

# Policy Briefing

## Commercialising the aquaculture sector in Malawi



**The AgriTT programme** is an innovative trilateral initiative between the UK Department for International Development (DFID), the Chinese Government, the Governments of Malawi and Uganda and the Forum for Agricultural Research in Africa (FARA). The programme facilitates the sharing of successful experiences in agricultural development with developing countries to improve agricultural productivity and food security.

**AgriTT Pilot Development Projects** work with small farmers, agricultural outreach agencies and policy-makers in Malawi and Uganda to introduce agricultural technology innovations from China and embed these in a value chain, of which farming communities will be the primary beneficiaries. **The Malawi Pilot Development Project** supports the development of the tilapia aquaculture sector.



Agricultural  
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### Understanding the market for feed and fingerlings and commercialising their supply chains

**A lack of private, commercial activity in the Malawian aquaculture sector has meant that critical elements of the market, such as feed and fingerling supply chains have been neglected to the point that currently neither affordable, high quality feed nor fingerlings are available for the majority of producers.** This lack of commercial inputs in the supply chain has been highlighted as one of the main limiting growth factors for the sector and must be addressed if the industry is to commercialise and grow in a sustainable manner. In order to promote the sustainability of project achievements, AgriTT commissioned a study to identify how to encourage sustainable commercial development in key areas of feed and fingerling supply.

**To develop a strategy for commercialising the feed and fingerling supply chain, the scope and dynamics of the current and potential market must first be understood.** The AgriTT study identified the following market information.

#### **The smallholder sector is broadly split into three categories:**

1. Subsistence producers who are currently unable to afford to purchase any feed or fingerlings (around 80% of current smallholder producers)
2. Smallholder producers who demonstrate the financial viability to be able to purchase feed and fingerlings but do not currently do so
3. Smallholder producers who are already purchasing feed and fingerlings,

and operate semi-commercially

If it is assumed that 20 per cent of the current 7,000 fish farmers in Malawi are willing and able to purchase feed and fingerlings then the current potential market volume and value is 210 MT feed, with a value of approximately 61.8 million Malawi Kwacha (MK) (US\$ 86,000<sup>1</sup>) and ~ 3.2 million fingerlings, worth approximately 79 million MK (US\$ 110,000).

**Commercial actors are those who produce for regular market channels, and where profits are reinvested in the business.** There are currently only around twenty commercial aquaculture producers in Malawi. These all purchase, or produce their own, feed and fingerlings. The lack of available fish farming inputs is stated as one of the main barriers to a greater number of commercial players entering the industry.

**Feed is currently imported from Zambia or purchased from Maldeco (the largest Malawian commercial fish feed producer) at a price of approximately 575 MK (US\$ 0.8)/kg.** If formulated feed cannot be purchased, locally available ingredients, such as maize bran, are used.

**Some commercial players (Chambo Fisheries, Maldeco) produce their own fingerlings, others purchase from NAC (but supply is limited), smallholder producers generally do not restock with purchased fingerlings but rely on natural reproduction in their ponds.**

**The report finds that the current lack of reliable, quality fingerlings is the major barrier to development within the sector.** Therefore, focus must be on addressing the lack of quality fingerlings and the production as well as distribution

<sup>1</sup> US dollar figures are based on the exchange rate at the time of writing.

of monosex fish for all producers, to maximise fish production potential.

**Current producers from the public and private sectors are not meeting demand, therefore to catalyse sector development, there is a need to facilitate private sector investment on a larger scale**, through the development of well-placed, mid and large-sized hatcheries to meet market demand. In areas of low production, often more geographically remote, a second strategy could empower mid-scale smallholders to become hatchery operators as it is not economically feasible for larger commercial operators to target these areas.

**A critical mass of production does not currently exist to justify investment in the production of high quality fish feeds**, this market segment is already fulfilled by Maldeco or Zambian imports.

**There is a need to support the access of medium and small-scale producers to improved feed** and three approaches are suggested:

1. The local production of a mid-range feed costing around 359 MK (US\$ 0.5)/kg - further research is needed to confirm the size of the market needed for this to be viable.
2. Small-scale private feed suppliers offering low cost, basic feed in more disparate production areas are required.
3. Improved recommendations regarding on-farm feeds (maize bran supplemented with protein such as soybeans or ground small fish) and to gear their production towards local, 'small fish' markets, an option that still offers opportunities for profitability under appropriate farm management conditions.

## Policy recommendations

### Stimulating Private Investment

Sector development depends on the right balance between public and private sector activity. An enabling environment is needed for the private sector at the larger commercial scale, and for smallholders through service provision. Government research centres have a key role to play in African aquaculture in developing improved fish strains and feed, but their comparative advantage is not as input providers. **In contrast to the public sector, private actors demonstrate a core focus on profitability and will therefore drive production, quality and affordability further through the development of more reliable input supply chains for feed and fingerlings.** Creative thinking is needed on how to encourage this investment, for example, through use of a challenge fund, or fiscal incentives.

### Commercialising Smallholder Producers

There are barriers to smallholder production that are challenging to address, such as inconsistent supplies of water and insufficient seasonal water temperatures to encourage optimal growth. However, capacity can be built through appropriate interventions: for example, development of business acumen in procuring key inputs, and training in essential record keeping and targeting the most lucrative markets. **Efforts should be made by development partners to better understand different smallholder profiles, in order to promote viable business models and provide appropriate technical support.**



**The main conclusion drawn is that the priority for commercialisation of smallholders should be the development of more reliable, year-round supply of fingerlings - ideally monosex - and relatively affordable fish feed.**

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