

Social Development and Sustainable Fisheries: Kerala and Tamil Nadu



Prepared by:

A S Medha



International Collective in Support of Fishworkers (ICSF)
2023



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PhD Student, Centre for Economic and Social Studies (CESS), Hyderabad



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Front Cover

Fishermen arranging their net in the harbor/ Sathi R V

Front Inside

A female fishworker in the fishing harbour

Back Inside

Fishers repairing their fishing net

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List of Acronyms

BPL	Below Poverty Line
CIFT	Central Institute of Fisheries Technology
CMFRI	Central Marine Fisheries Research Institute
CRZ	Coastal Regulation Zone
CSMCRI	Council of Scientific and Industrial Research–Central Salt And Marine Chemicals Research Institute
DFFDA	District Fish Farmers Development Agency
EEZ	Exclusive Economic Zones
FAO	Food and Agriculture Organization
FFDA	Fish Farmers Development Agency
FIMSUL	Fisheries Management for Sustainable Livelihoods (Project)
FRP	Fiber Reinforced Plastic
GDP	Gross Domestic Product
GoI	Government of India
GSDP	Gross State Domestic Product
GSVA	Gross State Value Added
GVA	Gross Value Added
HDI	Human Development Index
HDR	Human Development Report
ICSF	International Collective in Support of Fishworkers
IMR	Infant Mortality Rate
IWMP	Integrated Watershed Management Programme
KSCADC	Kerala State Coastal Area Development Corporation
MGNREGA	Mahatma Gandhi National Rural Employment Guarantee Act
MGNREGS	Mahathma Gandhi National Rural Employment Guarantee Scheme
NABARD	National Bank for Agriculture and Rural Development
NGO	Non-Governmental Organization
PDS	Public Distribution System
PMAY	Pradhan Mantri Awas Yojana
PMKSY	Pradhan Mantri Krishi Sinchayee Yojana
RIDF	Rural Infrastructure Development Fund
SAF	Society for Assistance to Fisherwomen
SC	Scheduled Castes
SDG	Sustainable Development Goals
SHG	Self Help Groups
SSF	Small-Scale Fisheries
SSF Guidelines	Voluntary Guidelines for Securing Sustainable Small-Scale Fisheries in the Context of Food Security and Poverty Eradication
ST	Scheduled Tribes
TAFCOFED	Tamil Nadu State Apex Fisheries Co-operative Federation Limited

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Key Geographical and Socio-Economic Features

Indicators	India	Tamil Nadu	Kerala
Geographical coordinates	20.5937° N, 78.9629° E	11.1271° N, 78.6569° E	10.8505° N, 76.2711° E
Land area	32,87,263 sq. km	1,30,058 sq. km	3,88,63 sq. km
Length of coastline	8118 kms	1076 kms	590 kms
Continental shelf (in thousand sq. km)	530	41	39
Inland water (in lakh ha)	12	3.7	2.7
EEZ (in lakh sq. km)	20.2	1.9	2.1
Total population	1,37,88,99,394	7,21,47,030	3,33,87,677
Labor force participation rate	36.2	42.9	38.0
Literacy rate	73.0	80.03	94
IMR	34	17	7
Fisherfolk population (in lakhs) (marine and inland)	11000	12.36	10.29
GDP (GSDP for states) constant price	145.66 lakh crore	97981616 lakhs	78165326 lakhs
Number of marine fishing villages (inland)	3288	608	222 [113]
Contribution of fisheries to GVA	1.24 percent		
Contribution to agricultural GVA	7.28 percent		
Number of fisherfolk families	893258	201855	121637
Traditional fisherman families	818491	196784	116598
Total inland fish production	89.02	1.85	1.48
Total marine fish production	36.88	4.97	4.14
Fish landing centres	1547	301	204
Number of active fishers	990,083	214,064	145,396
Dependency ratio	140	172	190

Source: Census, 2011; CMFRI Marine fisheries Census, 2010; Kerala Marine Fisheries Statistics, 2015; Syda Rao, G. et al. (2016)

Map of India



Source: <https://www.mapsofindia.com>





Photo Essay

The following photos depict the lives of small-scale fishers in their varying roles along the fisheries value chain. The photos are captured by Sathi R V



Fishers bringing the morning catch to the harbor



A fisherman pushing his boat to the sea



Fisherfolk during the auction at the harbor



Fishers arranging the fish catch



Sale of fish at the harbour in the morning



Auction at the harbor

1. Introduction

'Outlier' is a tag that academic studies and reports often use to describe fishing communities. Although fisherfolk contribute significantly to India's economy, their socio-economic conditions have not shown significant improvement, despite the efforts of many stakeholders. In a few developed countries, such as Norway, Canada and Iceland, where fisherfolk have contributed to social well-being and economic growth, their poverty was a matter of concern in early stages of economic progress (Kerala Development Report, 2008). These countries have shown visible development in the socio-economic conditions of fisherfolk. Studies show that their counterparts in developing countries stay marginalized even now. In the face of a pandemic that has pushed many into the hands of poverty, the plight of ever marginalized fisherfolk can be frightful.

The success of any society is reflected in the well-being of its people. The path to social sustainability and integration can be long in a socially segregated and unbalanced milieu. The World Bank has recently rephrased 'social development' as 'social sustainability and inclusion', which is defined as 'addressing long-lasting barriers to development, strengthening the focus on people who have been excluded from economic and social opportunities, and increasing investment in inclusive growth'. This strategy aims to achieve economic and environmental prosperity in tandem. Social development in fishing communities should focus on policies and services for poverty eradication and job generation. Social inclusion can address the needs of people, families and communities and ensure their well-being through successful governance. Social development for fisherfolk exposed to different climatic vulnerabilities can focus on improving the resilience of communities.

Human development in small-scale fishing communities implies an economy in which they can receive 'endowments', 'entitlements' and 'capabilities' (Kurien, 1998). The Voluntary Guidelines for Securing Sustainable Small-Scale Fisheries in the Context of Food Security and Poverty Eradication (SSF Guidelines) were set up to tackle the struggles of small-scale fishworkers. The guidelines' basic objectives are to ensure that small-scale fisheries enhance global food security, contribute to the economic and social future of the planet, contribute to improving the socio-economic condition of fishworkers, and achieve the sustainable use of fishery resources. In this context, it is important to investigate whether policies are inclusive, non-discriminatory and sound towards the fisherfolk community, whether they allow for a reasonable return on labour for men and women in small-scale fishing communities, and whether they encourage the protection and sustainable use of natural resources. As small-scale fisheries produce nearly half of the fish consumed globally, their role is critical for global food security, and thus, sustaining their livelihood is crucial. This livelihood depends on ocean resources, whose sustainability, according to the United Nations (2020), is becoming a significant concern—fish stocks within biologically sustainable levels have been continuously decreasing. The biologically sustainable fish stock in 1974 was 90 percent; this reduced to an alarming level of 65.8 percent in 2017, though deterioration recently has been slowing down (United Nations, 2020a). The SSF Guidelines try to address all these concerns, so it is essential to understand whether states are on par with these guidelines.

1.1. Purpose and Scope

This study aims to provide an overall picture of the social development status of small-scale fisherfolk in the Indian states of Kerala and Tamil Nadu, in the context of the SSF Guidelines.

- I. Review and analyse schemes, legislations and reports to protect human rights in small-scale fisheries.
- II. Analyse the social development status of small-scale fisherfolk in Kerala and Tamil Nadu using available secondary data.
- III. Examine if the above review and analysis establish how social development can contribute to the effective conservation and sustainable use of marine, coastal, freshwater and brackish water biodiversity.

The study will compare the data of both states and address the gaps in the social development of a state's general population and its fisherfolk.

1.2. Limitations

As the study was carried out during the Covid-19 pandemic, in-person interviews were limited. Though a few telephone interviews were conducted, they were less effective and hence have not been used in the study. The lack of data on a few socio-economic indicators, like infant mortality rate, per capita income, etc., of small-scale fisherfolk was another limitation. Similarly, most of the data analysis focuses on marine fisherfolk and has been generalized, due to data unavailability for inland fisheries.

1.3. Methodology

To understand the social development of fisherfolk, a review and an analysis of literature and policy briefs were carried out. Secondary data was consolidated and analysed to understand the socio-economic status of fisherfolk compared to the general population. The socio-economic status and policies of both Kerala and Tamil Nadu were analysed to glean the differences and similarities between both states.

