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Report of the International Symposium on Insulating Marine Fisheries Sector in South Asia from Uncertainties: *Global Experiences with Insurance*



Bay of Bengal Programme
Inter-Governmental Organisation

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Report

1.0 Background

An International Symposium on “Insulating Marine Fisheries Sector in South Asia from Uncertainties: Global Experience with Insurance” was held on 6th May 2022 in Chennai, India. It was jointly organized by the Bay of Bengal Programme Inter-Governmental Organisation (BOBP-IGO), the Central Marine Fisheries Research Institute (ICAR-CMFRI), and Tamil Nadu Dr. J Jayalalithaa Fisheries University, at the side-lines of the 12th Indian Fisheries and Aquaculture Forum with the funding support from the World Bank. Representatives from Bay of Bengal rim countries, namely Bangladesh, India, Maldives, Sri Lanka, and Thailand, experts from international and regional development organizations, and academia took part. The objectives of the symposium were to: (1) Understand the status of insurance in the fisheries sector in South Asia and (2) Promote cross-learning and collaboration in climate risk insurance research.

The agenda of the Symposium is placed in **Annex 1**.



2.0 Inaugural Session

The Symposium was inaugurated by Dr. C. Suvarna, IFS, Chief Executive, National Fisheries Development Board (NFDB). Guests of Honour included Dr. K.S. Palanisamy, IAS, Commissioner of Fisheries, Tamil Nadu and Dr. J.K. Jena, Deputy Director General (Fisheries), Indian Council of Agricultural Research (ICAR), New Delhi. The welcoming address was given by Dr. A. Gopalakrishnan, Director, ICAR-CMFRI, Kochi. He welcomed all the participants gathered for joining the Symposium in the venue and also those who participated through online. Referring to the significance of the marine fisheries sector in achieving the UN Sustainable Development Goals (SDGs), particularly SDG 14, “Life below Water”, he said that studies have indicated the sensitivity of the Bay of Bengal to climate change that is making the people in its domain increasingly vulnerable. Dr. Gopalakrishnan observed that insurance could play an important role in compensating economic losses due to climate change impacts, albeit its current penetration being shallow, and called for a concerted effort to address the problem.

Dr. K.S. Palaniswamy, speaking in the Symposium, was concerned about the insufficient insurance penetration in the marine fishing sector and outlined the factors that influence insurance coverage, particularly in the state of Tamil Nadu. Despite the awareness of fishers, he noted that a dearth of suitable products, hefty premiums, and hassles in completing procedures are important issues constraining the insurance penetration. According to Dr. Palaniswamy, reducing premiums and assisting the fishers in meeting procedural requirements could help to improve the insurance coverage.



Dr. C. Suvarna, IFS



Dr. A. Gopalakrishnan



Dr. K.S. Palaniswamy, IAS

In his speech, Dr. J.K. Jena stated that even though insurance has been a matter of policy deliberation for over three decades, it is still not widely availed. Praising the Organizers for their effort to highlight this topical issue, he said the Symposium is timely as the Government of India is also scoping insurance schemes for fisheries and aquaculture sectors. Dr. Jena said that a trust-building exercise between the insurer and the insured is necessary. Given an example from the aquaculture sector, he said that farmers are apprehensive about insurance companies honoring their claims while the insurance companies are apprehensive about the validities of the claims. He said that in the case of fisheries, improving fisheries monitoring, control and surveillance could help in bridging the trust gap and better implementation of insurance schemes. Dr. Jena also pointed out the need for health insurance, including mental for the fishers given their exposure to harsh weather and long absence from their family, friends, and the land.



Dr. J.K. Jena

Delivering the inaugural address, Dr. C. Suvarna said that the subject-matter is of eminent interest to the development of the fisheries sector and appreciated the Organizers for taking the issue on a global platform and facilitating knowledge exchange. She informed that in India from 1991-92, the Government is implementing a group accident insurance scheme (GAIS) for active fishers in the age group of 18-70 years. Highlighting the inherent risk in fishing activities, she said that an accident or death at the workplace could push a fisherman and his family to severe economic hardship. GAIS was introduced to reduce this hardship with a





full waiver of the premium for the beneficiaries. NFDB is the nodal agency for implementing the GAIS and 2.91 million fishers were benefitted so far. Highlighting the issues in the marine fisheries sector and the need for regional cooperation, Dr. Suvarna said that while the marine fish production is increasing, many commercial fish stocks in the region are under severe stress. Consequently, the fishing effort is likely to be in overdrive in some fisheries, and marketing cost of fish is also on increase. Global warming is further exacerbating this evolving situation as the rising temperature would affect both fish stock and post-harvest operations, as well. Furthermore, cyclones are getting intensified and spells of bad weather are leading to the loss of fishing days. Hence, marine fishery sector has been standing at a juncture between livelihood opportunities and vulnerabilities. In this situation, insurance could ease various economic efforts of fishing operations. The NGDB is having a consultation with the insurance companies to design insurance products and packages that would be acceptable to both fishers and insurance companies. She informed the participants that NFDB would share its experience in the development of insurance packages with the other countries in the region and would also learn from them.

Delivering the Vote of Thanks, Dr. P. Krishnan, Director, BOBP, thanked the partnering agency and the participants for making the Symposium a success and thanked the World Bank for sponsoring the event. The Symposium, he noted, marked the start of the Organisation's multi-national and multi-institutional study on marine fisheries insurance. The marine capture fisheries, Dr. Krishnan said, is inherently dangerous. Climate change is not just amplifying the sector's present hazards, but also is introducing new ones. He said that insurance, a risk-pooling mechanism, could be a viable solution to address the escalating problem and hoped that the Symposium would catalyze a dialogue and serve as a starting point for a proaction to develop a regulatory framework for fisheries insurance.



Dr. P. Krishnan

3.0 Global Experiences on Marine Fisheries Insurance

Session I included seven presentations on international experience, methodologies, and evolving technologies in marine fisheries insurance. Dr. Dilip Kumar, Former Vice-Chancellor, Central Institute of Fisheries Education (ICAR-CIFE), Mumbai, chaired the session. Dr. P. Shinoj, Senior Scientist (ICAR-CMFRI) and Dr. A. Suresh, Principal scientist, Central Institute of Fisheries Technology (ICAR-CIFT) were the rapporteurs. Opening the Session, Dr. Kumar said that climate change impacts in recent times have increased the vulnerability of fishers and aquaculture farmers, particularly of the small-scale fishers and fish farmers in the coastal areas. This calls for putting in place institutional mechanisms such as fisheries and aquaculture insurance to facilitate climate risk mitigation besides securing the livelihoods of fishers and fish farmers through other social safety nets. Following presentations were made during the Session:



Dr. Dilip Kumar



Ms. Serap Oguz Gonulal



Dr. Suchitra Upare



Dr. Grant Cavanaugh



Dr. Kishore Dhavala



Dr. Dhruva Purkayastha



Dr. Prasun Kumar Das



Ms. Smita Tibrewal

#	Topic	Presenter	Mode
1.	Identification, Monitoring, Assessing and Managing Climate-Related Risks in Insurance (Annex 2)	Ms. Serap Oguz Gonulal <i>Lead Insurance Specialist</i> <i>World Bank</i>	Online
2.	World Review of Capture Fisheries Insurance (Annex 3)	Dr. Suchitra Upare <i>Global CAFI SSF Network and</i> <i>Coordinator, FAO, New York</i>	Online
3.	Experiences and Challenges in Providing Insurance and Risk Management Services for Marine Fisheries (Annex 4)	Dr. Grant Cavanaugh <i>CEO, Scoot Science</i> <i>USA</i>	Online
4.	A Model for Insulating Climate Risks in Marine Fisheries with Insurance (Annex 5)	Dr. Kishore Dhavala <i>Nalanda University, Patna</i>	Physical
5.	The Role of Insurance in Climate Change Adaptation (Annex 6)	Dr. Druba Purkayastha <i>Consultant, World Bank</i> <i>New Delhi</i>	Online
6.	Micro-insurance Measures for Small-scale Fishers: Experience and Lessons Learnt (Annex 7)	Dr. Prasun Kumar Das <i>Secretary General</i> <i>APRACA, Bangkok</i>	Online
7.	Designing Insurance Products for the Marine Fisheries Sector: Issues and Developments (Annex 8)	Ms. Smita Tibrewal <i>ICICI Lombard</i>	Physical

“Identification, Monitoring, Assessing, and Managing Climate-Related Risks in Insurance” was the topic of Ms. Gonulal’s presentation. She said that Simple risk transfer options in the form of insurance are not easily available for the micro- and small fisheries enterprises. The World Bank’s intention to support this initiative in helping fisheries to better cope with risk also fits well within its mission of fighting poverty. Ms. Gonulal pointed out that climate risk insurance is becoming more important as the Indian Peninsula experiences more extreme weather occurrences. In this environment, developing an effective regulatory and supervisory framework for the governance of insurance and other risk-mitigation tools is critical. Data on climatic hazards, productive assets and value at risk, insurance clients, their main traits and features, and so on are critical for the development of well-functioning insurance networks throughout sensitive regions. She underlined the importance of creating demand for insurance, developing insurance products, establishing an effective distribution system, and strengthening regulatory processes to increase insurance penetration. In conclusion, she said that climate change also presents opportunities for the insurance sector: the insurance industry plays a critical role in the management of climate-related risks in its capacity as an assessor, manager, and carrier of risk and as an investor, and is uniquely qualified to understand the pricing of risks. Notably, through risk-based pricing, insurers provide critical economic signals regarding the changing risk environment. Insurers can also help build resilience through (inclusive) insurance.

Dr. Suchitra Upare in her presentation on ‘World Review of Capture Fisheries Insurance’ outlined the findings from the FAO World Capture Fisheries and Aquaculture Insurance Review published in April, 2022 covering 30 countries. She

said that the latest assessments show that the insurance market as such is growing at 2.7% annually with a gross written premium of USD 5.2 trillion. Of all the policies issued, 46 % pertain to the non-life sector and the rest to life insurance. Marine insurance constitutes only 1% of the non-life insurance. Asia is the fastest-growing insurance market, while Japan and China are the largest insurance markets in the world. Asia contributes 32% of the premium share at the global level.

Fishing vessel insurance is one of the prominent segments of the capture fisheries insurance. It has been reported that out of 4.56 million vessels globally, only 0.45 million vessels are presently insured. The International Maritime Organization mandates compulsory insurance cover for industrial fishing vessels. The small-scale fishing vessels also need to be insured. While the insurance Industry covers all perils, Indian companies only cover a few named perils. At the country level, fisheries insurance in Bangladesh is only at a developing stage. However, all insurers in the country are obliged to underwrite a designated share of the business to the primary sector including fisheries and aquaculture. In Japan, the government plays a major role in promoting fisheries insurance. The Mutual insurance model is practiced with a three-tier structure for insurance administration. Much of the vessel insurance coverage in Japan is carried out through the intermediation of fishery co-operatives. In Vietnam, insurance has transformed from government-owned monopoly to a more open



market situation with both domestic and foreign entrants. The government-owned Philippines Crop Insurance Corporation runs a fisheries insurance business in the Philippines. Micro-insurance is picking up at a fast pace in the country. It is particularly notable that the family members of the fishers are also insured in the Philippines. Index/parametric insurance is also being promoted in the country. Micro insurance implemented in the Philippines is a typical model. In Indonesia, it is legally binding to extend insurance protection to fishers.

Dr. Upare also briefed on the major recommendations in the FAO review report. They include: promoting premium subsidies in the initial stages of development of fisheries insurance; application of technology in insurance implementation, early settlement process, micro insurance, and subsidy for premium; development of special insurance products for women farmers and fish workers; introducing flexibility in premium payments; and extension of coverage for partial damage of fishing assets.

Dr. Grant Cavanaugh, in his presentation on “Experiences and Challenges in providing insurance and risk management services for marine fisheries”, spoke on the importance of data analytics and ocean observation models. He said that data collation and analysis on various climate parameters enable effective insurance administration for the protection of fisheries operations and marine aquaculture in the ocean. He indicated that it is possible to undertake the historic reconstruction of ocean conditions with minimal data, which in turn can be utilized by the insurance industry to develop novel insurance products.

“A Model for Insulating Climate Risks in Marine Fisheries with Insurance” was presented by Dr. Kishore Dhavala. He gave a brief account of major developments in fisheries insurance in India and provided a review of recent research works carried out in the field. He also provided an analysis of the major risky weather events that happened in India from 1990 to 2021. He noted that parametric insurance programs can be drawn from weather and ocean observation models even with limited data.



For instance, it is possible to develop a probabilistic model of safe fishing days, and given this, compensation can be provided if actual fishing days drop below the safe fishing days in a particular year. He concluded that safe fishing days need to be insured, boat & gear insurance needs to be made mandatory, and the premium can be shared among stakeholders- government, fishers, and company.

Dr. Dhruba Purkayastha made a presentation on “The Role of Insurance in Climate Change Adaptation”.

Quoting the UN Framework for Climate Change (UNFCC), he said that adaptation refers to adjustments in ecological, social, or economic systems in response to actual or expected climatic stimuli and their effects or impacts. In this context, climate change poses two types of risks: Physical Risks cause direct harm to assets or disrupt Industry/company value chains, and Transition Risks arise from the overall shift to a low carbon economy through changes in policy, technology, and market sentiment, both of which impair asset values and credit quality of loans and investments from banks, financial institutions, and capital markets. There are two types of insurance to deal with the risks: Loss and Damage (L&D) insurance and parametric insurance. However, in case of a catastrophic event, insurance companies may find their business model getting negated and thus making some risks uninsurable. Traditional insurance products are L&D insurances where the payout depends on the estimation of damages and is a prevalent model in most countries including India. Parametric insurance solutions offer a means to guarantee direct pay-out after a qualifying event and protect against unpredictable but potentially devastating risks in ways traditional insurance packages cannot. Citing an annual loss of USD 87 billion for 2020, he called for urgent action in climate risk insurance. He also pitched for insurance premium subsidies in the initial phases to popularize insurance products, even though in the long run, insurance products should be affordable to the target groups, especially small-scale fishers and farmers.



Dr. Prasun Kumar Das made a presentation on ‘Micro-Insurance Measures for Small-scale fishers: Experience and Lessons Learnt’. He started by distinguishing risks from uncertainties compared to other events and the need to develop suitable mechanisms to protect the fishers and fish farmers from them. Dr. Das emphasized the importance of micro-insurance in risk management as well as in ensuring social protection for small-scale actors in fisheries and aquaculture. He noted that financial services, such as credit, saving, insurance, and investment are important strategies and underlined that previous experiences from the sector indicate the benefits of bundling micro-insurance with credit and savings so that greater coverage of beneficiaries can be achieved. There is a need to enhance access, availability, and affordability of micro insurance across geographical areas. Another priority area is mainstreaming informal insurance mechanisms presently offered by mutual benefit associations, co-operatives, funeral fund groups, etc. Participation of private insurance service providers is another need of the hour.

A presentation on “Designing Insurance Products for the Marine Fisheries Sector: Issues and Developments was made by Ms. Smita Tibrewal. She outlined her experiences in the administration of parametric insurance products in the agriculture sector in India. Various prerequisites for the effective administration of parametric insurance, such as data availability on climatic parameters, cost of cultivation, scientific inputs for climatic thresholds, etc., were discussed. She also explained the initiatives taken up by ICICI Lombard in collaboration with ICAR-CIBA for introducing a parametric insurance product for shrimp farmers. She maintained that there is scope for covering the marine fisheries sector with parametric insurance against climatic risks.



