority fisheries and mariculture and increase access to complementary livelihood activities in coastal communities.

Project Development Objective Indicators

Indicator Name	DLI	Baseline	End Target
Improve management of priority fisheries			
Fisheries management plans implemented (CRI, Number)		0.00	2.00
Proportion of nearshore waters under improved management (Percentage)		0.00	45.00
Improve management of mariculture			
Annual production in mariculture by small-scale producers supported by the project (Metric ton)		37.00	300.00
Seaweed (Metric ton)		30.00	200.00
Non-seaweed (Metric ton)		7.00	100.00
Strengthen access to complementary livelihood activities in coastal communities			
Beneficiaries in targeted coastal communities with access to complementary livelihood activities (Number)		0.00	217,000.00

Indicator Name	DLI	Baseline	End Target
Beneficiaries in targeted coastal communities with access to cmplementary livelihood activities/women (Number)		0.00	108,500.00
Share of target beneficiaries with rating 'Satisfied' or above on project interventions (Percentage)		0.00	65.00
Share of target beneficiaries with rating 'Satisfied' or above on project interventions/women (Percentage)		0.00	65.00

Intermediate Results Indicators by Components

Indicator Name	DLI	Baseline	End Target
Component 1: Governance and Management of Marine Fisheries			
Policies, regulations and national plans of action (NPOAs) for fisheries and mariculture completed and submitted to Cabinet (Number)		0.00	7.00
Score on Fishery Information and Monitoring System (Number)		0.00	3.00
BMUs achieving a minimum of 4 performance targets (Number)		0.00	42.00
Operational surveillance activities in Kenyan marine fisheries (Number)		0.00	20.00
Score on Marine Spatial Planning (Number)		0.00	9.00
Priority fisheries for which Bench Marking Tool (BMT) exercise has been undertaken (Number)		0.00	6.00
Component 2: Coastal Community Empowerment and Livelihoods			
Grants delivered to members of Common Interest Group (CIG) (Number)		0.00	22,000.00

Indicator Name	DLI	Baseline	End Target
Grants delivered to members of Common Interest Group (CIG)/women (Number)		0.00	11,000.00
Improvement in basic social infrastructure to benefit coastal households (Number)		0.00	160.00
Beneficiaries with access to livelihood-related training and/or technical assistance supported by the project (Number)		0.00	90,000.00
Beneficiaries with access to livelihood-related training and/or technical assistance supported by the project/women (Number)		0.00	22,000.00

Monitoring & Evaluation Plan: PDO Indicators

Indicator Name	Definition/Description	Frequency	Datasource	Methodology for Data Collection	Responsibility for Data Collection
Fisheries management plans implemented	This indicator measures the number of fisheries management plans that have been implemented through operations supported by the World Bank. This indicator relates to the actual application and enforcement of measures to control fishing in a determined geographic area. Fishing units accessing the fisheries are identifiable (registered, marked, possibly licensed), and management measures (such as gear and spatial or period restrictions) are applied and enforced (as demonstrated by a minimum rate of control of the target fleet each year, and prosecution of identified	Annual	Annual reports from SDFA&BE	Review of annual reports from SDFA&BE	NPCU M&E function

	delinquents).				
Proportion of nearshore waters under improved management	The indicator is measured as the area (km2) within the JCMAs developed and supported by the project, as a % of all nearshore waters. Total area under nearshore waters is (including territorial seas to 12nm) is 10,860 Km2. 'Improved management' to be assessed against three criteria where all three must be met: 1) JCMA plan prepared and approved by national and county authorities; 2) 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 3) BMU surveillance reports indicate a stable or improving trend in non-compliance per patrol effort. Cumulative targets.	Annual	New and revised JCMA management plans and BMU surveillance reports	Review of new and revised JCMA management plans and BMU surveillance reports	NPCU and CPIU M&E function
Annual production in mariculture by small-scale producers supported by the project	The indicator measures the total annual mariculture production that is attributable to project interventions, particularly the development of the NAMARET. Production of seaweed will be measured in dry weight while the other species will be measured in fresh weight. Baseline is 2018 mass as per GoK estimates of 37 metric tons: of which seaweed (30 metric tons) and non-seaweed:	Annual	Tracking survey	Tracking survey	NPCU M&E function