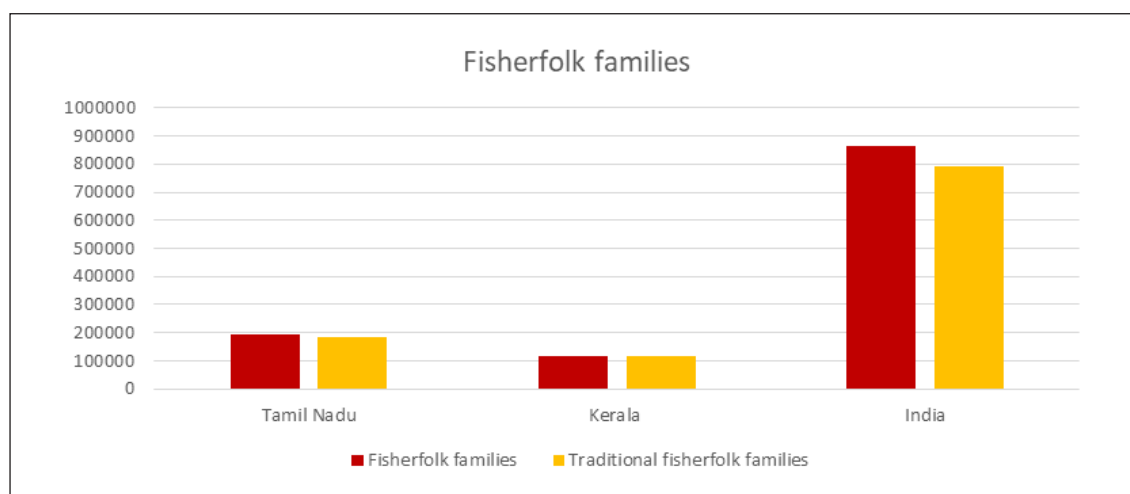
1.4. State Profiles

India, the second most populated country globally, with an estimated population of 1.3 billion people, is also second in the world (after China) in fish production. It has a coastline stretching 8118 km in nine maritime states and four union territories, with a total fisherfolk population of 14.66 million, contributing as much as US\$4845 million (1.47 percent of GDP) to the GVA of India. India has 3288 marine fishing villages and 1511 traditional fish landing centres. The country's inland freshwater resources, which contribute 13 percent of the country's total fish production, consist of 1,95,210 km of rivers and canals, 2.9 million hectares of minor and major reservoirs, 2.4 million hectares of ponds and lakes, and about 0.8 million hectares of flood plain lakes and derelict water bodies (Ministry of Fisheries, 2019).

There are 8,64,550 marine fisherman households, of which 91.3 percent are traditional fisherfolk families. According to estimates of the fisheries department, in 2017, among 1,60,96,975 fisherfolk engaged in fisheries activities, 55,70,217 were women, i.e., approximately 34.60 percent. Women, despite being the primary players in fishing-related activities contributing to household income, food security and the local economy, remain unrecognised (Sharma, 2010). The total marine fisheries population in the country was 39,99,214, with Tamil Nadu and Kerala accounting for 20.1 percent and 15.3 percent of the total population respectively. Most of the fisherfolk belong to traditional fisherfolk families in both Kerala and Tamil Nadu. It appears that these two states, despite being the highest-performing states in human development in India, fail to include their fishing communities in overall development.

The total fish production in India in 2017–18 was 125.90 lakh tonnes, with a contribution of 89.02 lakh tonnes from the inland sector and 36.88 lakh tonnes from the marine sector. Fisheries involve over 160 lakh people at the primary level and many more along the fish value chain. In 2017–18, the volume of fish and fish products exported was 13,77,243.70 tonnes, worth ₹45,106.90 crores (Ministry of Fisheries, 2019). India has recently dedicated a separate department to fisheries and formed the Ministry of Fisheries, Animal Husbandry and Dairying, which could improve the focus on fisheries.

Kerala lies on the southwestern tip of India. It is a relatively smaller state geographically but one of the biggest economically. It accounts for only 2.76 percent of the country's population, but the

Figure 1: Share of fisherfolk families

Source: CMFRI Marine Fisheries Census 2010

average income per person is 1.6 times the Indian average. It can be majorly geographically divided into highlands, mid plains and coastal areas. Kerala is a water-rich landmass that has lakes and backwaters, with 41 rivers flowing to the Arabian Sea and the lakes in the west and three rivers flowing to the east. It is a leading fish-producing state, employing 12 lakh persons and producing an average of 7.5 lakh tonnes of fish (Kerala Development Report, 2008). It generally experiences tropical weather, characterised by mild winters and strong monsoon showers. Kerala has been experiencing its unfortunate share of climate change problems, as it recently witnessed its biggest floods in 100 years, for two consecutive years, and Cyclone Ockhi, which affected the livelihood of fisherfolk severely. Kerala's GSDP grew at 7.5 percent in the year 2018–19, despite the economic crisis in Gulf countries (Kerala's economy depends in part on remittances from these countries). It has 14 districts and is considered to have a politically active population. There are 222 marine fishing villages and 113 inland fishing villages. According to the 2011 census, fisherfolk constitute 3.1 percent of the 334 lakh people in Kerala. The number of active fishworkers in the state in 2018–19 was estimated as 2,42,954, of which 88 percent were men. The number of allied workers in fisheries in Kerala was 84,483, of which 80 percent were women (Kerala State Planning Board, 2019).

Tamil Nadu is another significant coastal state, making up the southeastern tip of India. It has a coastline of 1076 km (approximately 12 percent of the total coastline of India) in 13 coastal districts, out of a total of 37 districts. Geographically, it is divided between flat country along the eastern coast and hilly regions in the north and west, with a tropical climate. It is the 11th largest state in India geographically and has a GSDP of US\$299.32 billion. It ranks fourth in the total fish production of the country. It has a population of 72.14 million, of which approximately 1.5 percent are fisherfolk. In 573 marine fishing villages, there are 1,92,697 marine fisherfolk households, with a population of 8,02,912—48 percent are women. It has an inland fisher population of 2.35 lakh, whose resources come from the 3,83,834.06 hectares of inland water area. Tamil Nadu's coast was also affected by frequent natural disasters, including Cyclone Ockhi, which took away the lives of almost 161 fishers of Tamil Nadu in 2017.

Comparing the population growth of small-scale fisherfolk of these states shows that in both Kerala and Tamil Nadu, the population growth rate of fisherfolk is lower compared to the same of the total population. For Tamil Nadu, the growth rate is much lower than the overall population growth rate. India's scenario is the opposite, as the population growth rate of fisherfolk is greater than the overall population growth rate (Table 1: Population Growth Rate).

Table 1: Population Growth Rate

	Total population (in lakhs)		Annual growth rate	Fisherfolk population (in lakhs)		Annual growth rate
	2001	2011		2001	2011	
Kerala	318.39	333.88	0.46	6.02	6.11	0.14
Tamil Nadu	624.06	721.47	1.45	7.90	8.03	0.16
India	1,147.61	1,234.28	0.73	35.20	40.00	1.28

Calculated from Census 2001, 2011 (GoI), CMFRI Census 2010

Coronavirus, which emerged in Wuhan, China, in December 2019, was the beginning of a new normal. It affected the lives of people all around the world. The pandemic and subsequent lockdowns adversely affected small-scale marine fisheries in both states. Fishworkers' lives were hit hard by the pandemic being contact intensive (International Collective in Support of Fishworkers Trust, 2020).

2. Social Development and Sustainable Fisheries: An Analysis

Though small-scale fisheries employ more than 90 percent of capture fishers and fishworkers, the community remains marginalized. (Jena and George, 2018). Many studies narrate the unfortunate plight of small-scale fishers, whose contributions to food security and nutrition remain unrecognized. As the preface of the SSF Guidelines rightly points out, '[The] small-scale fishing community faces limitations in opportunities they have as they lack alternative livelihoods [and face] youth unemployment, unhealthy and unsafe working conditions, forced labour and child labour.' Literature proves that the development strategies adopted for the betterment of fisheries have always resulted in overexploitation and unsustainability. This led to the adoption of the SSF Guidelines, which attempt to address social development and sustainability of the small-scale fisheries sector. Chapter 6 of the SSF Guidelines exclusively addresses the social development of small-scale fishers. This 18-pointed chapter is dedicated towards ensuring social development, employment and decent work for small-scale fisheries within the rights-based framework. In this context, this chapter tries to address the social development questions wrapped up into 11 sub-sections, which are essential for understanding the socio-economic development of small-scale fisheries in Kerala and Tamil Nadu. The chapter tries to analyse various policies and programmes in the context of the SSF Guidelines.

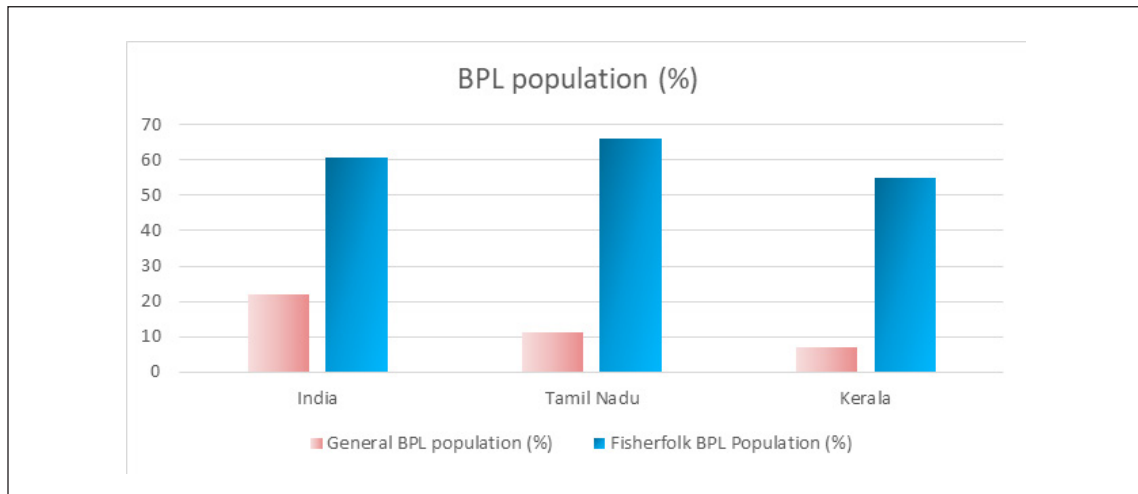
2.1. Poverty Eradication, Food Security and Income

The first, and most critical, SDG, 'ending poverty in all its forms', remains one of the biggest challenges. Covid-19 has caused the first increase in global poverty in decades (United Nations, 2020a). It is estimated that more than 71 million people have been pushed into poverty in 2020. Furthermore, reports suggest that natural disasters intensify poverty, and the fisherfolk population is one of the most exposed to frequent natural disasters.

