

WORKING PAPER: 3

ENHANCING INTRA-REGIONAL TRADE IN FISH AND FISH PRODUCTS IN AFRICA

Executive Summary

Fishery products are the largest strategic commodities being traded in Africa; its intra-regional trade represents 24 per cent of traded volumes in 2015 of strategic commodities. However intra-Africa trade as a percentage of total trade has been very limited compared to other regional trading blocs across the globe. Despite the potential of intra-regional fish trade in addressing the region's food and nutrition insecurity, poverty reduction and economic growth, this type of trade is often overlooked and neglected in national and regional policy. Efforts to boost intra-regional trade have become increasingly prominent elements of African regional integration and economic development agendas. In 2014, the second Conference of African Ministers of Fisheries and Aquaculture (CAMFA II) endorsed the African Union Policy Framework and Reform Strategy for Fisheries and Aquaculture in Africa, which prioritizes fish trade and aims to promote responsible and equitable fish trade and marketing. However, in comparison to other food commodities such as crops, fish has featured less in regional trade strategies. As a

result, intra-regional fish trade has largely remained informal, with low volumes traded by artisanal and small – medium enterprises, most of which are headed by women.

Studies conducted by WorldFish and AU-IBAR have shown that regional economic communities such as SADC, ECOWAS, EAC, and AMU have effectively enhanced fish trade flows hence contributing to gross trade creation for fish. However, fish trade yet to be consolidated under ECCAS. Results have further shown that four trade corridors across Africa (Eastern, Central, Western and Southern) are interconnected. The results suggest that continental policies are needed to facilitate intra-African trade.

While regional trade groups have policies to reduce and eliminate import duties, enforcement mechanisms to facilitate the free movement of fish products across borders are inadequate. In addition, existing frameworks are not fish specific and thus fail to address industry-specific aspects of fish trade. Further to this, fish traders, especially women, continue to face challenges including informal tariffs, when trying to move products across the borders such that they



opt to use informal trade routes. As a result, there is rampant informal cross border trade whose figures are not usually reflected in national accounts. This implies that if informal cross border figures were to take into account informal trade, intra-regional trade could be much higher than it is reported now. Other challenges include inadequate market and trade infrastructure, high transport costs, complex and unaligned trade rules and poor market information.

Going forward, it is recommended that Africa must have an intra-African trade policy that goes beyond regional boundaries. Further, Africa must consider investments at all levels of the fisheries and aquaculture value chains which must take into account region and country specific needs, challenges and opportunities. Participation of the private sector and non-governmental organizations in key fisheries trade key activities should be encouraged. There is need for country, regional and continental policies, program and initiatives that will improve value addition of fisheries products through processing to ensure competitiveness at national, regional and global markets. Access to regional markets for small and medium scale fish producers must also be enhanced. Countries must also improve fisheries data collection methods to effectively capture all the fish species and quantities being traded in domestic and across borders.

Introduction

Fish and fishery products are ranked among the most traded food commodities globally, with developing countries accounting for the bulk of the world's fish exports (FAO, 2017). Fish and fishery products exported from developing countries comprise 20% of all agricultural and food processing exports. Fish (including seafood) is one of the most highly traded commodities, making up about 10% of all food trade (by value) and exceeding the value of sugar, maize, coffee, rice, and cocoa trade combined (Gephart and Pace, 2015). Nearly 40% of seafood production (by volume) is internationally traded and this percent has been increasing in recent decades. The business of seafood trade has also evolved during the recent period of growth in global seafood trade. The high level of international trade exposes the vast majority of

seafood to trade competition and causes international seafood prices to impact domestic, non-internationally traded seafood prices.

Trade plays a major role in the fisheries and aquaculture sector as an employment creator, food supplier, income generator, and contributor to economic growth and development, and to food and nutrition security (with fish constituting an important source of nutrients for the poor and often being the cheapest form of animal protein). For many developing countries, fish trade represents a significant source of foreign currency earnings. In 2016, exports by developing countries were valued at USD 76 billion and their fish net export revenues (exports minus imports) reached USD 36 billion, higher than for all agricultural commodities combined.

By being one of the most traded products in international trade, fish holds a particular position in the current debate about market globalization and the role that international trade can play on economic development and poverty alleviation. The question of a potential nexus between fish trade and food security has emerged as a major issue at different levels of the international communities over the last decade. It is argued that fish export can act as an engine of growth for developing countries endowed with large fish resources through the foreign exchange generated by this trade which can be used to service international debt, pay fast growing import bills and fund the operations of national governments (Ahmed, 2003). Foreign exchange earnings can also be used to import much larger volumes of low cost food to supply the domestic market, thus contributing to national food security. Additionally, fisheries trade can indirectly contribute to economic development through the creation of new jobs and the increase of incomes within the sector. On the other hand, the 'anti-fish trade' group argue that fisheries trade impacts negatively on food security and local economy. According to this view, fisheries trade-oriented policies are harmful for local populations as they lead to decline in local fish supply and livelihoods options for the poor. It is also argued that trade-oriented fishery policies leads to losses of local jobs and adversely affects the development of the

Table 1: Relative shares in the fishery sector by geographical and economic regions (2013)

	Total fisheries and Aquaculture production	Capture fisheries	Aquaculture	Fishery Exports	Fishery Imports
	Share in total quantity (%)		Share in total value (%)		
Asia	69.7	55	89.1	39.6	31.2
Africa	5.9	8.6	2.3	4	4.5
America	13.5	20.3	4.4	19.8	61.6
Europe	10	14.6	4	34.5	42.8
Oceania	0.9	1.3	0.3	2.2	1.5
World	100	100	100	100	100
Developing countries	82.4	73.6	94	54.4	27.7
Developed countries	17.6	26.3	6	45.6	72.3
LIFDCs	13.8	15.7	11.3	5.6	2.8

Source: FAO 2017

domestic fishing industry. Despite these two different views, Béné (2008) found no statistical evidence of the negative effects of fish trade on food security. He also found no evidence to support the claim that international fish trade contributes effectively to national economic development and/or wellbeing.