4.0 Country Perspectives on Marine Fisheries Insurance

Session II comprises five presentations from Bay of Bengal rim countries, viz., Bangladesh, India, Maldives, Sri Lanka, and Thailand on their experiences and plans for fisheries insurance. Dr. V. Rajagopalan, IAS (Retd.), Former Secretary, Ministry of Environment, Forestry and Climate Change, Government of India chaired the Session. Dr. P. Krishnan and Dr. P.S. Ananathan, Principal Scientist, ICAR-CIFE were rapporteurs. The Presentations made during the session are as follows:



Dr. V. Rajagopalan, IAS (Retd.)

#	Topic	Presenter	Mode
1.	Marine Fisheries Insurance: Experiences and Plans from BANGLADESH (<i>Annex 9</i>)	Mr. Subrata Bhowmik <i>Joint Secretary</i> <i>Ministry of Fisheries and Livestock</i> <i>Government of Bangladesh</i> & Dr. Md. Sharif Uddin <i>Director, Marine Fisheries Office, Department of Fisheries, Government of Bangladesh</i>	Physical
2.	Insurance in the Marine Fisheries Sector Experiences and Plans from INDIA (<i>Annex 10</i>)	Ms. N. Chandra <i>Executive Director (Technical)</i> <i>NFDB, Hyderabad</i>	Physical
3.	Marine Fisheries Insurance Country Perspective MALDIVES (<i>Annex 11</i>)	Mr. Ahmed Shifaz <i>Director, Ministry of Fisheries, Marine Resources and Agriculture, Government of Maldives</i>	Physical
4.	Country Perspectives on Marine Fisheries Insurance Experiences and Plans from SRI LANKA (<i>Annex 12</i>)	Mr. Dhammika Ranatunga <i>Director General (Technical), Ministry of Fisheries</i> <i>Government of Sri Lanka</i>	Physical
5.	Insurance for Small-scale Fishers in THAILAND (<i>Annex 13</i>)	Ms. Nartaya Srichantuk <i>Economist, Policy & Plan Division</i> <i>Department of Fisheries, Government of Thailand</i>	Online



Mr. Subrata Bhowmik



Dr. Md. Sharif Uddin



Dr. L. Narasimha Murthy



Ms. N. Chandra



Mr. Ahmed Shifaz



Mr. Dhammika Ranatunga



Ms. Nartaya Srichantuk

4.1 Bangladesh

Marine fisheries of Bangladesh comprise modern industrial trawlers and a large number of artisanal fishing vessels. The sector supports the employment of about 0.5 million fishers and recorded a steady growth of about 3% in the past years. The country is highly susceptible to climate change. It faces at least one cyclone each year and the intensity of cyclones is increasing. Other grave concerns are sea-level rise, reduction of freshwater availability by salinity intrusion, and decreasing brackish water fish production. The natural disasters have caused damage of BDT179,19,88 million between 2015 and 2020, according to the Bangladesh Bureau of Statistics (BBS). As a part of the disaster relief mechanism, the Government has taken measures to provide cyclone shelters, Early-Warning Systems, Evacuation measures, etc. Recently, the Government has started a program to register fishers and issue Identity cards. An Ex-Gratia payment of BDT 50, 000 is provided to the family in case of accidental death of a registered fisher. In terms of vessel insurance, while modern industrial trawlers are insured, a large number of artisanal boats remain uninsured. Lack of suitable insurance schemes, providing necessary insurance documentation, etc., are probable reasons for poor insurance coverage. Insurance is also not necessary for the registration of fishing vessels and therefore, there is no mandatory element also.



4.2 India

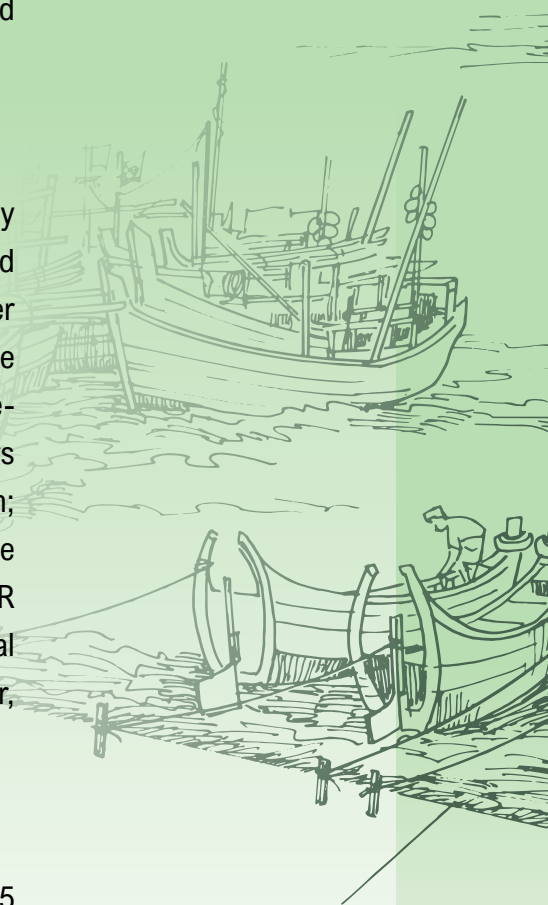
The marine fisheries sector of India comprises about four million fisherfolk and 0.3 million fishing vessels. The Government provides support to the insurance needs of the fishers through various components under the umbrella scheme of Pradhan Mantri Matsya Sampada Yojana (PMMSY). These components are: (1) Group Accident Insurance Scheme (GAIS) for fishers; (2) Insurance premium subvention for fishing vessels; (3) Livelihood scheme and nutritional support scheme for Ban/Lean period; and (4) Relief assistance from the State Disaster Response Fund(SDRF)/National Disaster Response Fund (NDRF).

4.3 Maldives

Marine fisheries is by far the largest primary sector activity in the Maldives. It employs about 20% of the population and contributes 6% to the GDP. Insurance is mandatory for larger fishing vessels. However, there is a lack of transparency in the coverage and claim process. Maldives is also running an Income-based Insurance Scheme under which subscribing fishers are eligible to get compensation for: (1) lean fishing season; (2) price drop; (3) loss of fishing days due to the adverse weather condition, and (4) if income dropped below MVR 10,000 in a month. The average monthly income of a typical fisherman is in the range of 8 – 17 thousand dollars. However, it is difficult to implement the scheme for the artisanal fleet.

4.4 Sri Lanka

The marine fisheries sector of Sri Lanka comprises about 225 thousand fishers and 53 thousand fishing vessels. Every year 20-25 fishers die at the sea and natural hazards are a major cause of the death. An ex-gratia payment of SLR 1 million is paid to the fisher's family when died of a natural hazard. While there is no specific climate risk insurance in the country several private players run life and non-life insurance schemes. Amongst the active fishers, the fishing crew of multi-day fishing vessels is mostly insured. The minimum sum assured is SLR 1 million. However, the crew of artisanal fishing vessels is usually not insured. Although there is no legal compulsion to insure the fishing vessels, most fishing vessels are insured.

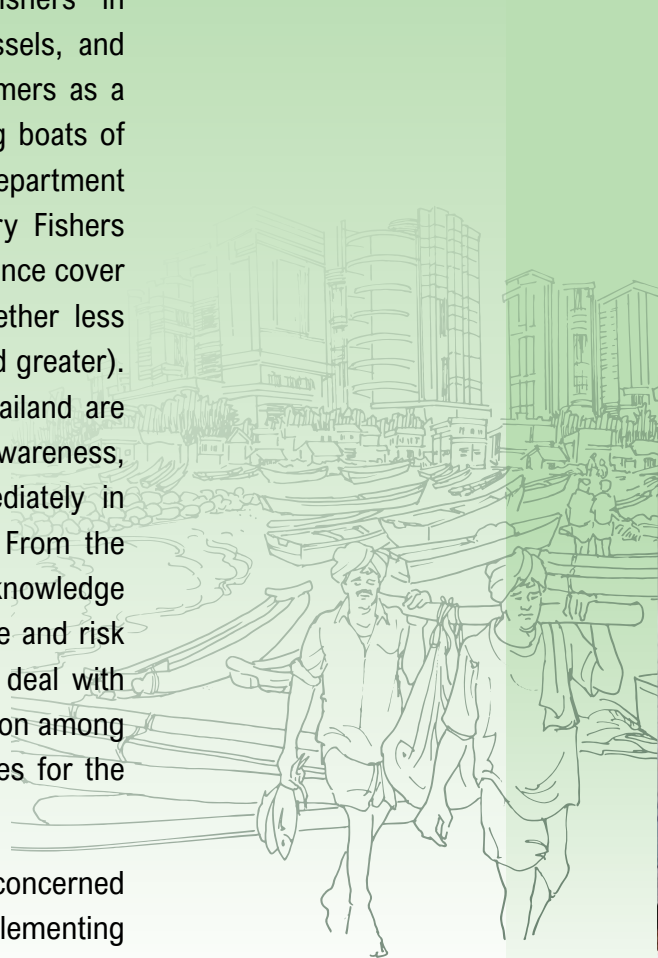


The high cost of acquisition and frequent natural disasters necessitate the better insurance coverage of fishing vessels. The Government is considering various pathways to improve insurance coverage including compulsory insurance for the fishing crew (multi-day crew at the beginning), promotion of insurance with the support of service providers, revitalization of the Fishers' Pension Scheme, and introduction of climate risk insurance schemes with the support of Agriculture Insurance Board.

4.5 Thailand

Thailand is in the process of developing and improving the insurance coverage and proposing two schemes for implementation: 1) insurance for small-scale fishers in capture fisheries with less than 10 GT fishing vessels, and 2) insurance for aquaculture, Vannamei Shrimp farmers as a pilot project. Under the first scheme, 54,814 fishing boats of less than 10 GT that registered with the Marine Department would be covered. In addition, there is a Voluntary Fishers Insurance policy (Micro Insurance). Under this insurance cover is provided to any subscribing fishing vessel (whether less than 10 GT or commercial fishing boats of 10 GT and greater). Reasons for the low penetration of insurance in Thailand are multi-faceted. On the demand side, fishers' lack of awareness, expectations of receiving ex-gratia payment immediately in time of distress, and high premiums are barriers. From the supply side, insurance market size, lack of domain knowledge of the insurance companies, and inadequate damage and risk assessment mechanisms are major constraints. To deal with the situation, the Government is promoting competition among insurance companies and is also providing incentives for the development of a suitable methodology .

The Chair concluded the session by saying that concerned countries have achieved varying progress in implementing insurance in the marine fishing industry. Cross learning can be used to determine the aspects that contributed to the success. Overall, insurance penetration has remained low in all countries, and the reasons for this are almost consistent across the board. As a result, common lessons from the Bay could be used to create better planned insurance schemes for maximum coverage of risks at affordable premiums in the future.



5.0 Conclusion & recommendations

Dr. P. Krishnan delivered the Vote of Thanks at the end of the Symposium event. Appreciating the active participation from the attendees and rich and enlightening presentations from the speakers, he said that the output of the Symposium would be effectively integrated into the insurance project being undertaken by the BOBP Organization. Presenting the broad recommendations from the Symposium, Dr. Krishnan said that the Symposium called for subsidizing the insurance premiums initially to popularize the insurance schemes, even though in the long run, it is desirable that such products be made affordable to small-scale fishers and farmers and also investment-friendly to the insurers. It is also recommended that micro-insurance should be adopted as a potential solution as effective linkages between insurance companies and fishers are yet to be developed. The symposium also called for developing technology solutions including risk modeling and forecasting. The legislative support would also be required to create the necessary incentives for sellers and buyers of appropriate insurance products to achieve a wide coverage among different stakeholders in the fisheries sector, more preferentially small-scale fishers and aquafarmers.



Dr. P. Krishnan



0900 – 0945 Inaugural Session

06 May 2022



0900 – 0910

Welcome & Opening Remarks

Dr. A. Gopalakrishnan

*Director, ICAR-CMFRI &
Vice President, AFS-IB*



0910 – 0920

Guest of Honour

Dr. Christophe Crepin

*Practice Manager (Environment,
Natural Resources and Blue Economy
Global Practice, The World Bank*



0920 – 0930

Guest of Honour

Dr. K.S. Palanisamy, IAS

Commissioner of Fisheries, Tamil Nadu



0925 – 0940

Chief Guest Address

Dr. C. Suvarna, IFS

*Chief Executive,
National Fisheries Development Board
Department of Fisheries, Ministry of Fisheries,
Animal Husbandry & Dairying,
Government of India*



0940 – 0945

Vote of Thanks

Dr. P. Krishnan

*Director, Bay of Bengal Programme
Inter-Governmental Organisation*

0955 - 1130 Session I Global Experiences on Marine Fisheries Insurance



Chair

Dr. Dilip Kumar

Former VC, CIFE & FAO Expert

Rapporteurs

Dr. P. Shinoj, CMFRI & Dr. A. Suresh, CIFT



1030 – 1040

Experiences and Challenges in Providing
Insurance and Risk Management Services for
Marine Fisheries

Dr. Kishore Dhavala

Nalanda University, Patna



1000 – 1010

Identification, Monitoring, Assessing and
Managing Climate Related Risks in Insurance

Ms. Serap Oguz Gonulal

Lead Insurance Specialist, World Bank



1040 – 1050

The Role of Insurance in Climate Change
Adaptation

Dr. Druba Purkayastha

Consultant, World Bank, New Delhi



1010 – 1020

World Review of Capture Fisheries Insurance

Dr. Suchitra Upare

*Global CAFI SSF Network and Coordinator,
FAO, New York*



1050 – 1100

Micro-insurance Measures for Small-scale
Fishers: Experience and Lessons Learnt

Dr. Prasun Kumar Das

*Secretary General, APRACA
Bangkok*



1020 – 1030

Experiences and Challenges in Providing Insurance
and Risk Management Services for Marine Fisheries

Dr. Grant Cavanaugh

CEO, Scoot Science, USA



1100 – 1110

Designing Insurance Products for the Marine
Fisheries Sector: Issues and Developments

Ms. Smita Tibrewal

ICICI Lombard

1130 – 1230 Session II

Country Perspectives on Marine Fisheries Insurance



Chair

Dr. V. Rajagopalan, IAS (Retd.)
Former Secretary, MoEFCC, Govt. of India

Rapporteurs

Dr. P. Krishnan, *Director, BOBP-IGO*

Dr. P.S. Ananthan, *ICAR-CIFE*



1135 - 145

Marine Fisheries Insurance: Experiences and Plans from BANGLADESH

Mr. Subrata Bhowmik

Joint Secretary, Ministry of Fisheries & Livestock, Government of Bangladesh



Dr. Md. Sharif Uddin

*Director, Marine Fisheries Office
Department of Fisheries
Government of Bangladesh*



1145 - 1155

*Insurance in the Marine Fisheries Sector
Experiences and Plans from INDIA*

Dr. L. Narasimha Murthy

Senior Executive Director, National Fisheries Development Board (NFDB), Hyderabad



Ms. N. Chandra

Executive Director (Technical), National Fisheries Development Board (NFDB), Hyderabad



1155 - 1205

*Marine Fisheries Insurance
Country Perspective, MALDIVES*

Mr. Ahmed Shifaz

Director, Min. of Fisheries, Marine Resources and Agriculture, Malé, The Maldives



1205 - 1215

*Country Perspectives on Marine Fisheries Insurance
Experiences and Plans from SRI LANKA*

Mr. Dhammika Ranatunga

*Director General (Technical),
Ministry of Fisheries, Government of Sri Lanka*



1205 - 1215

Insurance for Small-scale Fishers in THAILAND

Ms. Nartaya Srichantuk

*Economist, Policy & Plan Division
Department of Fisheries, Government of Thailand*

06 May 2022

1230 – 1315

Plenary Session

Policy Perspectives for Insulating Marine Fisheries Sector from Uncertainties including Changing Climate

Panelists

Senior Officers of Government of Bangladesh, India, Sri Lanka & Maldives

Rapporteur

Mr. Rajdeep Mukherjee

BOBP-IGO

1230 – 1245

Agenda for the Future: Lessons for South Asia from Global Marine Fisheries Insurance

Briefs from Session Chairs

Dr. Dilip Kumar

Former VC, CIFE & Expert - FAO / NITI Ayog, Govt. of India

Dr. V. Rajagopalan, IAS (Retd.)

