



AgEcon SEARCH
RESEARCH IN AGRICULTURAL & APPLIED ECONOMICS

The World's Largest Open Access Agricultural & Applied Economics Digital Library

This document is discoverable and free to researchers across the globe due to the work of AgEcon Search.

Help ensure our sustainability.

Give to AgEcon Search

AgEcon Search
<http://ageconsearch.umn.edu>
aesearch@umn.edu

*Papers downloaded from **AgEcon Search** may be used for non-commercial purposes and personal study only. No other use, including posting to another Internet site, is permitted without permission from the copyright owner (not AgEcon Search), or as allowed under the provisions of Fair Use, U.S. Copyright Act, Title 17 U.S.C.*

Improving land governance for more equitable fish farm development in Myanmar

Ben Belton

This note seeks to contribute to the ongoing debates around the revision of Myanmar's 2012 Farmland Law. It summarizes key findings of research conducted in the main fish farming areas of Myanmar on the relationship between aquaculture (fish farming) and land use. It makes recommendations for the revision of land use regulations that would allow aquaculture to develop in a manner that benefits small producers and yields more equitable outcomes.

Aquaculture is a high value activity in comparison with paddy, Myanmar's most important crop in area terms. Average returns per acre from farming fish are several times higher than those from farming monsoon or dry season paddy (\$655/acre versus \$98/acre and \$126/acre, respectively¹).

Aquaculture has grown rapidly in Myanmar since 1990. It is highly concentrated in the Delta Regions of Ayeyarwady and Yangon, where fish ponds cover an estimated 235,000 acres. Most of these farms are clustered in just four townships.

Ownership of fish farms is also highly concentrated. Although half of all fish farms are below 10 acres in size, they account for just 4% of pond area. Conversely, very large farms (sized 100 acres or more) account for 6% of farms, but 60% of pond area. These patterns are unusual. In most other Asian countries, small- and medium-scale commercial producers account for the majority of fish farms and fish production. Furthermore, fish farms in other countries in the region tend to be more evenly geographically distributed than in Myanmar.

Key Findings:

- Fish farming is a high value activity in comparison with paddy cultivation.
- Large fish farms in Myanmar have benefited from policy support.
- Growth of small and medium fish farms has been severely curtailed by land use restrictions.
- Small and medium scale fish farms create greater positive impacts in the rural economy than large farms.

Key Recommendations:

- Redesignate aquaculture as a form of agriculture, in line with the definition of "agricultural land" found in the National Land Use Policy.
- Grant smallholders the freedom to farm in the manner of their choosing on land for which they have use rights.

The predominance and location of large fish farms in Myanmar is explained by the history of its agricultural land use policy. From 1989 onwards, large scale fish farming was promoted by government as part of a wider policy to encourage industrial scale forms of agriculture. As a result of this policy, large areas of untitled land in what are now the main fish farming areas were confiscated and reallocated to investors. Our research shows that land concessions granted to operators of large fish farms often included lands that had previously been utilized for paddy cultivation, and that households who originally farmed these lands very rarely received any financial compensation (less than 5% of cases in our survey).

¹ Source: Myanmar Aquaculture-Agriculture Survey 2016 (MAAS).



Our research also shows that small and medium scale fish farms create greater positive impacts in the rural economy than large farms. Small fish farms create nine times more demand for labor per acre of land than large fish farms². In addition, small commercial fish farms generate more demand for locally produced inputs such as ‘fingerlings’ (juvenile fish) than large farms. As a result small fish farms create greater local economic multipliers than large. But institutional support to small-scale fish producers has been limited or non-existent.

The conversion of titled paddy land to any other use, whether agricultural and non-agricultural is prohibited. Furthermore, aquaculture is not legally defined as a form of agriculture. Converting any type of agricultural land (paddy or non-paddy) to a non-agricultural use in a legally compliant manner requires applying for a change of land use title (La Na 39³). Obtaining La Na 39 requires having an application approved at village tract, township, regional and union level, by representatives of multiple government agencies, operating under more than one ministry.

As a result of this complexity, the process of applying for La Na 39 is lengthy and costly, taking an average of 17 months, and costing an average of MMK 340,000/acre. Much of these costs are informal payments made to officials to facilitate passage of the application. Operators of large farms are usually politically connected and relatively well resourced, and are thus better able to manage this process than small farm households.

