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The role of intra and inter-regional fish trade in delivering Economic and Social Development in Africa

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Executive Summary
Fish trade facilitates the distribution of fish and fish products from the point of production to the point of demand, where revenue may be generated. There have been challenges in developing intra- and inter-regional trade in Africa due to limited information on existing constraints and opportunities. The socio-economic benefits of intra- and inter-regional fish trade within Africa have been assessed in order to generate information to inform policy decisions. Cross-border trade in fish and fish products is highly significant to the economies of African countries, and offers opportunities to enhance regional integration. There is a particular need for policy reforms to guide domestic and regional commodity trade to promote inclusion of small-scale traders, including women and youth. Key to these reforms is the need to improve domestic fish trade to promote competitiveness in regional trade, eliminate corrupt practices along the borders and increase access to regional market information.

Key Recommendations

- **Enhance efficiency in domestic fish markets**, by developing strategies to improve productivity and quality, as a step to building greater capacity to engage in export markets.
- **Support research** to understand regional trade flows, characterise markets, identify investment opportunities and guide trading and policy decisions.
- **Build knowledge on regional trade rules and regulations** to support fish traders to comply with hygiene and quality standards, particularly where literacy is limited.
- **Address corrupt practices** associated with cross-border fish trade, by establishing transparent rules and regulations, encouraging anonymous reporting and enforcing penalties.
- **Review government policies and regulations**, and strengthen the capacity of institutions to oversee their implementation.
**Introduction**

Economic and social development involves progress in a society’s quality of life, as a result of activities in the local, regional or global economy. This can be achieved through long-term income growth. The NEPAD Declaration on Social and Economic Development aims for continuous improvement in the well-being and living standards of African people. This presents a market opportunity, which relies on the existence of functional trade systems to bring goods and services to the society. The classical trade theory of “absolute advantage”\(^1\) is based on the premise that trade between countries should flow unhindered and according to market forces, and that greater efficiencies will benefit populations in both countries.

There is strong evidence that trade, as a critical component of economic growth and development, can make a positive difference in people’s lives – especially in low- and middle-income countries\(^2\). Since trade opportunities support income growth, expanding trade among fish-dependent communities can contribute to other societal objectives such as poverty reduction and sustainable fisheries management. Fish can also contribute to national economic and social development by integrating fish trade into regional trading systems.

Recent research by WorldFish, AU-IBAR and NEPAD has shown that fish-dependent communities are deriving social and economic benefits from fish trade, especially cross-border trade. African countries stand to make significant gains from greater integration of fish in cross-border trade, although the trade significance of fish continues to be overlooked in many countries and Regional Economic Communities (RECs). This Policy Brief draws on recent work by African postgraduate research students, to present concrete examples from countries where cross-border fish trade is important and describe social and economic gains from domestic, intra- and inter-regional trade.

**How can fish exports contribute to Africa’s social and economic development?**

Strong growth of 24% in trade within the African region was reported between 2010 and 2012, despite diminishing trade in global and regional markets\(^3\). In 2012, fish represented about 10% of total agricultural exports and 1% of world merchandise trade in value terms. This upward trend in fish trade reflects both the overall growth in agricultural trade volumes\(^4\) and greater integration of the agricultural sector into global markets. Sub-Saharan African countries’ agricultural products account for more than half of export revenue. High prices in international food markets and growing demand for high-value products have created opportunities for low- and middle-income countries to achieve economic growth through increased exports\(^5\), leading to strong GDP per capita growth during the past decade\(^2\).

Agricultural exports are reported to have a particularly strong potential for raising incomes and reducing poverty in rural areas\(^6-8\). Recent analysis from twelve African countries identified ten agricultural products with high export potential (Table 1). Fish was nominated as a product with particular opportunities for export in Mauritania, Sao To and Principe, Senegal and Uganda.
Table 1. Products with export potential identified in Diagnostic Trade Integration Studies^2