Lately, there has been increasing efforts to improve the availability and access to fish and fish products to the more than 400 million people on the continent who depend on fish as a vital source of nutrition through fish trade (Ayilu et al., 2016). The trade in fish and fish products among African countries is becoming increasingly important for the region's food security and nutrition and economic development. The first conference of African Ministers of Fisheries and Aquaculture made a number of recommendations including eradicating barriers to trade through free trade zones in order to facilitate intra and inter regional trade of fish and fishery products (African Union, 2010). RECs and the African Union's New Partnership for Africa's Development (NEPAD) Agency have therefore prioritized the strengthening of regional trade and have identified fish and fish products as key commodities for investment and policy support. While there is great potential for fisheries and aquaculture to contribute to poverty reduction and food and nutrition security, realizing this potential is limited by policymakers' lack of understanding about the operations and dynamics of fish markets and the inadequate role of Regional Economic Communities (RECs) in facilitating intra-regional fish trade.

Recognizing the vital contributions of African fisheries to food security and income of many million Africans and to poverty reduction and economic development of the continent, African Heads of State and Government endorsed the AU-NEPAD Action Plan for the Development of African Fisheries and Aquaculture at the Abuja Fish for All Summit in 2005 (AUC-NEPAD, 2014). At the First Experts' Meeting of the Conference of Ministers of Fisheries and Aquaculture which took place in Banjul, The Gambia, the experts recommended that trade barriers of fish and fishery products be minimized to facilitate intra and inter regional trade and enhance wealth Generation opportunities of African Fish Resources (African Union, 2010). Following CAMFA, WorldFish, AU-IBAR and NEPAD through FishGov implemented a project the Fish Trade program which was designed to enhance the capacities of regional and pan-African organizations to support their member states to better integrate intra-regional fish trade into their development and food security policy agendas.

Trends in Fish Imports and Exports

Global trade in fish and fishery products has expanded considerably in recent decades, fueled by growing fishery production to meet the demand from a growing human population and also from eating habit and lifestyle changes away from red meat and towards white protein. International trade of fish and fishery products has increased during the last few years reaching USD 143 billion in 2016, with a 3-year average

of USD 141 billion (FAO, 2017). Projections up to 2026 indicate that fish trade will continue to expand. Developed countries dominate fish imports, although with a declining share in recent years (71 percent share of world imports in 2016; 80 percent in 2006 and 84 percent in 1996). African trade in fish and fish products showed strong growth over the period 1990–2007 as shown in Figure 1.

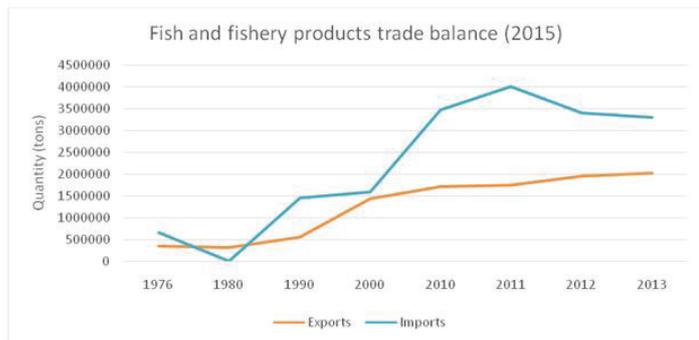


Figure 1: Fish and fish products trade in Africa
Source: FAO FishStat (2017)

Even though fish is Africa’s leading agricultural export commodity (in terms of quantity), the continent is a net importer of low value fish and fish products. Fish and seafood from developing countries tends to be imported as frozen whole fish or fillets whilst most exports from developing countries constitutes fresh fishery products with minimal value addition. Continental Africa’s imports of fish products are sourced mainly from Europe (35 percent) and in roughly equal measure from Asia (22 percent) and other African nations (Gordon et al., 2013). As of 2015, fish imports in Africa were dominated by Nigeria, Ghana, Côte d’Ivoire, Egypt, Mauritius, Cameroon, South Africa, Angola, DRC and Benin (Figure 2). On the other hand, fish exports are dominated by Morocco, Namibia, Mauritania, Senegal, South Africa, Seychelles, Nigeria, Mauritius and Tanzania (Figure 3).

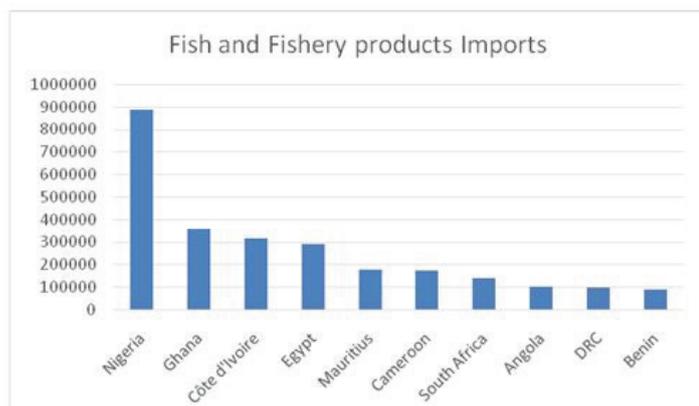


Figure 2: Top ten exporters of fish and fishery products in Africa
Source: FAO FishStat (2017)

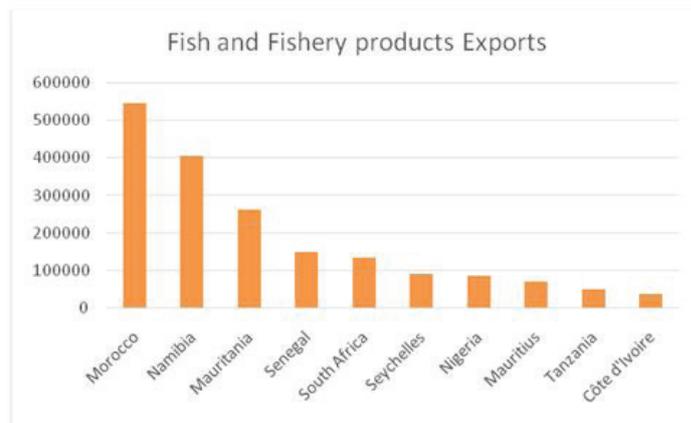


Figure 3: Top ten importers of fish and fishery products in Africa
Source: FAO FishStat (2017)

Besides Egypt being the leading producer of tilapia, the market in Egypt is also provided with imports of low value fish species such as tilapia and pangasius from China, Vietnam and Thailand, which compete directly with local farmed fish production. Internationally, Egypt exports tilapia to Saudi Arabia and other Arab and African nations. Macfadyen et al. (2012) noted that the future outlook for the domestic market for tilapias in the Middle East and North African region is encouraging given predicted population increases in the region, interest in increasing production of tilapia, and a growing consumer acceptance of tilapia.

