

Aquaculture farmer organizations and cluster management

Concepts and experiences



Cover photographs:

Top left: Cluster farmers meeting in Andhra Pradesh, India (courtesy of MPEDA/NaCSA); *Top right:* Cluster farmer committee meeting in Trang, Thailand (courtesy of Siri Ekmaharaj); *Bottom left:* A group of cluster farmers sorting their shrimp harvest in Chanthaburi, Thailand (courtesy of Siri Ekmaharaj); *Bottom right:* Group of cluster farmers in Andhra Pradesh, India, listening to an extension officer (courtesy of MPEDA/NaCSA).

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by

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Preparation of this document

Globally, slightly more than half (53 percent) of the total food fish supply is obtained from marine and inland capture fisheries; the remaining (47 percent) supply is being derived from aquaculture. Its contribution to per capita food availability grew from 0.7 kg in 1970 to 7.8 kg in 2008. More “food fish” is consumed globally on a per capita basis than any other type of meat or animal protein.

Aquaculture makes valuable contributions to local, national and regional economies through goods and services provided to domestic and export markets. Aquaculture activities involve a wide range of people – from subsistence farmers practicing aquaculture as part of a diverse livelihood strategy, to more specialized commercial enterprises operated by small households through to larger integrated multinational companies, as well as employment through equally diverse value chains. Generally, subsistence and much small-scale aquaculture contributes in various ways to household income and food and nutritional security. Various enterprises from small-scale to large-scale commercial aquaculture, as is practised in many developed and developing countries, produce species such as shrimp, salmon, tilapia, catfish, grouper and carps, which enter domestic and export markets and generate employment opportunities in production, processing and marketing sectors.

The number of people involved in aquaculture directly or indirectly is substantial, with most in developing countries. Many of these people are smallholders in rural areas, many of whom live in poverty. Many small-scale aquaculture producers are facing new opportunities and challenges as the markets for aquaculture products continue to expand. Market liberalization in developing countries, in many instances, has led to significant State withdrawal from service provision and an end to guaranteed markets. This has affected small-scale aquaculture farmers, who are less able than larger producers to deal with increased market risks.

This document provides an overview of an important approach to assist small-scale farmers to overcome these challenges and effectively participate in and influence modern market chains and trade. This approach is to facilitate the successful establishment and operation of farmers’ organizations (FOs) to support collective action among small-scale producers using “cluster management”, a concept that has proved successful in many developing countries, particularly in Asia. This review seeks to bring together current knowledge on the formation, operation and impact of aquaculture FOs using the concept of cluster management.

The review has been conducted by the Aquaculture Service of the Fisheries and Aquaculture Department of the Food and Agriculture Organization of the United Nations (FAO), with strategic support and guidance from the WorldFish Center.

Abstract

Small-scale aquaculture producers in developing countries are facing new opportunities and challenges related to market liberalization, globalization and increasingly stringent quality and safety requirements for aquaculture products, making it harder for small-scale producers to access markets. Collective action through participation in farmers' organizations (FOs) can provide an effective mechanism to assist small-scale producers overcome these challenges and contribute to and influence modern market chains and trade. Literature on agriculture and aquaculture FOs and case studies of successful aquaculture FOs were reviewed and field research on successful aquaculture FOs in India and Thailand was undertaken to bring together current knowledge on the formation, operation and impact of aquaculture FOs. A range of FOs (such as farmer societies, cooperatives and community-based organizations) were examined and potential opportunities for success such as "cluster management" and group certification were highlighted. Cluster management has proved successful in many developing countries and refers to a group of aquaculture farmers or FOs that collectively implement certain production standards. Recent field experience shows that cluster management used to implement appropriate better management practices (BMPs) can be an effective tool for improving aquaculture governance and management in the small-scale farming sector, enabling farmers to work together, improve production, develop sufficient economies of scale and knowledge to participate in modern market chains, increase their ability to join certification schemes, improve their reliability of production and reduce risks such as disease. The experience of the National Centre for Sustainable Aquaculture's farmer societies and clusters in Andhra Pradesh, India, shows the potential that cluster management has for benefiting small-scale aquaculture farmers. The publication presents factors associated with successful FOs and guiding principles for development organizations that wish to support aquaculture FOs in developing countries that were distilled from the literature and case studies, followed by a summary of challenges and opportunities for the development of small-scale aquaculture FOs.

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Preface

Aquaculture is by far one of the world's most important food producing sectors, contributing to nearly 50 percent of the global food fish supply and providing employment and livelihoods to millions of people worldwide. Aquaculture makes valuable contributions to local, national and regional economies, and the activities involve a wide range of people – from subsistence farmers practising aquaculture as part of a diverse livelihood strategy, to more specialized commercial enterprises operated by small households through to larger integrated transnational companies.

Aquaculture is dominated by small-scale producers who are facing new opportunities and challenges as the market for aquaculture products continues to expand. Globalization and market liberalization in developing countries, in most instances, has led to State withdrawal from service provision and an end to guaranteed markets. This has affected small-scale aquaculture farmers who, contrary to the larger producers, struggle to deal with increased market risks.

FAO is pleased to present this document – *Aquaculture farmer organizations and cluster management: concepts and experiences* – based on a review and study jointly conducted by FAO and the WorldFish Center. The document provides an overview of an important approach to assist small-scale farmers to overcome these challenges and effectively participate in and influence modern market chains and trade through the establishment and operation of small-scale farmers' organizations (FOs) using “cluster management”, a concept that has proved successful in many developing countries. We hope this document will become a key reference on the subject and will be of use to many who are working towards empowering small-scale aquaculture producers to gain better market access and, thus, improved livelihoods.

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Abbreviations and acronyms

AACC	Aceh Aquaculture Communication Centre
ACC	Aquaculture Certification Council
ADB	Asian Development Bank
ALSC	Aquaculture Livelihood Service Centre
BAAC	Bank for Agriculture and Agriculture Cooperatives
BMP	better management practice
CAA	Coastal Aquaculture Authority
CBO	community-based organization
CoC	Code of Conduct (Thailand)
CPR	common pool resource
CSR	corporate social responsibility
DANIDA	Danish International Development Agency
DCP	Department of Cooperative Promotion
DoF	Department of Fisheries
ETESP	Earthquake and Tsunami Emergency Support Project
EU	European Union
FAO	Food and Agriculture Organization of the United Nations
FO	farmers' organization
FOSCOT	Federation of Shrimp Cooperatives of Thailand
GAP	Good Aquaculture Practice (Thailand)
GNAEP	Greater Noakhali Aquaculture Extension Project
ICS	internal control system
IFC	International Finance Corporation
INR	Indian rupee
ISO	International Organization for Standardization
IT	information technology
kg	kilogram
MPEDA	Marine Products Export Development Authority
MSC	Marine Stewardship Council
NACA	Network of Aquaculture Centres in Asia-Pacific
NaCSA	National Centre for Sustainable Aquaculture
NGO	non-governmental organization
ShAD	Shrimp Aquaculture Dialogue
SSP	Surat Shrimp Programme
STSFC	Surat Thani Shrimp Farmers Club
THB	Thai baht
TMSFA	Thai Marine Shrimp Farmers Association
USD	United States dollar
WWF	World Wide Fund for Nature