India stands 62nd among 107 nations in the Multidimensional Poverty Index (MPI), with a score of 0.123,¹ and 21.2 percent of its population lives below the poverty line. Kerala and Tamil Nadu have 7.05 and 11.28 percent of their population living below the poverty line respectively, but the share of the same among fisherfolk is much higher in both states. Figure 2 compares the percentage of the general population with fisherfolk population living below the poverty line. The figure clearly shows a worrying picture that proves that more than half of the fisherfolk population lives in poverty. 66.08 percent of fisherfolk in Tamil Nadu is below the poverty line, whereas in Kerala, it is 55.03 percent, which is five to six times more than the average population under poverty. Their economic deprivation as a community and the level of economic marginalization of fisherfolk need to be addressed. Kerala, which ranks first in the HDI and Inequality Adjusted HDI among India's states, has more than half of its fisherfolk population below the poverty line, making the HDI values a mere average that do not reflect the overall picture. So is the case with Tamil Nadu. Comparing to Kerala and the whole country, Tamil Nadu has a greater share of BPL fisherfolk.

Kerala takes credit for Asia's largest women's empowerment project, Kudumbashree, which has become the state's biggest poverty eradication programme. It helped transform Kerala's women's lives and improve the life and livelihood of more than 5 million people in Kerala. It is a community network covering the entire state, comprising women's self-help groups (SHGs) under the theme of poverty eradication and women's empowerment. This successful poverty eradication programme is connected to the development activities of the local government, contributing towards social development. The programme has 44.91 lakh members and covers more than 50 percent of the households in Kerala. Women from fisherfolk communities have also been beneficiaries of this

¹ MPI ranges from 0 to 1, higher values meaning more poverty.

Figure 2: Comparison of share of below poverty line population (2011)

Data Source: Indiatat, CMFRI Marine Fisheries Census 2010

programme. Participation in Kudumbashree has been found to have a positive impact on coastal women, as it has been helping them economically and socially (Ali and George, 2019).

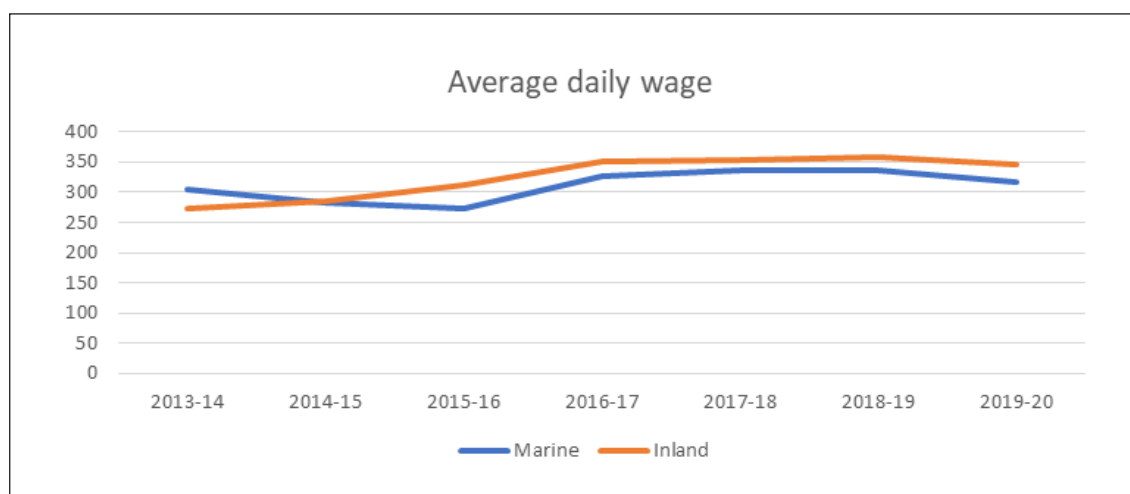
Similarly, the Mahatma Gandhi National Rural Employment Guarantee Scheme (MGNREGS), which is a centrally sponsored scheme, guarantees 100 days of employment per year to rural households. The wage rate of workers under the MGNREGA in 2020–21 is ₹291 in Kerala, which is the third-highest wage rate in India, preceded by Haryana and Sikkim as the first and second highest. Tamil Nadu has a wage rate of ₹256. Coastal women say that the MGNREGA has provided them with better economic security than Kudumbashree because the latter has risk involvement and one had to acquire specific skills to run the business (Ali and George, 2019).

Kerala and Tamil Nadu have established and successfully carried on the public distribution system (PDS). PDS covers almost all households in Kerala, and it has been a robust scheme for food security in the state. According to the Government of Kerala (2005), there are 14,139 ration shops in the state. Tamil Nadu also has a PDS that provides subsidies to those who cannot afford to buy at market prices. According to the Government of India's targeted public distribution policy, households are classified based on economic criteria, and subsidy is provided accordingly. In Kerala and Tamil Nadu, 55 percent and 66 percent of fisherfolk families respectively are entitled to benefit from the above scheme, as they are classified as BPL households.

Another scheme that aims at poverty eradication is the free noon meal scheme for schoolchildren in Kerala, which was inspired by a similar programme in Tamil Nadu. This feeding programme covers all the primary schools in areas where children of fishers formed the majority of the students (Government of Kerala, 2005). One of the significant issues active fisherfolk face is the question of their livelihood in the fish banning period, and both Tamil Nadu and Kerala have a provision of financial assistance named 'Saving cum Relief Scheme', which is vital for the sustainability of marine resources as well as the sustenance of fishing communities.

Figure 2 showed the status of marine fisherfolk alone. In order to understand the standard of living status of inland fisherfolk, we can compare their average daily wage, as data is limited. Figure 3 shows that the average daily wage earning of inland fisherfolk is slightly higher than marine fisherfolk. However, it also shows that over the years the increase in wages is less in marine than in inland. This can signify that compared to inland fisherfolk, the economic status of marine fisherfolk is poor inland sector.

Covid-19 and the subsequent lockdown affected SSFs adversely. Small-scale fishers who depend on daily catches lost their accessibility to the coast, as lockdown mandates social distancing

Figure 3: Average daily wage rate of inland and marine fisheries

Data Source: Indiatat

(Fernandes, 2020). Though there were relief packages from the state, it was not enough to make up for what they would need to sustain the monsoon ban period. Fisheries were exempted from the lockdown by the ministry, yet it did not reduce the impact on their livelihood. They had to suffer a huge loss, as 10,000 metric tonnes of fish catch had to be dumped back into the sea because of the lockdown (Chatterjee, 2020). Reports suggest that Kerala better handled Covid-19 as it had food kits delivered through the PDS .

2.2. Employment, Decent Work and Social Security

In Kerala and Tamil Nadu, there are 1,45,396 and 2,14,064 active fishermen respectively. That is, 51 percent of Tamil Nadu fisherfolk and 46 percent of Kerala fisherfolk are occupied in active fishing (Central Marine Fisheries Research Institute, 2010).

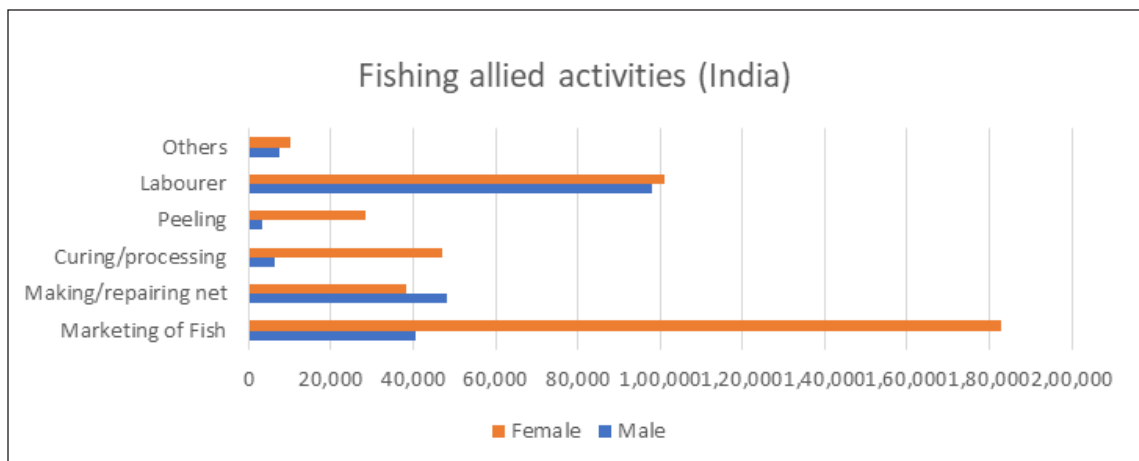
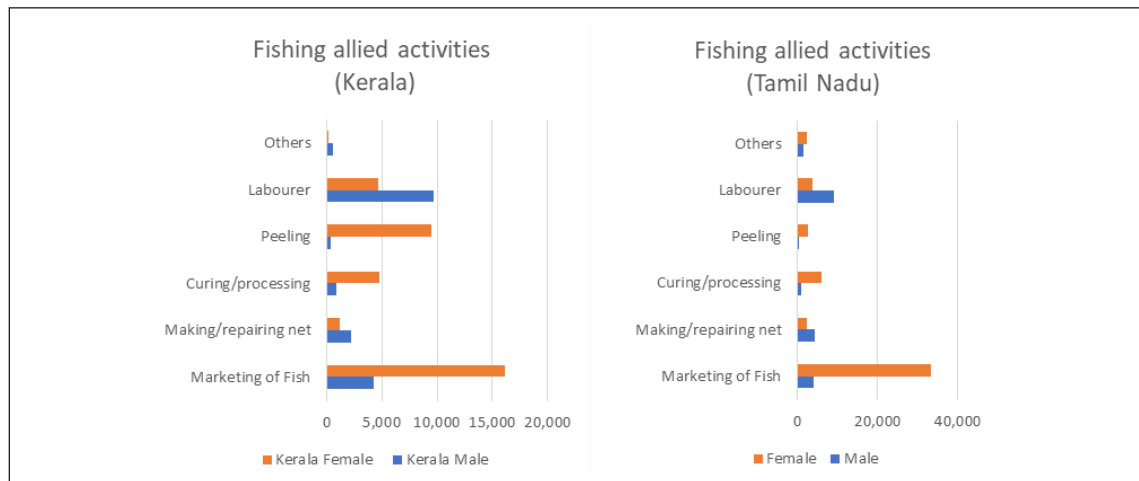
When we look into the status of fishing allied activities, women are found to outweigh men. Figure 4 shows various fishing allied activities shared by men and women. In both Kerala and Tamil Nadu, women dominate the marketing of fish. In the rest of India, too, the scenario is the same. Men only outnumber women as labourers and in making and repairing nets.