	milkfish (2.6 metric tons); prawn (1.2 metric tons); mud crabs (2 metric tons); marine tilapia (1 metric ton). Annual targets.				
Seaweed	The indicator measures the total annual mariculture production that is attributable to project interventions, particularly the development of the NAMARET. Production of seaweed will be measured in dry weight while the other species will be measured in fresh weight. Baseline is 2018 mass as per GoK estimates of 37 metric tons: of which seaweed (30 metric tons) and non-seaweed: milkfish (2.6 metric tons); prawn (1.2 metric tons); mud crabs (2 metric tons); marine tilapia (1 metric ton). Annual targets.	Annual	Tracking survey	Tracking survey	NPCU M&E function
Non-seaweed	The indicator measures the total annual mariculture production that is attributable to project interventions, particularly the development of the NAMARET. Production of seaweed will be measured in dry weight while the other species will be measured in fresh weight. Baseline is 2018 mass as per GoK estimates of 37 metric tons: of which seaweed (30 metric tons) and non-seaweed: milkfish (2.6 metric tons); prawn (1.2 metric tons); mud crabs (2 metric tons); marine tilapia (1 metric ton). Annual targets.	Annual	Tracking survey	Tracking survey	NPCU M&E function

Beneficiaries in targeted coastal communities with access to complementary livelihood activities	This indicator measures the number of persons who have benefitted from any of the following activities under Component 2: 1) productive grants; 2) social and environmental grants; and 3) educational scholarship. Women are targeted to represent 50% of the total number of beneficiaries in each of the three groups. These activities are expected to reduce the beneficiaries' and their households' current socio-economic vulnerability by diversifying livelihood activities and increasing the productivity of natural resources. Beneficiaries of this activity are defined as members of individual households engaged in project activities. According to the most recent census, there is on average six members in a household in coastal communities. Cumulative Targets.	Annual	Grants applicatio n and approvals; and training providers' reports.	Review of grants application and approvals; training providers' reports.	NPCU M&E function
Beneficiaries in targeted coastal communities with access to cmplementary livelihood activities/women	This indicator measures the number of persons who have benefitted from any of the following activities under Component 2: 1) productive grants; 2) social and environmental grants; and 3) educational scholarship. Women are targeted to represent 50% of the total number of beneficiaries in each of the three groups. These activities are expected to reduce the beneficiaries' and their households' current socio-economic vulnerability by diversifying livelihood	Annual	Grants applicatio n and approvals; training providers' reports	Review of grants application and approvals; training providers' reports	NPCU M&E function

	activities and increasing the productivity of natural resources. Beneficiaries of this activity are defined as members of individual households engaged in project activities. According to the most recent census, there is on average six members in a household in coastal communities. Cumulative Targets.				
Share of target beneficiaries with rating 'Satisfied' or above on project interventions	This indicator estimates demand-side social accountability through engagement with project beneficiaries and extent to which project activities and outcomes are meeting beneficiaries' demands. This is based on perception survey administered on a representative sample to representative beneficiaries including VMG and focus on fisheries and aquaculture management and livelihoods diversification. Survey results will be disaggregated by sex. Citizen engagement indicator. Annual targets.	Biennial	Field survey	Field survey	NPCU M&E function
Share of target beneficiaries with rating 'Satisfied' or above on project interventions/women	This indicator estimates demand-side social accountability through engagement with project beneficiaries and extent to which project activities and outcomes are meeting beneficiaries' demands. This is based on perception survey administered on a representative sample to representative beneficiaries including VMG and focus on fisheries and aquaculture management and livelihoods	Biennial	Field survey	Review of field survey	NPCU M&E function

	diversification. Survey results will be disaggregated by sex. Citizen engagement indicator. Annual targets.				

Monitoring & Evaluation Plan: Intermediate Results Indicators					
Indicator Name	**Definition/Description**	**Frequency**	**Datasource**	**Methodology for Data Collection**	**Responsibility for Data Collection**
Policies, regulations and national plans of action (NPOAs) for fisheries and mariculture completed and submitted to Cabinet	Policies, regulations and national plans of action (NPOAs) for fisheries and mariculture include: 1) National fisheries policy; 2) BMU regulations; 3) aquaculture policy; 4) Blue Capital Offset policy; 5) NPOA for sharks; 6) NPOA for IUU; and 7) NPOA for seabirds and turtles Cumulative targets.	Annual	Policies, regulation and NPOAs	Review of policies, regulation and NPOAs	NPCU M&E function
Score on Fishery Information and Monitoring System	The indicator measures whether the FIMS is established and operational based on a scoring system: 1) at least 80% of the monthly target number of catch records per year, and verified to have been entered into the database; 2) the most recent frame survey or BMU effort data is verified to have been entered into the database; and 3) extrapolated catch estimates and other dashboard analyses are generated automatically and can be accessed on monitors nationally at KeFS and in all of the five County fisheries departments by project completion.	Annual	Number of catch entries and entry dates	Review of number of catch entries and entry dates	NPCU M&E function