Former Secretary, MoEFCC, Govt. of India

1245 – 1300

Observations by Panelists

PANEL Members

1300 – 1310

Felicitations of Session Chairs, Speakers & Panelists

Dr. A. Gopalakrishnan

Director, ICAR-CMFRI & Vice President, AFS-IB

1310 – 1315

Vote of Thanks:

Dr. P. Krishnan

Director, BOBP-IGO

1315 – 1400

Lunch and Disassembly

Annex: 2

Identification, Monitoring, Assessing, and Managing Climate-Related Risks in Insurance

Ms. Serap Oguz Gonulal
Lead Insurance Specialist, World Bank





The climate change and climate related risks are source of financial risks

THE FACTS

- Climate related risks are material for the insurance sector :
 - They impact the insurability of policyholder
 - property
 - assets
 - Insurers' operation
 - Investments

The role of Insurance Regulatory/Supervisory Body

- Should
 - Identify
 - Monitor
 - Assess and
 - Contribute to the mitigation of the risks from climate change to the insurance sector

Fishers and climate change risks

Fishers

- Facing a nightmare owing to the changing climate
- Particularly true for millions of small-scale fishers, who rely on fishing for their living
- **Fisheries in India are suffering important damage and losses to their business assets calling for an urgent need to improve risk management capabilities.**

Uncertainty

Simple risk transfer options in the form of insurance are not easily available for the micro and small fisheries enterprises

The government's response to this situation is to enable the availability of risk transfer instruments for Aquaculture activities.

The World Bank's intention to support this initiative in helping fisheries to better cope with risk also fits well within its mission of fighting poverty.

The challenges to address when providing insurance for the fisheries are several.

Regulators sharpen their focus helping insurers navigate the climate risk landscape

Climate change

The warming of the world's climate system, including its atmosphere, oceans, and land surfaces.

Climate related risk / climate risks

The risk posed by the exposure of an insurer to physical, transition, and/or liability risks caused by or related to climate change.

Managing the challenges and opportunities arising from climate risk

Climate-related risks may affect the supervision of insurers in many ways.

The following ICP topics are in scope to support supervisors in their efforts to integrate climate-related risks into the supervisory framework:

- ICP 9 (Supervisory Review and Reporting);
- ICP 7 (Corporate Governance);
- ICP 8 and 16 (Risk Management);
- ICP 15 (Investments); and
- ICP 20 (Disclosures).



INTEGRATING INSURANCE INTO CLIMATE RISKS MANAGEMENT

- Often referred to as society's risk manager, insurance companies have an important role in the web of climate change complexities.
- Through their investment, underwriting and advisory functions, insurers are directly exposed to a changing climate, which creates threats and opportunities for the sector.
- The climate change and climate-related risks are a source of financial risk, having an impact on the resilience of individual financial institutions, including insurers, as well as on financial stability.
- Climate-related risks are material for the insurance sector as they impact the insurability of policyholder property and assets as well as insurers' operations and investments. Therefore, supervisors should identify, monitor, assess and contribute to the mitigation of the risks from climate change to the insurance sector.
- Climate change also presents opportunities for the insurance sector: the insurance industry plays a critical role in the management of climate-related risks in its capacity as an assessor, manager and carrier of risk and as an investor, and is uniquely qualified to understand the pricing of risks. Notably, through risk-based pricing, insurers provide critical economic signals regarding the changing risk environment. Insurers can also help build resilience through (inclusive) insurance.



Establishing effective risk management

Government intervention by creating demand for fisheries insurance products.

Development of an insurance product that creates value for the consumers

Effective distribution by insurance companies through centralized scheme,

Supportive regulatory framework of the chosen insurance mechanism,

Consumer friendly market practice and institutional systems for better information/data on risks and effective claims/losses payment.

Use of new technologies to lower costs and increase efficiency, like with the use of digital registration process of fisheries with a focus on smaller size shrimp farms and fisheries.



Major nationwide public benefits



the strengthening of the capacity of the government to respond rapidly to priority needs of its fisheries sector in the face of insurable loss.

the development of a national insurance plan to shift the financial burden of future loss of fisheries from the individual families to the insurance sector and then to international re-insurers and possibly capital markets.

increased responsibility on the part of the fisheries empowered through heightened awareness of the issues which determine their protection and well-being

Improved coordinated work between the public agencies, the insurance industry, and:

Reduce the underserved population.

Climate-related risks for re/insurance sector



- Climate related risks are often systemic risks, **difficult to measure**, and with high potential correlations and knock-on effects. These can vastly increase both financial losses and uncertainty, which may render standard insurance practices ineffective.
- **Lack of data may** lead insurance companies to conclude that they are unable to cover certain types of losses or geographic areas. Although such decisions allow the insurance industry to avoid losses in the short term, they are not part of a sustainable approach. The insurance industry needs to grow, and countries, businesses, and individuals need insurance to mitigate risks and support economic growth. For these reasons, the insurance industry needs to be involved in policymaking, data collection, and analytics, and it should be encouraged to develop innovative solutions for covering risks rather than just relying on exclusions.
- **Affordability**. A related risk is that some currently insured risks may become so expensive to insure that they are de facto uninsurable. However, moving in this direction, even partially, can provide the right incentives for proactive planning and risk-informed investments in adaptation.
- **Underwriting risks**. The profitability of the underwriting business depends on the ability of the re/insurer to correctly price and pool the risks so that the inflow of premiums is higher than the outflow of claims payouts and operating expenses.

Climate change presents opportunities for the insurance sector



There is growing recognition that climate change and climate-related risks are a source of financial risk, having an impact on the resilience of individual financial institutions, including insurers, as well as on financial stability. Climate-related risks are material for the insurance sector as they impact the insurability of policyholder property and assets as well as insurers' operations and investments. Therefore, supervisors should identify, monitor, assess, and contribute to the mitigation of the risks from climate change to the insurance sector.

Climate change also presents opportunities for the insurance sector: the insurance industry plays a critical role in the management of climate-related risks in its capacity as an assessor, manager, and carrier of risk and as an investor, and is uniquely qualified to understand the pricing of risks. Notably, through risk-based pricing, insurers provide critical economic signals regarding the changing risk environment. Insurers can also help build resilience through (inclusive) insurance.


Annex: 3


World Review of Capture Fisheries Insurance

Dr. Suchitra Upare

*Global CAFI SSF Network and Coordinator
FAO, New York*









World Review of Capture Fisheries Insurance

Global network for capacity building to increase access of small-scale fisheries to financial services (CAFI – SSF Network)


Suchitra Upare
FAO-CAFI SSF Coordinator
6 May 2022 – IFAF-TNJFU

CAFI – SSF Network






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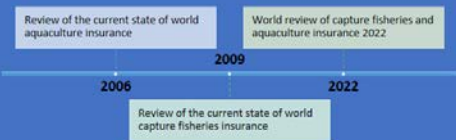


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Review updates




CAFI – SSF Network






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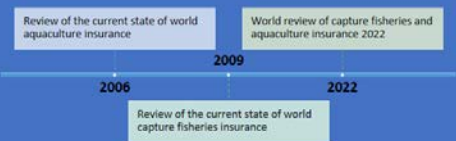


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Review updates



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INTERNATIONAL YEAR OF ARTISANAL FISHERIES AND AQUACULTURE 2022

Supports Integrated & Sustainable Economic Development, and Contributes to the Achievement of the UN 2030 Agenda of Sustainable Development Goals (SDGs)

Goal 8: Promote inclusive and sustainable economic growth, employment and decent work for all

Goal 12: Ensure sustainable consumption and production patterns

Goal 13: Take urgent action to combat climate change and its impacts

Goal 14: Conserve and sustainably use the oceans, seas and marine resources for sustainable development

8 DECENT WORK AND ECONOMIC GROWTH

12 RESPONSIBLE CONSUMPTION AND PRODUCTION

13 CLIMATE ACTION

14 LIFE BELOW WATER




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CAFI - SSF Network

INTERNATIONAL YEAR OF ARTISANAL FISHERIES AND AQUACULTURE 2022

Overview of capture fisheries production



Estimated global fish production 179 million tonnes, (capture fisheries contributes 54 percent, FAO 2020)

Total estimated value at first sale is USD 401 billion (of which 38 percent originates from capture fisheries)

During last decade (2008-18) production increased by 19 percent

Overall increase region wise in marine capture fisheries

- Oceania region production was stable
- South America production showed large variations- mainly fluctuations in Anchovy catches
- Production levels remained unchanged for seven largest capture fisheries producers.

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INTERNATIONAL YEAR OF ARTISANAL FISHERIES AND AQUACULTURE 2022

The Insurance Market



Global growth rate 2.7 percent

GWP (gross written premiums, 2018)- USD 5.2 trillion
- Non- life insurance contributed (includes capture fisheries) – 46 percent
Marine insurance ONLY 1 percent of total non-life insurance premiums

Asia- Fastest growing market in terms of GWP (Gross Written Premiums) growth potential specifically in the liability and agriculture and allied business lines.

China & Japan- largest insurance markets in world

CAFI - SSF Network

Asia : Insurance Market

Asia region has thirty-two percent of premium share.

Life and nonlife insurance markets in Asia is estimated at approximately five percent (CARG Study Report)

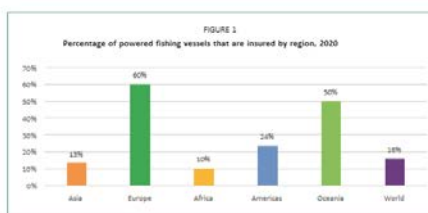
The gross premium for non-life was at USD 564 billion in (2018)

Insurance penetration was estimated at 2.1 percent.

CAFI – SSF Network

Fishing vessel insurance policies

- Global fishing fleet - 4.56 million
(3 percent reduction, since 2006)
- Motorized fishing fleet - 2.86 million
(63 percent)
(Asian countries motorized fleet – 2.1 million)
- Asia accounts for 68 percent of global fishing fleet (both motorized & non motorized)
- Four of the top ten marine capture fishery producers are from Asia (Indonesia -8 percent & Japan & Vietnam- 4 percent, Philippines- 2 percent)
- Inland capture fishery production of Asia region constitutes 66 percent to total global fish production
- Africa's fleet has steadily increased, constitutes about **20 percent** of the global total.



Worldwide insured fishing vessels – 450 000

Key facts Asia region

- Total insured fishing vessels - 275 000
- Japan - 112 000
- China - 55 500
- The Philippines insured vessels - 40467
- Indonesia & Vietnam(each) - 30000
- India insured vessel - 7000



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Perils coverage

- damage to or loss of fishing vessels caused by natural calamities such as storms, lightning, tsunamis, earthquakes, and floods
- accidents caused by human error
- accidents caused by technical/mechanical failure and
- accidents or damage caused by marine debris.

“All risks” common type of insurance for capture fisheries policies.

ONLY- in India is the coverage primarily “named perils”.



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International conventions requiring insurance of industrial fishing vessels



Various IMO conventions include compulsory insurance requirements for large vessels, and do not distinguish between merchant marine or fishing vessels.



International Convention on Civil Liability for Bunker Oil Pollution Damage 2001 (Bunkers Convention)

- which requires shipowners of vessels of 1 000 tons or more to obtain either insurance or another type of financial security to cover liability, as established under international law or any applicable international



Nairobi International Convention on the Removal of Wrecks 2007 (Wreck Removal Convention)

- which applies to any seagoing vessel of 300 tons (24 meters in length) or more including large fishing vessels and provides the basis for a shipowner's liability with regard to wreck removal costs. The vessel's registered owner is required to have insurance or other financial security to cover wreck removal costs.

Introduction of compulsory insurance for smaller vessels still needs attention

Status of Asia Capture Fisheries Insurance Programme/Insurance gaps addressed

Asia - Insurance gaps addressed

Bangladesh

- All insurers in the country are obliged to underwrite a minimum percentage of their business to the crop, livestock, poultry, and fisheries sector.
- Non-life, insurers must write policies for a minimum of 0.1 percent of their gross written premium with rural and social sectors.

Japan

- The government of Japan plays major role in fisheries insurance market and subsidized insurance premiums.
- Fishery insurance in Japan is offered through a mutual insurance system that covers capture fishing, and fishery related facilities.

Asia Insurance gaps addressed

Vietnam

Insurance market has been transformed from the State-owned monopolistic sector to a more open industry with both the domestic and foreign entrants.

Philippines

Philippines Crop Insurance Corporation (PCIC) has seven insurance lines, one of them fisheries insurance, introduced since 2011.

Provides insurance protection to and fishers against losses arising from natural calamities

Indonesia

The Indonesian government introduced Law on- **Protection and Empowerment of Fishermen, Fish Farmers and Salt Farmers** (FAO,2016). Mandatory for central and local government to provide insurance

Opportunities for Insurers

Capture Fisheries

- World fishing fleet comprises of 4.56 million vessels (FAO 2018)
- Five countries under review cumulatively accounted for 1.54 million fishing vessels (FAO 2018)
- Opportunity for new entrants/insurers from private sector to provide services for capture fisheries.

Recommendations

- Establish direct links between insurance and credit programs so that insurance cover can form part of the collateral for a loan and insurance premiums are included in the loan itself.
- Application of technology - weather-index based insurance schemes, 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 sectors as well and to increase efficiency and simplify procedures.
- Flexibility in insurance premium payments and claim settlement may be introduced.
- Design an efficient and simple dispute settlement process – a mechanism to address customer grievances would be helpful while launching new products.
- Need to compliment fisheries asset insurance with health and life insurance policies.
- Develop special insurance products for women workers/entrepreneurs.
- Legislative/policy changes are needed to make basic insurance (Third party liability/ accident insurance) mandatory for all motorized vessels
- Premium subsidy programmes are widespread used in agriculture to promote insurance. The use of subsidies to increase insurance coverage also for small-scale producers
- Need for more awareness, training, and networking support from National and International organisations for fisheries insurance sector.



INTERNATIONAL YEAR OF
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2022

Global Network for capacity building to increase access of small-scale fisheries to financial services – CAFI SSF Network.