Alternative employment opportunities are necessary for fisherfolk, as their employment is characterized by seasonal fishing bans. As mentioned, MGNREGA is one of the most popular and powerful employment generation schemes present in India. Both Kerala and Tamil Nadu have been executing it in coastal areas. The Kudumbashree programme, also mentioned previously, is an excellent alternative employment programme for women in coastal areas. Rashtriya Krishi Vikas Yojana, by the Government of India, aims to strengthen aquaculture by promoting sustainable ornamental fisheries.

Similarly, the project Matsya Samrudhi in Kerala aims to increase new employment opportunities through the development of inland and brackish water aquaculture. It is part of the project Integrated Development of Inland Fisheries and Aquaculture, aiming to diversify freshwater aquaculture, development and extension of training. As part of the expansion of livelihoods of marine fisherfolk, Kerala has an umbrella project named Theeramythri. This scheme focuses on the integrated development of fisherfolk's sustainable livelihoods. It envisions to promote alternative livelihoods to improve the income levels of fisherfolk. It also aims to improve their technical efficiency by providing training.

Marine capture fishing is one of the most dangerous jobs in the world. This occupation is characterized by seasonal fishing bans, sensitivity to climate change, etc., which makes it even

Figure 4: Number of fisherfolk in various fishing allied activities



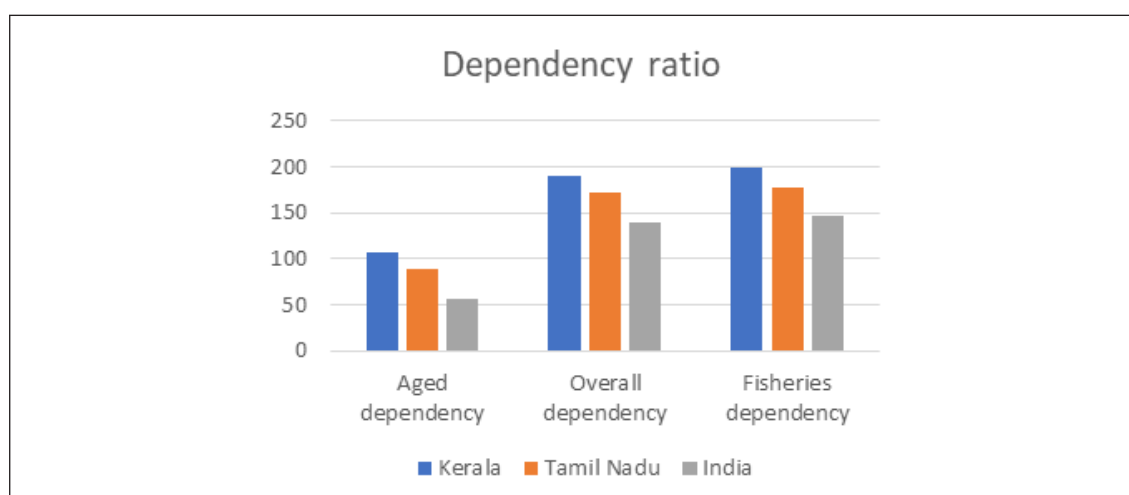
Date Source: Marine Fisheries Census 2010

more uncertain. So fisherfolk deserve to be protected by the strongest social security policies. Kerala and Tamil Nadu have several such policies that target fisherfolk. Though fisheries dependency is high compared to other states in India, the aged dependency is lowest in Tamil Nadu and Kerala. Yet pensions to old-aged fishers have been provided with ₹450 per month. The overall dependency is high in Kerala, which has a policy of widowed pension of the same amount per month. While the pension of fishing allied workers is missing, a group insurance policy for both active fishermen and allied workers is present in Kerala. Accidental death is covered in these two insurance schemes.

The modernization of crafts and insurance coverage of fishing implements have been given by the state. Furthermore, to improve the working conditions of fisherfolk, the state provides assistance to establish common facility centres and modern hygienic fishing market centres. This ensures a hygienic environment for dealing with fish and fish products.

Kerala has almost 35 social security schemes, and over 3 percent of the state’s budget is spent on social security measures (Government of Kerala, 2005), which ultimately focus on poverty alleviation, food security and financial inclusion.

Kerala has a provision of old-age pension for fishworkers, one of the 17 old-age pension schemes in the state that has benefited 28,130 fishworkers as per 2003 estimates (Government of Kerala, 2005).

Figure 5: Dependency ratio of fisherfolk

Data Source: Syda Rao et al., 2016

Tamil Nadu provides financial assistance of ₹5000 to marine fishing families during the fishing ban period and lean fishing period. It also supplies tax-exempted high-speed diesel to mechanized and motorized fishing crafts, where subsidised industrial kerosine is being provided to traditional fishing crafts. Tamil Nadu provides a daily allowance of ₹250 per day to the family of marine fishermen apprehended by other countries and the families of missing fishermen. The state provides relief to families of deceased or injured marine fishermen who end up being the victim of unfortunate incidents like shootings or harassment of foreigners. In the case of Tamil Nadu fishers, there have been reported incidents of fishers who fish in the Palk Bay being shot by the Sri Lankan Navy. An amount of 3 to 5 lakhs is provided to their families in case of such incidents. A corpus fund has been created by the state for the higher education of the children of those fishermen. To ensure disaster preparedness, Tamil Nadu's fisheries department has taken measures such as informing fisherfolk of updated weather conditions and providing inflatable rubber boats. Similar to Kerala, group accident insurance schemes for fishers as relief assistance in accidental death, missing and permanent disability are provided.

When we compare both states in their per capita social security and welfare expenditure, Kerala is marginally ahead of Tamil Nadu, occupying the third rank among the rest of the Indian states. Social security measures as grants and insurances are present in both the states, but it is not equal to alternative employment opportunities, which seem limited. During the Covid-19 fishing ban, the central government has given monetary compensation to the affected fisherfolk. It also exempted small-scale fisheries from lockdown by allowing access to the coast and provided personal protection equipment to reduce health risks. Periodic markets were also allowed during the lockdown to sustain the livelihood of fishworkers (Fernandes, 2020).

2.3. Social Inclusion

The social development report of Kerala characterises the fisherfolk community as one of the outlier communities of the state (Kerala Development Report, 2008). The community reports high child mortality, low literacy, low electrification of houses, low access to drinking water and poor sanitation (Government of Kerala, 2005). If we look at all of India, the most vulnerable and socially excluded are those who belong to SCs/STs and fishing communities. Be it economically, socially or politically, SCs/STs and fishing communities in India, including in both the states, are found to be backward. Article 15 of the Constitution of India prohibits discrimination on all grounds. Though the Constitution promises equal access and opportunity for all citizens, backward communities remain deprived socially and educationally even after all these years of independence.

India has a reservation policy that ensures equitable access to SCs/STs and Other Backward Classes. However, only 2 percent of fisherfolk in Kerala belong to the SC category, and only 6 percent of them in Tamil Nadu belong to the SC/ST category.

Social inclusion in Kerala began with radical reforms in the 1960s. These reforms, which delivered the rights of landless agriculture labourers, was a landmark movement in Kerala, the foundation stone of the relatively higher social and political standards of the people of the state. It can be argued that the social backwardness of the traditional small-scale fisherfolk community is also correlated to their lack of access to land rights. The question of land rights is alien to most among the fisherfolk community. The Coastal Regulation Zone Notification (CRZ), 1991 is the first legislation that has mentioned the rights of the land of small-scale fisherfolk in the coastal zone, although it was not concrete. Title deeds right for fishers are not popular in Kerala or Tamil Nadu. 38 percent of the fisheries households in Kerala have land holdings of less than 5 cents, 8.5 percent live in Puramboke and 8.1 percent in government land (Kerala State Coastal Area Development Corporation Ltd, 2012).

