Social Development and Sustainable Fisheries: West Bengal



Prepared by:

Dr Shilpa Nandy





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Assistant Professor of Political Science Khudiram Bose Central College Kolkata, West Bengal, India



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Email: icsf@icsf.net

Edited by

Janaki Sundaram

Designed by

Vasanth Christopher M S

Front Cover

Group of small scale fishers and fishworkers involved in village meeting discussing their challenges

Front Inside

Fisherwomen in net mending and Weaving at Kakdwip Shivkalinagar area, West Bengal

Back Inside

Fisherwomen catching fish in Gadiara

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Preface

West Bengal is endowed with rich natural resources and huge water bodies—ponds, rivers, estuaries, brackish water, the sea, canals and reservoirs. Fishing in the state takes place in all kinds of water bodies. Most of the people engaged in fishing activities are traditional and small-scale fisherfolk. Today, every nation aims for sustainable development, economic growth, the protection of its environment and natural resources, employment generation, per capita increase, improved livelihoods, food security and social development. In 2015, FAO introduced the Voluntary Guidelines for Securing Sustainable Small-Scale Fisheries in the Context of Food Security and Poverty Eradication (SSF Guidelines). The sixth chapter of these guidelines specifies social development and decent work towards empowering small-scale fishing communities and to enable them to enjoy their human rights.

Considering this guideline, the present study focuses on the social development of fishing communities and sustainable fisheries in West Bengal, with special reference to small-scale and traditional fishers. The state ranks second in fish production in India and immensely contributes to the Gross Domestic Product (GDP). Fishing is the second largest occupation in West Bengal, coming in right after farming. Despite their significant contribution to the national economy and foreign exchange, fishing communities are socially, economically and culturally neglected. On top of this, Covid-19 and subsequent lockdowns, as well as the super cyclones Bulbul, Fani and Amphan, severely impacted fisherfolk.

This study examines and explores the different aspects of fisheries and how sustainable development can improve the social development of fishing communities in West Bengal. It aims to find viable answers to 13 specific challenge areas that they face, including their access (or lack of) to health, education, housing, sanitation, potable water and energy.

Chapter 1, the introduction, provides a conceptual framework for the purpose, methods adopted and scope of the study. Chapter 2 elaborately examines the 13 parameters and tries to identify the social and economic status of fishing communities and how Covid-19 has affected their lives and livelihoods. Chapter 3 puts forward recommendations for rethinking and revising the policies and schemes that will cater to the needs of fisherfolk. Chapter 4, the conclusion, addresses the major challenges of West Bengal's fishing communities, especially during the pandemic.

List of Acronyms

ADB Asian Development Bank

BPL Below Poverty Line

CCRF Code of Conduct of Responsible Fisheries

COFI Committee on Fisheries

CMFRI Central Marine Fisheries Research Institute

DDAY Deen Dayal Antyodaya Yojana
DMF Dakshinbanga Matsyajibi Forum
EWS Economically Weaker Section
FAO Food and Agricultural Organization

FLC Fish Landing Centre
FS Fisheries Statistics
FY Financial Year

GDP Gross Domestic Product GOI Government of India

GOWB Government of West Bengal
GPS Global Positioning System

ICDS Integrated Child Development Scheme
MDWS Ministry of Drinking Water and Sanitation

MFRA Marine Fishing Regulation Act

MNREGA Mahatma Gandhi Rural Employment Guarantee Act

MPAs Marine Protected Areas
NDP Net Domestic Product

NFDB National Fisheries Development Board

NGOs Non-Government Organizations

NIFAP National Policy on Inland Fisheries and Aquaculture

NLM National Livelihood Mission

NMPS National Mission for Protein Supplements

NPMF National Policy on Marine Fisheries

PHED Public Health and Engineering Department

PMGSY Pradhan Mantri Gram Sadak Yojana

PMAY Pradhan Mantri Awas Yojana

PMGKY Pradhan Mantri Garib Kalyan Yojana PMMSY Pradhan Mantri Matsya Sampada Yojana

