

SOCIAL PROTECTION FOR FISHWORKERS: AN ASSESSMENT AND SUGGESTIONS FOR REFORM

*

REPORT OF THE WORKING GROUP

Presented to the Kerala State Planning Board



January, 2022

Everyone has the right to a standard of living adequate for the health and well-being of himself and of his family, including food, clothing, housing and medical care and necessary social services, and the right to security in the event of unemployment, sickness, disability, widowhood, old age or other lack of livelihood in circumstances beyond his control

Universal Declaration of Human Rights, Article 25(1), (United Nations 1948)

*

Allah has blessed us with fish in the sea.

If we take care of that resource what more help or protection is needed?

Shaifuddin, Patek Village, Aceh Province, Indonesia, (2007)

*

States should promote social security protection for workers in small-scale fisheries. They should take into account the characteristics of small-scale fisheries and apply security schemes to the entire value chain.

Para 6.3 FAO/UN Voluntary Guidelines for Securing Sustainable Small-Scale Fisheries in the Context of Food Security and Poverty Eradication

FISHWORKERS OF KERALA: WHY ARE THEY ENTITLED TO SOCIAL PROTECTION?

Marine fish is perhaps the most economically and culturally important renewable resource which Kerala State possesses. If harvested sustainably and cared for diligently, this is a gift of nature which will be available to the people of the state in perpetuity.

RESOURCE ABUNDANCE: According to experts we are blessed with the possibility of harvesting 5-6 lakh tonnes of fish from our seas – about 150 kilograms of fish per year for every citizen of our state!

RESOURCE UBIQUITY, OCCUPATIONAL INVISIBILITY: The people of Kerala are among the biggest consumers of marine fish in mainland India. Consumption cuts across socio-economic, cultural and religious identities. Fish is integral to the everyday discourse of people in Kerala. Consumers who live along the coastal belt may have an idea of where the fish they eat comes from. The other consumers take the availability of fish on their plates as an accepted and given part of their diet. They give little thought about how it got there. Unlike the scenes of farmers harvesting paddy or vegetables, the manner in which fish is hooked or netted is little known outside the fishing community.

DECENTRALISED SPATIAL SPREAD: The marine fishing community of the state is spread out across the 590 km coastline, residing in 222 villages. That is one every 2.5 kms. The coast is the most densely populated part of Kerala. If all the members of the marine fishing community of Kerala – a population of approximately 804,000 -- stand out on their beach and lock their hands together, they can comfortably form a protective human chain across the whole coast.

RISKIEST LIVELIHOOD: The active fishers who harvest the fish from the sea every day undertake a very risky adventure. According to recent estimates for Kerala, once in 6 days, a fisherman loses his life in pursuit of his livelihood which provides fish to Kerala's consumers! It is by far the riskiest livelihood pursuit in Kerala.

CREATING VIBRANT MARKETS: Once fish is landed, because it is such a highly perishable commodity that consumers prefer to get in its fresh form, a large network of women and men – allied fishworkers – are involved in a variety of quick and efficiently performed activities, which deliver fish to all the corners of the state. Not only does fish reach every nook and corner of the state, it also forms an important export commodity which earns the country a substantial sum in foreign exchange. In 2020, the export value of marine products harvested from Kerala – about Rs 4000 crore -- was as much as the amount contributed by the fisheries and aquaculture sector to the gross state value added (GSVA) that year.

UNSUNG GUARDIANS: Apart from these rather obvious contributions, the marine fishing community also act as protectors and promoters of our coastline. If beach tourism is to remain an important economic activity in the state, it requires not just bright sunlight and sandy beaches. Tourists also want to see the sight of colourful fishing boats and the unique visual experience of a brisk and boisterous auction of fish on the beach. And with the changing climate scenario of the state, it is marine fishers who are the first harbingers, responders and first victims to these increasingly unpredictable events which bring storms and rain. And let us not forget both the horrors of Cyclone Ockhi which the fishers experienced and the totally selfless role they played in the unprecedented rescue operations of marooned citizens during the unprecedented floods of 2018.

The registered marine fishers and the allied workers together account for 230,000 persons. They form a small but important 1.5 percent of the labouring population of the state.

They harvest a safe and nourishing food item from the sea; generate a substantial amount of employment on land by creating a network to efficiently distribute fish; contribute to the country's foreign exchange and potential tourism revenues, and act as beacons of our seas. This makes fishworkers, a valuable human, economic and culturally important segment of our society. Their contribution is too precious to be weakened by inadequate social protection.

[This statement was written on the prompting of the two representatives of the fisheries sector on the Working Group]

WORKING GROUP MEMBERS

MEMBERS

Dr. C Ramachandran, Principal Scientist, SEETT Division, CMFRI, Cochin

Dr. Daisy Kappen, Professor, Director of Extension, KUFOS, Kochi

Mr. V M Shoukath, Kerala Karsahaka Sangham, Malapuram

Dr. A Suresh, Principal Scientist Extension information & Statistics, CIFT, Kochi

Dr. M K Anil, Principal Scientist, CMFRI, Trivandrum

Ms. Smitha R. Nair, Joint Director, Department of Fisheries, Trivandrum

Ms. C R Satyavathi, Retired Additional Director of Fisheries, Kochi

Mr. P P Chitharanjan, MLA and Former Chairman, Matsyafed

Mr Antony Kurishinkal, Member, State Committee, Kerala Swatantra Matsya Thozhilali Federation

Mr. V Vivekanandan, Former CEO, South Indian Federation of Fishermen Societies (SIFFS)

Mr. Joseph Xavier Kalapurackal, General Secretary, All Kerala Fishing Boat Operators' Association

CHAIRPERSON

Dr. John Kurien, Visiting Professor, Azim Premji University, Bengaluru

DRAFTING COMMITTEE

Members

Dr. C Ramachandran, Principal Scientist, SEETT Division, CMFRI, Cochin

Dr. A. Suresh, Principal Scientist Extension information & Statistics, CIFT, Kochi