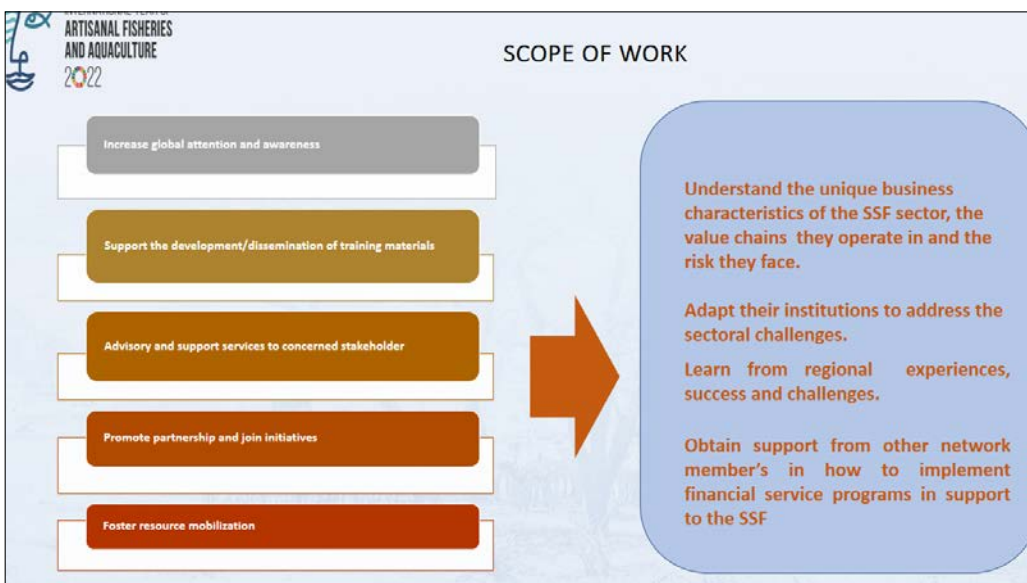


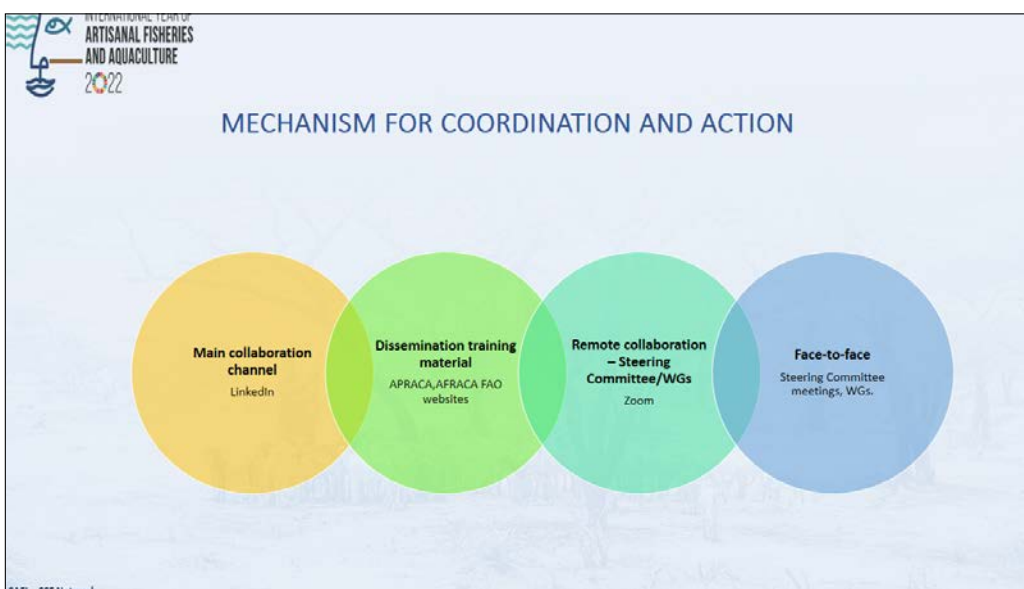
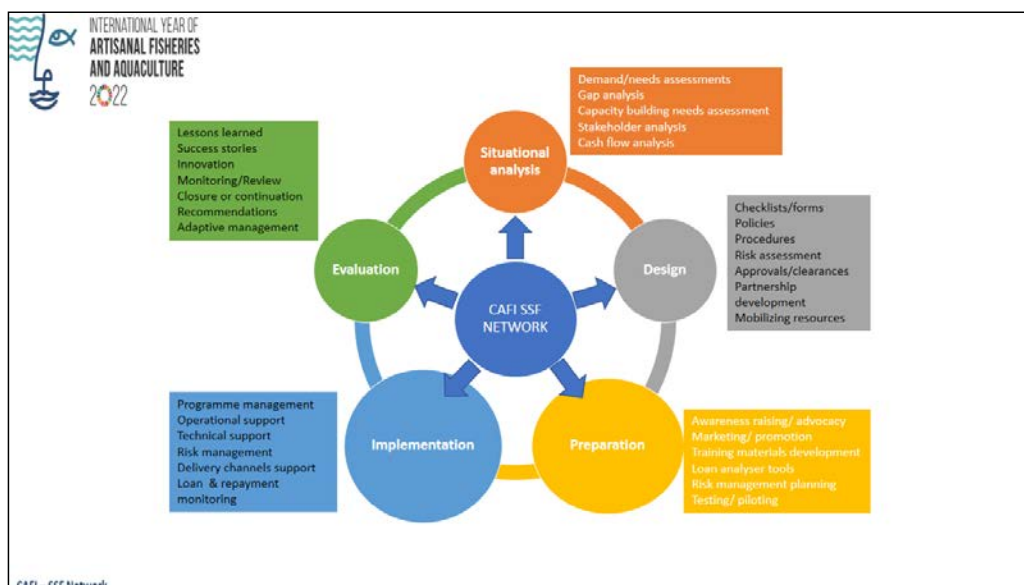
Expert Workshop on "Developing Guidelines for micro-finance, credit and insurance for small-scale fisheries in Asia"
7-9 May 2019, Bangkok, Thailand

CAFI – SSF Network

AIM:

Facilitate the availability and access to finance and insurance for small-scale fisheries through strengthening the capacity of policy makers, service providers and fisher folk organizations.





INTERNATIONAL YEAR OF
ARTISANAL FISHERIES
AND AQUACULTURE
2022

Recent Publication

FAO Publication

- World review of capture fisheries and aquaculture insurance 2022.
DOI: <https://doi.org/10.4060/cb9491en>
- The role of finance in mitigating COVID 19 impacts in fisheries. 2020. FAO, Rome. <https://doi.org/10.4060/cb0687en>
- Guidelines for increasing access of small-scale fisheries to insurance services in Asia: A handbook for insurance and fisheries stakeholders. 2019. <http://www.fao.org/3/ca5129en/ca5129en.pdf>
- Blue finance guidance notes: Insurance for small-scale fisheries. 2020.
Rome. <http://www.fao.org/3/ca8646en/CA8646EN.pdf>
- Blue finance guidance notes. Aquaculture insurance for small-scale producers. 2020.
Rome. <http://www.fao.org/3/ca8663en/CA8663EN.pdf>

CAFI SSF Publications

- Financial services provision to small-scale fisheries.
<https://www.rfile.org/wp-content/uploads/2022/03/Financial-services-provision-to-small-scale-fisheries.pdf>
- Case studies from the United Republic of Tanzania and Zambia
<https://africa.org/wp-content/uploads/2022/01/Financing-Fisheries-in-Africa-case-studies-from-the-United-Republic-of-Tanzania-and-Zambia.pdf>

CAFI – SSF Network

Annex: 4

Experiences and Challenges in providing insurance and risk management services for marine fisheries

***Dr. Grant Cavanaugh**
CEO, Scoot Science, USA*







Who am I?

Grant Cavanaugh



PhD AgEcon



Ex-Nephila (Lloyd's)



Scoot CIO

2



Who am I?

PhD from program specialized in innovative risk transfer...often on behalf of the World Bank

Underwriter for one of the largest books of international reinsurance for agriculture in India

Today, helping bridge between Scoot's true ocean experts and markets (insurance + finance)

3

SEASTATE

The complete picture of your ocean conditions.



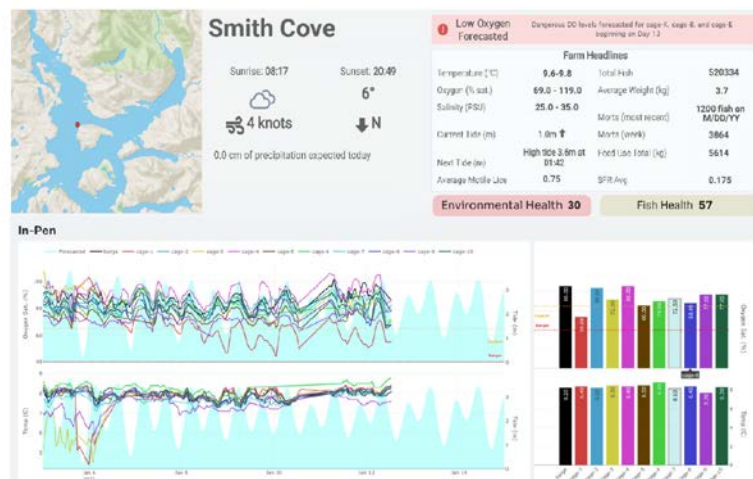
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SEASTATE At a glance

- Comprehensive, platform-agnostic integration of site data
- Real-time notifications across teams of dangerous conditions
- Map based rendering of farm conditions
- Physics-based ocean modelling
- Site-specific forecasts (oxygen, temp, salinity)
- Integrated fish welfare index
- Secure data entry forms for manual data collection

5

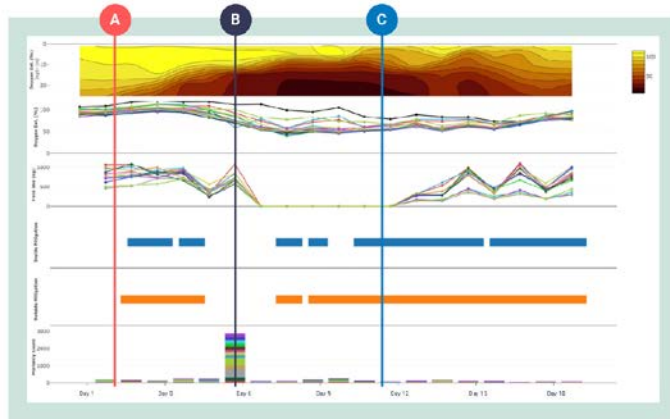
The dashboard



Example event



- A** 3 day forecast (Minimum)
 - When to stop feeding
 - When to place functional feed order
 - Ensure mitigation equipment and protocols are ready
- B** Minimize mortality by understanding the timing and magnitude of ocean change
- C** When to start feeding again
 - When to start the recovery is as important as the onset of the event



Forecasting and analytics

Put your foundational ocean data to work.



Temperature



Salinity



Oxygen

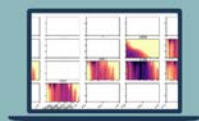


Plankton

8



Existing Data Seeding New Models



Sparse site data



Oceanographic
tools



Full historic record

9

Modeling example:

Site	2
Day	1
Depth	°C
0m	0.32
5m	2.0

Day 1 of coverage: COMPANY
measures temperatures
(Scoot verifies)

10

Modeling example:



Day 2: Scoot gets weather for
Day 1

11

Modeling example:

Site	2
Day	1
Depth	°C
0m	0.32
5m	2.0

COMPANY's day 1 conditions...

...seed oceanographic model...



Site	2
Day	2
Depth	°C
0m	-0.11
5m	1.28

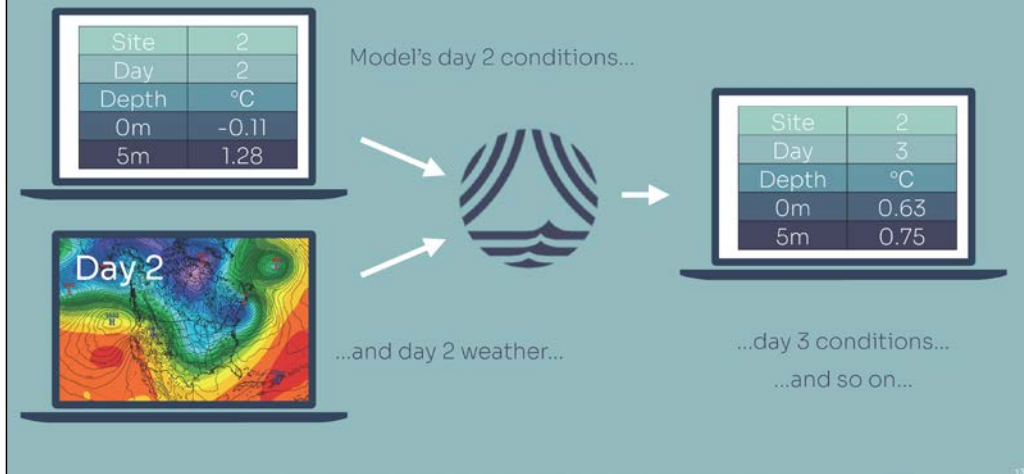
...to make model's day 2
conditions



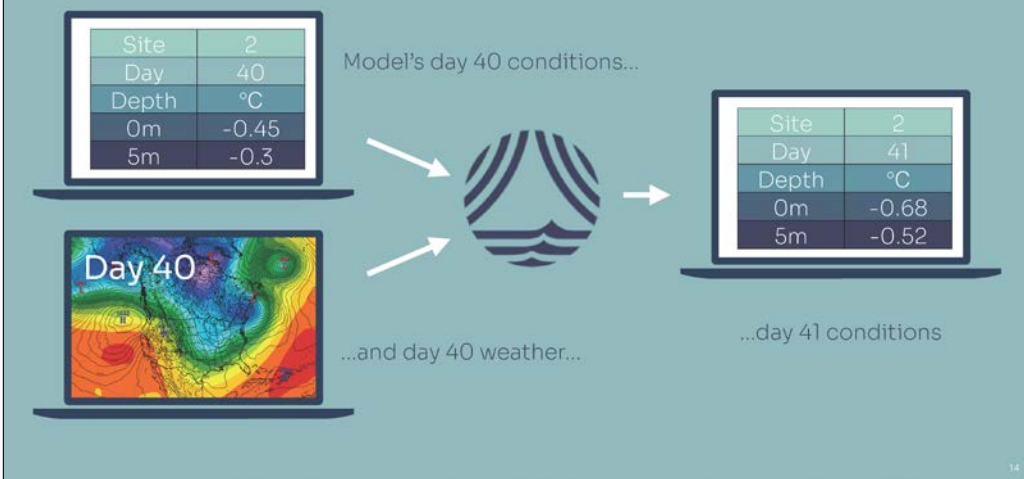
...and day 1 weather...

