

Strengthening Marine Fisheries through the Blue Economy Lens

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Introduction

Compared to inland fishing, which accounts for almost 80 per cent of the fisheries sub-sector, marine fishing is less developed. This is despite Kenya's potential in industrial fishing based on her strategic location in the Exclusive Economic Zone (EEZ) along the most endowed tuna South-West Indian Ocean (SWIO) belt. Marine fisheries are a conventional component of the Blue Economy whose goal is to strike a balance between economic opportunities and environmental limitations to generate wealth from oceans. Besides marine fishing, Blue Economy comprises inland fishing, aquaculture, maritime law, safety and security, tourism, marine transport, shipbuilding and repair, marine cargo logistics maritime education and training, marine cargo logistics, port-related services, port agency, water sport, marine, maritime governance, ship handling, marine insurance, cargo consolidation, bunkering, offshore mining, renewable energy, bio-prospecting, blue data, marine biotechnology, transport, international shipping, among others.

Although almost 80 per cent of marine fishing is artisanal, it constitutes the pillar for coastal livelihoods and is vital in the provision of food security along the coast and in supplying 95 per cent of the total marine catch domestically. It directly and indirectly supports more than one million people including traders, fishers, fish processors, and other service providers. About 60,000 fisherfolk and fish processors obtain income directly from fishing.

This policy brief looks at various factors that make marine to be under-developed. It covers the following aspects:

(a) Beach Management Units

The co-management approach - Beach Management Units (BMUs) - to integrate the locals and stakeholders in ocean governance has not been efficient. The BMUs intended to promote high-quality standards, mitigate user conflict, buttress aquatic resource management, monitor fishers not landing at designated ports, and collect the price and volume of all fish landed at specified sites. A scoping marine fishery report on Kenya revealed that government officials had tasked BMUs with the role of limiting licenses or catch numbers, arguing that their role was just to oversee the community take up such initiatives. In addition to the voluntary nature of implementing BMU regulations, other drawbacks include issues of nepotism that make it difficult for board members (volunteers) in the BMUs to enforce rules; inadequate capacity building; financial constraints among fishermen who are meant to finance the BMU; and over-reliance on traders for boats; poor landing site infrastructure.

(b) National fleet

Kenya does not have a nationally owned fleet to operate in the Exclusive Economic Zone (EEZ), which pelagic fisheries (including tuna) occupy. Thus, fisheries in this zone are exploited by Distant Water Fishing Nations (DWFN) who renew access licenses annually. About 30-40

purse seine licenses are mostly from the EU while 4-9 longline vessels are mainly from the Far East. As of 2015, most of the licensed vessels were from France/Mayotte, Seychelles and Spain. Mauritius also had two licensed shipping vessels on the Kenyan EEZ. Most of this catch is unreported, since most of the catch is not landed on Kenyan shores. It is estimated that if this fish was landed and valued on the Kenyan shore, the state revenues would amount to Ksh 5 billion annually.

Kenyan-owned vessels operating in the EEZ would also support monitoring, control, and surveillance efforts to curb Illegal, Unreported, and Unregulated (IUU) fishing, which is still the biggest threat to marine ecosystems. Since developing countries are neither able to fish nor monitor fishing in the EEZ, fisheries resources are majorly “oligopolized” and over-exploited by industrialized countries such as Spain, Japan, and France, among others. Around 25 per cent of this catch is used in processing fish meal and other animal feed. Overfishing linked to IUU is not only a threat to the conservation and replenishing of fish stock but also threatens food security and incomes, especially for small-scale fisherfolk who are dependent on the oceans for livelihoods.

(c) Fishing methods

Despite prohibitions on the use of spearguns, beach seines, and monofilament gill nets following the 2001 Kenya Gazette Notice No. 7565, these gears are still being used. They are mostly used in Lamu County and Kwale County, constituting 49 per cent and 29 per cent, respectively, of the total number of recorded gears. Spear guns are mainly used in Kilifi (54%) and Kwale (45%). Lastly, monofilament gillnets are largely used in Kilifi (43%) and Lamu (41%). Beach seines are one of the most destructive gear that reduces the coral cover by capturing a lot of juveniles, with a large portion of the fish ranging from 10cm to 20cm. Compared to beach seines, monofilaments catch smaller fish. Gillnets capture more mature fish with sizes of over 20cm. Often, the juvenile bycatch is discarded as it may not be fit for human consumption. Such fish losses from discarded juveniles threaten food security, fish stock conservation, and the wider ocean ecosystem through food-web interactions. The prevailing use of harmful gear such as beach seines

stems from ineffective enforcement of fisheries regulations and laws.

(d) Artisanal fishing

Close to 80 per cent of marine fishery production is by small-scale artisanal fishers, and the remaining 20 per cent is by semi-industrial and industrial fishers. Most of this unregulated small-scale fishing is in the inshore waters around mangrove creeks, coral reefs and seagrass beds. The concentration of fishing on nearshore areas is largely because local fishers have little capacity with regard to appropriate fishing vessels and gears to fish offshore in deep waters, and are unable to explore semi-industrial and industrial fisheries in the deep sea. In MTP III, capacity building for artisanal fishers, county staff, and national staff are given focus in the development of the Blue Economy. Whereas a total of 281 county staff and 100 fishermen were trained, there is still limited knowledge, capacity building, and financial means.

Overfishing in the fisheries is characterized by a high fishing mortality than the fishing mortality required to provide the maximum sustainable yield. This has been attributed to lack of efficient fishing gear that catches the juveniles. According to USAID (2015), this significant and mostly unregulated flood of new fishing enterprises is partly to blame for Kenya’s inshore waters being overfished. Non-availability of stock assessment is a major cause of overfishing in marine fisheries.

