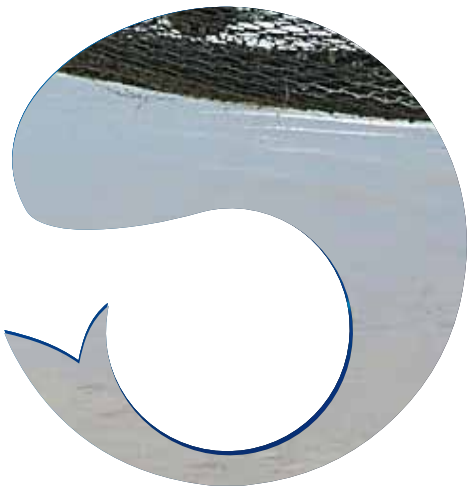
The Pan-African Fisheries and Aquaculture Policy Framework and Reform Strategy: Market Opportunities and Challenges for African Aquaculture Products

Value Chain Approach for Africa to Keep its Place in the Regional and Global Market Arena



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Executive Summary

Market-based economies are strengthening throughout Africa and development goals are taking account of this through a focus on harnessing the value chains to meet market demands.

Commercial aquaculture has a clear role in value chains for fish/seafood with potential attributes of freshness, consistency and value.

A value chain approach to aquaculture market development will enable African countries to clearly identify both constraints and opportunities for the development of the sector. It also recognizes the need to focus on profit and competition as driving forces to improve both product quality and production efficiency.

This policy brief recommends improving documentation and communication of market information for all value chain participants; enhancing price competitiveness; driving up quality and ensuring food safety; as well as identifying and addressing technical weaknesses.

Governments should ensure well-regulated access to natural resources, including water and land for aquaculture production; developing additional strategic support mechanisms; and promoting industry-wide organization and cooperation to enhance present market opportunities.

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Introduction & Background

For most African countries, aquaculture has been neither a major contributor to food security nor a driver of economic development. However, this is changing rapidly, particularly as more sophisticated value chains emerge linked with growing prosperity and international trade. Aquaculture is often perceived as a means to fill the gap between constrained supplies from capture fisheries and rising demand from growing and more affluent populations. However, for some countries at a national strategic level, this could mean missing an opportunity for economic development, as seafood markets, especially internationally, are far more complex and dynamic than simple quantity based calculations might suggest. Market oriented production can experience substantial growth. This has been demonstrated by average aquaculture growth rates across Africa of over 13% per annum over the past 10 years, compared with the global average of 6.3%[1]. Aquaculture in Africa has a value of USD$2.9 billion (Food and Agriculture Organization and NEPAD Planning and Coordinating Agency 2014). The potential however is far greater, as two thirds of this total is from just one country, Egypt. Other African countries that are also experiencing rapid growth in aquaculture production, most notably Nigeria. FAO data show growth rates here as over 25% per annum (almost 30% when considering value). The Nigerian share of African aquaculture production has risen from around 6% to almost 16% in the last decade. The scope for wider development can be considered with reference to data such as Africa produces only 2.34% of global aquaculture (Sub-Saharan Africa only 0.84%) whilst accounting for 20% of the world's land mass and 15% of the population. Globally, aquaculture is now providing around 50% of seafood whilst the proportion for Africa is only 15% (although this has risen from 5% within the last 10 years).

Although African per capita Gross Domestic Product (GDP) is lower than in other continents, GDP growth rate is now the highest[2], suggesting a positive environment for investment. Domestic and regional markets are currently attractive for aquaculture producers so commercial aquaculture can play a positive role in food security and healthier populations through improved nutrition, especially in inland areas. However, with Europe and America possessing substantial seafood deficits and parts of Asia transitioning from surplus to deficit, long-term prospects for international exports are also good. In brief, there are good prospects for the aquaculture sector in Africa to grow several times larger than the current USD$2.9 billion industry.

An analysis of aquaculture within the context of value chains provides a clearer understanding of current opportunities and constraints for development by emphasizing dependencies, for instance, on upstream suppliers (inputs) and downstream processing and distribution functions.