Ms. Smitha R. Nair, Joint Director, Department of Fisheries, Trivandrum

Coordinator

Dr. John Kurien, Visiting Professor, Azim Premji University, Bengaluru

CONTENTS

FISHWORKERS OF KERALA: WHY ARE THEY ENTITLED TO SOCIAL PROTECTION?	3
WORKING GROUP MEMBERS	5
1. INTRODUCTION	10
The Essence of Social Protection	11
Social Protection Strategies	12
Social Protection and Fishing Communities	13
Social Protection of Fishworkers in Kerala: Brief History	16
Post-1984	16
Post-2005	17
Vulnerability, not Income, is the Prime Issue	19
Task of this Working Group	20
Structure of the Report	21
2. ASSESSMENT OF SOCIAL PROTECTION MEASURES SO FAR	24
Source of Contributions to the KFWFB Fund	24
Brief History of Legal Strictures to Contributions	26
Beyond the Legal Strictures	28
Some Crucial, Larger Issues of Concern	29
Notional Loss of Contribution from Exporters	30
Notional Loss of Contributions from Merchants and other Dealers of Fish	30
On Other Possible Sources of Funds for Welfare	31
Fines from Fishing Vessels	31
Registration of Migrant Workers on E-Shram Portal	31
Another Suggestion to Collect contributions from the Exporters	31
Contribution from Blue Economy Investors	32
User Fees from Vehicles at Ports and Fish Markets	32
Assessment of MatsyaBoard Social Protection Payments from 2008 to 2021	32
Other Social Protection Payments	35
Need for more systematic registration and data collection	36
Reflections on the future of the Fund	36
3. DEFINING THE FISHWORKER OF KERALA	38

Defining and re-defining and broadening the definition of who is a fishworker	38
Schematic representation of the various activities in which fishworkers are present	40
Major considerations in this classification	40
Non-Fishworkers laying claim to social protection measures	41
Migration of fishers, workers and the future of labour in the fisheries in Kerala	42
Prioritising the rights of traditional fishing communities of Kerala to social protection	44
4. RESPONSIBLE FISHING FOR SOCIAL PROTECTION	47
How Unsustainable Fishing affects Social Protection	47
Promoting Green Investments	51
Reducing Carbon Emissions: Electric OBMs	52
Leveraging markets for sustainable fishery	54
5. SEA SAFETY AND INSURANCE	55
Sea safety measures, accident risks and social protection	55
Risks Beyond Age 60	57
Weather Information and Communications	57
Community Participation in Sea Monitoring and Communication	58
Sea Rescue	59
New Innovations Needed	59
Ensure Community Involvement	60
Sea Rescue Task Force	60
Boat Yards	61
Fisheries Monitoring, Control and Surveillance (FMCS) Station	61
Insurance	61
Fishing Asset Insurance	62
Parametric Insurance for loss of income due to meteorological bans	62
6. CLIMATE CHANGE, SAFE HOUSING AND SECURE COASTS	64
Housing for fishworkers in the context of climate change and coastal erosion	64
Punhargeham Project	66
Model Villages	69
A New Approach	70
How it will take shape?	71
An Integrated Vision	73
CRZ Notification, Coastal Spatial Planning and Participative Mapping	74

<u>7. CREDIT, INDEBTEDNESS AND ORGANISATIONAL SUPPORT</u>	76
<u>Features of Credit and Indebtedness</u>	78
<u>Credit, and the legal right of first sale</u>	78
<u>Organisational Support is the Key</u>	80
<u>Matsyafed</u>	80
<u>Why is there low participation in Matsyafed?</u>	85
<u>What can be done?</u>	86
<u>Matsyabhavans</u>	87
<u>Debt Relief Commission</u>	88
<u>8. WOMEN, MARKETS AND SELF-HELP GROUPS</u>	90
<u>Markets and Social Protection for Women Fishworkers</u>	90
<u>Kerala’s fish markets – the sites for promotive and transformative social protection reforms and decent work</u>	92
<u>Measures to Improve Markets</u>	93
<u>Processing Units for Export and Domestic Retail Markets</u>	94
<u>Society for Assistance to Fisherwomen (SAF)</u>	94
<u>Self-Help Groups (SHGs)</u>	96
<u>9. HUMAN CAPABILITY DEVELOPMENT</u>	97
<u>Fishers</u>	97
<u>Women</u>	98
<u>Children</u>	98
<u>Fishery School Teaching and Practices: The Need for Re-Organisation</u>	99
<u>Assessing fishery education as part of Vocational Higher Secondary Schools</u>	101
<u>Assistance for Education</u>	104
<u>Kerala University of Fisheries and Ocean Studies (KUFOS) and the Community</u>	105
<u>Village Motivators</u>	106
<u>Equipping Fishworkers for the Global Fishery</u>	107
<u>Raising General Awareness about Schemes</u>	108
<u>Information brochures, posters and illustrated booklets</u>	108
<u>10. DATA AND INFORMATION</u>	109
<u>Good data and timely information for empowerment and policy making</u>	109
<u>The Gender of Children?</u>	109
<u>Who are the ‘active fishermen/women’?</u>	109

<u>Data on Craft and Gear</u>	110
<u>Fish Harvest</u>	110
<u>Expert Consultation on Fisheries Data and Information</u>	111
<u>Same Day Census of Fishers and Fishing Equipment</u>	111
<u>11. RECOMMENDATIONS AS VISION FOR THE FUTURE</u>	112
<u>PERSPECTIVES AND PRIORITY CONCERNS</u>	112
<u>ASSESSMENT OF SOCIAL PROTECTION FUNDS</u>	114
<u>RE-DEFINING THE FISHWORKERS</u>	115
<u>RESPONSIBLE FISHING</u>	116
<u>SEA SAFETY AND INSURANCE</u>	117
<u>CLIMATE CHANGE, HOUSING, SECURE COASTS</u>	118
<u>CREDIT AND INSTITUTIONS</u>	120
<u>WOMEN AND MARKETS</u>	121
<u>HUMAN CAPABILITY DEVELOPMENT</u>	122
<u>DATA AND INFORMATION</u>	124
<u>12. CONCLUSION</u>	125
<u>APPENDICES</u>	126
<u>APPENDIX A: DETAILS OF COMMUNICATION DEVICES</u>	126
<u>APPENDIX B: NETWORK OF LIGHTHOUSES IN KERALA (COCHIN LIGHTHOUSE DISTRICT)</u>	129
<u>APPENDIX C: ON 'GAO-THAN' AS MENTIONED IN CRZ 1991</u>	129
<u>APPENDIX D: EXAMPLE OF AND COASTAL SPATIAL USE AND SEA MAPPING BY COMMUNITY</u>	131
<u>APPENDIX E: UNIVERSAL PRINCIPLES OF COOPERATIVES</u>	132
<u>APPENDIX F: ON WHOLESALE FISH MARKETS</u>	132
<u>APPENDIX G: HOW AN ICONIC FISH MARKET WAS RENDERED USELESS</u>	133
<u>APPENDIX H: ONE DESIGN OF A ROAD SIDE FOLDABLE</u>	135
<u>APPENDIX J: SCOPE FOR SKILLED FISHERS IN UK</u>	135
<u>APPENDIX K: RING SEINE EARNING DISTRIBUTION</u>	136
<u>APPENDIX L: TAMIL NADU FISHERMEN AND LABOURERS ENGAGES IN FISHING AND OTHER ALLIED ACTIVITIES (SOCIAL SECURITY AND WELFARE) ACT 2007</u>	137
<u>REFERENCES</u>	139