PMUY Pradhan Mantri Ujjwala Yojana RKVY Rastriya Krishi Vikas Yojana

RTE Right to Education

SAP Social Assistance Programme
SDGs Sustainable Development Goals
SDP Skill Development Programme

SHGs Self Help Groups

VGSSF Voluntary Guidelines for Securing Sustainable Small Scale Fisheries

WBDWSIP West Bengal Drinking Water Sector Improvement Project

WBMFRA West Bengal Marine Fisheries Regulation Act

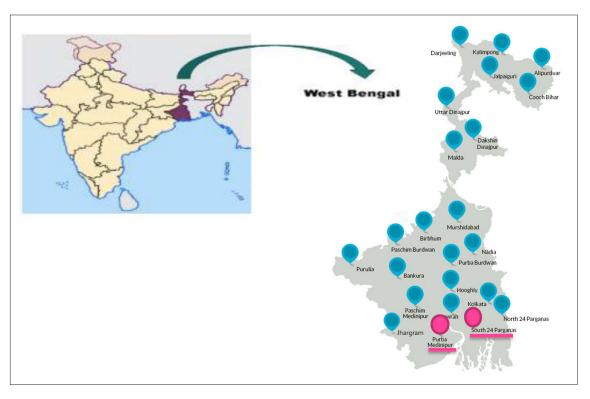
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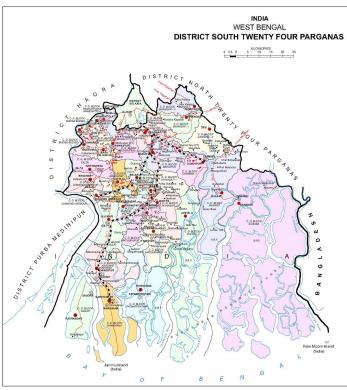
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Map of West Bengal¹







Map Sources: Adapted from Map of West Bengal: https://wb.gov.in/government-district-and-localgovt. aspx; Map of Purba Medinipur: https://purbamedinipur.gov.in/district-administrative-map/ and South 24 Parganas – extracted from 2011 Census of India District Handbook for South 24 Parganas

Snapshot of fisheries and fish workers in West Bengal

The following session details the profile of fisheries and fishworkers in the state of West Bengal as an

Fishery Resources in West Bengal

Marine	
Length of coastline (km)	158
Coordinates	21 05' N and 2405' N and 860 E and 890 E
Continental shelf ('000 sq km)	17
Number of fish landing centres	66
Number of fishing villages	188
Number of fisherfolk families	76,981
Fisherfolk population	3,80,138
Total fishworkers	0.4 million
Total fish production	30 percent
Inland	
Total inland water bodies (lakh ha)	5.45
Rivers and canals (km)	2,526
Reservoirs (lakh ha)	0.17
Tanks and ponds (lakh ha)	2.76
Flood plain lakes/derelict waters (lakh ha)	0.42
Brackish water (lakh ha)	2.10
Total fishworkers	2 million
Total fish production	16.5 percent of total.
Total fish seed production	62 percent of national production

Source: DMF Office, 2020

District-wise Fisher Population in West Bengal

District (coastal)	Total	District (non-coastal)	Total
North 24 Parganas	4,82,252	Howrah	99,289
South 24 Parganas	2,54,484	Hooghly	78,875
Purba Medinipur	1,12,203	Nadia	2,56,000
Paschim Medinipur		Murshidabad	2,22,050
		Bardhaman	1,40,000
		Bankura	1,14,302
		Birbhum	2,00,747
		Purulia	56157
		Malda	35,829
		Dakshin Dinajpur	34,712
		Uttar Dinajpur	70,100
		Jalpaiguri	81,030
		Darjeeling	2,559
		Cooch Behar	1,36,309
Total			23,76,898

