Value-chain dynamics, the small-scale sector and food security

Policy recommendations for international fish trade

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Background

• From 2009 to 2012, FAO conducted a value chain analysis of international fish trade with an impact assessment for the small-scale fisheries and aquaculture sector with the financial support of Norad

• The analysis was a follow-up to a FAO study in 2004 on the impact of international fish trade on local food security
Background

• Analysis involved case studies focusing on nine developing countries, including: Bangladesh, Cambodia, Ghana, Honduras, Kenya, Maldives, Peru, Thailand and Uganda
• Developed countries were also included: Canada, Iceland, Japan, Spain and Norway
• Focus was on small-sector in developing countries, but developed countries and large-scale sector were also analysed to serve as a reference of comparison
Goals of the project

• To achieve a better understanding of the dynamics of relevant value-chains in domestic and international fish trade

• To recognize opportunities for the small-scale sector to obtain more value for their products

• To make policy recommendations for how developing countries can increase the value derived from their fishery resources and improve their food security
The social and economic importance of the small-scale sector is still not fully recognised or understood.

- Over 90% of all fishers and fish workers are small-scale.
- Most are in developing countries.
- Half are women.
- Socio-economic function: food and nutrition security (global: 18.8kg/person/year), income, employment, trade,...
Project methodology

- Value-chains were divided into international and domestic markets and differentiated by small-scale and large-scale.
- Prices examined in each case study analysis varied by country.

**Domestic Prices Analysed**
- first hand/farm gate
- wholesale
- retail

**International Prices Analysed**
- first hand/farm gate
- wholesale
- processor
- exporter
- importer
- retail
<table>
<thead>
<tr>
<th>Country</th>
<th>Species</th>
<th>Capture (C) or Aquaculture (A)</th>
<th>Value Chain Data</th>
<th>Time series of price data</th>
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<td>Tuna</td>
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Methodology

• Some countries met complete data demands to undertake a full structural model analysis of producer to retailer links.

• Others met partial demands to undertake a reduced form analysis while still others did not meet requirements for either analysis due to limited/no data available.

• For the latter, it was necessary for the project to collect its own primary data.
Ideal Analysis Steps

1. Model development in the structural or reduced form
2. Data summary and presentation
3. Econometric modelling
4. Estimation and evaluation
5. Findings and policy recommendations
Overall Findings

• Not surprisingly, for international trade, most fish suppliers in developing countries are acting as raw material suppliers to industrial nations, regardless of their production size.

• Fishers and fish farmers receiving the least economic benefit

• Large-scale processors and retail markets were found to be receiving more of the distributional benefits due to their more concentrated structure and stronger bargaining power
How can the small-scale sector obtain more value for their products?

*Overall policy recommendations from the project*
• **Policy Recommendation 1:** Increased governmental, NGO and private-sector support at the primary nodes of the value-chain is a prerequisite to achieve more equitable distribution of benefits.

  – Should be targeted in four main areas, including: technical trainings, infrastructure needs, financing, and research and development
• **Policy Recommendation 2:** A change in the organizational model could help the small-scale sector increase their price negotiation power, though the chosen model must be adapted to the local context.

  – New setups for sharing fisheries and aquaculture infrastructure should be explored
  – Governments could be supportive by enacting legislation to incentivize processors and wholesalers to buy from an established and organized model
Policy Recommendation 3: Sector should be assisted in adopting more consistent pricing methods. Additionally, prices need to be made more transparent and accessible to all chain actors.

- Pricing methods could be by weight, bags, hands, or whatever measurement is most accessible in the community
- Trainings in consistent pricing methods and measurement devices could help provide an initial first step
- Transparent pricing could lead to a better functioning market with reduced price fluctuations
• **Policy Recommendation 4: Producers need to increase their focus on markets and marketing, especially in countries that currently have low domestic consumption rates.**

  – Could benefit producers by developing domestic markets and help the country achieve improved food security and nutrition

  – Need support to develop marketing agendas, including training on effective marketing and access to financial resources for marketing campaigns, development of value-added products and processing capabilities.
• **Policy Recommendation 5: Small-scale sector should be encouraged to explore new markets.**

  – In particular, domestic markets in developing countries were found to present the sector with opportunities
  – In some cases, the domestic market price was equal to or more lucrative than the international market price
  – A vital finding for the future, as growth in fish consumption is expected to be driven largely by domestic markets in developing countries
• **Policy Recommendation 6:** Provide a political and fiscal environment conducive for establishing new small-scale fish farms and for adoption of appropriate and sustainable farming methods.

  - More opportunities to establish start up farms are needed
  - Opportunities could be partially enabled by providing low-interest loans, access to credit and/or micro-grants to foster investment and start-up farms
  - Fish farmers in many developing countries need to move towards using pellet feed for fish food instead of low-value fish
• **Policy Recommendation 7:** Better fisheries and aquaculture management must be in place in order to sustain the small-scale value-chain in the long term.

  – Rather than utilizing a top down management approach, co-management suggested
  
  – May be prudent to investigate complimentary livelihood activities in order to provide diversified income streams, take pressure off the fishery and sustain its resources for the long term
Areas for further research

• Viability of domestic markets
• Costs and benefits of certification schemes and marketing tools
• How successful co-management and organizational models have been implemented.
• More price data needed, in both developed and developing countries.
• More research on how international trade impacts local food security and nutrition, currently mixed evidence.
Challenges of the project

• Each country had its own data limitations, which led the depth of findings to vary

• Comparisons between large-scale/small-scale and developed/developing countries not strong

• No agreed upon definition of small-scale versus large-scale ahead of time, led to some confusion in what was actually analysed

• Focus in country reports are on the price analysis undertaken, not as strong on country specific policy recommendations

• Price analysis undertaken was largely technical, difficult for lay readers to understand and draw conclusions from
Project Successes

• Primary data collected is filling a data gap
• Some of the analysis undertaken in developing countries provided a first in-depth look at the functional mechanism of their value-chains and the price transmission relationships that exist
• Broad policy recommendations aimed at helping the sector obtain more value and improving food security emerged across case studies, with many similarities
• A very international approach, with fourteen countries studied
Further reading

• Fisheries and aquaculture value-chain website: http://www.fao.org/valuechainins smallscalefisheries/background1/
• Background synthesis report
• Final report (to be published)
• Numerous country reports
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Thank you