RECOMMENDATIONS AS VISION FOR THE FUTURE

PERSPECTIVES AND PRIORITY CONCERNS

- 1. Social protection is a human right of fishing communities and all fishworkers in the state.** They harvest a safe and nourishing food item from the sea; generate a substantial amount of employment on land by creating networks to efficiently distribute fish; contribute to the country's foreign exchange and potential tourism revenues, and act as beacons of our seas. They are a valuable human, economic and socio-culturally important segment of our society.
- 2. Fishworkers of Kerala, like their counterparts in other parts of the world, have a Magna Carta for social protection in the form of the UN/FAO Voluntary Guidelines for Sustainable Small-Scale Fisheries (SSF Guidelines). The Government of Kerala must use the SSF Guidelines as a guide for planning social protection of fishworkers for the future.**
- 3. We have enumerated four types of social protection measures: protective, preventive, promotive and transformative. There needs to be a balance of these measures. But the emphasis may change according to the circumstances of the workers, the external factors and the state of the economy. Social protection must be situated within the community-market-state triad. That is the only way it can become adequate, appropriate and a source of sustained assurance of people's aspirations from the labour they perform. Currently, and into the future, the focus of social protection for fishworkers should be on the protective (e.g insurance, pensions) and the transformative measures (e.g resource management and supportive legislation).**
- 4. Fishworkers of Kerala were considered to be 'outliers' of Kerala's overall development experience. However, since the 1990s, the median and average income levels of fishworkers have increased and in the last decade, has remained stable. However, today, and into the future, the main issue facing fishworkers is not their income levels. Rather, compared with all other primary producers in Kerala, fishers face far greater environmental and physical vulnerability due to climate change events which will affect them both at sea and on the coastal habitation. Their occupational and economic vulnerability is also substantial because climate change impacts and due to the far greater credit and indebtedness trap in which they find themselves. Social protection measures for fishworkers needs to focus importantly on mitigating environmental, physical, occupational and economic vulnerability.**
- 5. In small-scale, artisanal, fishing communities, the task of earning a livelihood can be a risky and tenuous pursuit. However, the perpetual harvest of the plentifully available renewable fishery resources, in the near-shore tropical seas, hugely compensates for this risk. If this resource is cared for, and if the fishers can get a fair return for the produce of their hard labour, then they can lead a good, decent and dignified life.**
- 6. Addressing vulnerability will require providing social protection measures tailor-made to the manifestations of vulnerability. Such actions will provide them the confidence, bolster their**

resilience and enhance their trust in the state. The community will always be their **anchor**. The community provides the stability, the autonomy and the resilience. The market is the **engine, oar or sail**. The market motivates and provides the drive to take the wise actions in fishing and negotiate the risks. The state is the **rudder**. The state indicates the direction and facilitates the framework within which they labour. **Social protection must be situated within this community-market-state triad. That is the only way it can become adequate, appropriate and a source of sustained assurance of people's aspirations from work.**

7. The nature of work in fisheries and the composition of the labour force is also changing. On small-scale, traditional fishing craft, the average age of the worker is on the increase, as educated youth from the community have other occupational aspirations. However, many persons with basic educational attainments happily continue to fish and still form the backbone of the marine fish harvesting operations in the state. **This core section of marine sea-going fishers from traditional communities, need to be encouraged to stay in the sector and provided the incentives for doing so.**
8. Today, the mechanised vessels are almost entirely dependent on migrant labour because male fishers from the traditional fishing communities are reluctant to work on vessels for long fishing trips away from family and village. The same can be said about the women workers also. Very few young women are attracted to the traditional modes of fish vending in the retail markets nor do they wish to work in the fish peeling establishments. The latter are also becoming avenues for women migrant workers. **There is need for a closer investigation of the changing patterns of work in the sector and the role of migrant workers in Kerala's fish economy.**
9. Kerala State has pioneered social protection for fishworkers and become an example for other states to follow. In Kerala there is also the growing call for greater inclusion and universalisation of social protection. With the changing composition of the labouring sections in the fish economy, there are anxieties among the traditional fishing communities – particularly among those who continue to fish. They fear that they may, in the future, be treated at par with other (migrant) workers in the sector with regard to all social protection benefits. **The sentiment that fishworkers from traditional fishing communities in Kerala, should be prioritised for *special and differentiated treatment* with regard to social protection must be respected. The fishers among them must become the focus of attention for matters such as: higher insurance coverage, housing allocations, higher education for children and enhancement of their technical capabilities. These benefits can be prioritised according to the period of contribution which each of them has made to the Fund.**
10. Another issue which needs consideration is whether social protection rights should be differentiated by different activities within the sector. This is particularly so while considering fishing *vis a vis* allied activities. Fishing in marine waters is one among the riskiest professions in the world. The odds being faced by the fisherman is qualitatively quite different from that faced by any of the other workers involved in the whole fisheries value chain. Further, all the activities further up in the value chain are strongly linked to the person who actually engages in fishing. **In this context, the question as to whether the activity of fishing *per se* needs to be accorded a**

preferential treatment in social protection measures is worthy of serious consideration. This consideration is irrespective of whether the worker is a native of Kerala or a migrant from another state.