It should be noted that although Africa is a net importer of fisheries products, the value of exports has in overall been higher than that of imports. This implies that Africa may be exporting high value fisheries commodities while in return the continent imports low value products, as it can be shown in Figure 4. Gordon et al., (2013) noted that Africa’s fish imports are dominated by small pelagics, including anchovies, herrings, mackerels, and sardines. These are also the major species fished for non-food uses, including reduction into fish meal and fish oil for use in livestock and aquaculture feed. Price levels of fish species targeted for reduction tend to be significantly lower than those for direct human use. With low levels of aquaculture production, most of those imports are for human food consumption, not for conversion to feed, thus placing African consumers in competition with the global animal feed industry. Africa accounts for 24 percent of global imports of small pelagic food fish by volume.

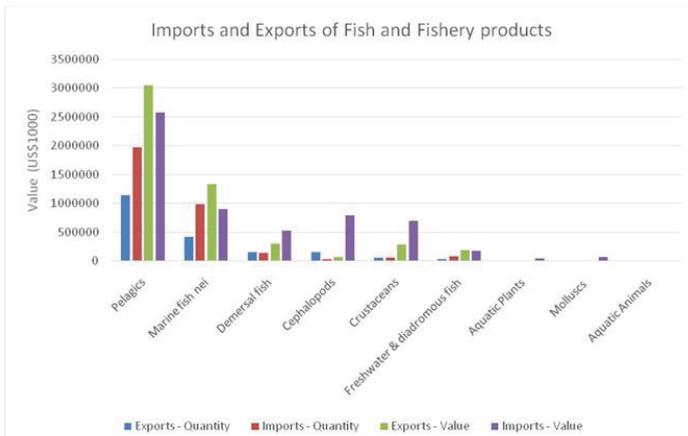


Figure 4: Imports and Exports of Fish and Fishery products into Africa (by FAOSTAT classification) as of 2015

Source: FAO FishStatJ (2017)

Trade in fish and fishery products is to a large extent driven by demand from developed Countries. Population growth and urbanization in Africa will likely continue to be the important drivers of fish trade and consumption. Due to rapid population growth, which is estimated at 2.3 percent annually during the 2010–30 period, total food fish consumption demand would grow substantially (by 30 percent between 2010 and 2030) (The World Bank, 2013). Supply of fish is supposed to increase by 2.6 million tons a year by 2030 in order to sustain the current consumption rate (World Fish Center, 2009). The average Africa per capita fish consumption is 8.3 kilogram, which is lower than the recommended World Health Organization/Food (WHO) and Food and Agriculture Organization of the United Nations level of 17 kilogram (Mwina, 2012) and the World average of 18.9kg (Mapfumo, 2015).

Intra-African Fish Trade

There potential for fisheries sector in Africa to generate greater food and nutrition security and help reduce poverty at both the household and national levels is enormous. Fish is an affordable animal source of protein in most of the poorest countries in Africa, However, fish supplies in the region are failing to meet demand, and there are major shortages in some critically poor countries where they are needed most. For example, per capita consumption of fish in Africa was reported to be 9.7 kg per year, lower than the world average of 18.9 kg/year, with some countries such as Congo, Gabon, Liberia, Malawi and South Africa experiencing stagnant

or declining per capita consumption. Fish processors and traders, along with government leaders and other development partners, have begun to demand a change in the way Africa trades its fish. In recent decades, there has been a significant increase in the formation of economic blocs to facilitate trade. However intra-Africa trade as a percentage of total trade has been very limited compared to other regional trading blocs.

Fishery products are the largest strategic commodities being traded in Africa; its intra-regional trade represents 24 per cent of traded volumes in 2015 of strategic commodities. They are also represented in the Sustainable Development Goals⁶, which calls for the alignment of governance and negotiation strategies on this environmentally sensitive sector (UNCTAD, 2018). In 2015, only 34 per cent of all fishery produce traded in Africa were supplied locally. Imports represented strong competition to African producers, corresponding to 66 per cent of fish consumed in the continent. Non-African imports consist mostly of low-value, high volume fresh, chilled and frozen fish products, coming mainly from the USA, Chile, Thailand, the European Union and China. Considering only the African suppliers, five countries were responsible for about 99 per cent of all intra-African trade (UNCTAD, 2018).

Despite the presence of potential overseas fish markets, African domestic and regional markets are expected to continue being the main destination as local fish demand expands. The domestic market will be the main destination because production and transport costs together with local prices are likely to continue providing a better return. It is expected that local producers will not require heavy investments in order to reach the quality standards demanded by domestic markets. Furthermore, importers will increasingly face strong import tariffs and other non-tariff barriers as several domestic producing countries try to protect their local aquaculture industries. Recent fish import bans and the introduction of import quotas and tariffs in Ghana and Nigeria are examples.

The African domestic production market face stiff competition from tilapia imports from China and other

leading producers in Asia. For instance, Gordon et al. (2013) noted that 84 percent of the import volumes of low-value fish in Africa are dominated by Nigeria, Ghana, Côte d'Ivoire, Cameroon, and the DRC. The analysis in Figure 8 shows that Angola is also one of the leading importers of fish in Africa. Nigerian fish markets, for instance, are flooded with imports of (dried and/or salted) stockfish from some European countries in Nigeria. In 2011, Ghana imported 250,000 metric tons of frozen mackerel, horse mackerel, sardines, and sardinella from Mauritania, the United Kingdom, Poland, the Netherlands, and Belgium. Africa.

