

Employment Creation Opportunities for Youths in the Fisheries Sector Value Chain

By Mujuri Bonface Munene and Abraham Wanjiku

Introduction

The Kenya Vision 2030¹ recognizes fish farming and aquaculture as a source of food security, poverty reduction, and employment creation. The various Kenya National Bureau of Statistics (KNBS) economic surveys show that there has been an increase in domestic consumption of fish, which has resulted in the country's fish imports to rise from 0.3 tonnes in 2000 to 2.5 tonnes in 2017. Further, the maximum sustainable yield of Kenya's marine and coastal waters Exclusive Economic Zone (EEZ), which is majorly for commercial fishing, is between 15,000 and 300,000 metric tonnes. That said, freshwater fish account for close to 98% of Kenya's aquaculture fish.

The fisheries and aquaculture sector contributes about 0.8% to Gross Domestic Product (GDP), providing direct employment opportunities to over 500,000 people and supporting over two million people indirectly². The number of people supported indirectly by the sector as traders, processors, input suppliers, merchants of fishing accessories, or providers of related services is much higher. The sector is also important for the preservation of culture and national heritage, including related industries such as tourism, and for recreational purposes, creating jobs for people involved in the activities (Kenya Marine Fisheries Research Institute - KMFRI, 2017)³. Therefore, full exploitation of fresh water lakes, rivers and coast waters and addressing the challenges in the fishing sector holds the potential to create jobs particularly for the unemployed youth in Kenya KMFRI (2017)⁴.

Government's efforts to improve the performance of the sector include instituting relevant policies such as the Kenya Fisheries Policy 2005. The policy majorly seeks to promote responsible and sustainable utilization of fisheries resources taking into account environmental concerns. The National Oceans and Fisheries Policy, 2008 is particularly important in addressing youth employment as it seeks to enhance the fisheries sector's contribution to wealth creation, increased employment for youth and women, food security, and revenue generation. In 2009, the Government introduced a policy focusing on increasing fish production in the country. The policy targeted most counties in the country and was followed by interventions such as building of fish cages, ponds and supply of fingerlings to various farmers in the country. In central Kenya, for example, the intervention included teaching farmers and residents not only how to take care of the fish, but also how to prepare fish. The intervention did not only increase the number of fish produced in the country but also the number of people who started consuming fish. The most recent policy in the sector is the Fisheries Management and Development Act,

Table 1: Actors involved in the fish value chain by age in years (in percentage)

	15-34	35-59	60 and above	Total
Boat Repairing	2.59	0.36	4.44	2.31
Fish Scaling	1.91	0.36	0.00	1.65
Fish cooling	2.34	0.00	0.00	1.95
Fish monger	88.83	92.11	95.56	89.46
Fish processor	0.68	0.72	0.00	0.67
Fisher	3.64	6.45	0.00	3.96

Source: KHIBs 2015/2016

- 1 Kenya: *Vision 2030*. 1st ed. Nairobi: Government of the Republic of Kenya, Ministry of Planning and National Development and the National Economic and Social Council NESCC, Office of the President, 2007. Print.
- 2 https://www.kmfri.co.ke/images/pdf/Kenya_Aquaculture_Brief_2017.pdf
- 3 KMFRI (2017), Kenya's aquaculture brief 2017: Status, trends, challenges and future outlook. Kenya Marine and Fisheries Research Institute, Mombasa, Kenya.
- 4 KMFRI (2017), Kenya's aquaculture bBrief 2017: Status, trends, challenges and future outlook. Kenya Marine and Fisheries Research Institute, Mombasa, Kenya.

2016 which has created several institutions in the sector. This includes the Kenya Fisheries Services (KFS), Kenya Fisheries Advisory Council, Fish Marketing Authority, and the Fisheries Research and Development Fund.

Generally, the fisheries sector has great potential of creating employment for the youth along the value chain. This is possible if the constraints established within the value chain are addressed. Table 1 presents results of the different actors involved in the fish business disaggregated by age and fish market. Majority of the individuals are involved at the lower point of value chain, which is fish mongering where they make about 80% of the total players in the sector. Fish processors, mostly manufacturers, make the least of actors in the chain by having only 0.63% of the total individuals in the value chain. This is consistent with the expectation since the country has only a few processors. It also important to note that of the 88%, majority are youths (those between 15-34 years).

Informed by analysis of secondary data obtained from KNBS, that is, the Kenya Integrated Household Budget Survey (KIHBS) 2015/16 and Micro, Small and Medium Enterprises (MSMEs) Survey 2016, the study used a value chain approach to assess the constraints and skills gaps in the fisheries value

chain. The value chain nodes, actors, activities and labour skills gap are as shown in Figure 1.