- 11.** There is the growing irrelevance of the tripartite structure of social protection based on the capitalist employer-employee relationship. On the other hand, globally and locally there is the increasing awareness that value in the fisheries sector arises both from 'exploitation' of labour, but also from the 'exploitation' of finite and increasingly scarce resources of Nature. **That being the case, should we not consider fiscal measures, in the form of levies or taxes, on all incomes and profits, which derive from the utilisation of the resources of Nature.**
- 12.** If a Pollution Tax – for insertions into Nature is acceptable – because pollution is an externality that affects the general population, then a Natural Resources Extraction Tax, for withdrawals from Nature, which is levied in proportion to the levels of income or profits made, should not be unreasonable. The primary producers, merchant capitalists and industrial capitalists must pay. **Perhaps the contributions which the fishworkers are currently making to the Fund need to be redefined as a resource tax and by the same token a resource tax can be levied on the merchant capitalists relative to their sales and/or profits.**

ASSESSMENT OF SOCIAL PROTECTION FUNDS

- 13.** Social protection funds in Kerala were envisaged as tripartite in nature with employers, workers and the state making appropriate contributions to the corpus. Such a system was envisaged with the Kerala Fishermen Welfare Fund Board (the Fund) and also operated in that manner until 1998. Thereafter, due to legal strictures, the share of the employers (dealers in fish such as exporters in this case) stopped. Currently, the share of the workers to the Fund is higher (7.4 percent) than that of the employers (3.8 percent) and the state is making the large contribution (88.8 percent). **This situation is clearly unsustainable. It is also highly unjust, given the huge profits which are being garnered by the dealers of fish. A quick calculation of the notional loss resulting from the dealers of fish not contributing to the Fund yields a figure of about Rs.6600 lakh per annum. This amount is adequate to meet all the annual protective social protection measures promised to the fishworkers.**
- 14.** The future of the Fund is therefore under threat. Possible sources of contribution such as the fines collected from fishing vessels for unsustainable fishing; registration of all migrant workers; a share of user fees collected in ports and markets; contributions from the potential blue economy investors should be explored actively. **Short term measures, to find other sources of contributions to the Fund, must be undertaken as a priority.**
- 15.** The social protection payments made to fishworkers can be classified under 60 separate schemes. In current prices, the total social protection payments disbursed has been rising over the 13-year period for which our analysis has been made. In 2008-09 the amount was Rs 854 lakh. By 2020-21 the total reached Rs.18444 lakh – a 20-fold increase in current prices. **From the data which we have collated for the 13-year period of 2008-2020 the average total pay-out for various social**

protection schemes was Rs 7660 lakh per annum. The Government contribution to this social security pay out was Rs.6900 lakh/annum and what the Board provided from its generated funds was Rs 760 lakh/annum. Over that period, on average as many as 5.8 lakh individuals benefited per year from one or other of these payments.

16. The core social protection portfolio from the Fund consists of protective social protection measures – pensions, lean season (unemployment) insurance, life and health insurance and death and accident payments. Together they account for 98 percent of the social protection coverage for the fishers and the allied workers of the state. The remaining 2 percent is for preventive social protection such as family welfare (e.g. assistance for daughter's marriage), hospitalisation payments (e.g. for fatal diseases like cancer) and promotional social protection (e.g. education related payments)
17. According to UNDP norms a desirable social protection ratio to the GDP of a developing nation should ideally be 5 percent. Applying this norm to the social protection payments and fishery sector product for the 13-year period 2011-2021 we see that the SP/FSP ratio is far below the desirable norm as it hovers around 1 percent of the sector product. Moreover, based on the earlier studies, it is sad commentary that the SP/FSP ratio has in fact dropped below 1.71 percent level at which it was during the period 1986-1998. The per beneficiary social protection (taking all the beneficiaries who have received pay outs each year) has increased in monetary terms. Between 2011 and 2020 it increased from Rs. 963/beneficiary to Rs 1354/beneficiary in current prices. In constant prices however, this is indeed a drop in benefits from Rs.963 to Rs 915! **This fall in the ratio of social protection to the sector product (compared to 1986-98 period) and the drop on a per capita basis in constant prices are both a reflection of the inability of the MatsyaBoard to collect contributions, due to the legal restrictions, and the lack of political will on the part of the Government to deal legally and legislatively to remove the strictures.**
18. To address the more specific needs of the marine fishery, there is need to address the issue of an insurance to cover the 'forced unemployment' which results from the ban on fishing due to adverse weather situations. If the record of the last few years is any indication, then it is likely that such forced unemployment can reach 30 percent of the normally expected 250 days of fishing in a year. **If this issue is not addressed, it can become a major consideration for people leaving the fishery in search of other livelihood options.** (See Sea Safety and Insurance below)

RE-DEFINING THE FISHWORKERS

19. In the Working Group there was discussion on two aspects. First, the need to universalise social protection so that no worker – local or migrant -- is left behind. The second aspect was the need to prioritise social protection such that workers from the traditional communities are not denied or deprived of any benefits in our efforts at universalising and expanding the scope of social protection measures. **Given the pro-worker orientation of our state and the growing accommodation of migrants into all the sectors of the economy, there is need to enumerate the migrant labour involved exclusively in fishery activities as 'fishworkers' also requires consideration.**
20. One of the frequently heard complaints about state sponsored social protection measures is that there are persons who lay claim to these benefits, though they are not eligible to do so. However,

to infer that, all persons resorting to such actions, are resorting to corrupt practice, may be a harsh conclusion. However, the MatsyaBoard recently conducted a survey to re-assess and ensure that only legitimate claimants are retained on the lists. The data reveals that the excess registrations are more evident among those who claim to be inland fishers (34 percent excess) than those who claim to be marine fishers (only 18 percent excess). **Apart from the issue of excess registration, this data highlights the need to consider more objective criteria for registration of fishers and allied workers under the KSFWFB.**

21. Migration is an essential feature of any fishery. Post-2000, the nature of migration and migrants have changed considerably. The arrival of large numbers of migrant workers from the north of the Vindhyas, as part of a larger phenomenon—resulting from the liberalization of the Indian economy—has created a new condition that has influenced the fisheries sector also. These workers, euphemistically called “guest workers”, have found their way into the mechanized sector which can manage with a proportion of less skilled workers. These “guest workers” are not getting their names registered, in contrast to the requirement specified by Government norms. **However, the human rights of these migrant workers cannot be wished away. A fair system, ensuring their safety and social protection, is required in a state that prides itself on providing welfare and social protection for the working class.**
22. Migrant labour can register under the E-Shram site of the Ministry of Labour and Employment. The objective of the scheme is the creation of a centralized database of all unorganized workers (UWs) to be seeded with Aadhaar. A registration system which will record the status of the migrant fisher and distinguish if they are from traditional fishing communities or from non-fishing communities, and their eligibility for social protection in their own state should be noted. **Accident and Life Insurance may need to be considered along with necessary documentation of nominees /legal heirs. Facilities for their stay on shore and recreation can be thought of on the lines of the sea farers association facilities in commercial ports.**