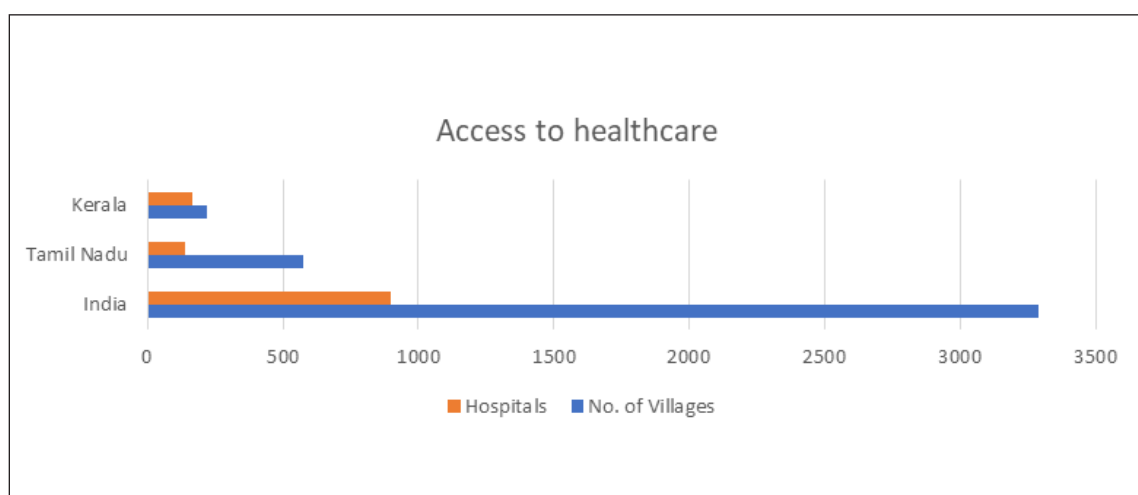
Though there is a firm reservation policy in India that is said to be strictly followed in educational institutions and with government jobs, the plight of the SC/ST community remains—they continue to have less access to justice. If that is the case with a section of society included in the reservation policy, we can imagine how difficult things are for those not included in any official policy of reservation.

2.4. Health and Nutrition

To ensure healthy lives and to promote well-being for all at all ages is one of the most challenged SDGs in 2020. Less than half of the global population has access to essential health services, and Covid-19 can reverse decades of improvement (United Nations, 2020). Moreover, health status, which was very poor among fisherfolk, has not shown adequate improvement over the years (Government of Kerala, 2005).

Figure 6 shows that in India, the ratio of the number of hospitals to the number of fisherfolk villages is low. More than half of India's fisherfolk villages have no hospitals nearby, which means that access to healthcare is limited. The situation is similar in Tamil Nadu, as only a few fisherfolk villages have hospitals nearby. When comparing the two states, Kerala fares better. Though not every village has a hospital near it, more than 75 percent of fisherfolk villages have easy access to healthcare. The estimates show that Tamil Nadu fisherfolk villages' lack of healthcare access is a critical issue.

Figure 6: Access to healthcare for fisherfolk



Data source: Marine Fisheries Census 2010

The Kerala government has fisheries dispensaries to provide health services to fishers, but the state accepts that the existing dispensaries are insufficient and has allocated more money for improvement. Moreover, as there is a lack of safe drinking water in coastal areas (Kerala State Planning Board, 2019), unhygienic drinking water sources are breeding water-borne diseases. To prevent such diseases in coastal areas, Kerala has implemented Jagratha, a programme to contain communicable diseases. The supplementary nutrition programme for preschool kids and nursing mothers implemented by the Government of Kerala is through many women's welfare associations, although studies have mentioned it as not significant in terms of quantity (Government of Kerala, 2005).

2.5. Literacy and Education

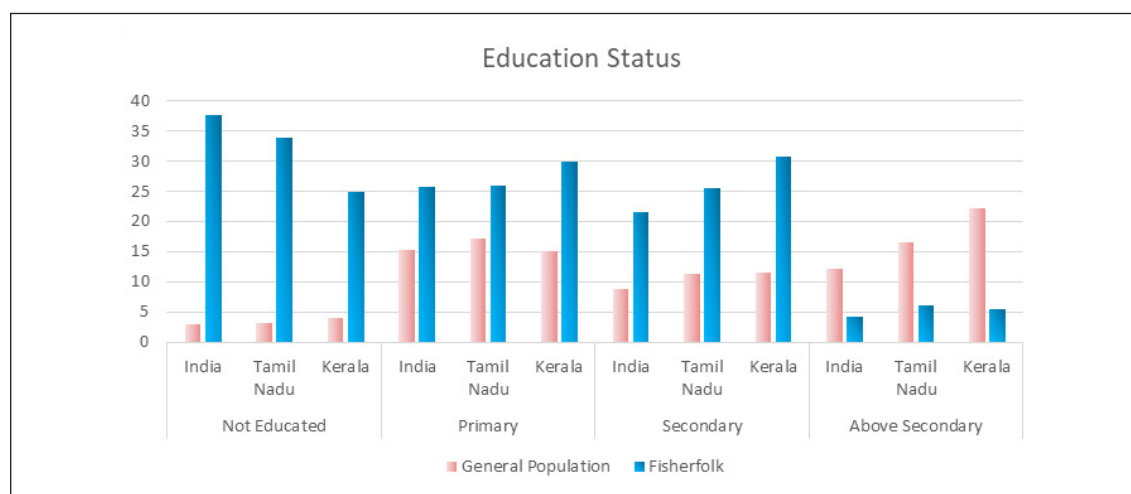
The United Nations (2020) marks that progress in inclusive and equitable quality education remains to be too slow. Access to quality education is a significant social development indicators. Figure 7 shows the comparison between the education status of the general population and the fisherfolk population. The percentage of the population that is not educated is higher among fisherfolk compared to the same in the general population. In both Kerala and Tamil Nadu, a significant percentage of the fisherfolk population is not educated. The cases of primary and secondary education are the same. A higher percentage of fisherfolk have only primary and secondary education in Tamil Nadu and Kerala, compared to their general population counterpart. Evidently, the share of the population that has studied above secondary is less in the fisherfolk population than in the general population. This can mean that the advancement of education has not been trickling down to fisherfolk in either state.

Fisherfolk population also have less access to higher education in both states, which is a social inclusion problem.

When we look at the status of education of fisherfolk over the years (Figure 8), we can infer that the percentage share of fisherfolk population in India and Tamil Nadu who never had any schooling has been reducing slowly over three decades. In Kerala it seems to increase but is still lower than in Tamil Nadu. There is not much improvement in the share of the population who has studied above the secondary level in both states even after three decades, which must be addressed.

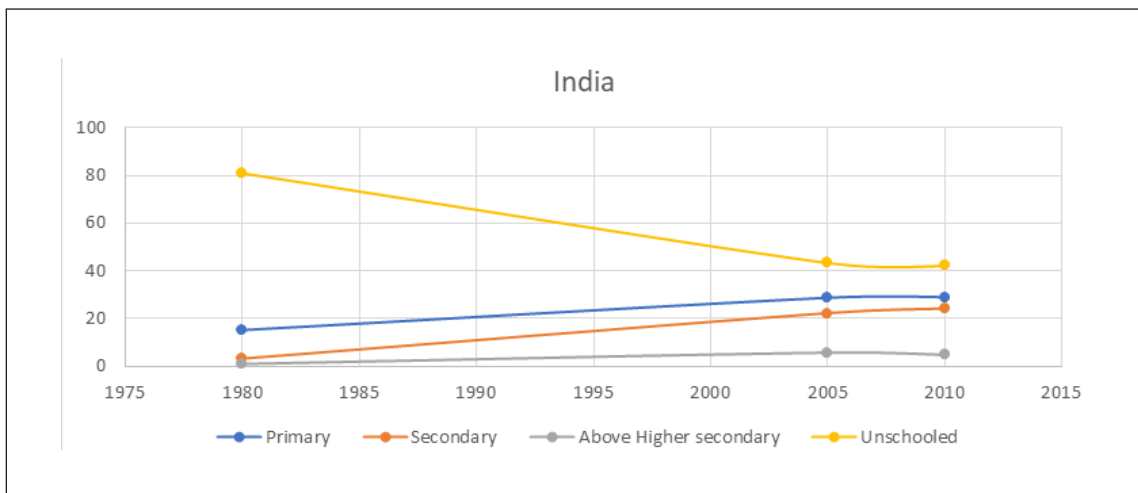
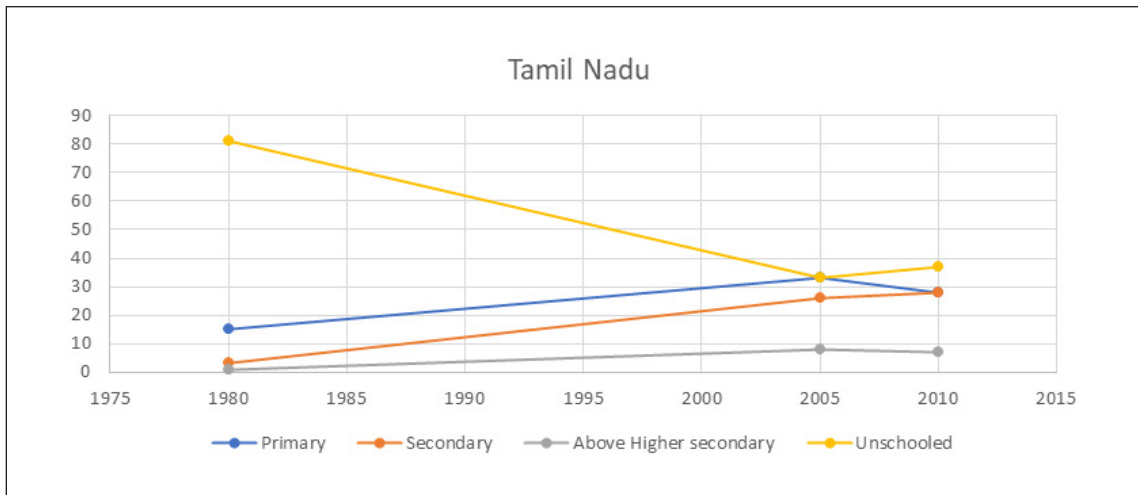
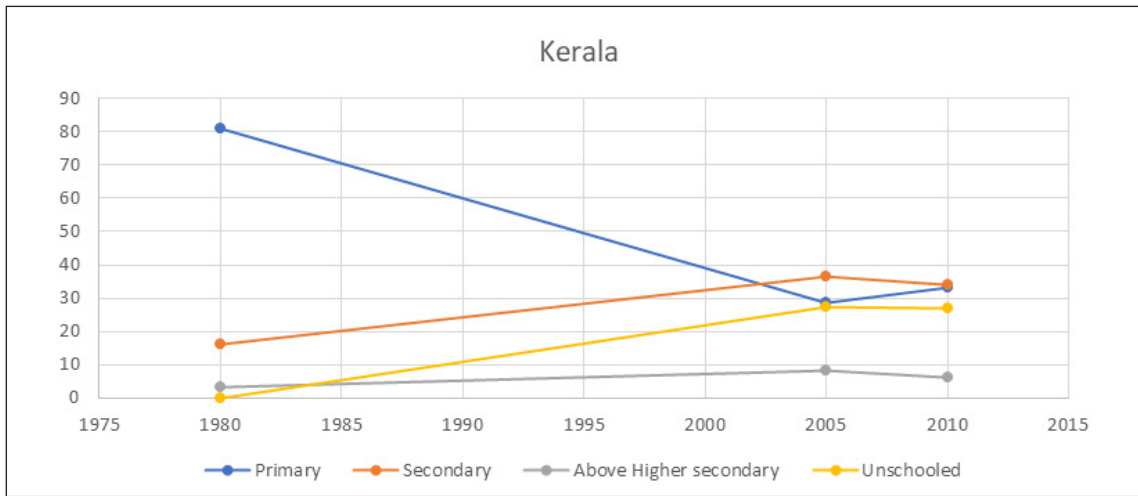
When we look at the female education level in both the general population and fisherfolk population, the share of fisherfolk women who have not attained any formal education seems to be very high. The percentage of women who have only primary and higher secondary education