Box 1: The influx of Chinese tilapia in African markets

There has been a rising backlash to Chinese produced Tilapia in their primary export markets of the USA and Europe recently. Environmental and health conscious consumers in these developed markets have begun to question the environmental sustainability of the Chinese production methods and the nutritional value/health impacts of Tilapia farmed in Chinese pond systems. Due to this push-back, Chinese Tilapia producers are attempting to improve the environmental and health status of their production, but years of entrenchment of production methods and large amounts of pollution in natural water ways from industrialization and the decentralized nature of the small-scale production regime are hampering these efforts. As such, many exporters are looking towards less environmentally and healthcare conscious markets, with particular focus on Africa, where consumers are more concerned with price than quality.

Source: *Urban-Econ Development Economists (2014)*

Efforts to boost intra-regional trade have become increasingly prominent elements of African regional integration and economic development agendas. Among other things, these efforts seek to address issues relating to the poor quality of trade-related infrastructure in the region and to promote trade facilitation initiatives aimed at making it easier for cross-border trading in the region. In 2014, the second Conference of African Ministers of Fisheries and Aquaculture endorsed the African Union Policy Framework and Reform Strategy for Fisheries and Aquaculture in Africa, which prioritizes fish trade and aims to promote responsible and equitable fish trade and marketing. During the same year, the African Union Heads of State made the Malabo Declaration to triple

intra-regional agricultural trade by 2025.

In a study by Nankwenya et al. (2018), analysis of trade effects of the various RECs on regional fish trade using an augmented gravity model revealed that the formation of SADC, ECOWAS, EAC, and AMU have effectively enhanced fish trade flows hence contributing to gross trade creation for fish. The results, as shown in Table 2, highlights that membership to SADC increased fish trade by 80.15 percent, membership to ECOWAS increased trade by 51.77 percent, membership to EAC increased trade by 113.24 percent, and membership to AMU increased trade by 91.67 percent. The increase in trade is much greater for SADC (80.15) followed by AMU (91.67) and ECOWAS (51.77), suggesting that countries in these three blocks have significantly increased trade flows among them.

Findings show that EAC has created more fish trade to its members. EAC is one of the regional economic blocks in Africa which is well integrated economically and socially. This deep integration has positively affected fish trade in the block. The study further found that SADC created more trade to its members, possibly due to the presence of SADC protocol on fisheries that is in force. The protocol, among others, stipulates the need to reduce trade barriers to promote trade in the region (SADC, 2001). The creation of the free trade area in SADC could also be a contributing factor to the increased trade flows, although it has been noticed that some countries have not fully implemented the FTA agreement.

Informal Cross Border Fish Trade

Key to distribution of food in Africa are the informal channels and networks. Across the African continent, it is estimated that Informal Cross Border Fish Trade contributes about 43% of the official gross domestic product. Much of this cross-border trade is not carried out by large-scale traders, but instead by small traders who cross the border regularly. This small trade is not only important for the supply of goods to the different regions concerned, it also provides a significant means of subsistence for small traders themselves. Furthermore, it is mainly women who are active in

Table 2: Intensity of trade using an Augmented Gravity Model

Variable	Intensity of trade
Distance	-0.1697***
Exporter's GDP	0.0759***
Importer's GDP	0.1370***
Exporters Population	0.0419**
Importers Population	0.0290
Exporter's production	0.3611***
Importer's production	-0.0465**
Exporter's Fish price	-0.0237
Importer's Fish price	-0.0164
Real Exchange Rate	-0.0004
SADCC	0.8015***
EACc	1.1324***
ECOWASc	0.5177***
ECCASc	-0.2434
AMUc	0.9167***
Common Colony	0.0848
Common Language	0.0267
Common Border	0.6010***

Source: Nankwenya et al. (2018).

this trade and allow their families to survive. However, traders encounter a whole range of difficulties. As well as the general challenges facing these workers, women traders are affected by specific danger.

Despite the potential of intra-regional fish trade in addressing the region's food and nutrition insecurity, as well as poverty reduction through wealth creation, this type of trade is often overlooked and neglected in national and regional policy. As a result, intra-regional fish trade has largely remained informal, with low volumes traded by artisanal and small – medium enterprises, most of which are headed by women. Women are key actors in small scale cross border trade in the southern parts of West Africa (about 90% in Cote d'Ivoire, almost 100% in Southern Ghana, Togo and Benin republic), Central Africa (about 71%), East Africa (Tanzania / Zambia Tunduma border the majority are women retailers) and in Southern Africa 70% are women (WorldFish, 2018). Most of these women are vulnerable to harassment and have weak bargaining power. In spite of this gloomy picture there were there case of very successful women in fish processing and trading. In Lome and Cotonou, there is a group of women called the Mama Benz ladies who are mainly into fish trading.

Box 3: Quantities and values of cross-border fish trade in Ghana, Togo and Benin

Estimates carried out at three selected markets in Ghana revealed that a total of 6000 metric tons of fish are exported informally to neighboring Togo and Benin every year, with an estimated annual market value of USD 18.6 million. It is important to note that Gordon (2011) estimated Ghana's total market value for all fish products to be USD 61 million. Therefore, estimates from a few major fish markets show that aggregate national trade volumes that also take into account informal trade could be much higher than the official trade statistics. For processed fish from Senegal and Mali, the main entry point is Korogho city, located in the northern part of Côte d'Ivoire, and they come via Bamako in Mali. Ivorian traders purchase the products from Senegalese wholesalers who buy the fish from the processing centers mainly in Joal and Mbour in Senegal. From Korogho, products are distributed to Odienné, Ferkéssédougou, Boundiali, Sinématiali, Man, Bouaké, Séguéla, Mankono and Yamoussoukro. For products destined for Ghana, Bouna city is the starting point. Processed fish products are assembled in the village of Vonkoro and transported by canoe on the Black Volta River to the location next to the border with Ghana. From the border, the fish products are transported all the way to Accra, via Kumasi city. While the frozen fish products enter the country formally, with clear customs and import permits, the fish moves internally and crosses the borders informally

Source: Ayilu et al (2017): *Informal artisanal fish trade in West Africa: Improving cross-border trade*

Analysis of factors influencing fish traders' participation in informal cross-border fish trade in West Africa indicated that access to good roads, distance to destination foreign market, nearness to border, membership of Fish trader Association or group, access to communication facility, access to market information and at least having were important factors influencing traders to participate in informal trade. In southern Africa, trader's choice of informal cross border trade routes is influenced by gender of the trade (where more females participate than males), form of fish, mode of transport cross the border, operation costs, time taken to gather fish, price of fish in cross border markets, knowledge of policy regarding informal trade, and political dynamics. The studies found that the reasons for trader's involvement in informal cross border trade are almost the same across the corridors. It is important to note that education and awareness of national cross border trade related policies are key in guiding traders not to use informal cross border fish trade routes.