RESPONSIBLE FISHING

23. The fishers of Kerala are currently fishing unsustainably. There is now growing acceptance of this fact among them too. The need to reduce the number of vessels at sea and the rising investment in fishing gear is today an accepted fact. The question is only about who should take the first step – state or community! **There is need for urgent discussions between the government, the union representatives of the small-scale fishers, women workers unions, mechanised vessel owner associations and the scientific community on how this reduction is to be justly negotiated.**
24. Some of the steps to curb unsustainable fishing suggested by various members of the Working Group include: freezing the number of mechanised boats and ring seines with immediate effect and not providing licences for any more; a ‘one owner, one vessel’ policy; placing a limit to the length of fishing craft and a curb on maximum power of OBMs used on them; making a total HP ceiling for the state -- based on desired and optimum craft type and numbers for sustainable harvesting of the resources; putting a halt to building of new infrastructure for fishing such as ports and harbours; place regulatory restrictions on the fish meal industry, if its unbridled, uncontrolled procurement poses a threat to the natural resources. **The Government should revive the work of the Aquarian Reforms Committee with the involvement of all stakeholders.**

25. Examining the scope for new green investments to make the fishery sector more carbon neutral should be given top priority. Such investments, coupled with the initiatives for aquarian reforms will contribute to major reduction in operating costs and enhancement of fishing incomes. There is also scope for large greening initiatives with community participation. **Exploring the potential for public-private industrial partnerships for investments in equipment used in fishing -- such as electric out board motors, and other instruments powered by solar and wind energy should receive serious attention. These are avenues where international funding agencies and banks, as well as the new facilities for financing the reduction of greenhouse emissions (GHE) will be interested to participate.**

SEA SAFETY AND INSURANCE

26. Following several extreme weather events, which were out of the ordinary, both fishing communities, the state and civil society have become acutely aware of the impending, unpredictable dangers which lurk at sea. Accidents at sea have been on the increase. Many of these have been closer to shore and spurred by unscientifically constructed coastal structures. Quick response to sea rescue is imperative. Timely, reliable, real-time information on wind, other atmospheric weather conditions, wave heights and other such details are crucial. It is paramount that credible last mile connectivity to the coastal villages is ensured. There should be assurance that SOS messages from the fishers at sea will be received and acted upon with diligence and haste. All this can only be achieved with accredited community participation. **A network of Raksha Kendra Samithi should be set up. The management and governance of these centres (*Raksha Kendra Samithi*) should be allowed to evolve, but based on some overarching framework agreed upon by the state (Department of Fisheries representatives, Sagar Mitras, elected coastal ward member) and community (decided by the people). These *samithis* must have secure representation of active fishers, trained youth and women.**
27. Kerala has three marine ambulances – the only ones in the whole country – costing Rs 1800 lakh. Their operating costs are Rs 22,000 per day. This sort of costly large-scale, centralised approach to sea rescue (big vessels, based at a port) needs to give way to approaches which uses the latest small-scale technologies (drones, remote controlled unsinkable aquatic devices etc) and engage at a decentralised level with the skill and knowledge of the coastal fishing communities. This is also another realm where and public-private partnerships and financial assistance may be more readily forthcoming. **Therefore, sea rescue facilities need to be given a very serious re-look. The effective response time of rescue operation needs to be reduced from what it is today. For this, new innovations in sea rescue devices, which are smaller in scale and can be used from beach landing centres, with the participation of the coastal community, should be given priority.**
28. The State should request the Central fishery agencies such as CIFT and CIFNET to take the initiative to first convene a meeting of naval rescue experts, UAV and ICT technology experts and representatives of fishers who have a track record of sea rescue from different part of the state. This group can discuss the various contexts of sea rescue and the pros and cons of different rescue

approaches and protocols. Following these discussions, create a task force which can innovate devices which combine the use of the latest technologies (as mentioned above). Such devices need to be utilised with the participation of community-owned fishing vessels which are always the first responders in a crisis. Such blending of the latest technologies with the skills and resourcefulness of the community is the right way to approach sea rescue. **The key to success is that the community expertise must be utilised in times of crises, and the institutional facilities need to be developed to leverage it by blending with modern technologies and existing facilities, such as the lighthouse network.**

29. Marine fishers of Kerala suffer the greatest mandatory “meteorological unemployment” days. Over the last few years, it has averaged about 60 days/per annum. A notional calculation of collective loss of income, based on a minimum wage of Rs 600/day, is about Rs 360 crore/year. This loss will need to be compensated in some way. Direct social protection payments may not be sustainable. The FAO/UN suggests parametric (weather index) risk insurance as a relatively new but innovative approach to provide insurance that pays out benefits based on a predetermined index (e.g. rainfall level, wind speed) for loss of employment or assets resulting from serious weather and catastrophic events. Parametric insurance is certain to play a larger role in insuring catastrophic events, where there is no need for insurers to dispatch large teams of claims adjusters to assess damages or verify coverage. Considerable time and expense are associated with the thousands of claims resulting from catastrophic events. Parametric insurance eliminates the need for claims adjusters and requires only verification of the triggering event for claim payment. **The Government of Kerala, ideally with the cooperation of other state governments, should urgently hold preliminary discussions with the Union Government, with insurance companies and international banks such as the World Bank and Asian Development Bank to consider adoption of parametric insurance products to address the increasing problem of climate-forced unemployment for fishers.**
30. The current insurance schemes for fishing assets have premiums which are too high and too rigid in their operating terms. Fishing asset insurances which cover both partial and total loss of assets may need to be considered. Given fluctuating incomes, the fishers are also more comfortable with variable premiums which can be tagged to their varying incomes. There is also need for greater bottom-up initiatives to bundle micro-credit and savings schemes with insurance products. **The Union and state government should take a combined initiative to get insurance companies to provide innovative custom-made products to insure fishing assets.**
31. A concern raised by fishers was about the lack of insurance cover for those above 60 who continue to fish. Many among the older fishers are still fit to work and indeed continue to fish actively. Unlike other land-based communities, they do not wish to engage in activities other than fishing. Their knowledge and skill continue to be much sought after. However, in the event of their having an accident at sea, or should they die at sea, then they are ineligible to receive any insurance benefits. Fishers point out that with the increase in life expectancy, more members among them are facing this dilemma. It is a matter which vexes the whole community given their concern for the aged. **The government should attend to this concern as it will have a major impact for assuaging the worries of the senior citizenry among the fishers and enlist the full support of a vulnerable community.**

