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## Marine Fisheries Insurance in India: Status and prospects

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Technological advancements in the realms of vessel propulsion, gear design, navigation-system as well as information-communication have resulted in intensification of investments and thereby deepening of economic risks associated with marine fishery operations. The risks in capture fisheries include a variety of factors such as loss or damage to fishing vessels, equipment and gear in operation, loss of catch and human casualties in the sea. Though such risks and dangers are inherent with marine fishing operations, their economic implications are manifold in recent times, particularly for the small-scale fishers and boat owners. The risks associated with fish culture in marine environment (mariculture) is also equally important in the wake of disease incidences, climate change and consequent weather factors, harmful algal blooms (HAB) and other natural calamities. Despite the above state of affairs, institutional mechanisms to address risk and uncertainties in the marine fisheries/ mariculture sectors have been grossly inadequate in India. Insurance is one of the widely adopted means for risk management and is used the world over as an effective instrument for containing and mitigating a wide variety of risks such as asset risks, production and management risks, market risks, personal and health risks. Insurance in fisheries is by far under-utilized compared with other sub-sectors of agriculture in the country, barring a few local exceptions, and therefore unavailable for the majority of the stakeholders in this sector. This is notwithstanding the growing demand for risk management solutions from the fishing community across the country.

# Present status of marine fisheries /mariculture insurance

Insurance in the fisheries sector in India, unlike that of crop and livestock, does not have a long history or an organized structure to boast of. Except for the presence of a few public sector insurance companies and cooperative bodies at the local level with limited scale of activity, the sector has received little attention either at the central or state levels. The private sector operation in this arena is also limited to a few cases scattered over time and space. Among the available options, the 'Group Accident Insurance Scheme for Active Fishermen' is the only major programme presently in operation that covers the life/disability risks of the boat crew. Under this, the insured fishermen (reserved for age group of 18-70 years) get a claim of ₹ 2 lakhs in case of permanent disability/accidental death, and ₹1 lakh in case of partially disability. The premium is fully subsidised and borne by the central government and state governments on 50:50 basis. An additional 300 thousand fishermen were targeted to be covered under this scheme during the 12<sup>th</sup> plan (2012-2017). A similar scheme in operation under the patronage of Matsyafed in Kerala provides a compensation of ₹ 5 lakhs to the dependents of fishermen who die in accidents. It also covers partial disability and hospital expenditure of injured fishermen with payments varying from case to case. Vessel/gear (fishing net) insurance is another major risk management tool to secure the livelihoods of fishermen against the risks in the seas. The conditions for vessel insurance vary significantly depending on the type of vessels, area of operation

and companies involved. However, the annual premium generally ranges between 3-5 per cent of the value of vessels and even higher at times. Compensation is generally paid only in case of complete damage of vessels. They are mostly extended by the subsidiaries of GIC (New India Assurance Company Ltd., Oriental Insurance Company Ltd. and United India Insurance Company Ltd.) and a majority of the active policies are creditlinked. Vessel insurance is also offered by Matsyafed for member fishermen on vessels purchased under their subsidised loan scheme. A similar subsidised vessel insurance scheme is being offered by the government of Tamil Nadu for vessels operating from various harbors within the state. Apart from these, boat owners' associations based at certain harbours (Neendakara harbour in Kollam district of Kerala. Paradeep harbour in Odisha; Mangrol harbour in Junagadh district of Gujarat) are providing special risk coverage against damage of vessels to member fishermen. Insurance coverage of coastal assets (houses and other immovable property) is another important risk management measure which every fishermen family ought to have. Unfortunately, the

'Disaster Risk Insurance Product for Coastal Communities' introduced in the aftermath of the Tsunami of 2004 in Tamil Nadu is the only major experiment in this regard so far. This scheme piloted by Bajaj Allianz with assistance from CARE India, provided micro-insurance to nearly 75,000 coastal families in Tamil Nadu and proved helpful during the cyclone Nisha that occurred in 2008. Even this scheme is not in operation presently, leaving the large part of Indian coastal households without any effective risk management covers. As of now, no major programmes/schemes exist to deal with risks and uncertainties related to mariculture operations.

### Level of adoption

An assessment of the adoption of various types of personal/group accident insurance schemes across selected maritime states based on a primary survey conducted by ICAR-CMFRI in 2016 revealed that about 80-100% of the sampled fishermen were covered under accident insurance scheme in Kerala, a state with the highest level of adoption (Table 1). In Tamil Nadu, the coverage ranged from 16-100% across the landing centres surveyed. On the other

State	District	Per cent of sampled fishermen/ vessel crew who adopted insurance of type			
		Personal/group accident insurance	Vessel (hull) insurance	Fishing gear insurance	Coastal asset insurance
Kerala	Kollam Alappuzha Ernakulam	100 (45) 100 (20) 79 (38)	12 (25) 50 (10) 17 (23)	0 (25) 10 (10) 0 (23)	0 (45) 0 (20) 0 (38)
	Kasargod	87 (15)	0 (5)	0 (5)	0 (15)
Andhra Pradesh	Vizianagaram	0 (22)	0 (17)	0 (17)	0 (22)
	Srikakulam	0 (24)	0 (19)	0 (19)	0 (24)
	Vishakhapatnam	0 (14)	0 (9)	0 (9)	0 (14)
Tamil Nadu	Cuddalore	16 (44)	0 (29)	0 (29)	14 (44)
	Puducherry	100 (10)	10 (10)	0 (10)	0 (10)
	Villupuram	96 (50)	0 (40)	0 (40)	0 (50)
Gujarat	Junagadh	35* (20)	47* (15)	0 (15)	0 (20)
	Gir Somnath	55*# (20)	33* (15)	0 (15)	0 (15)
Odisha	Ganjam	0 (47)	0 (37)	0 (37)	0 (47)
	Jagatsinghpur	50* (20)	100* (10)	0 (10)	0 (20)

Table 1. Adoption of various types of fishery insurance schemes in selected maritime states of India

Note: Figures in parentheses denote total number of respondents applicable under each category; adoption estimates pertaining to vessel and gear insurance are based on responses of vessel owners only.