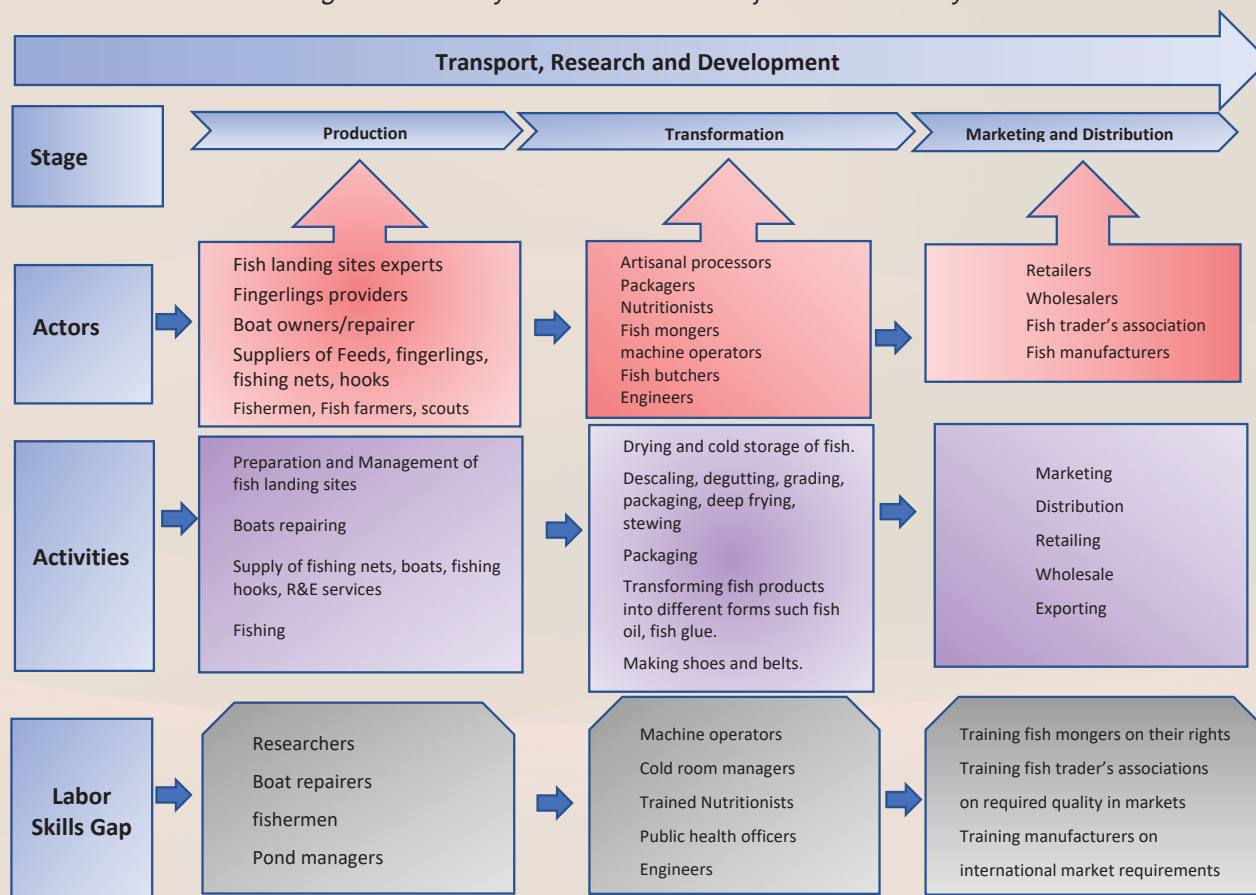
Opportunities and Constraints across the Fisheries Value Chain

a) Production

At the input stage, there are several actors who supply the inputs required in fish production. These include: research and extension services; supply of fishing nets; supply of fish feeds; fishing boats; fishing hooks and fingerings. The actors involved include landing site managers, fishermen, equipment constructors and repairers, fingerings experts, boat owners and repairers. Youths can be engaged at this level in breeding of fingerlings, as fish farm managers, supplying fish feed bearing in mind that in Kenya we import most of the fish feeds, making fishing nets and other fishing gears, fishermen, boat construction and boat repair.