CLIMATE CHANGE, HOUSING, SECURE COASTS

32. Coastal areas and marine fisheries are highly vulnerable to climate changes and climate variability. Construction of structures including harbours, and other human-made structures are contributing towards coastal erosion. However, there are still demands from various quarters to construct additional structures and infrastructure along the coasts. With respect to infrastructure development in terms of ports and harbours, the focus needs to be on better utilising the already constructed one, by improving the facilities and operational efficiency. **Further decisions on new constructions, if any, are to be based on environmental impact assessment, particularly focusing on the impact they have on coastal erosion and housing.**
33. The present strategy to address coastal erosion is by constructing sea walls along the coast. This strategy is being followed for decades in the state, and requires mining of large quantity of granite from the quarries in far off places, causing several environmental issues. Further, this has not yielded any lasting solution to the problem, except moderating the impact of the waves for some time. However, a range of technological solutions including biological one like growing mangrove forests in certain locations are available, with varying efficacy and costs. **As matter of policy government needs to adopt the coastal zone protection measures based on scientifically recommended criteria. Preventing coastal zone erosion by using granites should be considered only as a last resort.**
34. The ocean, rivers and estuarine ecosystem are to be seen as a single continuous entity, and the biophysical relationship of these three should be seen in entirety. The sedimentation of rivers and lakes, excessive sand mining, not removing the sediments from the rivers for quite a long time thereby losing the water holding capacity of the rivers, sea water intrusion into rivers etc is to be considered together, to be managed by scientifically recommended methods. **Therefore, a study should be launched on the issues by involving appropriate scientific agencies, on a priority basis, and holistic management practices should be developed following the recommendations. The recommendations are to be subjected to wider consultations. The management strategies need to involve stakeholder participation, including inland and marine fishers. The government should relook its policy on sand mining from rivers and should develop a well calibrated scheme for removing the sediments, following scientific recommendations.**
35. Housing and settlements in the coastal area are to be allowed by strictly following the coastal zone regulation acts. The identified families are to be relocated towards the east of the coastal roads, by using land which belongs to the government or acquiring land of private parties and institutions paying market prices to them. The government needs to chart out a plan for relocation for the identified families with yearly targets. **Priority must be given for relocating them to such locations from where the interested families can engage in fishing activities which should be walking distance. Those who are currently nearer to the HTL are to be given priority.**
36. After the fishers are properly rehabilitated, if the coast can be left to the sea for a few years, it can be brought back to its sandy (original) state. Equally important are measures for sediment replenishment in areas where erosion and accretion have happened in close proximity due to coastal built-structures. **If such actions are to succeed, there also needs to be a moratorium on the construction of all coastal structures for a period.**

37. The existing *Punargeham project* should be reviewed in view of the escalating costs in land acquisition and construction. The Rs 10 lakh currently earmarked appears to be inadequate in most coastal areas. Despite living in very vulnerable locations and sufferings from the high tides, several families are not willing to move out to newer locations due to their apprehensions. **The relocations plans should address their apprehensions, and involve the affected persons / stakeholders in the decision-making process on relocation.**
38. Fishing is a collective activity, and fishermen live in close interactions with each other. Considering the social situation, the government should plan for housing facilities which promote collective activities, but away from the risky HTL. This could help to realise economies of scale in construction of various facilities and amenities in 'model villages' or 'designed villages.' The villages either singly or in groups can be identified and assigned for housing a group of persons, and follow a design that will facilitate and support present day requirements of transportation, education, health management, recreation and entertainment while allowing to engage in traditional occupation and or to diversify the profession. The plan has to follow the extant CRZ regulations. **The government may leverage the concept of National Fishermen Welfare Assisted Housing Scheme for model villages, proposed in the 10th five-year plan. The Grama Panchayat should be an integral part of the whole process in identification of the families and the related plans for 'model villages.'**
39. The concept of the 'Gao-than' mentioned in the CRZ 1991; the mapping of fishing villages as visualized by the CRZ 2011 (and continued in CRZ 2019) should be undertaken and rights of fishing villages need to be formalized. Shoreward expansion of fishing villages, based on their need for housing and other social infrastructure should be given due priority. **Village level long term planning, as visualized by the CRZ 2011, needs to be introduced.**
40. Fishing communities need to do their own coastal use resource mapping and demonstrate how the coast was, and continues to be, utilised by them for various fishery related purposes – parking boats, facilities for selling fish, space for fish drying etc, places for net repair. **Participative village spatial use mapping with involvement of youth of the community and the Grama Panchayats are to be adopted.**
41. The Union government visualises blue economy as an important engine of growth. However, many sections of fishers have raised concerns on these initiatives mainly due to the impact of such initiatives on their livelihood. **The resettlement and rehabilitation plan has to consider the potential effects (both negative and positive) of the blue economy initiatives, on a medium term and long-term basis.**
42. The government should promote adoption of climate friendly measures including growing mangroves so as to promote carbon sequestration in coastal regions. **The panchayats and communities should be encouraged to avail incentives for the same which are available from national and international agencies.**