<table>
<thead>
<tr>
<th>Country</th>
<th>Year</th>
<th>Cashews</th>
<th>Cocoa</th>
<th>Coffee</th>
<th>Cotton</th>
<th>Fish</th>
<th>Flowers</th>
<th>Ground-nuts</th>
<th>Livestock</th>
<th>Tea</th>
<th>Tobacco</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mauritania</td>
<td>2002</td>
<td></td>
<td></td>
<td></td>
<td></td>
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<td></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Mozambique</td>
<td>2004</td>
<td>X</td>
<td></td>
<td></td>
<td></td>
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<td></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Niger</td>
<td>2008</td>
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<td></td>
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<td></td>
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<tr>
<td>Rwanda</td>
<td>2005</td>
<td></td>
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<td></td>
<td></td>
<td></td>
<td>X</td>
<td></td>
<td></td>
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<tr>
<td>Sao To &amp; Principe</td>
<td>2006</td>
<td></td>
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<td></td>
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<tr>
<td>Senegal</td>
<td>2003</td>
<td></td>
<td></td>
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<td></td>
<td></td>
<td>X</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sierra Leone</td>
<td>2006</td>
<td>X</td>
<td>X</td>
<td></td>
<td></td>
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<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sudan</td>
<td>2008</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>X</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Tanzania</td>
<td>2005</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Togo</td>
<td>2010</td>
<td>X</td>
<td></td>
<td></td>
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<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Uganda</td>
<td>2013</td>
<td>X</td>
<td>X</td>
<td></td>
<td></td>
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<td></td>
<td></td>
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<td></td>
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<tr>
<td>Zambia</td>
<td>2005</td>
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<td></td>
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</tbody>
</table>

What are the opportunities for intra- and inter-regional fish trade in Africa?

Fish trade has long been central to the economies of many African countries and communities. Improvements in fishing technologies, exchange of information among traders, commoditisation of fish and improved transport infrastructure have supported an increase in fish trade^9. Evidence of intra- and inter-regional trade can be seen in the diversity of fish species available in local markets in many countries, including species not found in local fishing grounds.

Africa was a net exporter of fish and fish products based on value for the period 1985–2010, but a has been net importer, based on quantities (reflecting the lower unit value of imported small fish species)^9. Intra- and inter-regional trade in Africa remains low, but fish has been identified as the second most traded agricultural commodity intra-regionally (after sugar), and the highest traded commodity in the world^10. Of the total value of US$130 billion across the globe, African fish trade accounted for only US$5 billion^3. Trade within and between regions of Africa is substantially greater than the export of fish to countries outside of the African continent.

Table 2 below shows the quantity of fish products exported from West African countries (Economic Community of West African States, ECOWAS) based on 2011 figures. Trade between ECOWAS countries and other African countries (inter-regional trade) represented the highest proportion of fish exports, followed by trade between ECOWAS countries (intra-regional trade), and then by trade from ECOWAS countries to the European Union (37%, 31% and 24%, respectively). Trade within the African continent was greater than with the rest of the world. Until recently, exports from West African countries to the EU was facilitated by arrangements set up under the EU-ACP conventions, and amounted to €308 million in 2011^11. Figure 1 shows the fish trade flows between Cote d’Ivoire and other countries in West Africa, with major products being marine and freshwater species, that are transported either frozen, smoked or dried.
Table 2. Destination of exports of fishery products from West African countries in 2011\textsuperscript{11} (based on data from International Trade Centre / UNCTAD-WHO, www.trademap.org)

<table>
<thead>
<tr>
<th>Country</th>
<th>Quantity to each destination (tonnes)</th>
<th>Total quantity (tonnes)</th>
<th>Value (US$)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>ECOWAS / Africa / Europe / Asia / America</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Benin</td>
<td>96 / 96 / 185 / 0 / 0</td>
<td>377</td>
<td>212 000</td>
</tr>
<tr>
<td>Burkina Faso</td>
<td>0 / 0 / 0 / 0 / 0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Cape Verde</td>
<td>0 / 2 215 / 7 680 / 3 785 / 1 125</td>
<td>14805</td>
<td>9 540 000</td>
</tr>
<tr>
<td>Côte d'Ivoire</td>
<td>7 338 / 7 554 / 2 385 / 1 / 50</td>
<td>17328</td>
<td>21 687 000</td>
</tr>
<tr>
<td>Gambia</td>
<td>379 / 570 / 1 143 / 395 / 85</td>
<td>2572</td>
<td>3 428 000</td>
</tr>
<tr>
<td>Ghana</td>
<td>13 747 / 13 747 / 4 389 / 4 10 / 67</td>
<td>32360</td>
<td>24 092 000</td>
</tr>
<tr>
<td>Guinea</td>
<td>5 381 / 5 381 / 0 / 2 479 / 52</td>
<td>13293</td>
<td>2 816 000</td>
</tr>
<tr>
<td>Guinea Bissau</td>
<td>n/a / n/a / n/a / n/a / n/a</td>
<td>n/a</td>
<td>1 253 000</td>
</tr>
<tr>
<td>Liberia</td>
<td>2 / 2 / 0 / 45 / 17</td>
<td>66</td>
<td>723 000</td>
</tr>
<tr>
<td>Mali</td>
<td>497 / 497 / 0 / 0 / 0</td>
<td>994</td>
<td>130 000</td>
</tr>
<tr>
<td>Niger</td>
<td>459 / 459 / 0 / 0 / 0</td>
<td>918</td>
<td>377 000</td>
</tr>
<tr>
<td>Nigeria</td>
<td>22 / 181 / 8 720 / 370 / 2 054</td>
<td>11347</td>
<td>73 255 000</td>
</tr>
<tr>
<td>Senegal</td>
<td>38 742 / 50 754 / 30 723 / 5 392 / 1 102</td>
<td>126713</td>
<td>211 476 000</td>
</tr>
<tr>
<td>Sierra Leone</td>
<td>251 / 306 / 18 / 76 / 394</td>
<td>1045</td>
<td>1 063 000</td>
</tr>
<tr>
<td>Togo</td>
<td>2 542 / 3 048 / 125 / 0 / 69</td>
<td>5784</td>
<td>4 026 000</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>69456</strong> / <strong>84810</strong> / <strong>55368</strong> / <strong>12583</strong> / <strong>5015</strong></td>
<td><strong>227602</strong></td>
<td><strong>807 546 000</strong></td>
</tr>
</tbody>
</table>