12

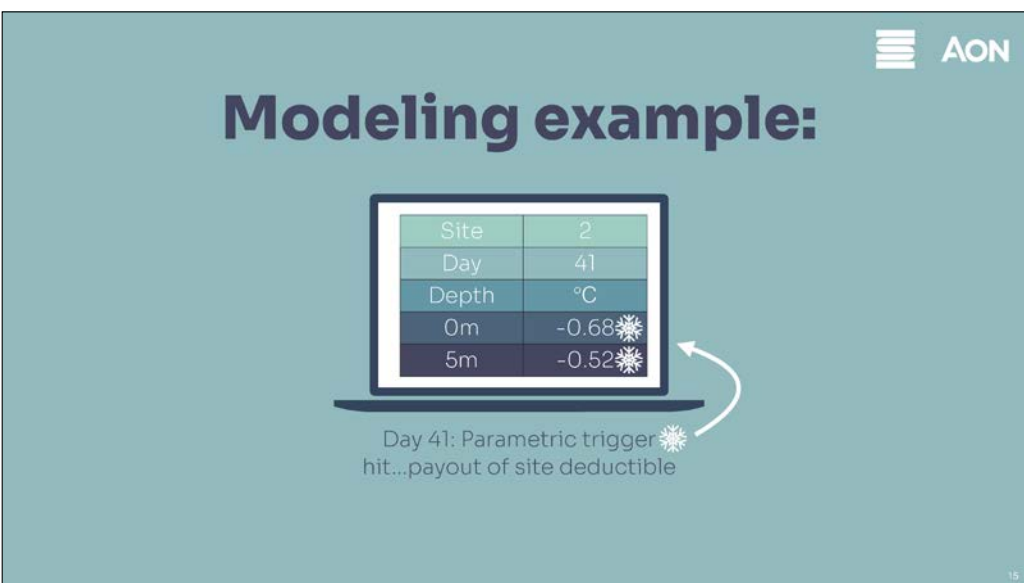
Modeling example:



Modeling example:



Modeling example:



Low basis risk

Correctly predicted all historic events

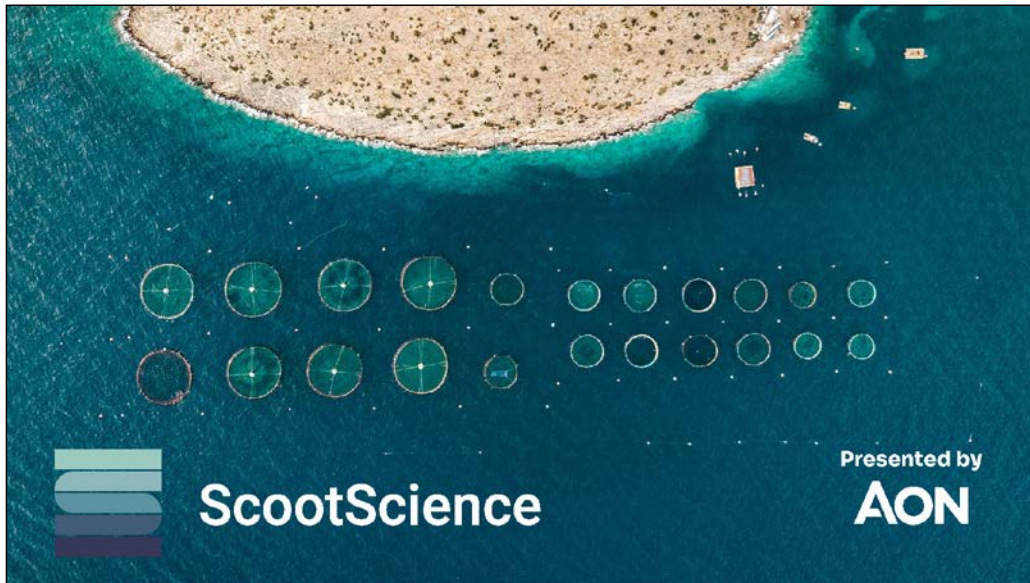
Site	Year	Date of Season's First Event	Date of Season's First Event in Model	Difference in days
SITE1	2014	2014-02-08	2014-02-11	3
SITE2	2003	No COMPANY data	2003-02-19	No COMPANY data
SITE2	2014	2014-02-09	2014-02-08	1
SITE3	2003	No COMPANY data	2003-02-19	No COMPANY data
SITE3	2014	2014-02-08	2014-02-08	0
SITE3	2015	2015-03-14	2015-03-15	1

No other years had a day with 0 & 5m temp below -0.5C in either the site records or the model

16

Thank you.

Grant Cavanaugh, Ph.D.
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 ScootScience.com
 617-721-9451
 grant.cavanaugh@scootscience.com



Annex: 5

A Model for Insulating Climate Risks in Marine Fisheries with Insurance

Dr. Kishore Dhavala
Nalanda University, Patna



A Model for Insulating Climate Risks in Marine Fisheries with Insurance

By

Kishore Dhavala

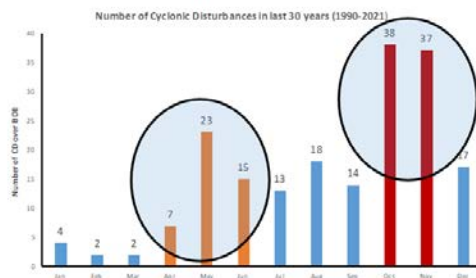
 School of Ecology and Environment Studies
Nalanda University

International Symposium on Insulating Marine Fisheries Sector in South Asia from Uncertainties: Global Experiences with Insurance

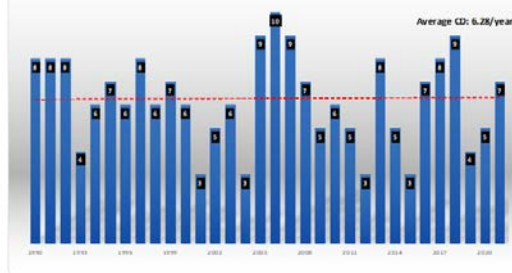
Pic: OECD

Cyclonic Disturbances

- Between 1990-2021, 190 cyclonic depressions with an avg. 6/year in the BOB region
- in which 40 were severe or very severe cyclonic storms.



Cyclonic Disturbances in BOB over the period of 30 years (1990-2021)



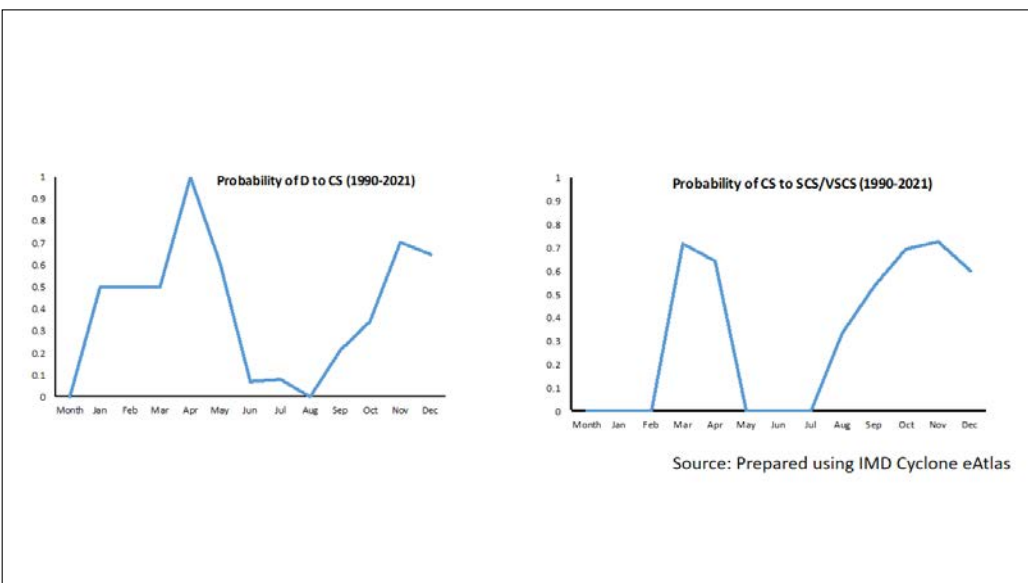
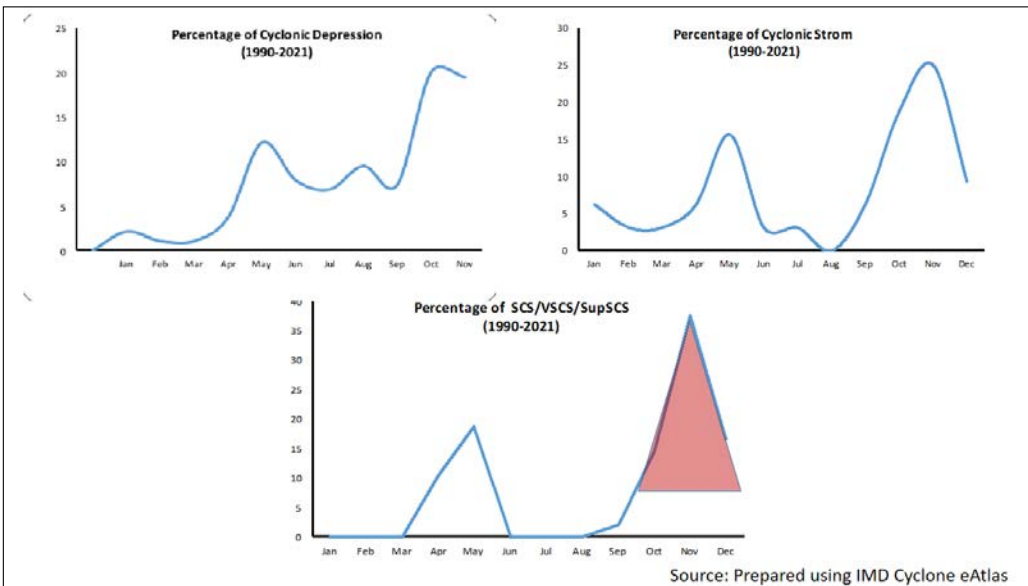
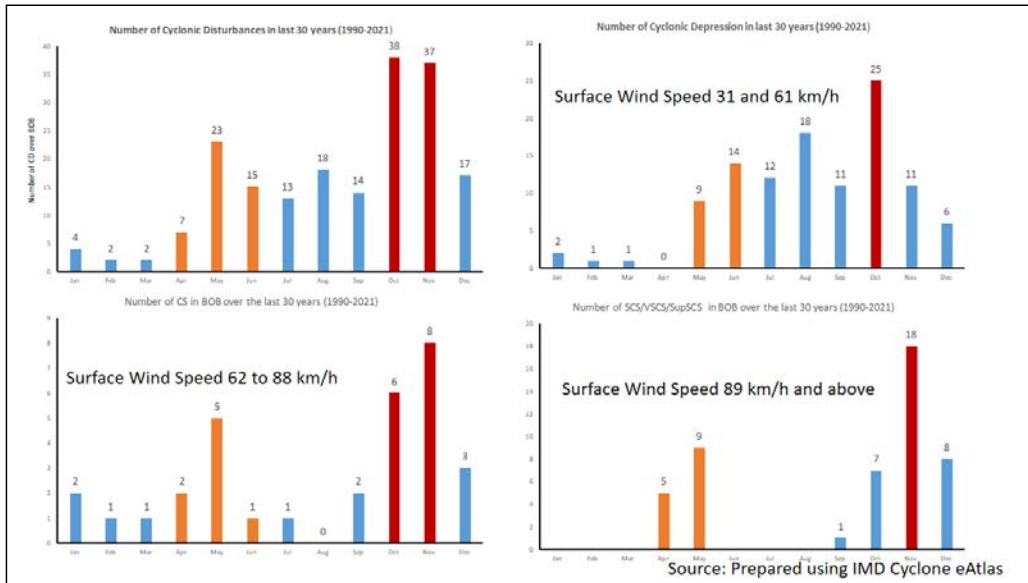
- Cyclonic storms occur in the pre-monsoon (May-June) and post-monsoon season (October-November).
- More severe storms in post monsoon

Source: IMD-Cyclone eAtlas

Loss and Damages of Cyclones

- Amphan (2020): USD 14 Billion (UN-WMO 2021)
- Phalin (2014): USD 4.5 Billion (Govt. of Odisha, 2015)
- Hudud (2013): USD 4.3 Billion (Govt. of Andhra Pradesh, 2014)
- Nargis (2008): USD 13.5 Billion (Reuters 2008)





Impact of Cyclones on Fishermen Community

- Damage of Fishing boats, gears, nets, and fishing equipment
- Fishermen spend INR 80K (USD 1066) to INR 5lac (USD 6600) on repairing the boats (Mishra 2020)
- Fishermen sell their assets to recover the damage caused by Cyclone (Mishra 2020)
- Loss of working days
- Depend on post-disaster aid from Government (Mishra 2021, UN-WMO 2021)



Outlook.com

Mishra, T., & Malakar, K. (2020). Loss and Damages from Cyclone: A Case Study from Odisha, a Coastal State. In *Development in Coastal Zones and Disaster Management*.

Risk Mitigation Strategies and Challenges

- Early Warning Systems
- Fishermen Community Aid
- Insurance
- **Group Insurance:** In India, Centre and State jointly provides insurance scheme, INR 5 lac (USD 6511) against death or permanent disability, 2.5 lac (USD 3257) against partial disability
- **Personal Insurance:** Often fishermen do not prefer buy individual insurance
- **Vessel Insurance:** low claim (Mishra et al. 2020)
- **Fishing Gear Insurance:** No insurance (Shinoj et al. 2017)
- **Coastal Asset Insurance:** No insurance (Shinoj et al. 2017)



Shinoj et al. (2017) "What ails fisheries insurance in India? An assessment of issues, challenges and future potential", *Marine Policy*,

Fishing Holiday/Deep Sea Fishing Ban April/May to June/July

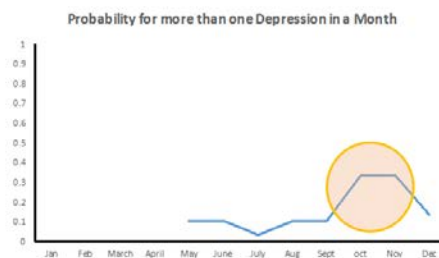
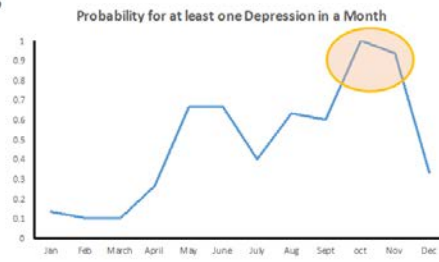
- To increase the fisheries productivity, impose a ban on deep water fishing,
 - India -15th April to 14th June (61 days),
 - Bangladesh 20th May to 23 July (65 days)
- Only non-motorized fishing is allowed.
- The loss to fishermen during the ban period is compensated with an amount of INR 4000/month (GoI)
- In fishing season, monthly wage: INR 11,000 @ the wage rate INR 382/day.
- Income from by-catch (3-5kgs), which comes to INR 1000-1500.
- Monthly earnings approx. INR 12,500 (USD 166)



Insured the Safe Fishing Days

- On an avg. 6 depressions form in a year
- Warning period: avg. 5-6 days
- Fishing Holiday: 61 Days
- Safe Days for Fishing: 274

Month	Safe Days for Fishing	Month	Safe Days for Fishing
Jan	30	July	28
Feb	27	Aug	27
March	30	Sept	26
April	13	Oct	23
May	0	Nov	22
June	10	Dec	28



Boat/Vessel/Fish Gear Insurance

- In the Phalin (2014) affected region, Mishra et al (2020) observed that even with insurance for the boats, vessel/gear, on average fishermen spent INR 87,450 (USD 1245) to repair their damaged vessels/gears
- Shinoj et al. (2017) observed low rate of insurance for the vessels/property in the states of Tamil Nadu, Andhra Pradesh and Odisha
- During the our focus group discussion with Fishermen, we observed:
 - Fishermen has no faith in the insurance schemes
 - Insurance premiums are high, and claims clear rate is low
 - Any loss and damage will be shared/managed with-in the community



Conclusion

- During Fishing Holiday/Ban, Fishermen receive compensation lower than the actual monthly earnings, due to this, they take risk to catch fish.
- Increasing the compensation, and engage the fishermen in skill learning activities
- Given the climatic uncertainty, fishermen's fishing days need to protect through pooled insurance scheme
- Make boat/vessel/fish gear insurance mandatory
- Premiums can be shared by all three three entities:
 - Insurance companies (by lowering current premiums)
 - Government, contribute a significant portion
 - Fishermen pay remaining

Thank You



Annex: 6

The Role of Insurance in Climate Change Adaptation

Dr. Druba Purkayastha

Consultant, World Bank, New Delhi



Role of Insurance in Climate Change Adaptation

6 May 2022

Dhruba Purkayastha

1

Agenda

Climate Change Adaptation

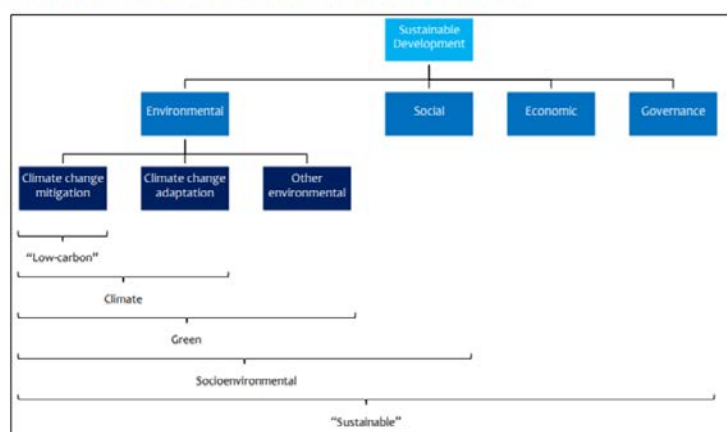
Insurance vs Guarantee

Current Offerings

New Avenues – Moving towards sustainable livelihood

2

Climate, Green and Sustainable Finance

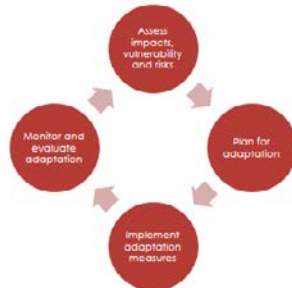


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Climate Change Adaptation

Adaptation refers to adjustments in ecological, social, or economic systems in response to actual or expected climatic stimuli and their effects or impacts (UNFCCC)

Adaptation Result Areas (as per GCF)



Adaptation cycle under UN climate change regime

Ecosystems and ecosystem services

Health, food and water security

Resilient infrastructure

Livelihoods of vulnerable communities.