	Cumulative targets				
BMUs achieving a minimum of 4 performance targets	The indicator measures the number of BMUs, out of approx. 84 along the KE coast, achieving at least 4 annual performance targets: 1) at least 6 out of 12 monthly meetings of BMU Executive Committee are conducted and minutes submitted to, and available at, county fisheries department; 2) at least 2 BMU members' assembly meetings conducted and minutes submitted to, and available at, county fisheries department; 3) BMU has an annually updated register of fishers and vessels, with at least 75% of fishers having licenses; 4) members of BMU monitoring, control and surveillance (MCS) sub-committee participate in at least one patrol, in at least 6 out of 12 months; 5) at least 65% of annual required budget is received in revenue for the previous calendar year; and 6) BMU has collected and submitted at least 80% of the target number of catch records for catch monitoring in at least 10 out of 12 months. Cumulative targets.	Annual	Field survey	Field survey	NPCU M&E function
Operational surveillance activities in Kenyan marine fisheries	Number of fisheries surveillance activities undertaken per annum as a measure of the functionality of the MCS strategy including: 1) air patrols; 2) offshore sea patrols; 3) nearshore sea patrols; 4) VMS system reporting; 5) joint MCS operations with navy/county/regional; and, 6) no. of vessels inspected under port state measures (PSM).	Annual	Log books, MCS reports on patrols, vessels on VMS system	Review of log books, MCS reports on patrols, vessels on VMS system	NPCU M&E function

	An increase in the number of MCS activities per annum reflects the cohesion of the MCS system and integration of the MCS strategy elements Cumulative targets.				
Score on Marine Spatial Planning	The indicator measures the state of MSP using a scoring system based on number of key interventions completed: 1) Multi agency steering committee formed; 2) Framework for MSP implementation prepared; 3) SEA completed; 4) comprehensive data capture/procurement program developed; 5) data needs assessment completed; 6) national level marine spatial clearing mechanism established; 7) data collection gaps filled 8) MSP at EEZ level completed and submitted; and 9) MSP at nearshore level developed with zoning maps and JCMAs integrated. Cumulative targets.	Annual	MSPs, minutes of steering committee meetings and national clearing mechanism	Review of MSPs, minutes of steering committee meetings and national clearing mechanism	NPCU M&E function
Priority fisheries for which Bench Marking Tool (BMT) exercise has been undertaken	The indicator captures the annual implementation of the identified priority fisheries (including octopus, snapper, basket trap, shallow water prawn, small-scale tune line, and small-scale purse seine) through the BMT. Aggregate performance for all priority fishery increases by approximately 10% per year from baseline and is at least 50% for all fisheries by end-project: 1) octopus (baseline: 0.33; end-target: 0.85); 2) snapper (baseline: 0.17; end-target: 0.85); 3) basket trap (baseline: 0.46; end-target: 0.83); 4) shallow water prawn (baseline: 0.43; end-target: 0.88); 5) small-scale tuna line (baseline: 0.31; end-target: 0.89); and 6)	Annual	Annual BMT exercise report (excel file)	Review of annual BMT exercise report (excel file)	NPCU M&E function