Small scale ICBT in fish and fish products is significant in the economies of Ghana and other West African countries. It is also profitable. In a study by Ayiluet al., (2017), a price margin of \$0.77/kg was found for traders plying between Senegal and Cote d'Ivoire, gross profit margin figure of 20.4% for those moving from Ghana to Togo and Benin. Cote D'Ivoire to Ghana fish traders the profit margin was US\$10.41 per market day. Profits from cross border trade in fish were found to be reasonably high, in terms of gross or net returns for smoked fish it ranged from \$0.77 per kilogram to \$3.35/kg within the sub region. Similarly in Western and Southern Africa, positive returns were observed for the various cross border fish trade actors. In Southern Africa, profitability was mainly observed among small pelagic species actors in Zambia and Malawi.

Box 4: Why informal Fish trade?

In a study by Mussa et al. (2017) on the drivers of informal fish trade between Malawi and its neighboring countries (Zambia, Tanzania and Mozambique), it was discovered that fish traders use informal trade channels due to demand for traders to possess sanitary certificate, export and import permit, double taxing and corruption.

Sanitary certificate

Cross border traders were demanded to possess a sanitary certificate whenever they are to use the formal border route with consignments from one country to another. A sanitary certificate is provided by the fisheries department at a fee of five thousand Malawi kwacha (US\$9) and is renewed monthly. A majority of traders surveyed are income poor households who engage themselves in the cross border trade as one way of generating incomes for their livelihoods and they were finding it hard to process the sanitary certificate which was reported to be expensive by traders.

Export and import permit

Traders exporting or importing commodities outside the country formally are demanded to have an export or import permit which is provided by the central veterinary laboratory in the capital city of Malawi at a fee of MK 10000 (US\$18.02) regardless of the volumes of fish exported and is renewed every trip. Also for importers of fish are demanded to possess import permit from the country they are importing the commodities from. The charges vary since these certificates are offered by different nations with totally different institutional arrangements. This was seen as a burden to traders as it was not only expensive but was also renewed every trip and traders who were far away from the capital city were supposed to travel all way to the capital city to have their certificates processed which attract other costs on the part of the traders.

Double taxing

The results of the study reveals that there are high incidences of double taxing of the traders using formal trade routes on both sides of the border posts for two nations. Also despite double taxing, most traders are not aware of the taxing regimes. Fish traders reported that tax constantly varies which forces them to use informal channels.

Corruption

Corruption was reported to be at a center stage forcing traders to use informal trade channels. Some border post officials took advantage of the traders' lack of knowledge on taxing regime to corrupt them. Since cross border traders deals with two nations in their operations with different institution arrangements and in most cases with different languages so some officials demand money for their consignments and give them forged papers which are not valid and at the end they are forced to pay again at checkpoints.

Source: Mussa et al. (2018) *Informal cross border fish trade in Malawi and Zambia*

Fish Trade Routes in Africa

Mapping Fish trade routes in Africa shows that in Southern Africa, Malawi imports the small pelagics from Tanzania (Makwale, *Haplochromis* spp), Mozambique (*Sardinella* species) and South Africa (*Scomber* species). In Zambia, fish trade flows displayed that DRC and Namibia were the main importers of fish products from Zambia with the mention of *Clupea* and *Oreochromis* species as major exported fish species. In terms of imports, Zambia received relatively high volumes of fish products from South Africa and Namibia than other trading countries. In West Africa, trade flows between Nigeria and neighboring countries were mostly for Catfish and Tilapia. For Ghana, Togo and Benin, the *Sardinella*, Salted dried Tilapia, Anchovy, Shrimps are the species that dominated the trade flows. Between Cote d'Ivoire and Ghana, fish trade flows are dominated by Salted dried Tilapia, Smoked River Fish, *Sardinella* and Shrimps. In East Africa, the informal trade of fish from Tanzania to the region is dominated by traders from outside the country. In Central Africa, there is a huge trade flow of fish products between Cameroon and other countries within Central Africa, mainly from Cameroon to Nigeria, Equatorial Guinea, Gabon and Cong. Figure 5 shows the fish trade routes across Africa.

Challenges for intra-regional fish trade in Africa

Despite success stories of trade and market potential for fish and fish products in Africa, the sector still faces the challenges of both Tariff and Non-Tariff Barriers for fish trade. Tariff barriers are used to protect domestic producers from external competitors. NTBs include strict sanitary and phytosanitary (SPS) measures, certification measures, Hazard Analysis and Critical Control Point (HACCP) systems, and product traceability.

SPS Agreements

The Agreement on Sanitary and Phytosanitary Measures and the associated Technical Barriers to Trade Agreement concern the application of food safety and animal and plant regulations to international trade whereby nations that have acceded to the WTO are allowed to limit trade based on food safety, animal and plant health and environmental measures. These agreements impact on fisheries trade as they provide a formal instrument for governments to strengthen domestic food safety measures to protect consumers, and are therefore applied to imported sources many of which are from Africa and other developing regions. Infrastructure such as storage and processing facilities is often inadequate in developing countries for producers and processors to meet NTB requirements.

HACCP

The HACCP, as an international system of food safety management, focuses on identifying points in a process where food safety hazards could arise and putting steps in place to prevent them. The system is based on assessing physical, chemical and biological hazards in all stages of food production and preparation. In Southern Africa, Mozambique and Madagascar -which, before the White Spot Syndrome Virus produced large quantities of prawn-; and South Africa have processing and packaging companies that have facilities that are HACCP compliant. Their products are inspected by state departments as well as buyers for such compliance.