Source: DMF Office, 2020

Fish Production in West Bengal: 2004–2018

Year	Inla	and	Ма	rine	То	Fish seeds produced	
	Inland ('000 tonnes)	Growth rate (percent)	Marine ('000 tonnes)	Growth rate (percent)	Production ('000 tonnes)	Growth rate (percent)	In million fry
2004–05	1035.50	4.81	179.50	1.16	1215.00	3.88	12200.00
2005–06	1090.00	5.36	160.00	10.86	1250.00	2.88	12200.33
2006–07	1181.01	8.35	178.10	11.31	1359.10	8.73	13200.00
2007–08	1264.53	7.07	182.74	2.61	1447.26	6.49	13572.00
2008–09	1294.71	2.39	189.29	3.58	1484.00	2.54	14181.00
2009–10	1338.00	3.34	179.00	5.44	1517.01	2.22	12566.00
2010–11	1246.15	6.86	197.11	10.12	1443.26	4.86	13453.00
2011–12	1290.03	3.52	182.02	7.65	1472.05	1.99	13826.00
2012–13	1337.66	3.69	152.35	16.30	1490.02	1.22	15002.00
2013–14	1392.40	4.09	188.24	23.55	1580.65	6.08	15890.00
2014–15	1438.46	6.17	178.85	6.17	1617.31	2.31	16687.00
2015–16	1493.22	3.80	178.20	0.36	1671.42	3.34	17521.00
2016–17	1525.29	2.14	176.53	0.93	1701.82	1.81	19284.00
2017–18	1556.61		185.48		1742.09		12455.00

Source: Handbook of Fisheries Statistics, 2018

Fishing Crafts in West Bengal fisheries

				N	lechan	ised				Motori	zed	Total
Type of Craft	Trawlers	Gillnetters	Dolnetters/ Bagnetters	Liners	Ring Seiners	Others	Total Mechanised	Inboard	Outboard	Total motorized	Non Motorized	
Number	2004	1764	191	31	0	0	4014	6564	0	6564	476	11054

(Source: CMFRI Marine Fisheries Census, 2016)

Fishery Infrastructure

	Boat Yards	Cold Stor- ages	Ice Facto- ries	Freez- ing Plants	Pro- cess- ing Plants	Curing Yards	Peel- ing Sheds	Ex- traction Plants	Fish Meal Plants
est engal	35	17	191	1	1	78	0	0	0

(Source: CMFRI Marine Fisheries Census, 2016)

Important fish landing centres of two major coastal districts in West Bengal: Purba Medinipur and South 24 Parganas

Purba Medinipur FLC	South 24 Parganas FLC
DadanPatrabar, Ramnagar Block	Diamond Harbour
Sankarpur	Kakdwip
Chandaneswar	Namkhan Raidighi
Digha Mohanpur (Biggest)	Fresargunj
Junput	Sagar Jambu Island
Saulaghat	Petuaghat Dariapur

Fisher population

Fishermen Population and their Percentage:	Number of Districts			Fishermen Population		Whole Population			Fishermen Population per District			
2019-20	23			32,36,261		9,96,09,303			1,40,707		7	
Gender-wise	Inland Fishermen Population Marine Fi						ishern	hermen Population				
Fishermen Population :		Male		Female			Male			Female		
2019-20	1,629,481			1,204,093		246,225			156,462			
Number of	Full time			Part time			00	casior	nal	Total		
Fishermen Population	М	F	Т	М	F	Т	М	F	Т	М	F	Т
engaged in Fisheries activities, 2017	709908	122994	832902	631374	292157	923531	310510	177666	488176	1651792	592817	2244609

Sources: Handbook on Fisheries Statistics 2020 and Handbook on Fisheries Statistics 2018

Socio-economic status of fishing communities in West Bengal

The fishing castes are mostly Schedules Castes, including Bor, Rajbanshi, Jhalo, Mal, Halo and Jalia Kaibarta.