However, there are constraints that hinder the sector from growing and absorbing more youths. These include: lack of quality fish feeds, poor management of ponds and breeding of fingerlings, and high cost of equipment and feeds, thus making the cost of

Figure 1: Summary of fish value chain and job creation in Kenya



Source: Authors' own construction

breeding fish to be high. High cost of fish feeds is a key constraint as it accounts for more than 75% of the cost. Currently, most of the fish feed is imported. However, local production of fish feeds has picked up with the Kenya Marine and Fisheries Research Institute (KEMFRI) setting up a fish feed processing factory aimed at providing feeds at low prices. In addition, there are not enough people with experience in producing fingerlings, hence leading to poor quality of breed. Aggravating the situation is over-reliance on donor funding and other development partners, hence lacking initial capital in starting fish business. This makes farmers not to be keen enough since the money used in fish farming is a donation and they do not bear the loss even if the project fails.

b) Transformation

This node involves preparing fish for final local market or export. At this node, youths can be engaged as fish mongers, artisanal processors, nutritionists, public health workers, cold room managers, machine operators, fish butchers, sterilizers, fish freezing machine operators, packagers and graders. For the youths to be fully incorporated in this node, a number of constraints need to be eliminated. These include high cost of electricity used in the drying and cooling of the fish, thus making preservation unprofitable. Other challenges include lack of value addition of the farmed fish and those caught from the lakes and rivers. Most of the farmers and fishermen harvest fish, which they sell at individual level without adding any value to them. Lack of value addition leads to low gains from sales and post-harvest losses due to spoilage of unsold fish. At this level, more youths are expected to be employed at the various stages of value addition. In addition, the machines used in the processing require huge capital and are not affordable, hence making the youths to shy away from engaging in fish value addition.

c) Marketing and distribution

At this stage, youths can be involved in marketing and distribution of fish finished products. They can play roles such as retailers (fish mongers), wholesalers and fish trader's associations. The main challenge at this level is information asymmetry. Small scale fish traders tend to lack information about the market demand, hence end up being exploited by those traders buying fish in bulk for export⁵. In addition, low volumes of fish produced make it difficult to access large international markets, while low quality of fish produced ends up being rejected in the market. This could be because the fish are harvested prematurely, therefore not meeting the required size and weight. This presents an opportunity for knowledgeable youths who can be employed to train and sensitize farmers of the market expectations in terms of quality and prices.

⁵ Aura C.M., Nyamweya C.S. and Njiru J. M.(2019), "Using fish landing sites and markets information towards quantification of the blue economy to enhance fisheries management". *Fish Management Ecology*. 26:141–152. <https://doi.org/10.1111/fme.12334>.

d) Transport, and research and development

These two stages cut across the value chain. Transport is capable of creating employment to the youths if increased activities and production of fish is achieved. There are people involved in transportation of the fish from the lakes, rivers and ponds to the storage place. Others are also involved in transporting the fish to the processing place and then to the market. The main challenge here was found to be poor road networks in the regions practicing fishing, and youth inability to afford expensive means of transport such as reefers (vehicles fitted with coolers).

On the other hand, research and development also cuts across the value chain since research is done from the starting point during the breeding of fingerlings. Research is also carried out on the production pattern in the landing sites, the quality of fish produced and consumed in the market, demand of fish in the market, and prevailing challenges. All these activities were found to create employment opportunities for the youth. Youth are also employed at various research institutions such as KEMFRI and various colleges and universities offering training on fisheries.

Policy Recommendations

- i) To reduce high cost of production, the Government through the Ministry of Agriculture, Livestock and Fisheries needs to subsidize the cost of fish feeds and fishing equipment. This can also be done through tax reduction for fish feeds and creating an enabling environment for the private sector to establish more fish feeds production industries in the country. This can include both tax incentives and providing low cost electricity tariffs for such firms, given that electricity cost forms a huge cost for the manufacturing sector. This will reduce the cost of feeds, hence encouraging more youths to join the sector at production node in the value chain.
- ii) To deal with poor management of ponds and capture fishing, there is need to capacity build fish farmers and fishermen through the Ministry of Agriculture. This is possible by recruiting more extension officers and dispersing them to train fish farmers and fishermen on how to produce quality fish needed in the market while at the same time observing environmental conservation. Majority of these officers should be youths, since they can cover large areas over a short time and are more active.
- iii) To deal with the problem of post-harvest losses, the Ministry of Agriculture, Livestock and Fisheries needs to ensure strict adherence of the 40% requirement of value addition to fish landed in Kenya before export as stipulated in the Fisheries Management and Development Act of 2016. This

can spur creation of employment opportunities for the youth involved in the activities of value addition and at the same time reducing losses among producers and traders. Additionally, producers need to be supplied with storage facilities and coolers through cooperatives in collaboration with the Ministry of Trade and Cooperatives. The fishers can pay some agreed affordable storage fee for fish to meet the running costs of the storage facilities. This will enable them cut down losses due to poor storage and at the same time speculate with fish stock, which can be sold when prices are high.

ABOUT THIS POLICY BRIEF

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