Climate Risk

Climate change is affecting the financial system because of its far-reaching impact across all sectors and geographies, and the high degree of certainty of risks occurring.

1. **Physical Risks** cause direct harm to assets or disrupt Industry / company value chains
2. **Transition Risks** arise from the overall shift to a low carbon economy through changes in policy, technology and market sentiment.

Both impair asset values and credit quality of loans and investments from banks, financial institutions, and capital markets.

Impacts Insurance firms; requirement of new offerings focused on climate change adaptation

Insurance /Guarantee – Climate Adaption Insurance?

While both are risk mitigation mechanisms, they work very differently

- **Insurance** – provide for compensation if some specified risks occurs
- **Guarantee** – Providing assurance that in case of default, the guarantor will fulfil the obligation

In climate change adaptation, insurance becomes important but...

‘More frequent catastrophic events, in combination with the need to meet evolving regulatory requirements, can threaten company business models—and make insuring some risk unaffordable for customers or unfeasible for insurers’ - McKinsey

Insurance Types

2 types of insurance:

- 1) **Loss and Damage** – Payout is linked to damage and assessment of loss associated with the damage
- 2) **Parametric** - payouts are determined based on the physical features of a natural hazard event, such as wind speed for typhoons rather than on actual losses

In India Loss and Damage insurance is the primary type of insurance

Parametric insurance solutions offer a means to guarantee direct pay-out after a qualifying event and protect against unpredictable but potentially devastating risks in ways traditional insurance packages cannot.

7

Current Offerings

- India predominantly has loss and damage products
- Challenges arise due to reinstatement of property not taking place thus delaying pay-outs - "Insurance Regulator (IRDAI), unpaid insurance claims for natural disasters in 2020-21 amounted to ₹1,705.52 crore. The natural disasters include Cyclone Amphan and Nisarga, and floods in Maharashtra and Andhra Pradesh"
- Among other innovations, use of parametric insurance may help in addressing some of the challenges arising due to climate change
- Agriculture Insurance Company of India Limited introduced 'Parametric Insurance' to provide protection for crops against weather vagaries - Pay-outs are made when the weather index deviation exceeds a predetermined threshold which is detrimental to crop growth

8

India – Swift Action Required



- More than 80 percent of India's population lives in districts highly vulnerable to extreme hydro-met disasters¹
- Frequency and intensity of extreme climate events in India have increased by almost 200% since 2005¹

¹ CEEW, <https://www.ceew.in/publications/mapping-climate-change-vulnerability-index-of-india-a-district-level-assessment>

9

India – Swift Action Required

- Extreme weather events due to climate change are increasing in frequency and severity
- As per [WMO](#) report, India suffered losses of \$26.3 billion in 2020 due to floods and storms; this was over 0.8% of GDP and one of the highest in the region. For example cyclone Amphan caused damages of approx. \$14 billion and affected over 13.6 million people
- If we take impact of all extreme weather events the estimated average annual loss for India stands at a staggering \$87 billion for 2020

10

Insurance in Fisheries

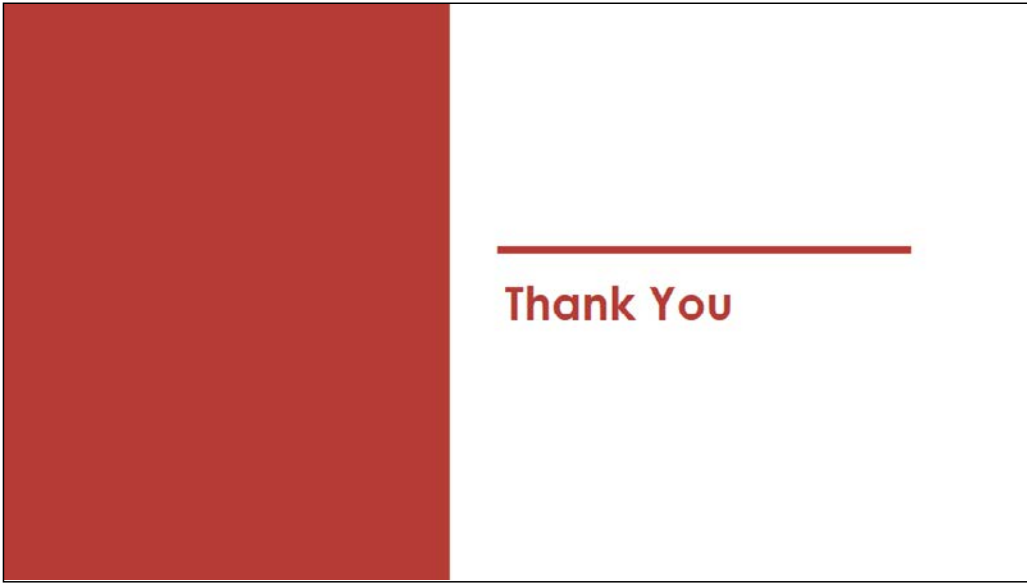
- **Blue Revolution** - focuses mainly on increasing fisheries production and productivity from aquaculture and fisheries resources, both inland and marine
- Insurance cover provided to 46.8 lakh fishermen annually however it is not sufficient and only covers accident and death
- Rise in number of days where fishing can't be done due to climate change
- Insurance schemes are needed to support small fishermen
- Insurance costs need to be subsidized by the Government given low-income levels of fishermen

11

Insurance is key to managing climate adaptation in India.

- Given India's long coastline and high vulnerability to climate change, need for innovation in product offering is required
- India has been placed among the top 10 most affected countries by climate change, in the Global Climate Risk Index 2021 published by the Bonn-based environmental think tank Germanwatch.
- Parametric insurance linked to climate events could complement standard P & C Insurance solutions.

12



Annex: 7

Micro-insurance Measures for Small-scale fishers: Experience and Lessons Learnt

Dr. Prasun Kumar Das
Secretary General, APRACA, Bangkok





Micro-insurance Measures for Small-Scale Fishers: Experiences and Lessons Learned

Prasun Kumar Das

Asia-Pacific Rural and Agricultural Credit Association (APRACA)

06 May 2022; Chennai, India



Agenda



- Context of Microinsurance
- Microinsurance and FSPs
- Lessons learned
- Action points

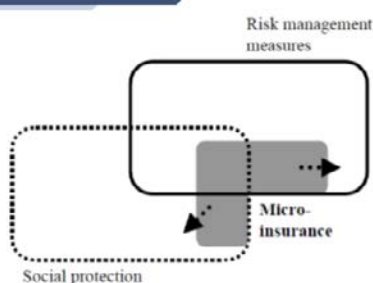
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Context of Microinsurance



- ❑ Microinsurance plays a role on both sides: it is certainly a risk management instrument; but it can also be used as a tool to extend social protection. This instrument may cover various risks or contingencies: health, life, assets, agricultural crops, etc.
- ❑ The common denomination of this instrument is that it uses the mechanism of insurance (among others) for beneficiaries who are excluded from formal social protection schemes in particular informal economy workers and their families (e.g. small scale fishers);



3



Microinsurance and FSPs



Common Understanding

- Financial services such as credit, savings, investments and insurance are important for small-scale fisheries within the global/regional context of climate change and variability.
- Financial services including Insurance services can help to reduce vulnerability to shocks and mitigate in case of natural disasters.
- Providing insurance facilities to small-scale fisheries can further play an important role in enhancing social protection for the small-scale fisheries sector.
- Provisioning of microinsurance for SSFs will support and contribute to achieve 4 of the SDGs



Survey of APRACA

- APRACA organized sub-regional policy forum on extending financial services to small scale fishers.
- The forum was attended by 17 financial institutions from 8 countries in SE and East Asia.
- APRACA used a survey tool for understanding the issues related to the roles of microinsurance in mitigating the risks faced by the SSFs in the sub-region.
- Responses were extremely interesting and worthy to share.

4



Lessons learned: APRACA Regional Policy Forum



Products

- Bundling of products under the category of Microinsurance (health, life and assets) with credit and savings may help in enhancing the coverage within the SSFs;
- Accessibility, availability and affordability of microinsurance products across the geographical areas is key to popularize the same among the SSFs.

Supply and Delivery

- Increased participation of the private sector in provisioning/ investing in microinsurance services to support SSFs;
- Mainstreaming of informal insurance, insurance-like, and other similar activities or schemes (e.g. mutual benefit associations, cooperatives etc.);
- Collaborating with the existing infrastructures in digital space for enhancing outreach.

Policies

- Establishment of an appropriate policy and regulatory environment for the microinsurance services to SSFs by the private sector;
- Consolidation of database of registered SSFs for various social and economic (e.g. cash transfer benefit);
- Allow low capital requirement for insurance providers wholly engaged in microinsurance for SSFs.

Institutionalization of financial literacy to highlight the importance of microinsurance to SSFs, the applicable rules and regulations, the duties and responsibilities of the providers, and the rights of the insured.

Insurance is sold and not bought

5



Walk the Talk : Action points emerged



■ **Shorter period for claims settlement:** Unlike traditional insurance products, the microinsurance for SSFs to be settled within short period (maximum 2 weeks) after submission of complete requirements;

■ **Simple and easy-to-understand policy contracts:** Considering that most of the SSFs belong to the low-income sector seldom comprehend and understand complicated and legalistic documents, the Insurance regulators/ Commission take steps to provide prototype of simple microinsurance contracts;

■ **Simple documentary requirements:** Most of the SSFs do not have documents normally required by insurance providers. Hence, the Insurance regulators/commission need to allow the use of alternative documents/certificates from the local administration.

■ **Increased options for distribution:** As the low-income SSFs are generally located and residing in areas where insurance providers do not have any establishments, the fishermen cooperatives, CSOs, MFIs, input shops should be allowed to be eligible as microinsurance agents.

■ **Formalization of Informal Insurance Schemes:** The informal insurance schemes are prevalent in the coastal areas of many countries which need to be recognized and formalized.

6



THANKS!

You Can Find us at www.apraca.org

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Annex: 8

Designing Insurance Products for the Marine Fisheries Sector: Issues and Developments

Ms. Smita Tibrewal
ICICI Lombard



Parametric Insurance - Mitigating Climate Risk

May 5, 2022

Agenda

- Parametric Insurance
- Weather Parameters affecting Marine Fisheries
- Research References on Major Weather Parameters
- Historical losses due to extreme Weather Events

Parametric Product- Weather Insurance

- **Covers-** Losses due to unfavourable extreme weather parameters (eg: Rainfall, Temperature, Wind speed).
- **Benefit Product-** payment is made in accordance with pre agreed formula.
- **Sum Insured-** The insured amount is as per the cost of cultivation per unit of area.
- **Period of Coverage-** It can be flexible – depending on the need of the customer
- **Trigger-** Triggers are based on thresholds defined by weather parameters.- e.g- Rainfall quantum in mm, rain days, dry days
- **Weather data-** Weather data are collected from weather station and satellite-based data.
- **Claim-** Payments are made immediately on trigger of event.



Major challenges in Weather Insurance

Basis Risk

- Weather trigger may not result in losses to all the Insured in a geographical unit.
- Losses vary from Insured to Insured depending on risk practices undertaken

Weather Data

- Historical weather data for 15-20 years for all location is not available
- The same data source to be used for pricing and settlement, hence source has to be consistent.
- Gridded data solves the challenge

Educating stakeholders

- Consequence of Basis risk needs to be communicated to the customer at the underwriting stage

Weather Parameters affecting Marine Fisheries



Flood / Excess Rainfall

- Drop in water temperature, PH level, salinity, alkalinity
- Pathogen bacteria replaces beneficial bacteria
- Bottom condition deteriorate because the sludge is stirred up
- Mortality occurs due to change in water quality, stress and pathogen
- Feed consumption of shrimp drops



Cyclone

- Loss of juveniles and brood fishes
- Spread of diseases
- Loss of capital assets/ infrastructure
- [Cyclone Cover for Fisherman for loss of income](#)



Temperature

- Variation in water temperature patterns has influence on shrimp growth and survival
- Example- Rohu fish is suitably grown in water temperature range from 20-26 °C
- Disease condition: Temperature plays a vital role in disease spread

Research References

Research References

- Central Institute of Brackish water Aquaculture (CIBA),2012

As per survey conducted by CIBA (2018-19) in west Godavari district of AP on 120 aquaculture farmers, the following are the ranking of risk parameters

Parameters	Observation(Y/N)	% Farmer said yes	Ranking
Seasonal variation	108/12	90%	1
Cyclone	98/22	82%	2
High Temperature	91/29	76%	3
Irregular Rainfall	84/36	70%	4

Historical losses due to extreme weather



ICICI Lombard
Nibhaye Vaade

Source: Indian Express, Science direct

<https://www.newindianexpress.com/states/andhra-pradesh/2020/nov/09/flood-rain-losses-pul-at-rs-6000-crore-andhra-to-see-rs-5000-crore-from-centre-2221347.html>

WSSV: White Spot Syndrome Virus
EHP: Enterocytozoon Hepatopenaei

7

Cyclone Cover For Fisher Man

- **Coverage-** Loss of income if there is cyclonic condition fisherman does not go inside sea to catch fish.
- **Benefit Product-** if the cyclone hit the sea/ ocean in the areas selected by fisherman, the claim can be given.
- **Risk Location-** The risk area in sea/ ocean to be mentioned in term sheet
- **Sum Insured-** Rs 5000 to Rs 10,000 (Loss of income for 5 to 10 days)
- **Claim-** As and when cyclone hits, claim shall be settled in 15 days period.