- The average number of people per household is 6–7.
- 90 percent of the population is engaged in direct fishing.
- 67 percent of households are involved in marine fishing.
- 63 percent of households have up to 1 acre of land.
- Children below 12 account for 35 percent of the fisherfolk population.
- 54 percent are illiterate, 25 percent are below the primary school level, and 12 percent have attended primary school.
- Fishing is a hereditary occupation for 74 percent of fisherfolk.
- 34 percent of fisherfolk households own a non-motorized boat and 6 percent own a motorized boat.
- 7 percent of the households are in debt.
- More than 50 percent are below the poverty line, with a low per capita income per month

Distribution of households by income in fishing communities in West Bengal¹

Distribution of households by income category (rupees per capita per month)	Percentage of households
Less than 250	8.11
250–500	45.05
500–750	33.33
750–1000	1.35
1000–1250	6.76
1250–1500	3.15
Above 1500	2.25

¹ Pal, Baidyanath, et al. "Income and nutritional status of the fishing community residing in coastal Bay of Bengal: a case study." *Anthropologischer Anzeiger* (2011): 195-208.

1 Introduction

Fishing is one of the most dangerous occupations in India due to poor occupational safety and unhealthy working conditions. In both the marine and the inland sector, fishing communities have to work for long hours without proper infrastructure. Violence, exploitation, child labour, sexual abuse, discriminations of wages between male and female fishworkers, forced labour and poor security at sea increase the vulnerability of these fishing communities, especially small-scale fishers. About 90 percent of this sector belongs to the category of small-scale fishing communities, mainly fishers, fish farmers and fishworkers. Despite their significant contribution to the GDP and to foreign exchange, they are socially, economically and culturally marginalized. The worst among them are the fisherwomen who are single or widowed and their children. West Bengal fishing communities are not an exception to this situation. They lack access to basic social amenities, like housing, drinking water, sanitation, health and education. In West Bengal, women are engaged in low-income areas of fishing activities and men dominate the sector.

According to the Fisheries Statistics of India, 2018, around 1,60,96,975 fisher families, including 1,05,26,758 million males and 55,70,217 million females, are engaged directly and indirectly in fishing activities. The share of the fisheries sector in India's overall GDP is about 1.03 percent as of 2017–18, and it contributed ₹1.75 trillion during 2017–18. It accounts for about 6.58 percent of India's agricultural GDP.

Most fishworkers in this sector are informal, and their job is often based on season. They have limited access to government schemes, due in part to their illiteracy. Their per capita income is so low that they find it difficult to join social security schemes that require paying a monthly fee. With this aim and objective, the SSF Guidelines call for the social and economic development of small-scale fishing communities so they can enjoy their human rights. Governments are called upon to ensure that international standards are included into national legislation. This includes the right to an adequate standard of living, decent work and ensuring that health, education and other essential needs are met.

Chapter 6 of the SSF Guidelines clearly focuses on social development, employment and decent work. The guidelines discuss the social and human development of small-scale fishers in terms of their social security, their access to credit and insurance schemes, laws regulating safety at sea and their access to trainings and safety equipment. The spread of Covid-19 came as a heavy blow to the small-scale and traditional fishers, who tried to protect themselves from imminent threats of displacement and defend their livelihood rights. The impacts could be seen across the sector for both marine and inland fisheries, on fishers, fish vendors, suppliers and transport workers, because of disruptions in fish supply chains. Already there were difficulties and challenges, like environmental degradation, climatic uncertainties and major development projects, which were jeopardizing the lives and livelihoods of India's fishing communities. This was further exacerbated with Covid-19. The extension of the lockdown and the wide spread of the pandemic increased the sharp decline in the value chain of marine capture fisheries in West Bengal. Women fishworkers are the worst affected, as in West Bengal they are mostly engaged as vendors, sorters dryers. The closure of markets and landing centres posed a serious threat to their survival.

West Bengal went on to face Cyclone Amphan on 20 May 2020. The fisherfolk of two major coastal districts in particular, South 24 Parganas and Purba Medinipur, were severely impacted. They witnessed the loss of lives, shelter and livelihoods.

The Government of India introduced the Draft National Fisheries Policy of 2020, which clearly showed a preference for exports, production and capital investments that will strip small scale-fishers of their rights of access to commons, and also damage the environment in the long run. In addition, the policy also overlooked the needs of women and was silent on the existing inequalities of caste and class.

