

Insurance for aquaculture and fishery adaptation to climate change: experiences from China and Viet Nam

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ABSTRACT

The broad concept of insurance as a risk management tool and a climate change adaptation strategy in aquaculture and fishery has been widely accepted by governments and their fisheries sectors. This prompted the trial of schemes designed to insure a large pool of farmers and fishers on the one hand and to be a viable business for insurers on the other. Examples from the People's Republic of China and the Socialist Republic of Viet Nam illustrate the attempts to achieve these two linked outcomes. Generally, small-scale and medium-scale farmers' and fishers' access to insurance cover is still limited and there is a need for well-designed insurance products that suit the circumstances and needs of such farmers and fishers. Innovative insurance programmes can promote good farm management practices. Public-private partnership models such as mutual insurance can be feasible in providing insurance services to groups of small farmers, but government subsidies are needed initially.

INTRODUCTION

Insurance of aquaculture and fishery assets has been against hazards associated with a variety of phenomena: physical (flood, drought, storms, cyclones, abnormal temperatures, etc.); biological (diseases, pests, harmful algal blooms); chemical (acidification, salinization of freshwater, oil spills, chemical leaks, contaminated run-offs); and geological (landslides, mudslides, tsunami). Except for oil spills, chemical leaks, run-offs and tsunami, and damage to fishing assets from fire on board fishing vessels, engine failure or running aground, almost all of these hazards are driven by, associated with, or exacerbated by climatic variability. These have exacerbated market risks.

Awareness of the opportunities and benefits offered by insurance as a financial tool for risk management has been raised among governments and aquaculture industries: farmers can recover their businesses faster after a disaster; insurance combined with other tools such as credit can encourage investments in farm improvement, better management and new technology, which increase the resilience of farmers to the impacts of climatic and economic disasters; and insurance enables farmers to participate actively in risk management. As a public investment in a partnership among government, commercial insurers, farmer groups and value chain actors, it lightens government's costly burden of disaster relief, recovery and rehabilitation efforts, all of which comprise an adaptation strategy.

METHODS

Having been accepted by policymakers as a climate change adaptation strategy, insurance initiatives moved to the practical issues of: (a) making aquaculture insurance a viable and sustainable business; and (b) farmers being able to participate continuously in insurance programmes. The national programmes that are described below are pilot schemes aimed at achieving these two outcomes. The information is derived from a review of the People's Republic of China's capture fishery and pilot aquaculture insurance programmes (FAO, 2017) and a review of the Socialist Republic of Viet Nam's pilot agriculture insurance programme that covers rice, livestock and aquaculture (FAO, 2016). The China review is informed by case reports of mutual, commercial, "mutual + commercial" and "cooperative plus commercial" arrangements. The Viet Nam review focused on the aquaculture component.

SUMMARY RESULTS

Improvement of risk management capabilities

Awareness raising of insurance for risk management. Fishers and fish farmers used to consider insurance only for loss of life, accident injury and catastrophe, not as a risk management measure. China Fishery Mutual Insurance (CFMI) association has realized the importance of insurance awareness and, among other promotional efforts, publishes a magazine and releases successful stories to the mass media and social media. The fishery extension stations are promoting insurance to fishers and fish farmers and conduct visits to successful insurance cases.

Innovative insurance schemes. Weather-index based insurance (i.e. wind speed and temperature) in the People's Republic of China for seaweeds, mitten crab, and bivalves provides indications of technical and economic efficiency of administration, reduction of fraud, and proper compensation. The scheme shows its suitability for risks that are the direct impacts of climate variability.

Risk sharing tool instead of disaster relief fund. The Government of the Socialist Republic of Viet Nam sought to apply insurance as a strategy to lighten the financial burden of government from costly post-disaster assistance. The pilot programme insured rice, livestock and aquaculture production against storm, flood, drought, cold, frost, tsunami and other perils. It also provided cover against named pests and diseases.

Farmer resilience. A "cooperative + commercial" model provided incentives for the members of the cooperative to reduce losses from disease with better management practices. If the total amount of indemnity paid divided by the amount of premium collected did not exceed 60 percent, the insurer returned part of the premium to the cooperative, which was then distributed among its members for the purchase of water quality improvement compounds and other inputs. This illustrates the use of insurance as an incentive for investing in improved technology and better practices, which improves the farmer's capacity to adapt to risks.

Sustainability of the insurance programmes

Institutional support. The common features of the programmes in the People's Republic of China and Socialist Republic of Viet Nam are strong government support, a clear policy, and a state subsidy of premiums. China's central and local governments subsidize 40 to 80 percent of the premium depending on the local government's financial resources. Viet Nam subsidized premiums according to the level of participants' household income: 100 percent to poor, 80 percent (revised to 90 percent) to almost poor and 60 percent to non-poor households, and 20 percent to organizations or

cooperatives. The common effect of subsidies is that it attracted wider participation. China's subsidized programmes have been viable. Viet Nam's aquaculture pilots suffered losses, although crop and livestock insurance was profitable.

Institutional infrastructure. China has a mature commercial and mutual insurance infrastructure. CFMI has a national outreach through near-autonomous offices in major fishing and fish-farming provinces. The capacity of reinsurers in risk sharing remains a challenge for the development of aquaculture insurance.

Technical capacity. China's commercial insurers, aside from having well trained field operatives, rely on the expertise of fishery and aquaculture cooperatives in risk identification and assessment. In contrast, in Viet Nam insurance companies did not coordinate with social organizations — farmers' associations, women's associations, cooperatives, and farmer unions — to develop insurance products that could have better met the needs of the clients.

CONCLUSIONS

Insurance spreads the cost of insuring climate change-induced risks from aquaculture farmers to insurers and insurers to reinsurers. Generally, small-scale and medium-scale farmers' and fishers' access to insurance cover is still limited. The reviews suggest the need for well-designed insurance products that suit the circumstances and needs of farmers and fishers. Innovative insurance programmes can promote good farm management practices, and can be seen as a risk mitigation approach. Public-private partnership models such as mutual insurance can be feasible in providing insurance services to groups of small farmers. Importantly, government subsidies are needed, especially during the pilot stage.

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