As a result, just 16% of surveyed fish farms sized under 10 acres reported having obtained La Na 39, as compared to 59% of those of over 40 acres. Operating a fish farm without La Na 39 makes the tenure of the land ambiguous, leaving the operator potentially vulnerable to official sanctions such as fines or land confiscation. Small fish farms are disproportionately likely to be in this position.

The fact that many fish farms are able to operate without La Na 39 is an indication that land use regulations have been informally relaxed in areas with high concentrations of aquaculture. However, this process is by no means complete, or applied evenly. Furthermore, in many locations with potentially suitable conditions for fish culture to emerge, the expansion of aquaculture continues

to be severely curtailed by the rigid enforcement of these restrictions.

Reform of the Farmland Law and the national agricultural policy could help to promote the development of a fish farming sector with more inclusive characteristics by facilitating smaller producers to convert lands to which they possess use rights, without undermining the security of their tenure or entailing the payment of costly bribes.

In order to facilitate this change, there is a need to do away with the currently restrictive land classification definitions in the Farmland Law, to redefine agriculture in much broader terms than is currently the case, and to move away from the limited concept of “freedom of crop choice” to the broader “freedom to farm”.

Suggested measures to support this are as follows:

- First, redesignate aquaculture as a form of agriculture, in line with the definition of “agricultural land” found in the National Land Use Policy⁴.
- Second, grant smallholders the freedom to farm in the manner of their choosing on land to which they have use rights.

Implemented together, these reforms would reduce ambiguity in the tenure status of existing small farms, remove the expense associated with applying for La Na 39, facilitate establishment of fish farms outside the handful of areas where regulations have been relaxed informally, improve the terms on which smaller farms gain entry to and participate in the farm segment of the aquaculture value chain, and support more inclusive rural economic growth.

² 285 person days/acre/year for fish farms under 10 acres, versus 32 person days/acre/year for fish farms over 40 acres (Source: MAAS).

³ Now referred to as La Ya 30.

⁴ The definition is as follows: “Agricultural land (all land used primarily for agriculture production purposes, including growing annual or perennial crops, growing industrial crops, animal husbandry activities, land based aquaculture activities, and any agriculture production focused support facilities, and any agriculture production focused support facilities that are either currently cultivated or follow)”

Further reading:

[Aquaculture in Transition: Value Chain Transformation, Fish and Food Security in Myanmar.](#) Ben Belton, Aung Hein, Kyan Htoo, L. Seng Kham, Ulrike Nischan, Thomas Reardon, Duncan Boughton. International Development Working Paper 140. December 2015.

[Aquaculture in Myanmar: Fish Farm Technology, Production Economics and Management.](#) Ben Belton, Mateusz Filipowski, Chaoran Hu. Research paper #52. May 2017.

About the Author:

Ben Belton is Assistant Professor, International Development, at Michigan State University.

This research is made possible by the generous support of the American people through the United States Agency for International Development (USAID) under the Feed the Future initiative. FSP grant number AID-482-LA-14-0003. The contents are the responsibility of study authors and do not necessarily reflect the views of USAID or the United States Government.

This study is also supported with financial assistance from the Livelihoods and Food Security Trust Fund, supported by Australia, Denmark, the European Union, France, Ireland, Italy, Luxembourg, The Netherlands, New Zealand, Sweden, Switzerland, the United Kingdom, the United States of America, and the Mitsubishi Corporation. We thank these donors for their kind contributions to improving the livelihoods and food security of rural people in Myanmar. The views expressed herein should in no way be taken to reflect the official opinion of any of the LIFT donors.

The author thanks Duncan Boughton, SiuSue Mark, and Rob Oberndorf for their comments on earlier drafts of this note.

Copyright © 2017, Michigan State University. All rights reserved. This material may be reproduced for personal and not-for-profit use without permission from but with acknowledgement to MSU and IFPRI.

Published by the Department of Agricultural, Food, and Resource Economics, Michigan State University, Justin S. Morrill Hall of Agriculture, 446 West Circle Dr., Room 202, East Lansing, Michigan 48824

Feed the Future Innovation Lab for Food Security Policy: <http://foodsecuritypolicy.msu.edu>

Twitter: [@foodsecuritylab](https://twitter.com/foodsecuritylab)