	small-scale purse seine (baseline: 0.32; end-target: 0.82). Annual targets.				
Grants delivered to members of Common Interest Group (CIG)	This indicator captures the access to improved overall livelihood conditions of eligible poor fisher and smallholder farmer households through implementation of subprojects aimed at supporting productive, and environmental and social interventions. Cumulative targets.	Annual	Project and activity records	Review project and activity records	NPCU and CPIUs M&E function
Grants delivered to members of Common Interest Group (CIG)/women	This indicator captures the access to improved overall livelihood conditions of eligible poor fisher and smallholder farmer households through implementation of subprojects aimed at supporting productive, and environmental and social interventions. Cumulative targets.	Annual	Project and activity records	Review of project and activity records	NPCU and CPIUs M&E function
Improvement in basic social infrastructure to benefit coastal households	This indicator measures the number of basic social infrastructure supported under the project in coastal sub-counties, to benefit coastal households. Social basic infrastructure is defined as improved schools, health posts, boardwalks, public toilets, community halls, etc. Cumulative targets.	Annual	Project and activity records	Review of project and activity records	NPCU and CPIU M&E function
Beneficiaries with access to livelihood-related training and/or technical assistance	This indicator will quantify the number of eligible beneficiaries participating in training events and/or receiving technical assistance provided in the context of the different phases of the subproject	Annual	Project and activity records	Review project and activity records	NPCU and CPIUs M&E function

supported by the project	cycle, as well as to ensure adequate utilization of investments received from the project. Gender Indicator. Cumulative targets.				
Beneficiaries with access to livelihood-related training and/or technical assistance supported by the project/women	This indicator will quantify the number of eligible beneficiaries participating in training events and/or receiving technical assistance provided in the context of the different phases of the subproject cycle, as well as to ensure adequate utilization of investments received from the project Gender Indicator. Cumulative targets.	Annual	Project and activity records	Review project and activity records	NPCU and CPIUs M&E function

ANNEX 1: Implementation Arrangements and Support Plan

COUNTRY: Kenya
Marine Fisheries and Socio-Economic Development Project

Strategy and Approach

1. The strategy and approach for implementation support will focus on assessing progress toward achieving the PDO and overall implementation progress, and on effectively responding to issues and challenges as they arise. By placing emphasis on mitigating the risks identified at various levels, the approach for implementation support will include formal implementation support missions, including field visits to the areas where project activities will be carried out, and ad-hoc support through technical discussions and visits.[47] Specifically, this will include: i) semi-annual[48] implementation support missions to be carried out in coordination with other relevant development partners; ii) a mid-term review that will include a comprehensive assessment of the progress achieved approximately three years into project implementation, and serves as a platform for addressing any issues associated with the Project design including identification of needed adjustments; and iii) implementation completion, where an independent assessment of the Project will be undertaken to draw lessons to inform future or similar operations. The strategy, as articulated above, will include a concerted plan of technical, fiduciary, and safeguards support needed to ensure due diligence over the course of project implementation.

2. Technical support: At the technical level, the Bank has assembled the appropriate skill mix from various Global Practices, including consultants, who have the experience needed to support effective project implementation.

3. Financial management: FM reviews will be regularly conducted by the Bank's FM specialist to ensure that fiduciary capacity and systems remain in accordance with the Bank's fiduciary requirements. The Bank requires that quarterly IFRs be submitted to the Bank together with annual external audit reports for review. The government's internal control, oversight, and reporting systems will be reviewed periodically, including through annual, unannounced project-site visits. Required actions that result from audit reviews, external audit reports, management letters, internal audits, and other reports, will be followed-up on. FM capacity will be strengthened on a regular basis, with additional training to be carried out during project implementation as needed.

4. Procurement: The PPSD will be updated as needed and represent the basis for the Bank's procurement implementation support. The Bank's electronic Procurement Planning and Monitoring System (STEP) will be used to implement and update the procurement plan. Procurement capacity will be strengthened on a regular basis, with additional training to be carried out during project implementation as needed.

5. Environmental and social safeguards: The Bank's safeguards team will consist of an environmental and social safeguards specialist who will guide the Project team in applying the Project's safeguards instruments and reviewing compliance during implementation support missions.

[47] This Annex reflects the World Bank Task Team's estimated support to the Project.
[48] In addition, more frequent and smaller 'in-between' technical missions will be undertaken with a specific focus on implementation support to component 2, on both fiduciary and technical aspects.