Figure 7: Comparison of status of education



Data Source: Ministry of Statistics and Programme Implementation, Govt. of India, CMFRI Marine Census 2010

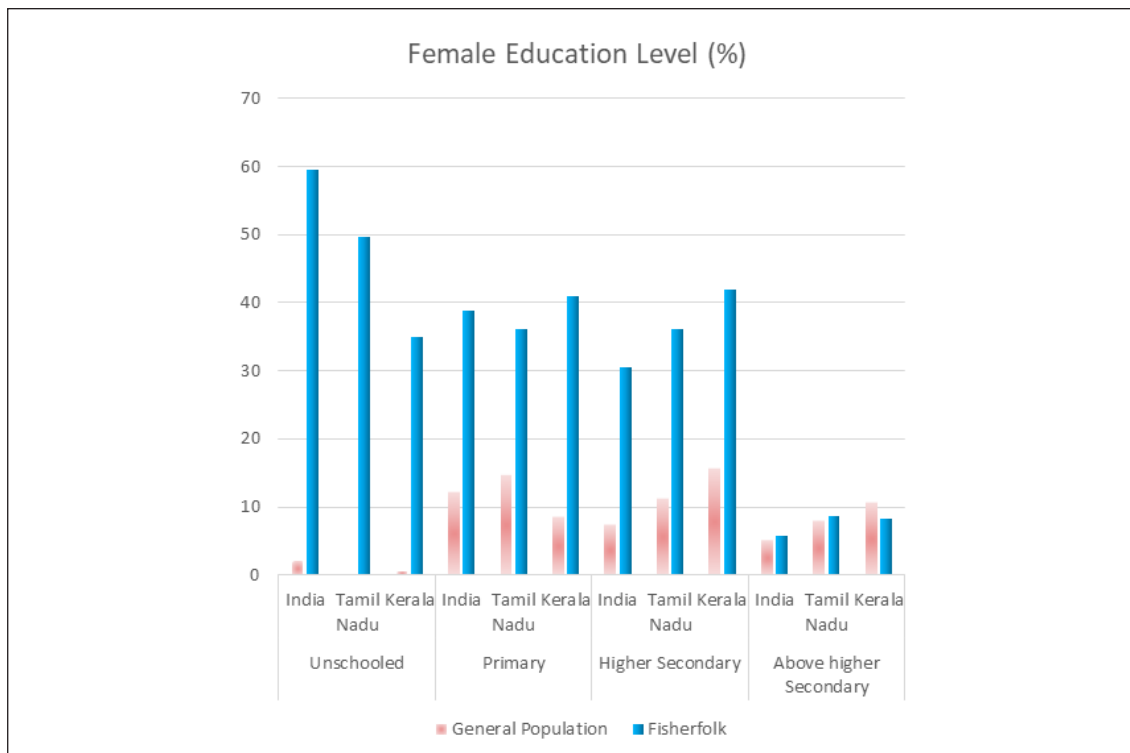
Figure 8: Education Education status of fishing communities over the decades



Data Source: Marine fisheries Census 1980,2005,2010

is higher among fisherfolk than in the general population. When the overall percentage of women who have studied above higher secondary is low, it is interesting to note that the percentage of fisherfolk who have studied above higher secondary is more than the general average. Thus, a significant number of women are not educated in the fisherfolk population, which is a serious concern.

Figure 9: Comparison of education status of females

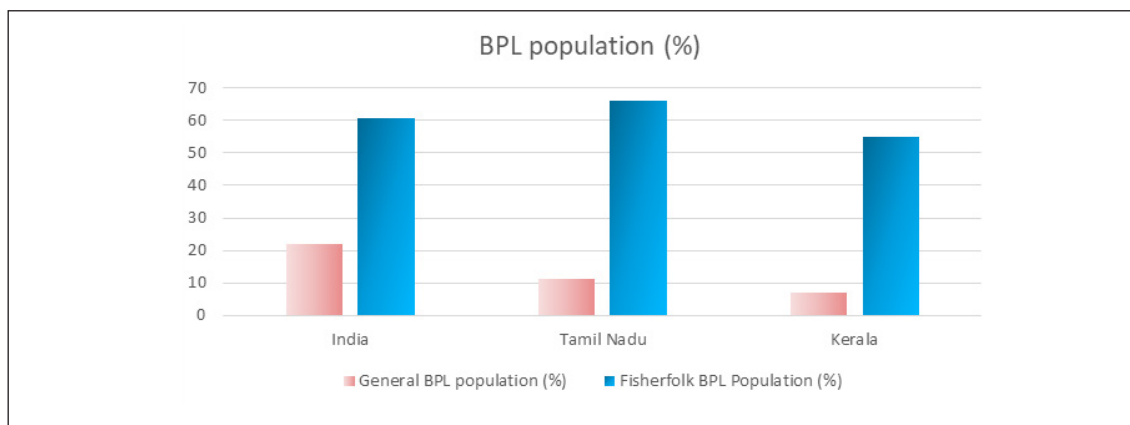


Data source: Ministry of Home Affairs, Govt. of India, CMFRI Marine Census 2010

There are various policies for the educational upliftment of fisherfolk in Kerala. The schemes include Aksharasagaram (to wipe out illiteracy in coastal regions), educational assistance for fisherfolk children for post-matric studies, career guidance programmes, medical entrance coaching programmes, civil service coaching, PSC, UPSC coaching and housing programmes. In addition, Kerala provides educational concessions to the children of registered non-Hindu fishers.

The Kerala Human Development Report rightly points out the importance of expanding residential fisheries technical schools from the primary level, where students will have the advantage of being exposed to the traditional knowledge systems of their parents along with the latest technological and institutional arrangements (Government of Kerala, 2005). There are already ten fisheries technical schools in Kerala.

Figure 10: Comparison of housing condition



Data Source: Ministry of Statistics and Programme Implementation, Govt. of India, CMFRI Census 2010

Covid-19 has exposed the inequality in access to educational resources. The children of fisherfolk families faced disruption in their studies as most of them did not have access to smartphones and the Internet (*Economic Times*, 2020). Being denied equal opportunities and access to online classes, these children have proved to be at the extremely unfortunate end of the digital divide.

2.6. Housing

Housing is a concerning issue among fisherfolk in both Kerala and Tamil Nadu. A lack of finances and a scarcity of land result in poor housing conditions (Kerala State Coastal Area Development Corporation Ltd, 2012). The housing problem of fisherfolk is a unique case compared to the general population. Because of their occupational characteristics, it is not easy for them to move away from the coast. When we compare with the general population, in both Kerala and Tamil Nadu, the percentage of people living in kutcha houses seems to be high in the fisherfolk community. However, when we look at the country scenario, too, the average percentage of kutcha houses in general is lower than the percentage of kutcha houses lived in by fisherfolk.

The most popular central scheme for housing in India is the Pradhan Mantri Awas Yojana–Gramin (PMAY–G). The scheme selects its beneficiaries from the Socio-Economic and Caste Census data. The beneficiary would be facilitated to get institutional finance up to ₹70,000. The construction of toilets has been made an integral part of the PMAY-G house, for this fund is being provided from the scheme Swachh Bharat Mission–G or MGNREGS.