Figure 1. Domestic and cross-border fish trade channels in and from Côte d'Ivoire\textsuperscript{12}
What social and economic benefits does fish trade provide?
The value provided by the African fisheries sector was estimated at more than US$24 billion in 2011, representing 1.26% of the Gross Domestic Product (GDP) of all African countries, with aquaculture producing an estimated value of almost US$3 billion per year. The fisheries sector employs 12.3 million people, accounting for around 2% of Africa’s population between 15 and 64 years old. Of these, almost half were fishers, 42.4% were processors and 7.5% were engaged in aquaculture. Women account for 27.3% of the total workforce in the fisheries sector, and are particularly involved in processing activities (58%) and to a lesser extent in fishing (3.6%) and aquaculture (4%).

In terms of food and nutrition security, fish is an important source of animal protein and key micronutrients. Per capita consumption of fish in Africa was reported to be 9.7 kg per year. This is lower than the global average (18.9 kg per year), and has reduced or remained stagnant in some countries (including Congo, Gabon, Liberia, Malawi and South Africa). Small indigenous fish species are particularly nutritious. Consumed whole (including head and bones), these fish provide high-quality protein, essential fatty acids and micronutrients such as iron, zinc, calcium, vitamin A and vitamin B12.

Examples of income earned through cross-border fish trade by producers, processors and traders (including women) include:

- In West Africa, fish traders along the Nigeria-Benin border sell an average of 247 kg fish per month, providing an average monthly income of US$411 (range US$87-745). This places cross-border fish traders, of whom 40% are women, well above the minimum wage in Nigeria of US$50 per month.

- Smoked fish is purchased by traders for US$1.17/kg in Joal in Senegal, shipped to Korogho in Cote d’Ivoire, where it is sold to wholesalers at US$1.96/kg, and on to retailers at US$2.46/kg. Taking into account transport costs, non-tariff barriers and bribes incurred along the way, the traders still sell the consignment at a profit, despite substantial physical losses during transport due to weather conditions along the way. A regular truckload of 42.8 tonnes from Senegal costs around US$50,000, and (allowing for physical losses) receives a price of almost US$80,000 in Cote d’Ivoire.

- In Mozambique, an estimated 2,579 tonnes of fish is exported informally across the country’s borders to South Africa, Malawi, Zimbabwe, Tanzania and Zambia. This involves about 600 fish traders (27% women), who earn US$50-800 per month, compared to the national minimum wage of US$56 per month. Fish trade has been reported to contribute over 70% to most household incomes in the border towns.

- In Central Africa, an average of 123 tonnes of processed fish was exported from Cameroon to Nigeria monthly, at an estimated value of US$1.02 million; while around 64 tonnes/month was imported to Cameroon from Equatorial Guinea and Gabon, at an estimated value of US$160,964. An estimated 5,490 tonnes/month was also exported to Equatorial Guinea, Gabon and Nigeria from Cameroon, for a value of US$562,034.
What are current constraints to intra- and inter-regional fish trade?