Table 1.1: Estimated Implementation Support Plan and Resource/Effort Requirements

Time	Focus	Skills needed	Resource Estimate and Source
First twelve months	Operational: project effectiveness, project launch and mobilization of implementation arrangements (e.g., operationalizing NPCU and CPIUs), M&E system in place	Task Team Leader (TTL), and co-TTL, M&E specialist, legal specialist, and administrative support	• 20 SWs (US$ 200,000 BB) * • 20 SWs (FAO TCIA)
	Technical: technical support during procurement processes (e.g., preparing TOR, reviewing RFPs), and starting project activities	Marine fisheries management specialist, fisheries co-management specialist, institutional and community development specialist, aquaculture /mariculture specialist, and structural engineer	
	Procurement: Building procurement capacity and implementation support	Procurement specialist	• 6 SWs (procurement)
	FM: Building FM capacity and implementation support	FM specialist, disbursement officer	• 6 SWs (FM)
	Environmental and social safeguards: Building safeguards capacity and supervision	Environmental safeguards specialist, and social safeguards specialist	• 10 SWs (4 environmental safeguards and 6 social safeguards)
Annually, thereafter, for 12-60 months	Operational: project implementation support, mid-term review	TTL and co-TTL, M&E specialist, legal specialist, and administrative support	• 20 SWs (US$ 200,000 BB) • 20 SWs (FAO TCIA)
	Technical: technical supervision and implementation support	Marine fisheries management specialist, fisheries co-management specialist, institutional and community development specialist, aquaculture /mariculture specialist, and structural engineer	
	Procurement: Building procurement capacity and implementation support	Procurement specialist	• 6 SWs (procurement)
	FM: Building FM capacity and implementation support	FM specialist, disbursement officer	• 6 SWs (FM)
	Environmental and social safeguards: Building safeguards capacity and implementation support	Environmental safeguards specialist, and social safeguards specialist	• 10 SWs (4 environmental and 6 social safeguards)

**Note*: SW = Staff Week; BB = Bank Budget

Annex 1: Economic Analysis

COUNTRY: Kenya
Kenya Marine Fisheries and Socio-Economic Development Project (KEMFSED)

1. Effective fisheries management requires wide-ranging activities to be pursued simultaneously, and accordingly, the Project is designed as having a wide scope. The technical design and approach align with Kenya's Big Four agenda, meets the principles of the 'devolved' fisheries sector, supports Kenya in conforming with its international obligations, and is expected to bring important benefits to the coastal communities. Kenya's marine fisheries are mostly artisanal and subsistence in nature. It is estimated that approximately 80 percent of the total marine products come from coastal waters and reefs, while 20 percent is from offshore fishing. The artisanal sector is characterized by small crafts propelled by sail, outboard motors, and paddles. In 2016, artisanal marine fisheries production stood at about 24,000 metric tons, with demersals and pelagics dominating total landings (i.e., 41 and 39 percent, respectively).[49] Of the five coastal counties, Kilifi contributed the highest quantity of marine artisanal landings (12,211 metric tons, or 51 percent of total landings).[50] In comparison, total fish production in Kenya (including inland capture, marine capture, and aquaculture) amounted to about 150,000 metric tons, [51] with a market value of about US$240,000 million. The sector's contribution to the national economy is much larger when the full value chain is considered.

2. A key non-quantifiable benefit of the sector is the preservation of culture and national heritage related industries such as tourism, handicrafts and recreation. The Project objective is to improve management of priority fisheries and mariculture and strengthen access to complementary livelihood activities in coastal communities. Specifically, the Project seeks to achieve among others: i) sustainability and management of priority fish stocks, ii) increase in the sector's long-term value, iii) increase in the sector's macroeconomic contributions, iv) ease in the cost of doing business by constructing a headquarters building for all fisheries entities, v) improvements of county fisheries buildings, fisheries infrastructure and BMU offices, vi) construction of a mariculture research hatchery and training center, and vii) improvements of the wellbeing of coastal communities by providing access to grants for productive initiatives, and scholarships to youth.

3. **Bank's value added**: In addition to the rationale for World Bank involvement as outlined in Section II.E., the Bank is well positioned to assist the GoK in implementing the Project. The Bank has the unique capacity to assist Kenya with successful transition to a sustainable blue economy by mitigating potential risks through public project financing, while effectively addressing critical concerns faced by the private sector. As a neutral third party, the Bank is well-placed to facilitate the sector's devolution through the Project, which includes functions for both levels of government—national and county, to improve the governance framework for the marine fisheries and the blue economy thereby resulting in benefits to the coastal communities. The GoK will be provided with much needed public capital for the stimulation of sustainable marine fisheries and mariculture, particularly where private sector interest is low given the multifaceted risk facing the industry associated with issues related to sustainable availability and stability of fish stocks and the governance of fish resources. The Project aims at addressing these risks and inducing confidence and interest among private actors

[49] Production from artisanal marine fisheries was constant at about 9,000 metric tons, annually; in 2014, SDFA&BE introduced a new catch data collection methodology, which showed that catch data had been underreported. As a result, production from artisanal marine fisheries was recorded at about 23,000 metric tons, 22,000 metric tons, and 24,000 metric tons, in 2014, 2015, and 2016, respectively.