In 2016–17, the construction of 46,166 new houses was completed, whereas in 2017–18 (up to August 31, 2017), 6377 new houses under the scheme PMAY–G have been completed. Since 2017–18, the activities of PMAY–G in Kerala have been taken under the project LIFE Mission. The housing issue of fisherfolk families in Kerala was addressed under the scheme Basic Infrastructural Facilities and Human Development of Fisherfolk, under which the rehabilitation of fisherfolk is taken care of. The scheme has a provision to purchase land and built houses (Kerala State Planning Board, 2019). As a result, 942 fisherfolk received assistance in 2018–19. Another scheme is the National Fishermen Welfare Fund Assisted Housing Scheme, in which housing will be provided to fisherfolk under the model village programme. In 2017, the Ministry of Fisheries of Kerala announced that fishermen would be offered financial assistance up to ₹4 lakh each to construct houses and ₹6 lakh each to buy land (*The Hindu*, 2017).

As the Government of Kerala (2005) suggests, the long-term solution for fisherfolk housing is to get private and government land close to the sea but outside CRZs.

2.7. Sanitation, Drinking Water and Energy Schemes

Water-borne diseases are common in coastal areas. There are several policies and programmes for the provision of sanitation and clean drinking water. The state has implemented a scheme named Rain Centre in coastal areas with limited access to potable water to promote rainwater harvesting and groundwater recharge (Kerala State Planning Board, 2019). Pradhan Manthri Krishi Sinchayee Yojana (PMKSY) is an integrated watershed management programme by the central government for the conservation of water. Kerala has a scheme for drinking water to be supplied to fisherfolk in marine districts. The state was declared open defecation–free on November 1, 2016.

2.8. Climate Change and Natural Disasters

Coastal citizens are among the most vulnerable to climate change and natural disasters. The yearly monsoon season in 2018 severely affected India, causing the worst floods and landslides in 100 years in Kerala, taking the lives of 324 people. More than 2,20,000 people evacuated their homes. The previous year saw both Kerala and Tamil Nadu impacted by Cyclone Ockhi,

which claimed the lives of hundreds of fisherfolk. Unaddressed climate change will increase inequality (United Nations, 2020b) which is especially true in the case of fisherfolk communities. Natural disasters can reverse their social development progress because of their climate change sensitivity.

In Tamil Nadu, to strengthen the resilience capacity of fisheries, they have schemes like Fisheries Management for Sustainable Livelihood–II, which includes activities to improve socio-economic standards and safety for fishers. Through this, they provide skill upgradation training, alternate livelihood assistance for seaweed culture and capacity building.

As climate change directly affects the fisheries sector, the Tamil Nadu government has taken many steps for shore protection, the safe berthing of fishing crafts, and the construction of fishing harbours, groynes and RMS wall in the coastal district. In addition, the government has also been conducting various awareness programmes for the public on the impacts of climate change.

2.9. Institutions, Associations and Cooperatives

‘Without genuine people’s participation in the form of collaborative and/or adversarial collective action, such well-intended actions serve little purpose’ (Kurien, 1995). Such collective action has paid off dividends in a short period of time, with improvements in literacy, access to land, housing electrification and sanitation (Government of Kerala, 2005). There are a number of cooperatives and institutions working for the upliftment of fisherfolk.

Kerala has a dedicated fisheries department that undertakes development activities. The Kerala State Coastal Development Corporation (KSCADC) is a wholly owned state government company that was formed for development activities in the coastal area. It takes care of development activities such as coastal infrastructure development, technology acquisition, fisheries infrastructure development, commercial operation and consultancy (Kerala State Planning Board, 2019). The following are the associations and cooperatives that work for fisheries in Kerala:

- Kerala State Cooperative Federation for Fisheries Development Ltd (Matsyafed)
- Agency for Development of Aquaculture, Kerala (ADAK)
- Kerala Fishermen’s Welfare Fund (KFWEB)
- State Fisheries Resource Management Society (FIRMA)
- Fish Farmers Development Agency (FFDA)
- Kerala State Coastal Area Development Corporation (KSCADC)
- National Institute of Fisheries Administration and Management (NIFAM)
- Society for Assistance to Fisherwomen (SAF)
- Kerala Aquaventures International Limited (KAVIL)

The Kerala Fisheries Welfare Board also takes care of the development activities of fisherfolk. Matsyafed is one of the most important bodies in Kerala. It is an apex federation of 656 primary fisherfolk development cooperatives, of which 122 are women cooperatives. Matsyafed has 335 marine sector fisherfolk cooperatives and 199 inland cooperatives. Matsyafed has been organizing development activities such as providing microcredit, enabling fisherfolk to access vital fishing inputs and assisting in the modernization of traditional fishing crafts. Credit needs to develop marketing facilities of primary cooperatives affiliated to Matsyafed are the agenda of integrated fisheries development project assisted by NCDC. Interest-free loans are made available to fishers. Activities covered by the project include the modernization of fishing gear, the community ownership structure for fishing gear, the increase in net income of fishers with better pricing for the catch, the strengthening of primary fishermen’s cooperatives, etc.

The Society for the Assistance of Fisherwomen (SAF) is an agency dedicated to developing and empowering fisherwomen in Kerala. It helps improve alternative livelihoods for these women by

providing support for micro-enterprises, capacity building training and technology improvement support. Fisherwomen also benefit from SAF's 'Theera Naipunya' scheme, which seeks to equip fisherwomen below the age of 30 for the future. In addition, the Kerala University of Fisheries and Ocean Studies was founded in 2010, aiming to initiate new research and education programmes.

There are a number of political unions for fisherfolk in Kerala, the major one being the Kerala Swathanthra Matsya Thozhilali Federation. In addition, NGOs such as the South Indian Federation of Fishermen Societies (SIFFS) and ICSF also work for fisherfolk's welfare in both states.

Tamil Nadu formed District Fish Farmer Development Agencies (DFFDA) to generate employment opportunities in rural areas. Activities include providing technical assistance to promote fish culture through subsidy assistance and training programmes.

Like Kerala, Tamil Nadu also has an apex body of fisheries cooperatives, named Tamil Nadu State Apex Fisheries Cooperative Federation Limited (TAFCOFED). The apex consists of 484 marine fisherfolk cooperatives, 155 inland fisherfolk cooperatives, 174 women fisherfolk cooperatives and nine district fisherfolk cooperatives. TAFCOFED operates modern fish stalls in order to supply quality fish. In addition, it assists in the development of infrastructure. The apex also has insurance schemes for traditional country boats that assure 100 percent insurance coverage and microcredit for fisherwomen for seaweed farming. In order to inform fisherfolk of various government schemes that benefit them, TAFCOFED publishes a quarterly newsletter called *Meenvala Kalanjyam*. They have also established cooperative stores for the supply of gas cylinders, fishing nets and essential commodities to fishers.

2.10. Access to Justice

Access to justice is critical but challenging in contemporary India, especially when one is underprivileged. The following are the acts and rules that are related to fisherfolk in Kerala:

- The Kerala Marine Fishing Regulation Act, 1980
- The Kerala Marine Fishing Regulation Rules, 2018
- The Kerala Fishermen Welfare Fund Act
- The Kerala Fishermen Welfare Fund Scheme
- The Kerala Fishermen Welfare Societies Act, 1980
- The Kerala Fishermen Welfare Societies Rules, 1980
- The Kerala Fisheries Service Special Rules, 1962
- The Kerala Monsoon Fishery (Pelagic) Protection Act, 2007 (13 of 2007)
- The Kerala Fishermen's and Allied Workers Welfare Cess Act 2007 (9 of 2007)
- The Kerala Fisheries Debt Relief Act, Commission Act, 2008 (18 of 2008)
- The Kerala Fisheries Debt Relief Rules
- The Kerala Inland Fisheries and Aquaculture Act, 2010
- The Kerala Inland Fisheries and Aquaculture Rules, 2010
- The Kerala Fish Seed Act, 2014 (4 of 2015)
- The Kerala Fish Seed Rules, 2018

Tamil Nadu has various schemes to provide small-scale fisherfolk access to marine resources and markets. The restoration of the traditional fishing rights of Indian fisherfolk in the Palk Bay area is one of the topmost agendas of the Government of Tamil Nadu (Jayakumar, 2020).

Tamil Nadu, similar to Kerala, has the Tamil Nadu Fishermen Welfare Board, which works towards ensuring social security in the fishing community.

The Tamil Nadu Fisheries Development Corporation Limited is a public sector undertaking that takes care of fisheries' commercial activities. Their activities include fresh fish marketing, seafood courts, kerosine sale, reservoir fisheries, ornamental fish production, etc. In addition, the state has established a fisheries university named after its former chief minister—Tamil Nadu Dr J Jayalalithaa Fisheries University.

2.11. Social Development towards Sustainability

The vision statement of the Department of Fisheries of Kerala is 'Sustainable utilization and development of fisheries sector, both marine and inland, aiming to economic growth, food and nutritional security and for socio-economic development of fisherfolk'. As time moves, it is getting more crucial to protect small-scale fishers as they contribute to sustainable food security. Sustaining their livelihood and their contribution to food security depends on the sustainability of ocean resources. Illegal and unreported fishing is a threat to the sustainability of fisheries. Estimates suggest that the proportion of fish stocks within the biological sustainable level has been decreasing. Sustainable fisheries can be achieved by adopting specific initiatives to implement the SSF Guidelines.