BACK

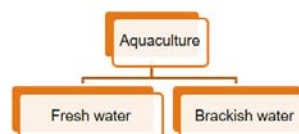
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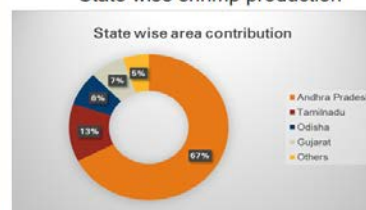
Aquaculture

Brief of Industry

- Fresh water aquaculture are majorly fish and few specific species of prawn.
- Brackish water aquaculture in India are majorly prawns.- prawn varieties in India are- L. Vannamei, P. Monodon (Tiger prawn)
- India 3rd largest Producer of inland fish which is 14 Million MT (in 2020). Major states are- AP, WB, Guj, Kerala
- India produced 7.47 lakh MT of brackish water shrimp in 2020 and exports around 5 lakh MT of shrimp.
- Major states of shrimp production- AP, TN, Odisha, Gujarat.
- India- Highest exporter of shrimp in world to major countries like- US, Vietnam, Japan



State wise shrimp production



ICICI Lombard
Nibhaye Vaade

3

Annex: 9

Marine Fisheries Insurance: Experiences and Plans from BANGLADESH

Mr. Subrata Bhowmik

Joint Secretary

Ministry of Fisheries and Livestock

Government of Bangladesh

&

Dr. Md. Sharif Uddin

Director, Marine Fisheries Office

Department of Fisheries

Government of Bangladesh



MARINE FISHERIES INSURANCE: EXPERIENCES AND PLANS FROM BANGLADESH

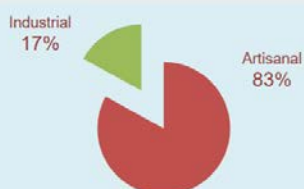
SUBRATA BHOWMICK & DR. MD. SHARIF UDDIN

**International Symposium on
Insulating Marine Fisheries Sector in
South Asia from Uncertainties:
Global Experiences with Insurance**

6TH MAY, CHENNAI, INDIA

MARINE FISHERIES IN BANGLADESH

- Dual sector. Largely small-scale and artisanal fishery and industrial trawlers
- Major fisheries are hilsa, shrimp, pomfrets
- Achieved steady growth 2-3%
- Second major activity in coastal areas after agriculture in terms of employment



PROFILE

EEZ (SQ. KM)	1,18,813
INDUSTRIAL FISHING VESSELS	263
ARTISANAL AND MECHANIZED FISHING VESSELS	34,000
NUMBER OF MARINE FISHERS	0.512 million
PRODUCTION (2020-21)	0.68 mmt
CYCLONES RISK	1891- 2015: 89 cyclones. 47% Cyclonic Storms; 53% Severe Cyclonic Storms. Average one cyclone each year.
FISHING DAYS LOST	Significantly

CLIMATE CHANGE: IMPACT ON COASTAL FISHERIES



EFFECTS ON COASTAL AREA IN BANGLADESH

The main impacts of climate change on coastal area are-

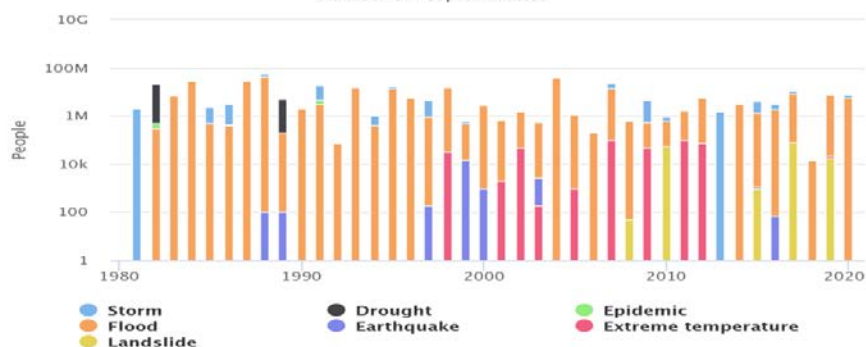
- Sea level rise
- Reduction of freshwater availability by salinity intrusion
- Increasing cyclone frequency
- Decreasing brackish water fish production

RECENT NATURAL DISASTERS STATISTICS OF BANGLADESH

- Bangladesh lost a whopping BDT179,198.8 crore due to 11 natural disasters between 2015-2020, according to the Bangladesh Bureau of Statistics (BBS)
- Floods alone accounted for 57% of the total financial losses caused by natural disasters in the last six years

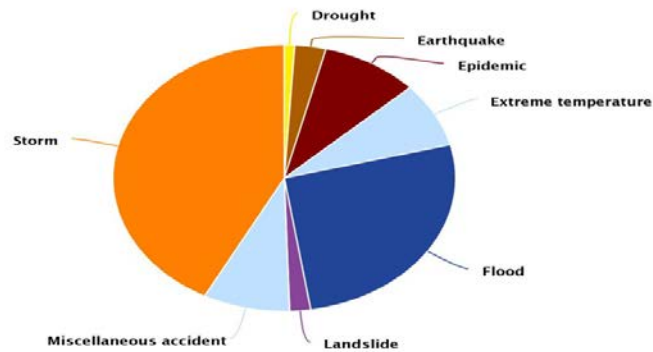
RECENT NATURAL DISASTERS STATISTICS OF BANGLADESH

Key Natural Hazard Statistics for 1980–2020
Number of People Affected



RECENT NATURAL DISASTERS STATISTICS OF BANGLADESH

Average Annual Natural Hazard Occurrence for 1980–2020



GOVERNMENTAL MEASURES IN RESPECT TO THE FISHERIES SCCTOR

■ Pre-cyclone

- Building of Cyclone Shelters
- Pre-warning
- Evacuation
- During Cyclone
- Vessel Movement Control

■ Post-cyclone

- Rescue Operation
- Loss and Damage Assessment
- Compensation
- Role of NGOS/ CBOS

- Department of Fisheries (DoF), MoFL started through Fishermen ID Card Project, grants BDT 50,000 for accidental death of registered fishermen.

CLIMATIC ISSUES & SCENARIOS OF INSURANCE

- Changing profile of cyclone in terms of frequency of occurrence, intensity, area of landfall, and height of storm surge
- Frequency of cyclone occurrence is reducing but intensity is increasing
- Existing insurance policies does not cover cyclone damage
- Modern Industrial trawlers are insured
 - Insurance is required for Bank Loan
 - Crew members are not insured
- Gillnetter and artisanal vessels are not insured
 - No insurance product available
 - Documentation required for insurance not available
 - Not interested
 - Insurance is not required for registration and licensing

PAST EXPERIENCE IN INSURANCE

- In 2012, the Government of Bangladesh through nationalised insurance agency Jiban Bima Corporation
- Group Life insurance for fishers (crew members)
 - Personal insurance are costly, so group insurance model with the support of the BOBP-IGO developed
 - Welcomed by fishers and boat owners
 - The annual per capita premium was BDT1240 (approx. about \$ 16) for a sum assured of BDT 200 000 (approx. \$ 2500)
 - The scheme covers normal death, accidental death and permanent disability
 - About 2000 fishers enrolled

PAST EXPERIENCE IN INSURANCE

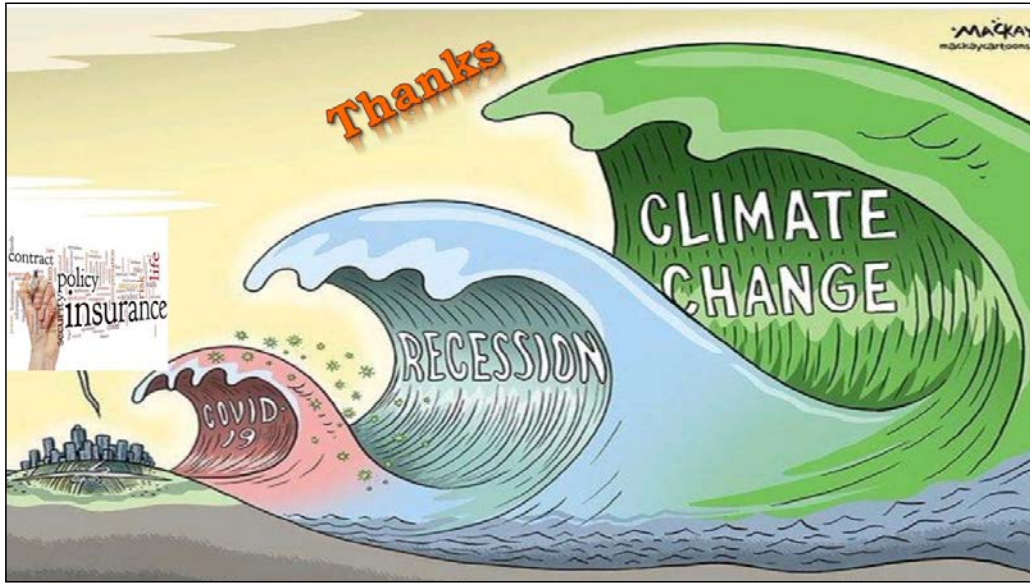
CONT'D

Problems

- Fully payable by subscriber
- Measures of cost sharing between owner-workers did not work
- A minimum group size of 50 was required
- Setting up of groups was unsuccessful without external support
- **Could not be sustained**

CHALLENGES TO ENSURE CLIMATE RISK INSURANCE

- ❖ Insufficient knowledge and understanding of the climate risk insurance
- ❖ Low level of insurance literacy
- ❖ Lack of institutional and human capacities to design and implement climate risk transfer mechanisms
- ❖ Lack of coordination among the insurers and the relevant government agencies.



Annex: 10

Insurance in the Marine Fisheries Sector Experiences and Plans from INDIA

Ms. N. Chandra

*Executive Director (Technical)
NFDB, Hyderabad*



Insurance in the Marine Fisheries Sector Experiences and Plans from India



Mrs.N.Chandra,
Executive Director (Technical)
National Fisheries Development Board

Marine Fisheries – At a Glance



- Coastline - 8118 KM
- Exclusive Economic Zone (EEZ) - 2.02 million km²
- Shelf area - 0.53 million km²
- Total Marine Fish Production – 37.27 Lakh Tons (2019-20).
- 7th position in global marine capture fish production after China, Indonesia, USA, Russia, Japan, and Peru.
- The export of marine products stood at 12.9 lakh metric tons (46,662 Cr) 2019-20.
- The total fisherman population – 50 Lakh (Male– 27 Lakhs & Female 23 Lakhs)



- Marine capture fisheries play a vital role in India's economy, providing employment and income to nearly 4.0 million people in the country



- Total Fishing vessels - 2,51,291
- Total landings by the mechanized sector - 83%
- Motorized sector - 16% & by non-mechanized sector - 1%

Background



Fishing in the seas is considered to be the second most dangerous occupation after mining.



Fishing as an occupation is vulnerable to the natural calamities and the income generation is highly subjected to the seasons as well as the climatic conditions.



Highly diverse and dominated by socio-economically backward artisanal and small-scale fishers whose lives are closely intertwined with the oceans and seas.



The safety and security of the fishermen become one of the core priorities in fisheries governance.

Pradhan Mantri Matsya Sampada Yojana (PMMSY)



- ➔ The government of India in May 2020, under the "Aatmanirbhar Bharat Package", has launched a flagship scheme i.e., Pradhan Mantri Matsya Sampada Yojana (PMMSY).
- ➔ It addresses critical gaps across the value chain, right from fish production and quality control to post-harvest infrastructure, traceability, market linkages, and fishermen's welfare.
- ➔ PMMSY has been approved at a total estimated investment of Rs. 20050 crores. Central share of Rs. 9407 crore, State share of Rs. 4880 crore and Beneficiaries' contribution of Rs. 5763 crores.
- ➔ The welfare of the fishers and the insurance scheme is included in PMMSY

Insurance Schemes in Marine Fisheries Sector



- ➔ Group Accident Insurance Scheme (GAIS) for fishers



- ➔ Insurance premium subvention for fishing vessels



- ➔ Livelihood scheme and nutritional support scheme for Ban/Lean period



- ➔ Relief assistance from the State Disaster Response Fund (SDRF)/ National Disaster Response Fund (NDRF)

Group Accident Insurance Scheme (GAIS) for Fishers



- ➔ Implemented from 1991- 92 onwards
- ➔ Age group – 18 to 70 years
- ➔ Fishers include fish workers, fish farmers, and any other categories of persons directly involved in fishing and fisheries-related allied activities.
- ➔ NFDB is the nodal agency
- ➔ Policy details

Policy	Description	Coverage	Premium
Policy 1	Group Janata Personal Accident Policy (GJPA) covering Death and Permanent Total Disability (PTD).	Rs.5 Lakhs	Rs. 68.44/- (GST Not Applicable)
Policy 2	Special Contingency Policy Covering Permanent Partial Disability (PPD) and Hospitalization	PPD: Up to Rs.2,50,000/- Hospitalisation: Rs.25,000/-	Rs. 4.00/- (Incl. of GST)
Total			Rs.72.44/-

Group Accident Insurance Scheme (GAIS) for Fishers

The funding Pattern to be shared by state and central is as follows.



- ➔ 60:40 between the Centre & General State Government (Rs.43.46: Rs.28.98)
- ➔ 90:10 between the Central & North Eastern & Himalayan States (Rs.65.2: Rs. 7.24)
- ➔ 100% central share for UTs – Rs.72.44
- ➔ No beneficiary contribution

- ➔ Bipartite Memorandum of Agreement (MoA) with an Insurance Company
- ➔ Tripartite Service Level Agreement (SLA) with Insurance Company & Insurance Intermediary
- ➔ Established insurance cell to facilitate the smooth execution of the scheme
- ➔ Till date 29,11,588 fishers are covered from 18 States & 7 UTs

Insurance premium subvention for fishing vessels

- ➔ Registered under the Realcraft registration regime
- ➔ Major Types of Existing Fishing Vessels

S. No	Type of Vessel	Maximum Sum Insured up to which Premium Subvention is capped	No of Vessels
1	Deep Sea Fishing Vessel	Rs. 120.00 Lakhs	93
2	Motorized Mechanical	Rs. 65.00 Lakhs	1,41,013
3	Motorized Non-Mechanical Boats with In Board Motors (IBMs)	Rs. 15.00 Lakhs	63,407
4	Motorized Non-Mechanical Boats with Out Board Motors (OBMs)	Rs. 5.00 Lakhs	
5	Non-motorized (Traditional/ Country Craft such as Catamarans etc.,)	Rs. 3.00 Lakhs	46, 778
Total			2,51,291

- ➔ Maximum Sum Insured is inclusive of Hull, Machinery & Accessories incl. Fishing net/s.

Funding Pattern

Governmental subvention:

- ➔ Up to 40% of the annual premium amount for the General category
- ➔ 60% for SC/ST/Women and the rest of the premium will be borne by the beneficiary.

Sharing pattern:

- ➔ North Eastern & Himalayan States: 90% Central share and 10% State share.
- ➔ Other States: 60% Central share and 40% State share.
- ➔ Union Territories (with the legislature and without legislature): 100% Central share.

The tender process is in progress

Vessel Insurance adopted by other States & UTs



Kerala
State share: 90%
Beneficiary share: 10%
The insurance premium subvention is 1.5% (for Traditional boat)



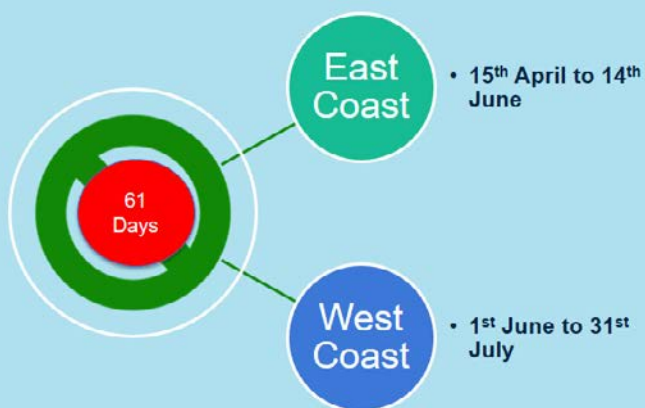
Tamilnadu
Beneficiary is bearing 100% of the premium (for Traditional boat)
The insurance premium is 1% (for Traditional boat)



Puducherry
75% Govt. re-imbursement is being extended for mechanised vessels, rest 25% is borne by the beneficiaries

Many states who are not having vessel insurance schemes, insurance is done by a few vessel owners on their own

Livelihood & nutritional support scheme for Ban/Lean period



➔ The beneficiary fishers will save Rs. 1500 over a period of 9 months during fishing season.