[50] Kwale county contributed 5,011 metric tons (or 21 percent of total landings), followed by Lamu county with 4,666 metric tons (or 19 percent), Mombasa with 1,726 metric tons (or 7 percent), and Tana River with 552 metric tons (or 2 percent).

[51] Ministry of Agriculture, Livestock, Fisheries, and Irrigation Kenya (2016). *Fisheries Annual Statistical Bulletin 2016*. State Department for Fisheries and the Blue Economy

through strengthening sector governance, capacity development, improving knowledge (science) of fish resources and supporting the development of key related infrastructure.

4. **Project's development impact**: The Project design includes a focus on improved governance, regulations and capacity management, wider community participation in co-management of the resource and support to critical public infrastructure to enable private sector interest, to result in better management of the sector. The scope of the Project is quite wide by design, primarily because effective fisheries management requires a wide range of activities to be pursued simultaneously, and a combination of these activities will allow the Project to achieve the PDO and result in a development impact. This will lead to, among other things: (i) restoration and maintenance of priority fish stocks, (ii) improvements in the seafood value chain, (iii) increase in the sector's long-term value and macroeconomic contributions, and (iv) improvements of the wellbeing of coastal communities. Therefore, the wide scope of the Project design ensures the delivery of intended results and allows it to address the assumptions that may otherwise impact the achievement of intended outcomes as identified in the Project's theory of change.

5. **Public sector financing as the appropriate vehicle**: The rationale for public financing of the Project is strong as it will include activities to support enabling conditions for effective fisheries management; construct a headquarters building to house all fisheries related entities under one roof leading to ease in cost of doing business, and a much-needed marine research hatchery and training center (ref. component 1); and enable private interest (ref. component 2) by providing basic services and fisheries-related infrastructure e.g., electricity, water supply, upgrading fish landing sites along the coast. It is well known that these goods and services with a public-good nature tend to be undersupplied if their provision is left entirely to the private sector. Based on findings during project preparation and lessons from comparable Bank-financed and other projects, project design includes aspects to ensure effective and appropriate use of public funds, including, for example, empowering coastal beneficiaries in undertaking complementary activities (including women, youth and VMG), thereby minimizing or eliminating their dependency on public support, among others.

6. **Non-quantifiable benefits from Governance and Management of Marine Fisheries.** Improved sector governance will lead to better management of the renewable marine resource, which will allow for the rebuilding of overexploited stocks and longer-term sustainability. This in turn will lead to a stable supply of fish resulting in higher incomes of coastal communities, increased uptake by processors and value-addition, and opening new domestic and global markets. Like other Bank projects in the sector, the Project design provides a series of qualitative benefits associated with activities under components 1 and 2 including:

(a) Strengthening of fisheries policy and related legislation, particularly regulations and bylaws related to bottom-up management at the BMU level, while building synergies with the broader Blue Economy policy framework as identified through Marine Spatial Planning (MSP), will strengthen fisheries management. Improved management is a key factor in ensuring sustainability of marine fisheries while deriving the most benefit from these resources. The development of an efficient FIMS will facilitate access to information for effective fishery management and ensure effective decision-making, provision of fishery-related management advice, specifically the formalization of scientific and management working groups for the main fisheries in Kenyan waters. The provision of data on country catch performance will enable Kenya to fulfill its commitments to the IOTC.

(b) Improved management of near shore fisheries through co-management of artisanal fisheries at the county level (including BMUs and other stakeholders) is expected to improve fish stocks, which would be undertaken at a minimum for the following fisheries: lobster; shrimp; aquarium fish; large pelagic (tuna); demersal reef; octopus and small pelagic. These fisheries have been identified by Kenyan scientists as good candidates for 'indicator species' stock monitoring,[52] which play a vital role in the national economy as substantial export resource and foreign exchange earners.

