Aquaculture Governance Indicators (AGIs) assessment synthesis report

Country:
China

Species:
Large Yellow Croaker (*Larimichthys crocea*)

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Country overview

The aquaculture of large yellow croaker in China began in 1980s. After a thirty-year process of research, practice and development, it has stimulated a comprehensive industrial chain consisting of several sectors in China, including fry producing, growing, processing, and logistics. Large yellow croaker is currently the single species with the largest scale of production in China, providing jobs for over 300,000 people, and creating an output value of more than 40 billion RMB (Liu,2013). Sea-cage farming is the most important farming mode for large yellow croaker, and it contributes more than 95 percent of the total volume of the aquaculture of species.

In the aquaculture of large yellow croaker, the major concerns of sustainability include the large quantity of forage fish used in the feed, the poor disease control, chemical use, and escapes of the farmed individuals.

Legislation

There are several pieces of legislation/regulations existing for governing large yellow croaker industry in China some more general and others aquaculture specific, such as Ideas on Accelerating the Green Development of China's Aquaculture Sector; Regulations on Quality and Safety Management; Guidelines for the Use of Fish Drugs for Pollution-free Food; Regulations on Feed and Feed Additive; and Law on the Prevention and Control of Water Pollution.

There is clear evidence that the compliance with the legislation regarding some issue areas is poor, especially for the small-scale farms. While the use of juvenile fish in aquafeed, one of the most problematic issues in large yellow croaker aquaculture, has been regulated (e.g. Ideas on Accelerating the Green Development of China's Aquaculture sector), since most of the farmers are family-based small scale farmers who lack knowledge and training on farming techniques and resource conservation, juvenile fish are still the dominant composition of feed.

Voluntary codes and standards

There are four national standards (China National Organic Certification (CNOC); China Good Agricultural Practice (China GAP); Pollution-free Food - Large Yellow Croaker Aquaculture Practice Standard; and China Green Food) and four international standards used (Naturland; Global Good Agricultural Practices (Global GAP); Best Aquaculture Practices (BAP); and ASC Tropical Marine Finfish Standard).

For national standards, there is a clear gap in the openness of the standard-setting process and less inclusive processes of standard

development, with producers (especially small-scale) and communities not adequately represented. Moreover, the public standards need improvement in the coverage of some sustainability issues (feed, escapes, etc.), use of precautionary approach, and attention for cumulative impacts compared with international private standards.

The international standards are usually more costly and complicated, making them less attractive to most of the producers in China, especially small-scale farmers. There is a need for approaches that make certification schemes adaptable to small-scale producers by providing financial support and technical guidance.

Collaborative arrangements

There are two associations engaged in the collaboration between different actors: i) Association of Fishery in Ningde City (AFNC); and ii) China Fisheries Association (CFA) Large Yellow Croaker Subsidiary forming a public-private mode of governance.

The collaborative arrangements are not engaging all stakeholders in an inclusive way. Deliberation procedures can also be more transparent by publishing the details of decision-making process. The relevance and coverage of the issue areas are perceived as good, and the actors of the collaborative arrangements are properly engaged. The collaborative arrangements mainly focus on the industry development, but more attention to environmental issues are needed.

Encouragingly, actors within collaborative arrangements are closely coordinated in this industry and address similar issues in many ways and contribute to the improvement of compliance with legislation in this industry.

Lastly, there is no evidence that the collaborative arrangements have contributed to changes in the scope of standards, and no evidence that the adoption of voluntary codes and standards has increased as a result of interventions by the actors within the collaborative arrangements.

Capabilities

Organizations selected to assess this dimension include two state (Ministry of Agriculture and Rural Affairs; Fujian Provincial Dept of Ocean and Fisheries); two market (ASC and China Aquatic Processing & Marketing Association); and two civil society (Greenpeace East Asia and Qingdao Marine Conservation Society).

All the actors have active mutual interactions and collaborate with academia, government and the industry, and are relatively open for engagement with a wide variety of stakeholders. However, the transparency of the information and deliberation processes can be improved.

The provincial research institute is initiating the research on compound feed to replace the juvenile fish in the feed, and civil societies are also contributing to the sustainability improvement. However, the resources are indicated to be insufficient.

Actionable insights

Legislation: specific and appropriate legislation exists, but the coverage of specific sustainability concerns could be improved, and the precautionary approach is insufficiently used. Moreover, commitment and intentionality of implementation of regional treaties is insufficient—i.e. there is no

apparent application of the global or regional regulations in China's domestic legislations.

Voluntary codes and standards: the input legitimacy of the national standards and codes can be improved by making a more inclusive standard-setting process; international standards can be more attractive by providing financial support and technical support to the small-scale producers; and more consistent efforts and closer coordination with state policy and regulations can be achieved if more attention is paid to sustainability issues in the state legislation. Lastly, standards need to become more accessible (balancing their costs and benefits), and monitoring needs to be improved by additional or alternative verification mechanisms that are based on multiple sources of data obtained at more frequent time intervals.

Collaborative arrangements: a more inclusive and transparent decision-making process of CAs is needed, with more stakeholders besides producers and processors to be engaged; attention on environmental issues should be increased; information published could cover more aspects including production details, environmental monitoring data, adopted solutions in the farming practices, etc; and coordination between actors and with regulations can be more active, and they can be a great channel to introduce the codes and standards in the producer groups.

Capabilities: the performance of agility can be improved by putting more efforts on the actual actions following up discussions; and more resources are required to enhance the capabilities in innovative efforts, and communication skills to scale up the impacts.