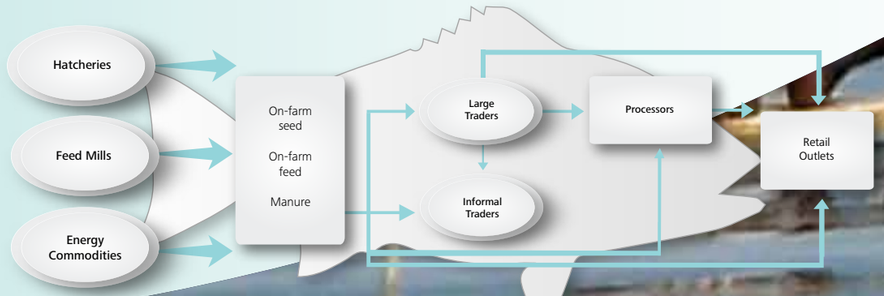

Figure 1: Generalised aquaculture value chain from Zambia[3]

1 Aquaculture statistics are taken from an analysis of the FAO FishStat database or directly from FAO "The Status of World Fisheries and Aquaculture, 2012" http://www.fao.org/docrep/016/i2727e/i2727e.pdf)
2 http://www.afdb.org/en/news-and-events/article/africa-is-now-the-fastest-growing-continent-in-the-world-12107/
3 From Beveridge, M. and Krijssen, F., (2011) Workshop: An Introduction to Value Chains. WorldFish Centre, Penang, Malaysia, 18-22/07/2011

Aquaculture value chains differ from those for poultry and most other livestock in that the product is often mixed and undifferentiated from product from the wild (hunted/captured) at the point of retail (or earlier in the processing and distribution chain). Indeed, seafood market chains in Africa are dominated by products from the capture fisheries with aquaculture product being a relatively minor component. This can place aquaculture products at a disadvantage as price-takers in the market place. An alternative orientation is to positively promote differentiation of aquaculture products as something that can be demand driven rather than supply driven with far better provenance and control over quality and consistency.

The key drivers are the competition between products on the market, and the profitability of businesses, which drives further investment and growth. Policy measures should support both of these mechanisms throughout the value chain.

Problem Statement

There has been a tendency in the past for aquaculture policy to focus on subsistence level aquaculture (non-commercial) for nutritional enhancement; which is only accessible to those with access to adequate land, water and nutrient inputs and appropriate technical support. As all these have been constrained (especially as the proportion of the population living in urban environments rises) actual contribution to food security from this type of aquaculture has been limited. A recent shift in focus to supporting more intensive commercial aquaculture production has led to a rapid rise in production, albeit still at a relatively low level, that has capacity to expand markets and create further opportunities.

A market oriented approach considers target markets with identifiable capacities, price points, product and quality requirements. Local, national, regional and global seafood markets all have value chains in which different types of aquaculture business can successfully participate. Government actions can help to encourage appropriate investment and support the development of more competitive businesses that are both able to grow and better meet the needs of consumers. Key issues that policy measures can address include:

- Improved market information (domestic, regional and international) to guide producers

Market information services that provide producers with data on sales volumes and prices, consumer research and expert analysis of trends can help producers to properly target and compete in those markets. The development of new value-added products, for instance, can expand the market for aquaculture producers.

- Well-regulated sustainable access to natural resources and environmental services

Aquaculture production can be environmentally sustainable with positive benefits to society and preservation of biodiversity. In some cases it can be less damaging than existing land or water use and can certainly be more productive and profitable. Resource use conflicts, therefore, need to be fairly and expertly addressed. Unregulated access to suitable land and water resources can quickly damage both the environment and the industry. On the other hand, overly restricted access (whether deliberate or a result of inefficient regulation) can inhibit investment and development. Experience elsewhere suggests a well implemented framework for spatial planning can be beneficial.

- Reductions in input cost through efficiency and productivity gains, improved infrastructure, vertical integration and scale factors

African aquaculture is often uncompetitive due to high input costs (e.g. feeds, power and transport) and inefficiencies such as poor growth due to feed spoilage. There is also scope to take advantage of scale economies, or vertical integration to lower management overheads.