Despite a robust intra- and inter-regional fish trade in many parts of Africa, there has been limited success in harnessing this thriving trade for large-scale social and economic development impact. Much of the cross-border fish trade takes place in small-scale operations and in rural settings, and is often not measured and therefore not accounted for in national figures. A common lack of awareness of the significance of cross-border fish trade results in limited policy or regulatory frameworks, as well as public sector investments such as roads and storage infrastructure.

Current constraints to intra- and inter-regional fish trade, which may be resolved through targeted technical assistance include:

- **Poor infrastructure**
  Fish processing centres are often far from major markets, since fish landing sites tend to be in remote lakeshore or coastal villages. Even when the distances are not so great, roads are frequently in poor condition. Transport is a major cost for cross-border traders.

- **Physical isolation of border towns and communities**
  Borders create the sense of physical separation between communities in different countries, limiting the free flow of goods and services. Leveraging market opportunities across borders will not only allow intra- and inter-regional trade, but can build solidarity between communities and share the benefits of economic growth and prosperity.

- **Challenges establishing credibility with international suppliers**
  Small and medium enterprises (including fish processors and traders) are often perceived to be less capable than larger-scale operations. A cycle may exist, whereby a lack of credibility deters governments from issuing import licenses to small-scale cross-border traders, limiting their opportunity to demonstrate competency. Helping small-scale traders to establish a reputation in one country will build their credibility, and support clusters of fish exporters.

- **Poor institutions and networks necessary for trade**
  These include producer organisations, domestic legal environments for business, exporters’ and importers’ associations and regional business networks. Cross-border fish trade is a service and traders require linkages with other related service providers (e.g. customs clearing agents, and safety and quality inspectors). When cross-border traders are unable to access these service providers in their home countries, their reliance on those in other countries may undercut their competitive advantage.
How can the potential of cross-border fish trade be achieved?
The push for cross-border fish trade in Africa is motivated by benefits seen in other regions, such as Europe, where trade has been liberalised across borders. Key policy reforms will be required when structuring fish trade liberalisation, to maximise its impact on regional integration and social and economic development in Africa. These policy reforms include:

- **Enhancing efficiency in domestic fish markets**
  A strong and competitive domestic market is central to developing export capacity. Technical support to local fish processors and traders is important to ensure cost-efficient production which meets quality standards. Improvements to post-harvest handling is critical for quality products and adequate shelf life for the long transit distances from sources to markets. Better quality products will enable traders to present products that are more competitive for cross-border and export markets.

The productivity and quality of fish products can be improved through access to credit, improved hygiene of processing facilities, and the use of updated processing equipment. Many African countries have adopted the WTO Agreement on the Application of Sanitary and Phytosanitary Measures, which outlines basic rules for food safety and animal and plant health standards.

- **Supporting more research to understand regional trade flows**
  The FishTrade Program has clearly shown the value of evidence to guide policy decisions. Greater investment in research will deepen African countries’ understanding of fish trade flows and will identify import, export and related investment opportunities in the various RECs. Research is also needed to document supply and demand trends, characterise markets, and identify business opportunities. More importantly, make the information from research, available to traders.

- **Strengthening capacity for knowledge on regional trade rules and regulations**
  Despite clear free trade rules, many fish traders still face fees associated with cross-border trade. Our research has revealed substantial confusion on the requirements for traders to move food commodities such as fish. High levels of illiteracy are consistently reported amongst cross-border fish traders (e.g. 35% in Ghana, 28% in Mozambique, 55% in Côte d’Ivoire). This may increase the difficulty in understanding and complying with hygiene and quality standards, especially for processed products destined for export markets. There is a need for clear and accessible messaging to raise awareness about trade rules, among both government officials and cross-border fish traders.

- **Addressing hidden barriers, especially corruption**
  Effective regional integration requires strategies which address the multiple constraints faced by producers, processors and traders. There is a need for inclusive policies that do not discriminate against small-scale operators, including women. Corrupt practices present a high cost to cross-border fish traders, and especially to women. National governments and non-
governmental organisations can create the necessary environment to prevent corruption, by establishing transparent rules and regulations for cross-border trade, encouraging anonymous reporting of offenders, and penalties for those engaging in corrupt practices.\textsuperscript{23}

- **Reviewing policies and regulations**
  There is a need to review government policies on cross-border fish trade in Africa, establish regulatory reform and strengthen the capacity of institutions responsible for enforcing these regulations. This task will require collaboration between national institutions (e.g. customs, plant and animal health inspectors) and those at the level of RECs.
References


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