\*Indicates risk coverage against personal accident and vessel damage provided by boat owners associations for their members;

#The estimate includes personal accident insurance availed by vessel crew under government schemes.

Source: Parappurathu et al., 2017 Marine Policy, 86: 144-155.

hand, none of the respondent fishermen were insured in Andhra Pradesh, despite it being a state with high incidence of extreme weather events. The states of Gujarat and Odisha were no better with only large landing centres well served leaving out the majority of smaller ones.

The level of adoption of vessel insurance was also not inspiring as per the study. Except in the case of large landing centres in Paradeep, Odisha; Mangrol and Veraval in Gujarat, where influential boat owners' associations operate their own insurance programs with the help of revolving corpus funds collected from member fishermen, the coverage of vessel insurance is hardly satisfactory across the maritime states. Insurance coverage of fishing nets is even worse with most of the fishermen having opted out of it, irrespective of the region they belong to.

#### Main challenges

There are a number of issues that explain the reasons behind low risk financing of the marine fishery sector in India. In most of the places, the fishers / mariculture farmers are either unaware or are less concerned about the need to insure their assets against various types of risks. In certain cases like vessel insurance in Kerala, people are well aware of insurance, but are reluctant due to high premiums involved, lack of provision for claim settlement in case of partial damage, hassles involved in claim settlement process, reservations about timely and assured settlement of claims and so on. As enrollment is lower due to the above reasons, the insurance companies have limited options to develop products that are affordable. The companies are also concerned about malpractices such as intentional dumping of fishing vessels, especially old and less energy-efficient ones, to secure claims. Unlike on land, the mechanisms to detect such malpractices are scanty. At many places, the fishermen/fish farmers point to lack of availability of adequate insurance options as one of the reasons for their non-enrollment. This is particularly relevant for private insurance, wherein the industry has never explored the potential of launching suitable products for a number of risks citing low interest of fishermen, poor demand for insurance, low profitability, high risk involved, high moral hazard, and so on. In short, insurance in India's fisheries sector suffers from problems such as lack of transparency, low affordability, high moral hazards and poor customer acceptance.

#### Technology and policy perspectives for reforms

There is immense scope to reform the coastal asset and fishery insurance through concerted efforts at the Central and State levels. Strong measures from both government and insurance companies are needed to inculcate risk financing culture in the coastal areas. There is also a need to improve the mutual reciprocities between insurance companies and fisher folk. Developing linkages with fishermen/fish farmer cooperatives, producer associations, etc. would prove beneficial in this respect. Ensuring the participation of grass-root level organizations (fishery cooperatives/NGOs/ boat owner associations) as intermediaries or partners for insurance administration besides deploying of a brigade of rural insurance agents/ service providers would also be helpful to strengthen grass root level support services. Microinsurance is a promising avenue particularly to administer coastal asset insurance. India can learn from successful initiatives from other Asian and African countries on this front. Bundling microcredit with asset/disaster insurance programs is also a sensible option to enhance coverage of schemes in areas where self-help groups have active presence. There is a general discontent among fishermen/fish farmers about high insurance premium and unavailability of custom-made insurance products. To address this, it is important to bring-in flexibility in insurance schemes through options such as payment of premium in instalments, partial coverage of fishing units and augmented products with coverage on fishing gear. Willingness on the part of insurance companies to compensate partial damage of fishing vessels would certainly make a visible dent in changing the attitude of fishermen towards insurance. They may also think of launching new products in hitherto un-serviced

areas like cage culture, seaweed farming and mussel culture after proper assessments on profitability. The governments should strive towards developing adequate dispute settlement mechanisms to address grievances, besides taking measures for increasing competition in the sector by incentivising the entry of new players to the sector. They may also consider reallocating some of the existing unhealthy subsidies towards incentivising greater insurance coverage. If required, the governments can introduce some degree of legislative coercion through mandatory insurance coverage, wherever possible. Special incentive packages may be extended to the islands which are the most vulnerable, therefore deserving distinctive treatment.

Together with reforms in governance, technology can play a vital role in improving efficiency, bringing transparency and reducing moral hazards in fishery insurance. Innovative products such as weatherindex based insurance schemes are already in force in the agriculture sector, wherein, satellite data and inputs from weather stations are being used to trigger insurance payments in case of occurrence of weather related events. These can be extended to capture fisheries sector as well, to increase efficiency and simplify procedures. The inputs from such platforms could be used for compensating damages to coastal assets of fisher folk, marine cages, and other fishery-related infrastructure. Similarly, advanced vessel Monitoring Systems (VMS), which are presently in the pipeline to be introduced in India, could be made use of to track the fishing vessels and assess incidents such as mid-sea capsizing and collisions. Such data would be valuable for the insurance companies to verify insurance claims by affected beneficiaries. Further, interactive Information and Communication Technology (ICT) tools and mobile applications could be leveraged for speedy processing of insurance claims as well as for real-time assessment of damages incurred to fishing vessels and mariculture units in case of calamities. Promising options such as micro insurance, which has already proved its potential to change the lives of resource poor people in various parts of the world, can also contribute and should be explored further. Over and above these measures suggested, efforts to improve the living standards and socio-economic conditions of the fishing community through development programs can also help to a great extent.