(c) Improved MCS will result in reduced IUU fishing, which would in turn reduce 'leakages' in the economy. To the extent that IUU fishing contributes to biological overfishing, reduction of IUU fishing would contribute to an improvement in the status of fish stocks. Implementation of a regional approach to minimum terms and conditions will harmonize licensing of foreign vessels, optimize income from license fees and help realize the true economic benefit of the offshore marine resources to Kenya.

(d) Effective management of the fisheries sector requires supporting infrastructure (working environment for personnel) for increased efficiency and productivity at both national and county levels, including provision of accessible and timely fisheries-related administrative and management services to all stakeholders. Construction of a fisheries headquarters building to house all fisheries-related entities, and the upgrading of select county fisheries and BMU office buildings, will be supported.

(e) The Project will also construct a research marine hatchery and a training center, as Kenya lacks the expertise and technology to capitalize on their mariculture potential. These interventions under the Project are crucial, as they will enhance national capacity in mariculture that will result in long-term economic and social benefits to the fisheries sector and coastal communities including income generation. Globally, mariculture production has increased, with FAO reporting that wild-caught marine resources are either at optimal levels or declining. Fish farming production is now estimated at approximately 50 percent of wild caught production and is increasing exponentially.

(f) Investment in basic public infrastructure, i.e., construction and rehabilitation of fisheries-related infrastructure in several sites including upgrading of landing sites; and, provision of basic public services to benefit the sector for example water supply and electricity which has the advantage of reducing physical post-harvest losses resulting in an increase on consumable fish. Secondly, improvement of fish product quality reduces the risk and incidence of food-born illness. The investment in such infrastructure provides the opportunity to gradually reduce the foreign presence with domestic capacity in fishing, landing, and processing. In addition, the Project will upgrade and/or renovate select BMU offices and this help in undertaking their tasks in an improved physical workplace and environment, such as M&E and reporting.

7. **Quantifiable benefits.** The benefits associated with the Project can largely be categorized as i) job creation, ii) strengthening of livelihoods, and iii) enabling private sector interest in the fisheries sub-sector. Ex ante economic and financial analyses of projects with several components that include governance and management, investments, and community livelihood improvement tend to have diverse project outcomes, which are not easy to capture, especially assessing the attribution of each activity to outcomes. However, quantitative information on potential benefits has been drawn from similar projects as well as field interviews with potential Project partners. Quantifiable benefits of Components 1 and 2 are discussed below:

(a) **Governance and Management of Marine Fisheries.** Activities to be undertaken under this component are expected to reduce under performance and boost fish stocks by increasing yields through stock rebuilding aiming towards MSY. Improved governance reduces overfishing and influences profits, for example, larger fish of better quality are caught which fetch higher per-weight prices and catching better quality fish enhances potential profit

[52] Review of the State of Stocks of Priority Fisheries in Kenya to inform Infrastructure and Value Addition. KEMFSED Feasibility Study Report. 2018.

for individual fishers. Table below presents the results of a cost benefit analysis[53] carried out for three distinct management treatments: Kenyatta beach (most intensively managed and adjacent to a 6 km2 area that was closed to fishing); south coast (moderately managed and had six landing sites that were greater than 30 kms from an area that was closed to fishing); and north coast (which had three landing sites, no restrictions on gear, and sites which were 1-10 kms from an area that was closed to fishing). The area with the most management measures (Kenyatta beach) had a higher cost benefit ratio. Furthermore (according to McClanahan, 2010), per capita incomes were 41 percent and 135 percent higher for those who fished in gear-restricted areas and near closed areas, respectively, compared with those who fished in areas with no restrictions. This suggests that the strengthening governance and management component of the Project is important and likely to result in increased benefits to fishers in the short to medium term because of project intervention.

Table 2.1: Cost Benefit Analysis of Comparable Marine Fisheries Governance and Management

	Without Fisheries Governance and Management (WOP)			**With Fisheries Governance and Management (WP)**		
	Kenyatta	*South Coast*	*North Coast*	*Kenyatta*	*South Coast*	*North Coast*
Costs (US$/Km^2/year)	1,076	751	-	939	586	453
Revenue (US$/Km^2/year)	6,580	10,053	-	11,139	12,610	10,704
Cost/ Revenue (%)	16.4	7.5	-	8.4	4.6	4.2

Source: McClanahan, 2010

(b) **Coastal Community Empowerment and Livelihoods**. Strengthening of livelihoods in coastal communities through a combination of technical and financial support to target groups includes the provision of grants to support improved livelihoods in mariculture, fisheries, and non-fisheries related activities. The ICR of the KCDP project provides some indication on the anticipated return from similar activities.