Therefore, in light of the SSF Guidelines and the Draft National Fisheries Policy of 2020, this research study is relevant as it tries to focus on the social development and decent work empowering small-scale fishing communities, particularly in West Bengal. The study also analyses how the SSF Guidelines will contribute to poverty eradication and food security for sustainable small-scale fisheries.

1.1. Objective of the Study

The study aims to focus on the following key areas:

- To provide a report on the socio-economic status of the fishing community, especially the small-scale fishers, of West Bengal, India, considering the points put forward by the 2015 FAO Voluntary Guidelines for Securing Sustainable Small-Scale Fisheries in the Context of Food Security and Poverty Eradication (SSF Guidelines).
- To analyse the different national- and state-level policies, schemes and legislations available and recently introduced for the social development and upliftment of fishing communities, especially during the Covid-19 pandemic and Cyclone Amphan.
- To identify and address the different problems women fisherfolk have to face in West Bengal, especially due to the impact of Covid-19 and climate change, and what measures are being adopted for their welfare and development by state and non-state participants.
- To examine the significant role played by NGOs, civil societies and voluntary associations, especially the significant role played by Dakshinbanga Matsyajibi Forum (fisherfolk's organization), in mobilizing the community to form cooperatives and SHGs and organize training and capacity-building programmes.
- To elucidate how the above-mentioned polices contribute to better conservation and the sustainable use of freshwater, brackish water and marine and coastal biodiversity, as well how they help small-scale fisheries with sustainability.

1.2. Methodology

This research study is primarily based on secondary data. The following processes were adopted for data collection due to the ongoing Covid-19 pandemic:

- Review of the existing literature, including government documents, policies, statistical handbooks, global reports, books on fisheries and articles.
- Digital interviews through structured questionnaires (referring to 13 specific questions as provided by ICSF), through telephonic conversation, Google Meet, WhatsApp and emails.
- Visits to Dakshinbanga Matsyajibi Forum's and Disha's offices to collect documents, important photos, etc.

1.3. Scope of the Study

In the context of the SSF Guidelines, this study tries to identify and analyse the position and status, including socio-economic, of the fishing sector and its population. It aims to develop an overview of sustainable fisheries (resources and management) in West Bengal. The findings and viable recommendations put forward in this study are expected to contribute towards poverty eradication and food security in sustainable small-scale fisheries, as well as towards the conservation and sustainable use of aquatic biodiversity.

Small-scale fishing communities are a deprived, vulnerable and neglected section of society. Their basic needs, like housing, drinking water and decent work conditions, are being overlooked by society. Policies and schemes must be revised by the framers and thinkers of our country, especially in these challenging times. The needs of women fisherfolk should be addressed with sensitivity and care by legislators.

2. Socio-Economic Development of fishing Communities and Sustainable Fisheries in West Bengal

West Bengal is the only state in India where fish has been cultivated in every kind of water body—brackish water, sweet water, sewage water and marine water.

To improve the social and economic development of fishing communities, it is necessary to develop a sound National Fisheries Policy (NFP) framework, which should be based on the cardinal principles of equity and equality and adopt a people-centric and participatory approach. Besides the socio-economic development of small-scale fishers and the sustainable running of fisheries, the rights of these fisherfolk should be addressed in major policies. With all these objectives, this study would like to focus on the socio-economic development and sustainability of fisheries in West Bengal, particularly the struggle these communities have to face in the wake of the pandemic and Cyclone Amphan, which occurred in May, 2020.

2.1. Impact of Covid-19 and Cyclone Amphan

2.2.1. Poverty eradication policies and programmes in fisheries and for fisherfolk communities in West Bengal, with special reference to the period of Covid-19 and Cyclone Amphan

'Extreme poverty anywhere is a threat to human security everywhere.'—Kofi Annan, seventh secretary-general of the United Nations

India's primary goal is to eradicate poverty at large and have inclusive and sustainable development for all. The Government of India's mission to make a 'New India' by 2022 includes eradicating poverty and giving everyone a home. Poverty will be tackled by strengthening sectors like electricity, drinking water, health, education, etc. in villages. Special attention will be given to economic and social development.