Issues of capacity gaps to enforce HACCP and related guidelines affect negatively the continent. Several factors continue to affect the performance

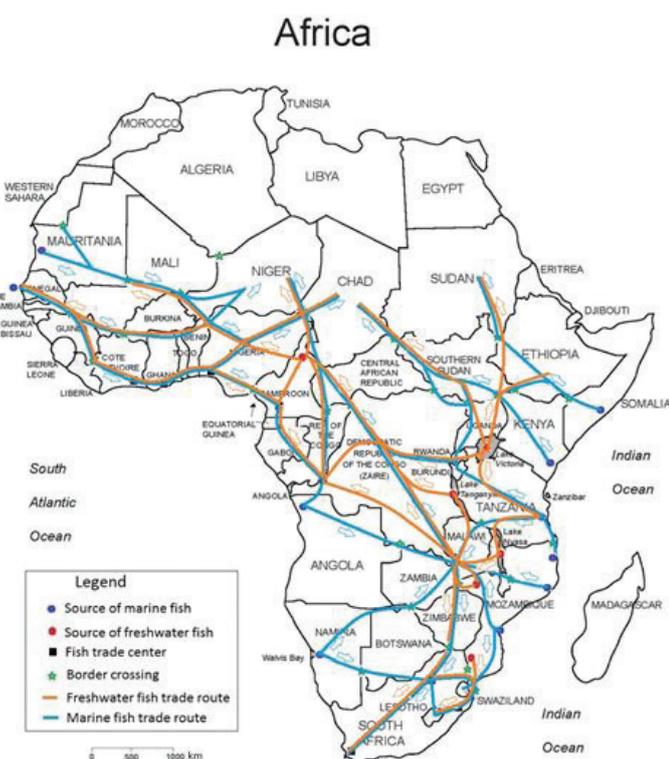


Figure 5: Main fish trade routes across Africa

Source: Fish Trade Corridor Studies (2018) under FishGov Project

of developing countries in accessing international markets. These issues include problems linked to the internal structures in some countries, lack of adequate infrastructure and services, which can affect the quality of fishery products, contributing to their loss or difficulty in marketing. These factors contribute to failure to meet the global value chain standards for tilapia. Some developing countries might have inadequate regulatory frameworks and institutional capacity for sustainable governance of the fishery sector.

Traceability

A traceable 'chain of custody' evolved from the needs of customers and those responsible for their safety to have assurances regarding the food safety, and in some instance, environmental sustainability conditions throughout a production and post-harvest chain. Globalization of the fish industry in terms of sourcing raw materials, processing and marketing has resulted in demands for increased traceability of products. This is due mainly to the increased length of the supply chain providing more opportunity for fishery products to either lose quality or gain the potential to cause harm to the consumer. In order to ensure both the quality and safety of products, more information concerning the sourcing and processing of the products needs to be communicated throughout the supply chain and ultimately to the consumer.

Certification and branding

In addition to the range of public regulations for food safety and quality, a range of related standards have been introduced by the private sector, whereby private standards and certification are becoming important features of international fisheries and aquaculture trade and marketing. Certification is the procedure through which assurance is provided that a product, process or service conforms to specific requirements. Standards in fish and fishery products can be set by international, regional, public and private companies. Standards set by public authorities, usually referred to as "technical regulations", are typically mandatory.

In the food safety area, private certification schemes emerged to verify compliance with government-mandated requirements for firms to introduce food

safety management systems. Private standards differ in terms of content, certification and verification methods, and focus. The costs of certification can be prohibitive for developing country operators. Developing countries have so far had relatively little exposure to the pressure to comply with private safety and/or quality standards. They typically supply non-processed or minimally processed fish, while private standards apply mainly to processed value-added products for brands or private labels. In addition, most of the fish from developing countries is traded via commodity trade arrangements rather than direct supply contracts, so they have a limited direct interface with retailers and private standards schemes (Washington and Ababouch, 2011). For developing countries to take advantage of the opportunities presented by private standards, they must first be able to meet the requirements of mandatory regulatory requirements in importing countries. However, certification to private standards schemes is problematic for many developing countries. In general, certified operators from developing countries tend to be those that are large-scale and involved in more integrated supply chains with direct links to developed country markets (through equity or direct supply relationships). Relevant private certifiers in the aquaculture sector include Global Aquaculture Alliance (GAA)/Aquaculture Certification Council (ACC), Federation of European Aquaculture Producers (FEAP) code of conduct and the Aquaculture Stewardship Council. In Madagascar, Unima, an aquaculture producer, was awarded Aquaculture Stewardship Certification (ASC) for its aquaculture farm Aqualma.

While certification is problematic for many developing country fishers, farmers and processors, it might also provide a tool for engagement with large-scale buyers. The challenges and costs of certification need to be weighed against the potential opportunities to access high-value and/or niche markets in key importing countries, and to participate in direct supply relationships, with less price volatility than selling through traditional auction markets (Washington and Ababouch, 2011).

SWOT Analysis of Intra-Regional Fish Trade in Africa

Fish and fish trade is a mainstay of many African economies and represents a significant source of foreign exchange earnings, in addition to the sector's important role in income generation, employment and

food security. The fisheries sector as a whole employs 12.3 million people as full-time fishers or full-time and part-time processors, accounting for 2.1% of Africa's population of between 15 and 64 years old. Table 3 provides a SWOT analysis of intra-regional fish trade in Africa.