Kerala's scheme for conservation and management of fish resources includes the enforcement of the Kerala Marine Fisheries Regulation (KMFR) Act and resource conservation focusing on fishery resources. This is done by providing funding for the enforcement of the KMFR Act and taking care of communication expenses, the maintenances of wireless communication networks and the registration and licensing of fishing vessels. The scheme also includes the enforcement of backwater patrolling and the prevention of illegal fishing in estuaries, mouth bars and backwaters. The scheme is implemented through the Department of Fisheries. In addition, Kerala has launched an eco-sustainable programme for the development of its fishing communities.

Among Tamil Nadu's schemes for marine and coastal ecosystem sustainability is an online registration of fishing vessels. Another is to effectively regulate harvesting and overfishing and unreported/unregulated fishing.

The Tamil Marine Fishing Regulation Act focuses on:

- a) Technological interventions to conserve fisheries resources
- b) Deployment of artificial reef
- c) Sea ranching
- d) Diversification of fishing methods
- e) Reduction of fishing pressure by providing alternate livelihood activities to fisherfolk
- f) Management of fisheries resources through a participatory approach

Tamil Nadu similarly imposes a seasonal fishing ban during the fish breeding season every year. In addition, the state government had been notified to fix turtle excluder devices during a specified period and prohibit fishing in a radius of 5 nautical miles around the potential turtle nesting and breeding grounds. Under the World Bank-funded CDRRP's Fisheries Management for Sustainable Livelihood-II (FIMSUL-II) project, activities improving fisheries' socio-economic standards and safety are taken care of.

In order to promote sustainable fisheries, the department has taken numerous steps, such as implementing Maximum Sustainable Yield in fishing, providing small-scale artisanal fishers with access to marine capital and markets, managing the use of ocean wealth, adopting a code of conduct for responsible fishing, converting trawl fishing boats into deep-sea fishing boats, implementing fishing ban periods, deploying artificial reefs, ranching fish seeds, developing cold chain facilities and creating awareness of sustainable fishing practices (Jayakumar, 2020).

3. Conclusion and Recommendations

3.1. Conclusion

The two mutually inclusive goals of social development and sustainable fisheries need to come into urgent focus in the context of small-scale fisheries. What we have seen through this analysis is that there are several schemes and policies in both the states that work towards the social development of small-scale fisherfolk. Nevertheless, there is a long way to go. In many of the social development indicators, fisherfolk are way lower compared to the general population. In both Kerala and Tamil Nadu, while their general population shows relatively better development, it has not trickled down to the fisherfolk population. Economically, socially and politically, fisherfolk tend to lag behind. Though there are promising policies and programmes in place, the social development status clearly shows that fisherfolk need a big push to achieve better social development.

3.1.1. Poverty Eradication, Food Security and Income

More than half of the fisherfolk population in Kerala and Tamil Nadu are below the poverty line. This proportion is substantially greater than the proportion of BPL people in the general population of both states. Though there are several poverty alleviation policies, there has not been a sizeable improvement in their condition. In fact, over the years, there has been significantly less improvement in the standard of living of fishers in both states. Policies and programmes for fisherfolk need to exclusively address their problems, as this community's vulnerability is greater than others. A few of the economic, social and cultural characteristics unique to fishing communities have prevented their members from reaching a degree of 'capability' commensurate with that of members of other Kerala communities (Kurien, 1995). Frequent natural disasters also reverse their development. In order to reduce poverty among fisherfolk, climate change resilience has to be the priority.

3.1.2. Employment, Decent Work and Social Security

For fisherfolk, the culturally conditioned livelihood (Kurien, 1998) tends to have many disadvantages, including the least possibility of mobility out of employment. On the other hand, we have seen that there are alternative employment opportunities for fisherfolk in both states, including exclusive opportunities for fisherfolk communities. However, since many of these exclusive alternate livelihood programmes are in the evolving process, especially in Kerala, any significant impact will take time.

3.1.3. Social Inclusion

The ultimate aim of all the policies and programmes ought to be social inclusion. The fisherfolk community has been an outlier for decades. There have been vast differences between the social and economic development of the general population and that of the fisherfolk community. Despite policies and programmes that aim for the upliftment of fisherfolk communities, they remain a marginalized community in both Kerala and Tamil Nadu. As discussed earlier, a lack of landholding rights might reflect the social exclusion problem of small-scale fisherfolk. Also, assurance of proper access to education and land might improve their access to the development process.

3.1.4. Health and Nutrition

Policies and programmes in both states seemed to be less efficient with providing access to healthcare to fisherfolk villages. Analysed data shows that Tamil Nadu should focus more on improving the healthcare facilities accessible to fisherfolk communities, as the number of hospitals was found to be far fewer near fishing community villages.

3.1.5. Literacy and Education

The social development of a community in this era can be measured through the level of education they are able to achieve. There is a high percentage of fisherfolk who are not educated. The proportion of fisherfolk in higher education also seems to be significantly small, which is another concern connected to occupational mobility. The proportion of women who had no formal education also stood very high compared to the same in the general population. Kerala seems to have exclusive policies to improve the education status of fishers, but access should be assured through institutional inclusion.

3.1.6. Housing, Sanitation, Drinking Water and Energy Schemes

Housing is a major issue faced by the fisherfolk community. A lack of access to land adds to this issue. Both Kerala and Tamil Nadu have exclusive policies focused on improving the housing of fisherfolk. Literature shows that there are emerging policies that have the potential to improve the housing situation. Kerala has an exclusive policy to promote clean water to reduce water-borne diseases, whereas no such policies are found in Tamil Nadu, to the best of our knowledge.

3.1.7. Climate Change and Natural Disasters

One of the major reasons for coastal citizens' low social development status is their increased vulnerability to climate change, as they are frequently exposed to natural disasters. Therefore, any policies or programmes that aim at improving the life and livelihood of ocean citizens should start with improving their resilience towards disasters.

3.1.8. Institutions, Associations and Cooperatives

Collective action has been the strength of fisherfolk communities in addressing their issues. A number of establishments are dedicated to the welfare and development of fisherfolk in Kerala and Tamil Nadu. Both states seem to have cooperatives that work towards the betterment of the community. NGOs have been a vital part of the Covid-19 resilience of the fisherfolk community.

3.1.9. Sustainability and Social Development

Globally, ocean sustainability is being targeted through bans, restrictions and the stoppage of subsidies. This is a tricky issue when it is connected with the livelihood of fisherfolk. The bans, restrictions, etc. will affect fisherfolk as their livelihood depends on daily fish catches. Though there are compensations that are being given in both Kerala and Tamil Nadu, these are very minimal, as not only bans but also natural disasters affect their livelihood. Alternate livelihood options are very restricted, which must be addressed.

Compared to other fishing methods, small-scale fisheries have fewer negative impacts on the ecosystem (Jentoft, 2014). Improving food security and maintaining the sustainable development of small-scale fisheries is desirable for environmental sustainability as well. The current social development level is highly inadequate if the community is to transcend to a significantly higher and sustainable level of human development (Government of Kerala, 2005).

3.2. Recommendations

- Access to land must be ensured to improve fisherfolk's social development status. In addition, the state must ensure land security by assuring land tenure for the fisherfolk community.
- Policies and programmes need to be made, taking into consideration the unique characteristics and culture of small-scale fishers.

- There should be more and diverse alternative employment opportunities, especially during the fishing ban period. Additionally, it would be beneficial to increase financial assistance during the fish ban period.
- Injury compensation and disabled compensation need to be more popular and generous, as fishing is one of the riskiest jobs in the world.
- A considerable proportion of women are involved in fishing allied activities, which lack social security when compared to active fishing. Therefore, there should be a provision of pension for fishing allied workers, especially women.
- Social development and access to development are directly related to one's access to education and healthcare. More public hospitals need to be built near fisherfolk villages. Community study centres should be organized in these villages to make sure there are no dropouts and no one is left unschooled.
- The digital divide needs to be addressed by improving access to the Internet and to information technology, which is important for access to education and resilience.
- Sustainability and social development should go together, as one is complementary to the other. Any policy that aims to improve the sustainability of ocean resources should include policies to compensate the livelihood impact of that particular policy on small-scale fisherfolk, and vice versa.

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Social Development and Sustainable Fisheries: Kerala and Tamil Nadu

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The study is a part of a series of original research on social development and sustainable fisheries undertaken by ICSF in eight countries. The study documented the status of social development and decent work programmes, schemes, policies, legislation and institutional support (including community-based initiatives) to demonstrate how they strengthen the environmental pillar of sustainable development. With a detailed review and analysis of schemes, legislation and reports for the protection of human rights in small-scale fisheries, the study demonstrates the contextual reality on social development of small-scale fishing communities in the country context and stresses on the need for concerted effort to improve social development indicators to ensure sustainable development.



ICSF (www.icsf.net) is an international NGO working on issues that concern fishworkers the world over. It is in status with the Economic and Social Council of the UN and is on ILO's special list of Non-Governmental Organizations. It also has Liaison status with the FAO. ICSF works towards the establishment of equitable, gender-just, self-reliant and sustainable fisheries, particularly in the small-scale, artisanal sector.

ICSF draws its mandate from the historic International Conference of Fishworkers and their Supporters (ICFWS), held in Rome in 1984, parallel to the World Conference on Fisheries Management and Development organized by the Food and Agriculture Organization of the United Nations (FAO). As a global network of community organizers, teachers, technicians, researchers and scientists, ICSF's activities encompass monitoring and research, exchange and training, campaigns and action, as well as communications.