The fisheries sector in India has a significant contribution towards the country's economic development, food security, nutritional security and foreign exchange. The sector contributed ₹1, 75,573 crore to the GDP (at current prices) during FY 2017–18 (Ministry of Statistics and Programme Implementation, 2020). According to the Handbook on Fisheries Statistics–2018, published by the Ministry of Fisheries, Animal Husbandry and Dairying, India's fish production was pegged at 12.6 million tonnes in 2017–18.

Table 2.1: Top five states in fisheries production

	201	5-16	2010	6-17	201	7-18	201	8-19	2019	9-20
State/UTs	Inland	Marine								
Andhra Pradesh	18.32	5.2	21.86	5.8	28.45	6.05	33.91	6	36.1	5.64
Gujarat	1.12	6.97	1.17	6.99	1.38	7.01	1.42	6.99	1.58	7.01
Kerala	2.11	5.17	1.61	4.31	1.89	4.84	1.92	6.09	2.05	4.75
Tamil Nadu	2.43	4.67	1.97	4.72	1.85	4.97	1.7	5.2	1.74	5.83
West Bengal	14.93	1.78	15.25	1.77	15.57	1.85	16.19	1.63	16.19	1.63

Source: Handbook of Fisheries Statistics, 2020

Table 2.2: Trend of Export of Fish and Fish Products: 2019-20

Year	Quantity (Tonnes)	Value (₹ Crore)	US Dollar (\$: Million)	Unit value (Rs. / Tonnes)	Unit Value Index	Annual Gro	wth Rate %
						Quantity	Value
2010-11	8,13,090.85	1,29,01.47	2,856.92	1,58,671.89	6,367.92	19.85	28.39
2011-12	8,62,021.41	1,65,97.23	3,508.45	1,92,538.46	7,727.08	6.02	28.65
2012-13	9,28,214.67	18,856.26	3,511.67	2,03,145.42	8,152.76	7.68	13.61
2013-14	9,83,755.56	30,213.26	5,007.70	3,07,121.60	12,325.60	5.98	60.23
2014-15	10,51,243.49	33,441.61	5,511.12	3,18,114.75	12,766.79	6.86	10.69
2015-16	9,45,891.90	30,420.83	4,687.94	3,21,609.99	12,907.06	-10.02	-9.03
2016-17	11,34,948.09	37,870.90	5,777.61	3,33,679.62	13,391.45	19.99	24.49
2017-18	13,77,243.70	45,106.89	7,081.55	3,27,515.69	13,144.07	21.35	19.11
2018-19	13,92,558.89	46,589.37	6,728.50	3,34,559.46	13,426.76	1.11	3.29
2019-20	12,89,650.90	46,662.85	6,678.69	3,61,825.42	14,521.01	-7.39	0.16

Source: Marine Products Export Development Authority, Kochi; Handbook of Fisheries Statistics, 2020

About 3,80,138 people (as per the 2010 census) are directly or indirectly involved in fisheries or fishery activities in West Bengal, and around 50 percent are below the poverty line (as per the Marine Census Report, 2010). Th.

e various schemes and programmes being implemented by the central and state government for the socio-economic development of fisherfolk in West Bengal have been categorized during this study into two: i) general schemes, policies and programmes that are benefitting the community and ii) special schemes and relief measures carried out during the Covid-19 and Cyclone Amphan period. They have been stated in the table below

Table 2.3: General schemes available for the fishing communities of West Bengal

SI. No	Schemes	Sponsoring authority	Nature of support	Community benefit
1	Jago (General scheme)	State government	₹5000 crore to 10 lakh SHGs	The scheme is to support 10 lakh SHGs, as each SHG is composed of 10 women. West Bengal has around 9.69 lakh SHGs.
2	Savings cum relief	State government		Was active till 2015 but presently this scheme is not working.