Table 3: SWOT Analysis of intra-regional fish trade in Africa

Strengths	Weaknesses
<ul style="list-style-type: none"> Fish is a leading export commodity for Africa African Union Heads of States are beginning to prioritize fish in national and regional development African Union Heads of State made the Malabo Declaration to triple intra-regional agricultural trade by 2025 Role of fish trade in contributing to economic growth and development, and to food and nutrition security high recognized Fish and Fisheries represented in the Sustainable Development Goals 6 Active participation in fish and fisheries related activities including fish trade by NEPAD, WorldFish Center, AU-IBAR and RECs. 	<ul style="list-style-type: none"> Imports into Africa dominated by low value fish and fish products Limited processing and value addition of fish The existing frameworks in Africa are not fish specific and thus fail to address industry-specific aspects of fish trade Limited support to women processors and traders who are key actors in fish trade activities Import requirements and other non-tariff barriers to trade hindering regional fish trade Lack of awareness of cross border traders on trade-related regulations, procedures and fees and charges. Lack of harmonization of quality standards at regional/continental level to facilitate fish trade Poor organization of fish trade actors to enable them lobby for policies.
Opportunities	Threats
<ul style="list-style-type: none"> Raising domestic and intra-African demand due to growing economies, rising populations, increasing urbanization and depleting wild fish stocks Growing aquaculture sector in most countries to act as an avenue for increased trade OSBP, COMESA-SADC-EAC Tripartite Free Trade Area and other initiatives that can enhance intra-regional fish trade Establishment and expansion of supermarkets offering high quality and consistently reliable volumes of fish and fish products to consumers 	<ul style="list-style-type: none"> Poor market infrastructures, border infrastructure, storage facilities and transport networks Rampant informal cross border fish trade such that data on fish trade activities is not captured in national accounts Increasing import of fish (especially Tilapia) from Asia (China) Slow pace of Regional Integration for increased benefits of intra-regional fish trade

Trade Policies and Frameworks

Collaboration amongst African countries on fisheries has been facilitated mostly at the sub-regional level, with a large number of Regional Fishery Bodies (RFBs) and RECs actively involved (World Bank, 2015). The African Union (AU) established a fisheries unit within the African Union Commission, the Inter-African Bureau for Animal Resources (AU-IBAR), in order to support region-wide coordination and reform. Furthermore, collaborative fisheries management has been addressed in the NEPAD Planning and Coordination Agency (NPCA) agricultural program through the Partnership

for African Fisheries (PAF). The main objectives of RECs for the fisheries sector include increased fish production for self-sufficiency and promotion of fish trade within and outside the regions.

In 2005, Abuja, Nigeria, during the AU/NEPAD Fish for All Summit, the African Heads of State and Governments (HSG) endorsed the New Partnership for Africa's Development (NEPAD) Action Plan for the Development of African Fisheries and Aquaculture. Prior to the Abuja Summit, and during their February 2004 Sirte Summit, the Heads of State and Government, endorsed the Sirte Declaration which mandated the AU

Commission to promote the development of fisheries resources, improve facilities to promote post-harvest management, including fisheries management in the Exclusive Economic Zones and regional cooperation in fisheries management.

Further to this, during the Abuja Food Security Summit in December 2006, the HSG endeavored to protect fish as one of the strategic commodities and affirmed their commitment to attain self-sufficiency in fish by 2015. The major milestone in the development of African fish sector came in September 2010, when the first Conference of African Ministers of Fisheries and Aquaculture (CAMFA) was held in Banjul, The Gambia. The CAMFA was subsequently endorsed by the 18th Session of the AU Assembly of Heads of State, in 2011, as the policy organ responsible for fisheries and aquaculture, within the Conference of African Ministers of Agriculture (CAMA).

In 2014, the African Union Commission and NEPAD Planning and Coordinating Agency developed a Policy Framework and Reform Strategy for Fisheries and Aquaculture in Africa. The policy has been formulated with the main purpose of facilitating coherent policy development for the sustainable management of fisheries and aquaculture resources in the member states of the African union. The policy framework has set sustainable aquaculture development as a priority area and it intends to jumpstart market-led sustainable aquaculture through a variety of strategies and, where appropriate, support interventionist development approaches in aquaculture by strong strategic and implementation plans.

Since 2005 the continent has made tremendous progress in restoring fisheries and aquaculture on the priority of national and regional development. At the same time, significant resources have been recommitted towards the sector by many development partners and development finance institutions. However, challenges still remain. Weak human and institutional capacity continues to be a key constraint for positive reform of the fisheries and aquaculture sector. Despite its economic and social importance, the tilapia value chain fisheries sector in African countries is faced with a number of challenges. These include uncoordinated development

approaches, low investment, over-exploitation of some water bodies, and under-utilization of some resources, low aquaculture development and weak linkages between research, management and other public and private players. Furthermore, the fisheries sector has been unable to realize its full potential due to factors such as inadequate funding, environmental degradation and evolving market access issues. Infrastructure is the major constraint that impedes the sector from making its full contribution to the country's economy. Examples include poor roads, electricity supply to fish landing sites and storage sites; poor fish landing infrastructure poor portable water supply, market infrastructure including waste disposal facilities, poor human resource development. Nevertheless, the African aquaculture scenario has changed a lot over the past five years.

Tsamenyi and McIlgorm (2010) examined trade policy as it relates to fish using the African regional trade groupings, COMESA, SADC, EAC, and ECOWAS. In their analysis, they found that, in general, the existing frameworks in Africa are not fish specific and thus fail to address industry-specific aspects of fish trade. They noted that policies are not harmonized among the different trading blocks. The policies of the regional trade groups are to reduce and eliminate import duties. Lacking effective domestic tax collection capacity, many of the country governments rely heavily on trade taxes, so progress on trade tariff harmonization is probably slow. Lack of harmonisation and and/or enforcement in trade policies and sanitary regulations among African States, corruption, harassment at check points continue to hamper the development of intra-regional trade in fish and fishery products.

Efforts to boost intra-regional trade have become increasingly prominent elements of African regional integration and economic development agendas. Among other things, these efforts seek to address issues relating to the poor quality of trade-related infrastructure in the region and to promote trade facilitation initiatives aimed at making it easier for cross-border trading in the region. It is important that cross border fish trade becomes an integral part of such initiatives. Some of the initiatives on the continent, through which fish trade can be incorporated, include the following;

- *The COMESA-EAC-SADC Tripartite Free Trade Area*
The COMESA-EAC-SADC Tripartite Free Trade Area was launched in 2015 stretches from Cape Town to Cairo. The deal will come into force once ratification is attained by two-thirds of the 26 member states.
- *COMESA Simplified Trade Regime (STR) processing fee*
COMESA implemented the Simplified Trade Regime where food commodities of less than US\$500 (varies for different COMESA member states) passing through the border are not subject to taxation let alone the border processing fee. This was mainly done to ease the pressure and waiting time at the border post and also to safeguard the small scale traders which plays a major role in the flow of food commodities.
- *One Stop Border Posts (OSBP)*
OSBP is an integrated border system that aims to bring together all the border agencies for improved efficiencies through streamlined, coordinated and harmonised operations. Some of the OSBP in Africa include
 - Chirundu border post (between Harare and Lusaka)
 - Malaba (Uganda/Kenya) in East Africa
 - Cinkansé (Burkina Faso/ Togo) in West Africa:
 - Mwami/Mchinji One-Stop Border Post

Supporting the concept of one-stop border posts (OSBPs), which have been developed by regional economic communities to simplify the process of exiting one country and entering another for fish traders, will remove a major obstacle. The OSBPs were developed to facilitate cross-border trade but have thus far not focused on the trade in fish.