CREDIT AND INSTITUTIONS

43. Fishers should have the freedom to sell their fish – the product of their labour -- to whosoever they desire. Interlocking of the credit and product markets should be stopped. Creditors should be entitled only to interest on the loans which they have extended to fishers and not have any monopoly right over fish auctions or sales. **The Government should enact a legal provision which gives the right of first sale of their fish (i.e. at the shore or the harbour) to the workers and owner-workers who actually fish.**
44. Matsyafed primary societies being the only accredited cooperatives in the fisheries sector need to be revitalised to perform their basic function of attending to the proper means of transacting the first sale of fish of its members on the beach or the landing centres. All its other numerous activities, however profitable, are only supportive to this prime objective. The data provided shows that collectively Matsyafed has been faltering in achieving this prime objective. The fishers, who are members, view the primary societies as government organisations and not as their own. The exceptions to this are in the primary societies where the active fishers are involved in the governance and management. **Efforts need to be urgently taken by the Government (Department of Cooperatives) to ensure that only the active fishers who sell fish through the primaries are involved in its governance, ensuring that they function in accordance with the universally accepted 7 principles of cooperatives.**
45. The functioning and effectiveness of organisations that work in the fisheries sector are to be enhanced by making them more democratic, participatory and genuine. Of late, the membership in Matsyafed, number of members participating in auctions and the quantity of fish transacted through it are gradually declining. It has only about 20-25 percent of the active fishers of the state as members. Even they are unable to meet their credit requirements from Matsyafed, which forms a reason for their dependencies on informal credit. There are some cooperatives in fisheries outside the ambit of Matsyafed, which are well-functioning mainly due to the genuine participation of workers in them. **Matsyafed should take urgent steps to enhance the membership, participation of members in auctioning, increase credit flow and realise better value for the fish of the members.**
46. Fish harvest and post-harvest activities including marketing are capital intensive and depends on credit, overwhelmingly from informal sectors. This credit is given on the basis of trust and linking it to the sale of fish. Availability of such credit is the major driver of capital intensification in fisheries. The tied credit-market relationship in fisheries has accentuated the vulnerability of fishers and renders them perpetually indebted. **In view of the qualitative and higher credit requirement for the fishery sector, the formal banking sector has to develop fisher-friendly credit products exclusively to fishery sector.**
47. The Matsyafed can have tie up with the Kerala Bank to have better delivery of credit to fishers by developing suitable credit products. Credit should be delivered at landing centres and harbours with the operation times being modified in accordance with the requirement of the sector, say for example 2.00 pm to 8.00 pm. **The possibility of starting a credit wing in the Kerala Bank, in the form of a Fisheries Bank with support from national agencies supporting rural development and cooperatives should be considered.**

48. Fishers should be encouraged to avail the beneficial schemes available from the Union Government such as the Kisan Credit Card (KCC). The condition for availing the KCC is that a fisher must own a registered boat or any other type of fishing vessel and have the necessary license or permissions for fishing in estuaries or the sea. Flexible terms and conditions are provided for availing credit through KCC. **A mass campaign should be initiated to promote Kisan Credit Card in the fisheries sector.**
49. The Matsya Bhavans have a key role in ensuring a sustainable development process in the fishing sector. One of the key responsibilities of the Matsya Bhavan is to form Committees such as the Matsya Sabha to support and monitor the activities of Matsya Bhavan under the leadership of elected members and ensure the active participation of interested organization and individuals. The Matsya Sabha was expected to articulate the views of the community to the Local Self Government institutions and ensure that the voice of the fishers and their genuine needs are met through proper planning and implementation of the numerous development assistance programs of the Government. **The Government should take urgent steps to improve the staff strength of Matsya Bhavans and the facilities therein, which are affecting their functioning adversely. The creation of Matsya Sabhas should be undertaken on a priority basis.**
50. The Debt Relief Commission has only been able to address a tiny portion of the huge debt burden of the fishers. It fosters a strong probability of moral hazard among the fishers. **The Government may take a decision on continuance of debt relief (in its current form) based on a comprehensive study on its performance and impact. For the time being, the Commission may not engage in activities beyond dealing with the applications which it has already processed.**

WOMEN AND MARKETS

51. Physical markets are the main realms where fish from the coasts are redistributed or sold directly by fish vendors to consumers. These physical spaces therefore need to cater to the basic requirements of both the vendors and the customers. However, fish markets in Kerala are rarely spaces of convenience or cleanliness. For an avid fish consumer in the state, our fish markets are an utter disgrace and insult to the sense of personal hygiene, which we pride ourselves about. **Immediate action should be taken to greatly improve the standards of convenience and cleanliness of retail and wholesale fish markets from the perspective of the fish vendors and the consumers.**
52. Fish markets are 'institutional orphans.' This is because the department which builds them and those designated to manage them rarely take responsibility in the proper functioning of the market. The task for ensuring that the market space works functionally is given to a private contractor who bids in a public auction for the right to control the market for a period. The fact that few fish markets exhibit a change in the contractor, is evidence of the deep and vested monopoly control interest which pervades. The objective of the 'foster contractor' purely to extract the maximum rent at the shortest period of time. Contractors have little concern for the short- or long-term upkeep of the 'orphan market'. **The Government should ensure that no market contractor is permitted to have control over a fish market for more than three years. The bidding process needs to be made more transparent.**

53. The two main complaints about fish markets expressed by women vendors interviewed were: (1) the male dominance in markets and the economic and social harassment they face at all levels and (2) the deplorable facilities at markets both with regarding to their professional (selling spaces) and personal needs (toilets, changing rooms etc). **The Government should also use the new KERALA FISH AUCTIONING, MARKETING AND MAINTENANCE OF QUALITY ACT, 2021 to attend to these pervasive complaints about male harassment and market facilities.**
54. A considerable amount of effort needs to be taken to bring fairness and dignity to the work of women fish vendors – particularly those from the coastal communities. Those who sells fish brought straight from the coast should be assigned a separate space in retail markets which function within 5-10 kilometres from the coast. **Agencies such as SAF should collaborate with these women, or their trade unions, to provide these women vendors of fish with proper identification badges and good quality waterproof aprons.**
55. Considerable attention has been given to the formation of self-help groups (SHG) among women of the fishing communities. Through these SHGs women have also received a good amount of credit and have been able to create savings. **However, SHGs can also become good institutional arrangements to provide women with protective social protection measures such as insurance against accidents.**