Fund Sharing Pattern


States/UTs	Funding pattern	Contribution
General States	50:50 Centre and General States	Centre share Rs. 1500 + State share Rs. 1500 + Beneficiary share Rs. 1500 = Rs. 4500/-year
North East and Himalayan	80:20 Centre and NE & Himalayan	Centre share Rs. 2400 + State share Rs. 600 + Beneficiary share Rs. 1500 = Rs. 4500/-year
Union Territories	100% as Centre share for UTs (with legislature and without legislature)	Centre share Rs. 3000 + Beneficiary share Rs.1500 = Rs.4500/-year
The accumulated amount of Rs. 4500/- indicated above would be disbursed to enrolled beneficiary by the respective states/UTs at the rate of Rs. 1500/- per month.		

Relief assistance from the State Disaster Response Fund (SDRF)/ National Disaster Response Fund (NDRF)

Assistance is given to the victims of natural calamities like cyclones, Tsunami & Floods etc


Items	Norms of Assistance
Ex-gratia payment to families of deceased persons	• Rs. 4.00 Lakh
Ex-gratia payment of loss of limb or eyes	• Rs. 69,100/- per person (disability is between 40% - 60%) • Rs. 2.00 lakh per person (disability is more than 60%)
Grievous injury requiring hospitalisation	• Rs. 12,700/- per person (hospitalization more than a week) • Rs. 4,300/- per person (hospitalization for less than a week)
Replacement of fully damaged/ lost wooden catamaran	• Rs. 32,000/- (Inclusive of net)
Repair/rebuilding of partially damaged catamaran	• Rs.10,000/- unit
Replacement of fully damaged/ lost wooden/ FRP Vallam	• Subsidy assistance will be enhanced from 35% to 60% of the total cost subject to a maximum subsidy of Rs. 75,000/-





Fishing Boats

Items	Norms of Assistance
Partially damaged FRP Vallam	• Rs. 20,000/- per unit
Replacement of fully damaged/ lost mechanised boats	• Subsidy - 35% of the total cost • Restricted to a maximum of Rs. 5 Lakh per boat.
Repair of partially damaged mechanised fishing boats,	• Subsidy - 60% of the assessed value of the damages • Restricted to a maximum subsidy of Rs. 3 lakh/ boat.
For replacement of gill nets for catamaran	• Rs. 10,000/- per unit.
Repair of OBM/ IBE Engines	• Rs. 5000/- per engine.



Housing

• Fully damaged/ destroyed houses/ severely damaged - Pucca House	• Rs. 95,100/- per house in plain areas.
• Partially damaged Houses Pucca - damage is at least 15%	• Rs.5200/- per house
• Fully Damaged hut	• Rs. 5,000/- per hut
• Partially Damaged hut	• Rs. 4,100/- per hut and 10.kg rice



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<https://www.youtube.com/channel/UCDq3OQ0wDOUZ-439BQXMLmA>
Toll Free Number: 1800-425-1660

Annex: 11

Marine Fisheries Insurance Country Perspective MALDIVES

Mr. Ahmed Shifaz
*Director, Ministry of Fisheries
Marine Resources and Agriculture
Government of Maldives*



Marine Fisheries Insurance

Country Perspective

Ministry of Fisheries Marine Resources and Agriculture
Maldives



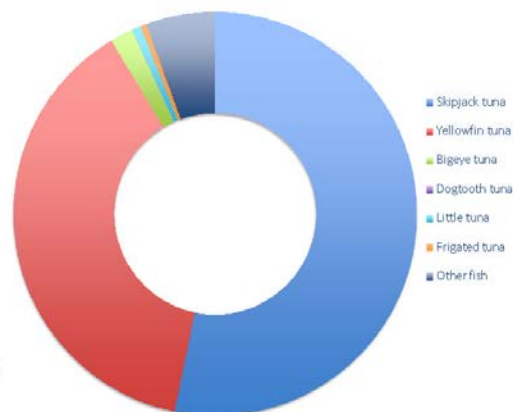
Importance of fisheries

- Contribute food security
- Employ 20% of the labour force
- >95% of physical exports
- Main economic activity in islands
- Account for 6% of GDP



Fishing Industry

- Tuna is the main harvest species
 - Pole and line skipjack tuna fishery
 - Handline yellowfin tuna fishery
 - Longline fishery targeting bigeye tuna
 - Subsistence based HL & troll fishery
- 90% of the landings are tuna and tuna like species



Insurance Schemes

- Life Insurance schemes
- Vessel Insurance Scheme
- Income based insurance schemes

Life Insurance Scheme

- Facilitated through of insurance firms
- Partially covered for life threatening accidents and disabilities
- Annual premium fee of 200 – 500



Challenges

- Administrative Burden in application and claim
- Lack of transparency of the coverage and claim process
- Trust, belief and culture

Vessel Insurance Scheme

- Mandatory Requirement for larger vessel registration
- Higher Premium
- Lack of transparency of the coverage and claim process

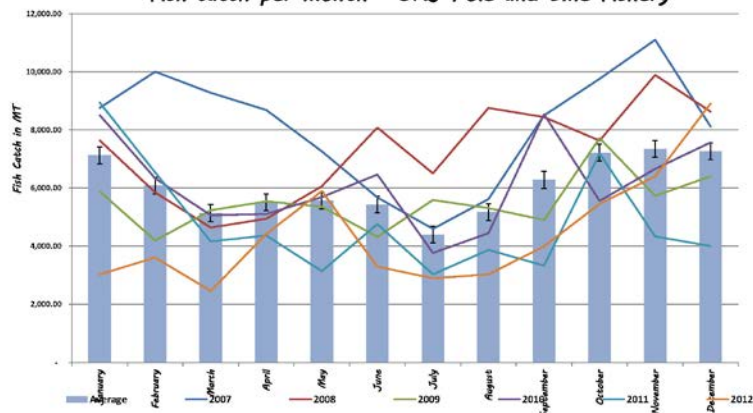
Income based Insurance Scheme

Income based Insurance Scheme- Purpose

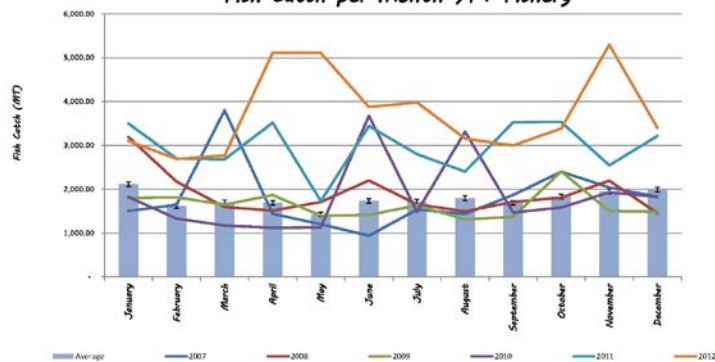
- Financial compensation on low fishing season
- Unexpected Price decline of fish in the market
- Compensation for loss of fishing days due to the adverse weather condition
- Compensation was provided for the months that the fishermen get below MVR10,000 per month

Income based Insurance Scheme

Fish catch per month - SKJ Pole and Line Fishery



Fish Catch per Month YFT Fishery



Average Monthly income of Fishermen

	> 85ft	65ft - 85ft	45ft – 65ft	<45ft
Avg. Crew	21	17	13	8
Avg. Monthly income	17,264.68	15,342.92	15,060.76	7,855.94

General Procedure

- Fishermen has to pay a premium fee of MVR250 per month
- If a vessel crew did not get MVR 10,000 per month, then they can claim to get insurance to pay compensation up to MVR 10,000
- Compensation for no fishing days due to the sever weather condition
- Compensation was provided for the months that the fishermen get below MVR10,000 per month

Challenges

- Administrative Burden in application and claim
- Too low compensation ceiling of MVR10,000
- Trust, belief and culture
- Difficult to expand implementation for artisanal fleet



Lesson Learned

- Information/ data coverage of fishing vessels fishermen need to increased
- Government intervention vital specially for small scale fishing vessels
- Need to formulate more attractive packages with more incentives
- Need to increase awareness knowledge of fishing communities



Annex: 12

Country Perspectives on Marine Fisheries Insurance Experiences and Plans from SRI LANKA

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Country Perspectives on Marine Fisheries Insurance

Experiences and Plans from Sri Lanka

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Director General (Technical)
Ministry of Fisheries, Sri Lanka

General Overview

- Marine fish production 415,490 MT
- Fishing fleet
 - Multi day vessels 5000 (about 1200 high sea vessels)
 - Other boats 48,000 (marine)
9000 (inland fisheries)
- Active fishers 225,000 marine
70,000 inland
- Fishing community 1,050,000

Background

- Every year 20-25 fishers die in the sea
- Three major reasons for deaths
 1. Natural disasters
 2. Accidents due to various reasons
 3. Accidents in the international sea route
- There are several life and general insurance schemes for fisheries sector run by various service providers
- There is no specific climate risk insurance scheme for fisheries
- Government pays a compensation of Rs. 1 million when died due to a natural disaster

Personal insurance

- Not compulsory
- Majority of small scale fishers are not insured
- Majority of multi-day fishers are insured (all crew members numbering 5-6 per boat)
- Term of coverage is only 1 year
- Minimum value- SLR 1 Million

Boats and Equipment

- Not compulsory
- No insurance scheme to cover damages on equipment
- But most of the boats are insured (both multi-day and small-scale)

Strengths and Opportunities

- There are strong and well-established insurance providers
- Country-wide network of insurance providers
- The government encourages insurance
- There are 02 government run insurance organizations
- High market value of boats promotes general insurance
- Climate change and frequent natural disasters remind the need of insurance

Weaknesses/ Threats

- Lack of awareness on the importance of insurance
- Optional/ Not compulsory (easy to forgo)
- Coverage is only for 1 year
- Minimum value of SLR 1 M is not sufficient
- When the breadwinner of the family is lost, the benefits are not sufficient

Plans for future

- Due to climate change and possibility of other natural and man made disasters, expansion of insurance coverage is a must
- Making insurance compulsory (For multi-day crew at the beginning)
- Promotion of insurance with the support of service providers
- Revitalization of the Fishers' Pension Scheme
- Introduction of climate risk insurance schemes with the support of Agriculture Insurance Board

Thank You

Insurance for Small-scale Fishers in THAILAND

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Insurance for Small-Scale Fishers in Thailand

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6 May 2022



Agricultural Insurance in Thailand



- Agricultural insurance is an effective tool for farmers' risk management as it can ease the burden of the government by building up farmers' financial immunity and protecting them from financial collapse and helping them against the cost of damage from price volatility to natural disasters in a systematic.
- The important of the insurance is to cover for the small scale farmers to insure their livelihood, it is important to know that small scale farmers are a driving force in Thailand's agricultural sector.
- Products of agricultural insurance are mainly supported by the government, focusing priority on crops, such as rice, tapioca, and corn

Insurance for Small-Scale Fishers in Thailand



- Insurance in the fisheries sector, relevant agencies, have jointly pushed forward the implementation of the insurance system in fisheries activities, both in capture fisheries and aquaculture.
- Thailand is in the process of developing and improving the insurance in accordance with the needs of the insured as well as fairness to all relevant sectors.
- This insurance can be classified into 2 types:
 - 1) An insurance for small scale fishers in capture fisheries
 - 2) An insurance for aquaculture, Vannamei Shrimp farmers as a pilot project

Insurance for small-scale fishers in capture fisheries



1. Insurance policy for small scale fishers in capture fisheries with less than 10 GT fishing boat.

(54,814 fishing boat of less than 10 GT that registered with the Marine Department)

2. Voluntary fishers Insurance policy (Micro Insurance)

This insurance cover assured with fishing boats whether less than 10 GT or commercial fishing boats of 10 GT and greater.

- Both types of insurance policies help alleviate the damage from natural disasters for small scale fishers both damage to fishing boats and injury or death of fishers.
- The occurrence of natural disasters and severe weather conditions tends to increase gradually that and there are more possibility of damage of their fishing boats and fishing gear, which are the main equipment for livelihood.
- The small-scale fishers are in risk on losing occupation and have inadequate income which affects their well-being.

Insurance for small-scale fishers in Thailand: Problems



Fishers have limited access to the insurance system.

- The insurance policy does not fit their needs and it does not cover the foreseeable risks incurred with fishers.
- The fishers have no knowledge of insurance and there is no incentive to buy insurance by themselves because at their perception is that when a disaster occurs, small scale fishers will receive financial aid from relevant government agencies.

The insurance premium rates are likely to be higher than other agricultural insurance.

The reason of why fisheries insurance premium rates are higher than other agricultural insurance is that the capture fisheries are in high-risk level and high costs of damage and more possibility of loss of fishing vessels and fishing gear in the occasion of sea disaster or an accident.



The less numbers of fishers .

The less numbers of fishers or insured person comparing to other agricultural insurance, may be the cause of the less incentive for insurance companies to develop their business plan.

The insurance companies .

- A few insurance companies have knowledge or expertise in the fisheries sector.
- Insurance companies need support information by the government and relevant private sectors. However, data linkage between government and relevant private sectors is still limited.
- Insurance companies have no clear mechanism to assessing the damage and damage causes.



Insurance for the aquaculture sector



- Thailand is in progress in developing insurance policy for Vannamei shrimp farmers as a pilot for aquaculture sector that provides protection against damage from disasters and shrimp diseases.

(41,173 Vannamei shrimp farmers registered with the Department of Fisheries)

- Vannamei shrimp farmers are considered a group of farmers who have the potential to buy insurance on their own (Self-Insured).
- The farmers have incentive and wish to implement the insurance system to manage the risks of investing in aquaculture.

The problems of aquaculture insurance



- Lack of tools for assessing the damage and damage cause by shrimp diseases.
- The insurance company need support and rely on the proving procedure of government agencies in particular Department of Fisheries.

Insurance for small-scale fishers in Thailand: Way Forward



- Although the government has focused on agricultural insurance as an important policy, the development of fisheries sector insurance, both capture fisheries and aquaculture insurance products have not been able to offer widespread in the dimensions of the dangers to be protected and the dimensions of aquatic species to be protected and claim.
- Currently, the insurance for the fisheries sector in Thailand is only insurance for capture fisheries, which based on individual interest of fishers. Therefore, the cooperation of both the public and private sectors is required to create mechanisms for the implementation of insurance systems in the fisheries sector as follows:

Insurance for small-scale fishers in Thailand: Way Forward



As follows:

01

- Government sectors are encouraging competition among insurance companies to develop a variety of insurance policies to meet the needs of fishers and aquaculture farmers.

02

- Developing tools and mechanisms for insurance business operators to prove damage in fishery sector.
- The government may support the linkage of government data for the benefit of assessing damage by company.
- The introduction of innovation or new technology in damage assessment and reduce the cost of management of insurance companies, would lower insurance premium rates that can increase the incentive of farmers and fishers to access insurance.



THANK YOU



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