- Improvements in quality and the implementation of international standards and the development of greater value-added products to open the door to new markets

Fresh fish is a highly perishable product, so without proper handling or processing, it can quickly loose quality and hence value. International standards for ensuring product quality, food safety and a range of ethical attributes exist and are often required for access to markets. Government Competent Authorities have a key role in supporting industry efforts to achieve these standards

- The reduction of trade barriers to improve access to key inputs, open new markets and enable scale efficiencies

Trade tariffs or other barriers to regional and international trade are often introduced to protect local producers from external competition. This can often be of benefit, but there can also be unintended consequences. In the long-term, they can limit the market for domestic producers and, hence, their ability to grow and achieve scale economies that benefit domestic consumers. Furthermore, they may restrict or increase the price of vital inputs such as formulated feeds or feed ingredients, again reducing the competitiveness of domestic producers. Lack of competitiveness in domestic markets will also normally mean lack of competitiveness in export markets.

Policy Recommendations

- Improved collection, documentation and dissemination of market information is recommended. This should be based on value chain analysis with market needs and price competitiveness identified at different levels. Dissemination should involve suitable information systems to guide hatchery and grow-out producers, upstream suppliers and downstream processors and distributors of domestic, regional and global opportunities and market requirements.

- As a relatively new activity, aquaculture development can easily conflict with existing users of natural resources (fisheries, agriculture or livestock), especially land and water, or can impose substantial pressures on ecosystems and environmental services; particularly waste disposal. Local expertise, institutional capacity and regulatory frameworks (e.g. based on spatial planning and perhaps zoning) need to be established to manage resource issues for sustainable development.

- Improvements in price competitiveness of African aquaculture products should be supported through investment in public infrastructure, including road networks, port facilities, energy supplies, and where appropriate, public feed and cold stores, and fish marketing facilities at local markets, and where possible, the reduction in regional and international trade barriers and the harmonization of import/export regulations.

- Improvements in quality competitiveness of African aquaculture products should be supported through strengthening Competent Authorities capacity and facilities, the full implementation of food Sanitary and Phytosanitary (SPS) regulations, the introduction of standards for manufactured aquafeeds and support to commercial enterprises to implement the standards

- Technical weaknesses in addressing market requirements should be identified and support measures introduced – for instance research and training on seed and feed production, advanced fish processing technologies and the implementation of HACCP etc.

- The formation of aquaculture producers associations should be promoted and supported as channels of extension and peer learning, cooperation on bulk purchase of inputs, the pooling and coordination of product for better marketing and the implementation of codes of conduct and certified standards.

- Fiscal and financial measures can be considered to accelerate investment in key areas (such as aquafeed production) where these address key value chain constraints. These might include initial periods of preferential tax rates, access to low interest loans, the establishment of low rent agro-industry parks, and funding for feasibility or pilot scale projects etc.

Conclusion/Implications

Economic development is most rapid in African countries that are adopting global models of well-regulated free enterprise. In this context, aquaculture production and associated benefits of improved food security and wealth generation have been associated with private sector investment in intensive aquaculture systems oriented towards meeting market demands. Success however depends on a healthy value chain from primary inputs to a wide range of products meeting the needs of different market segments. Policy support must therefore take account of all chain actors and the mechanism of commercial competition in driving production, efficiency and innovation.

Policy recommendations are made for general measures that will support the development of a wide range of commercial activities including the aquaculture value chain (e.g. natural resource access management, infrastructure development and trade liberalisation and harmonisation). More specific recommendations are made with respect to strengthening capacity for quality control, promoting industry associations and supporting market research and information systems.

Further reading

Ridler, N. & Hishamunda, N. 2001 Promotion of sustainable commercial aquaculture in sub-Saharan Africa. Volume 1: Policy framework. Food and Agriculture Organisation of the United Nations. Fisheries Technical Paper 408/1

Beveridge, M. and Krijssen, F., (2011) Workshop: An Introduction to Value Chains. WorldFish Centre, Penang, Malaysia, 18-22/07/2011

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