HUMAN CAPABILITY DEVELOPMENT

56. Fishery Schools in Kerala – ten in number -- were once much sought after by both the fishing and larger coastal community because of their facilities and the quality of teaching. The Government has continued to invest in upgrading the physical facilities of these schools. The teachers also continue to be a committed lot. However, these residential schools are not anymore in great demand in the fishing communities. There is a strong case for a review of the current status and utility of continuing all these schools. **The government of Kerala will do well to consider continuing only a few schools -- but better equipped and fully residential fishery schools. The first steps in this regard should be to undertake a discussion with the teachers and parents.**
57. Universities must be centres of excellence. But they also need to be relevant to the community which they serve. In this light KUFOS is already giving preference to students from the fishing community in their admissions and courses. **However, more needs to be done with regard to co-evolution and co-creation of knowledge by interacting closer with the fishing communities.**
58. KUFOS may consider conducting regular interactive sessions with real expert master fishers of the state. These sessions can become the place for students to appreciate the need for greater blending of knowledge and technology and also a way of making the fishers aware of the relevance of the University. KUFOS may consider one special day when the people of the sector – e.g. fishers/ fish farmers and others relating to the sector – are invited to the University for a series of events and exhibitions. University teachers and students will get to understand the needs of the sector and the people. The people of the sector get to see the latest innovations, practices, gadgets and so forth. Creating widespread ocean literacy should be the goal. **KUFOS should do away with the top-down concept of “extension” and replace it with the more horizontal and participative concept of “interaction”.**

59. Under the Union Government's Sagarmitra (SM) scheme, the possibility of training a cadre of village motivators and providing them with small honorarium and social recognition should be actively considered. They need to be selected by a committee of officials (*ward member, Matsyafed officer etc and non-official members for each of the villages – parish priest, dheevara sabha reps etc*). The essential criteria for the candidates (*e.g. parent to be active fishworker or living in the coastal village; education level; demonstrated interest in village affairs; willingness to stay in the village etc*) should be broadly agreed upon. There should be a 60:40 gender balance in the selection. **In the interest of securing the trust of all the fishing communities across the state, the Government must not politicize the selection of this cadre.**
60. There is growing demand for skilled fishworkers to man the fishing fleets in countries where the number of active fishermen is decreasing sharply. Many fishers are already migrating regularly to the Gulf taking up jobs on fishing vessels. In Europe too, the marine fisheries sector, both small and large scale, are faced with generational renewal issues, with ever increasing average age of their fishers. Scotland in United Kingdom, for example, has become highly reliant on crews from South and South East Asia. This is only the beginning of a global trend. Fishers of Kerala should be made ready to take advantage of this opportunity. **A Foreign Fishing Certification Program that will give training and information which will be useful for fishers to take up jobs in fishing industries outside India should be a priority of the Department of Fisheries.**
61. One of the constant refrains heard along the coast is that the fishers are unaware of the numerous social protection schemes which are available to them. The Government's Information and Public Relations Department has numerous booklets which give all the details of the schemes for social protection available to different groups of the population but they do not seem to reach the ground level. Such a situation is easily rectified if these booklets, and other publicity material, are made available at the Matsyabhavan and at the primary cooperatives of the Matsyafed. **A very simple measure is to paint one of the walls of the Matsya Bhavan and put up the details of all the schemes available so that everyone can see and make enquiries.**
62. A twelve-page annual combined calendar of the Dept of Fisheries/Matsyafed/MatsyaBoard which gives all the social protection schemes and other information about marine fisheries regulation (mesh size, trawl ban dates,) contact details of fisheries department, KSDMA; IMD etc and any other essential information such as lunar dates etc should be produced. **The production of the calendar can also be delegated to the district level so that information which is more relevant to the district can be included. Sponsorship of private companies may be obtained so that there is no financial implication for the Department.**

DATA AND INFORMATION

63. Evidence-based policy making is the cornerstone of good governance. It is therefore difficult to overstate the importance of reliable data provided on timely basis. Information obtained from analysis of such data have a direct bearing on the state's capability to design and implement relevant programs for the people. Achieving this will require good technology for data collection

and storage. Data which is comparable over time. Occasional sample surveys to re-examine the definitions and premises used. Training of the personnel responsible for providing data. **The Department of Fisheries and the Matsyaboard should invest time and funds to improve the data base and train the staff for its analysis and maintenance.**

64. There is an urgent need to understand (1) the changing demographic profile of the communities (2) to assess the current socio-economic status – asset ownership profile, work and labour practices, earning, credit, indebtedness, nature of housing, and other livelihood assets (3) to assess the evolution and adoption of different forms of fishing technology and the related economic costs, earnings and energy balance (4) to assess their opinions about the current situation in fishing and their suggestions/options for the future management and governance of the sector (5) to evaluate the nature of educational attainments and aspirations and the extent of involvement of the youth to the fishing sector. **The Department of Fisheries and the Matsyaboard, in consultation with an expert group, should conduct a carefully planned comprehensive demographic and socio-techno-economic survey of the fishing community.**
65. An expert consultation to examine how data and information can lead to empowerment of the fishworkers and help in astute policy making should be conducted. **The Kerala State Planning Board should take the lead to organise this consultation.**
66. It is necessary to make a credible re-assessment of the traditional fishing population, the number of active fishers among them and their stock of fishing assets. There is also need to identify migrant labour, particularly those working on the mechanised boats. The number and latest details of mechanised boats licenced in Kerala, and those of other states operating seasonally out of our ports, need real time monitoring. **To achieve this, it is desirable to hold a mandatory same day census type operation at all landing centres and designated harbours.**

CONCLUSION

Social protection for fishworkers of Kerala State stands poised at a historical juncture.

On the one hand, a substantial portion of the customary intra-community sharing and caring arrangements have worn thin over the decades of modern fisheries development. On the other, the architecture and substance of the state-led tripartite arrangements are faltering primarily due to the inability to collect the anticipated contributions.

The burden of vulnerabilities on the fishworkers has been on the rise. Most of these are totally out of their control and hardly a result of their own creation. A few can be addressed by their own collective action and with the support of the state. But overall, we are confronted with a fragile ecological, economic, social and political stalemate situation.

The need of the immediate future is to undertake some collective consultations in which the state and the fishworkers, along with scientists and civil society, can think through the measures needed to take the right path forward at this juncture.

Kerala State is blessed with the most fortuitous edifice with regard to its marine fisheries: a rich and substantial renewable resource so readily available; a highly skilled and knowledgeable community of producers spatially spread across the entire length of the coastline; a network of allied workers and entrepreneurs to quickly and efficiently distribute the most nutritional and culturally acceptable food to the most avid consumers; a huge, enlightened scientific community and dedicated set of administrators and implementors.

The smooth functioning of the above edifice depends vitally on the meaningful and sustainable livelihood of all the fishworkers of the State. To ensure this, an efficient, well financed, dependable and caring social protection system is key.