(i) In addition to the support to groups of eligible fishers and farmers in the coastal sub-counties, the Project will support several strategic partnerships with private sector enterprises linked to out-grower schemes (in fisheries and farming sectors). The development of strategic partnerships with commercial enterprises applying contract-farming schemes to produce high-value crops with guaranteed markets is expected to provide further benefit new and existing smallholder producers or out-growers, who are directly or indirectly engaged in the fisheries sector. These interventions will bring additional benefits and income to coastal fishing and non-fishing communities as they will complement artisanal fishing with improved production of additional crops such as cassava, sorghum, poultry and dairy, as well as diversification into high value crops such as spices and other crops that provide input to the cosmetic industry and have guaranteed purchase and export markets (tea-tree, ylang-ylang). The activities with commercial enterprises will involve the adoption of appropriate practices including on-farm irrigation, intercropping to improve soil fertility; optimal spacing; clean, disease-tolerant varieties; integrated pest management; and an increase in compost and manure application. Research and development for improved soil management practices and optimal seed varieties will further lead to increase in yield for the four sample crops studied under this exercise.

(ii) The table below presents the financial analysis and results of complementary crops and livestock that would benefit the smallholder beneficiaries (fishers and farmers). In the 'without' project scenario, the average

[53] McClanahan, T., R., (2010). “Effects of Fisheries Closures and Gear Restrictions on Fishing Income in a Kenyan Coral Reef”. Conservation Biology, Volume 24, No. 6, 1519–1528.

cassava yield would be 1,400 kg/acre, which could increase to 4,000 kg/acre under a 'with' project scenario, implying a 186 percent increase. In terms of revenue gains, this could result in an increase in revenues for cassava from US$145 to US$513, representing a 253 percent increase. For sorghum, this would result in 100 percent increase in net revenues. For poultry, the 'with' project scenario would increase the production of poultry (eggs/hen) by 71 percent resulting in a revenue increase of US$100 instead of a loss of US$18. The increase in dairy milk production revenues would be 83 percent. Grant sub-projects under Component 2 expect to have at least 22,000 beneficiaries (smallholder farmers and fishers) engaging in complementary livelihoods activities (crab farming, crops, livestock, etc.).

Table 2.2: Financial Analysis of Select Complementary Livelihoods Activities

	Yields (kg/acre)			**Net revenue (USD) (Including family labor)**		
	Without Project	**With Project**	**Rate of Change**	**Without Project**	**With Project**	**Rate of Change**
Cassava	1,400	4,000	186%	145	513	253%
Sorghum	350	630	80%	128	257	100%
Poultry (eggs/hen)	560	960	71%	-18	100	668%
Dairy	5	8	60%	2,592	4,605	83%
*High value crops				1,616	2,101	30%

Source: KCSAP PAD 2017; *Based on key informant interviews

(iii) Assuming that the beneficiaries under component 2 (grants) of the Project will increase gradually from year 1 to the end of the Project when there will be approximately 22,000 target beneficiaries and a rate of return of 6 percent will be achieved, the cultivation of the crops cassava and sorghum, poultry and dairy under the 'with project scenario' has a net present value (NPV) of US$28.09 million with an EIRR of 37 percent. In a scenario where all the four sample crops are cultivated together with the high value crops, the NPV of the Project is US$37.96 million with an EIRR of 45 percent; this shows that the inclusion of the high value crops is highly beneficial and would increase the livelihoods of both smallholder farmers and fishermen.

8. **Environmental Benefits:** Effective management of marine resources through an ecosystem approach to fisheries and MSP will ensure the conservation of marine resources and sustaining the resilience of related ecosystems. The participation of communities in building natural resource capital such as mangrove planting, reduced pollution, improved solid waste management or establishment of no-take fishing zones will enhance environmental conservation and community ownership. The project has indirect benefits that promote sustainable landscape management practices through the activities that will be undertaken in component 2. The benefits associated with appropriate cropping practices by the smallholder farmers through partnerships will result in externalities that lead to soil conservation and restoration and maintenance of soil productivity as well as nutrient cycling. The farming activities have the potential for reducing greenhouse gas (GHG) emissions thus increasing carbon sequestration.

Annex 2: Map of Kenya