Recommendations

In looking at the growth of intra-regional fish trade Africa, it is important to consider investments at all levels of the fisheries and aquaculture value chains. There is need for careful planning considering the

enormous potential that countries can derive from intra-regional fish trade by, among others, taking into account region and country specific needs, challenges and opportunities at various levels of fisheries and aquaculture value chains. Participation of the private sector and non-governmental organizations in key fisheries trade key activities should be encouraged. Some of the actions points for policy makers, governments and development partners include the following.

Increasing access to regional markets for small and medium scale fish producers

African domestic and regional markets are expected to continue being the main destination of locally produced fish as demand expands due to population increase and urbanization. Despite the existing market potential for tilapia in Africa, the sector still faces some challenges including the stiff competition from imported tilapia from China. Furthermore, the current quality of fish produced in most African countries is not suitable for export markets due to limited processing and value addition. Addressing these challenges requires strategies that will improve access to regional markets for domestic producers. Key recommendations include

- Reduce regional tariffs and non-tariff barriers and support establishment of common external tariff in order to enhance intra-regional fish trade
- Strengthen trade capacities at country level, especially for local fish farmers and fishers, and improve physical and institutional trade infrastructure in order to increase domestic and intra-African fish trade and investment.
- Support the implementation of eco-labelling mechanisms consistent with the policy on aquaculture environment and biosafety requirements.
- Establish or improve private sector involvement in market development such as provision of fresh produce cold chain facilities.
- Provide financial support to artisanal fish processors and traders, in particular women entrepreneurs, to further develop their enterprises
- Build capacity of all actors in the fisheries value chain, particularly women who have the potential to transform the market system.

Improve fisheries data collection methods to ensure that all fish species and quantities being traded in domestic and across borders are recorded.

- This can be achieved through harmonization with existing, FAO/ WorldFish/ & National data collection methodologies.
- Fisheries departments and Commissions could cooperate with the Regional Fish data agencies research institutions, universities and private sector operators to share data.
- Governments should provide technical and financial support to border agencies to help them carry out their duties effectively.

Formalize and make more transparent appropriate export and import procedures and fees applicable to small scale fish traders and establish more One Stop Border Posts (OSBPs). On specific actions:

Transparency and predictability of trade-related regulations, procedures and fees and charges, could be done by regularly publishing such information in official gazettes, and in the media, enabling dialogue with stakeholders facilitate comments on new or modified regulations before entry into force.

- There is need to harmonize fish imports and exports documents/requirements in the RECs or in the region.
- Countries can take advantage of the One Stop Border Post (OSBP) as a channel for harmonization of trade documents on fisheries commodities. More efforts should be directed at integrating fish in the One Stop Border Posts (OSBPs).
- Enforcement of signed African trade related treaties, including the new CFTA (African Continental Free Trade Area).
- Harmonization, domestication and implementation of regional fish and fish product standards.
- Simplification of documentation and procedures for small scale fish traders as well as the decentralization of issuance of such documents.

Improve value addition of fisheries products through processing to ensure competitiveness at regional and global markets

The downward linkages including processing and marketing are critical for enhancing global exports of

fish. Thus, safety and quality standards are essential. Lack of processing facilities, technical expertise and national/regional standards and guidelines on quality standards in farmed fish value chains in Africa has led to limited intra-regional fish trade. Therefore, public and private investments are urgently needed to improve value addition of fisheries products from Africa. Recommendations include:

- Through Public Private Partnerships (PPPs) or otherwise, set up fish processing plants that will add value to both wild and farmed fish for export to regional markets
- Provide training for certifiers, processors and other SMEs to ensure compliance to market requirements in the regional and across the globe.
- Increased promotion of African fisheries products to regional and international markets through trade fairs and other such opportunities.
- Expand research and development for post-harvest technology, processing and value addition
- Prepare, publish and regularly monitor guidelines on quality standards of aquatic products to protect public health as well as to improve the acceptability of aquaculture products

Conclusion

The working paper summarizes the opportunities that exist for Africa with regard to intra-regional as well continental fish trade. Improved intra-regional trade in fish and fishery products can play a major role in terms of creating employment, generating income, economic growth and development, as well as providing food and nutrition security. Studies conducted in four major trade corridors, Western, Southern, Eastern and Central Africa, have shown that these corridors are well interconnected. However, a coherent continental policy that can guide intra-regional fish trade is non-existent. This paper provides recommendations that have emanated from studies conducted through the FishTrade Program, funded by the EU and implemented by WorldFish, AU-IBAR and NEPAD. These include calling upon member states to increase investments at all levels of the fisheries and aquaculture value chains which must take into account region and country specific needs, challenges and

opportunities, encouraging participation of the private sector and non-governmental organizations in key fisheries trade key activities should, improving value addition of fisheries products through processing to ensure competitiveness at national, regional and global markets, enhancing access to regional markets for small and medium scale fish producers, and improving fisheries data collection methods.

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Prepared by:

Professor Emmanuel Kaunda

Lilongwe University of Agriculture and Natural Resources (LUANAR)

P.O. Box 219, Lilongwe, Malawi

Email: ekaunda@bunda.luanar.mw

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African Union – Interafrican Bureau for Animal Resources (AU-IBAR)
Kenindia Business Park, Museum Hill, Westlands Road
PO Box 30786-00100 Nairobi, Kenya.
Tel: +254 (20) 3674 000
Fax: +254 (20) 3674 341 / 3674 342
Email: ibar.office@au-ibar.org
Website: www.au-ibar.org