(e) Handling and storage

Inadequate storage facilities and poor handling of fish contributes to increased post-harvest losses. Artisanal catches are frequently transported in baskets without ice, not just over short distances but even over larger ones, such as Mombasa. Since fresh fisheries have a limited shelf life, the majority of fish fails to meet phytosanitary norms. According to KMFRI, the post-harvest loss rate might reach as high as 60–80% (decrease in quality or loss of output). The primary causes of post-harvest loss, particularly in the prawn fishery, are improper handling and unintended bycatch. By-catches or fish that are discarded are frequently not used for human consumption because they are bland, tiny, bony, and expensive to prepare. They may also be too small for trawlers to land owing to limited

storage. In addition to posing a danger to food security, fish discards have negative impacts on fish populations and the larger environment through interactions with the food chain. Out of 197 landing sites, only 9 had cool rooms, and only 7 of those were really using them to store ice and fish.

Current Interventions

Several policies and legal frameworks have been set up as guiding principles for marine fishery management. The Fisheries Management and Development Act, 2016 is the core legal instrument overseeing the control and development of the national fisheries sector and improving the standards of living for communities depending on fishing. The management procedure encompasses gear limitation, fishing zones, licensing, size limitation, seasons, and closed areas. The Act establishes a maritime fisheries system based on rights, mandates landing, levies charged, and fishing limitations implemented to prevent overfishing. These actions aim to boost landed catch, raise foreign exchange profits for businesses fishing in Kenya's EEZ, generate jobs, advance regional marine fisheries, and improve food security.

Through the Fisheries Management and Development Act of 2016, Kenya also established a Coast Guard Service (CGS) to combat widespread illicit fishing and aid the nation in producing marine fisheries with the mandate of fighting illegal fishing in Kenya's territorial waters. In addition, Kenya has taken steps to address overfishing, including limiting the number of licensed boats allowed to target specific species, since it is regarded as a danger to the variety and productivity of fisheries.

Marine fishery management plans are in place, including the small and medium pelagic fishery strategy (2013), the Prawn Fishery Management plan of 2010, the Ring Net Fishery Management Plan, Kenya Tuna Fisheries Development and Management Strategy 2013-2018, and Malindi-Ungwana Bay Fishery Co-management Area Plan (2016-2021). These plans have led to a reduction in fish discards, resource use conflicts, small-scale fishing gear damage, and increased artisan fish catch and retention of bycatch.

Blue Economy was included as the eighth sector priority sector in driving the actualization of 10%

annual economic growth envisioned in Kenya's Vision 2030. The specific priorities in Kenya's Blue Economy agenda include the operationalization of five well-equipped fish ports and processing sites linked to feeder beach management unit (BMUs) landing sites with cold chain facilities and ice plants that are expected to generate 12,000 jobs and add about 20 billion to the GDP along the coast, setting up a National Fishing Fleet for the Exclusive Economic Zone (EEZ) by reflagging of foreign fishing vessels within our EEZ, monitoring, and assessment of the fish stock, developing value addition programmes for seaweed farming, capacity building for artisanal fishers, regularizing fish landing sites, development and promotion of ornamental and recreational fisheries, establishing marine fishery research centres, operationalizing fisheries management plans, and the development of a Blue Economy Masterplan, Book and Database. Some of these strategies have been achieved.

These interventions are sufficient but are not adequate. Therefore, more needs to be done to revitalize marine fisheries and narrow the divide inland and marine fishing contribution to the GDP.

Policy Recommendations

Artisanal fishing: The government could build capacity for fish farmers to increase their capacity and skills. This includes planned training sessions and field outreach to address farmer requirements to promote growth and the overall development of aquaculture in their areas. Building and increasing capacity of fishermen in fish handling, preservation, and value-adding techniques for improved product quality is also needed. The development of sustainable fisheries must be guided by clear information on the situation, possibilities, and difficulties.

BMUs: The State Department of Fisheries needs to review the BMU Regulations of 2007 as suggested in the MTP III to reflect emerging aspects of the Blue Economy and the challenges derailing their effectiveness.

Fishing methods: The government needs to strengthen the enforcement of regulations by supporting inter-ministerial coordination and partnerships. Such collaboration would provide an enabling environment for the Blue Economy blueprints such as the Blue Book,

Masterplan, and Database. Further, there is need for government-provided commercial fishing vessels and gears to fishermen increase fishing volumes and guard against depletion of fish stocks from inefficient fishing methods.

Handling and storage: The government may establish reefer cool containers and flake ice cold chains at landing sites. To reduce operating expenses in the long run, all the facilities should consider solar and wind energy power.

National fishing fleet: The management of Kenya's marine fisheries is dependent on yearly

licensing for fishing fleets operating in far-off areas. This system has a number of flaws, including the ability to transship catch without landing, engage in overfishing, and engage in illicit, unreported, and unregulated (IUU) fishing. This condition of low landings results in lost income and a generally under-developed maritime fisheries industry. As outlined in the MTP III initiatives, targeted investment in nationally owned fishing fleet is important so as to reap from its endowed tuna belt, enhance industrial and semi-industrial fish production, and monitoring and surveillance of Kenya's EEZ.

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KIPPRA Policy Briefs are aimed at a wide dissemination of the Institute's policy research findings. The findings are expected to stimulate discussion and also build capacity in the public policy making process in Kenya.

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