Table 2.4: Schemes and policies introduced and implemented during Covid-19 and Cyclone Amphan for fisherfolk in West Bengal

SI. No	Scheme	Sponsoring authority	Nature of support	Community benefit
1	Khadya Surakha Scheme (Food Security)	Central government	Free supply of food grains	5 kg rice, wheat per head, 1 kg pulses per head
2	Khadya Surakha Scheme (Food Security)	State government	Free supply of food grains	2 kg rice, wheat per head

SI. No	Scheme	Sponsoring authority	Nature of support	Community benefit
3	Amphan Cyclone Relief Operations	Central government	1000 crores	Infrastructural and rehabilitation work
4	Amphan Cyclone Relief State Operations government		6250 Crore	Kin of anyone killed in the cyclone received ₹2.5 lakh, the badly injured got ₹50,000 and those with minor injuries, ₹25,000.
5	Pradhan Mantri Ujjwala Yojana (PMUY)	Central government	Free refill of LPG gas cylinder for three months during the pandemic (April–June 2020) for Ujjwala card holders	78.47 lakh beneficiaries received 14.2 kg LPG cylinders
6	Women Jan Dhan Yojana	Central government	₹500 was provided for three months (April–June 2020) to women Jan Dhan account holders	Direct benefit transfer
7	Joy Johar Bandhu Prakalpa Scheme (for SC/ST categories)	State government	₹1000 per head	Incentives will be provided to SCs and STs, including fisherfolk, during Covid-19
8	POSHAN Abhiyan	Central government	Planting of nutrition gardens	In a few districts of West Bengal, nutrition gardens were set up with the mission of reducing malnutrition in children and women.
9	Pradhan Mantri Garib Kalyan Yojana (PMGKY)	Central government	Free grocery distribution for migrant workers who returned from other states, under the Public Distribution System	5 kg rice and 1 kg pulses, along with a few other grocery items, were provided to migrants, including migrant fish workers.

2.1.2. Employment policies and programmes in fisheries and for fisherfolk communities in West Bengal, with special reference to the period of Covid-19 and Cyclone Amphan

Employment in the fishing community in West Bengal ranges from the capture and culture of fish from the sea and inland waters to backyard pond management, fabrication of fishing gear, breeding, processing, marketing, and export and import of fish. However, with the changes brought on by Covid-19 and Cyclone Amphan, a tide of unemployment has emerged. The worst affected are women fishworkers, especially those who are single or widowed.

Though some general employment policies were implemented by the central and state government, no fisherfolk-specific policies were introduced. The policies that are in existence are given below.

Table 2.5: Employment policies for fishing communities by the central and state government

SI.No	Scheme	Sponsoring authority	Nature of support	Status of scheme
1	MGNREGA	Central government	100 days work	Fisherfolk are engaged in this programme in many districts. Currently, the wage per day is ₹204.
2	Karma Sathi Prakalpa during Covid	State government	₹2 lakh each	Unemployed youth will be given ₹2 lakh per head for any project-based work. The registration process is currently underway.
3	Prochesta Prokolpo during Covid	State government	Providing MGNREGA cards	All migrant labourers are being registered and given MGNREGA cards.
4	Sneher Paras during lockdown and Covid	State government		
5	Krishak Bandhu	State government	If a farmer has land, he/she will be given a maximum of ₹5000 and a minimum of ₹2000 at a time.	This policy is newly declared and yet to begin. Fish farmers are also opting for this scheme.
6	Unorganized Workers Social Security Scheme	State government		This policy has been declared but not yet implemented.

2.1.3. Policies on decent work, focusing on working conditions in fishing and fishprocessing activities, marine and inland, to benefit all workers, including migrants, and policies being adapted to address the impact of Covid-19

Fishing communities are among the most neglected and marginalized in our society. They work extremely hazardous circumstances. For example, the fisherfolk of the Sundarbans work in dense forests, where they are often attacked by tigers or crocodiles. During Covid-19 and the subsequent lockdowns, the number of fishermen who died due to tiger attacks went up. Besides selling fish in the market, on open streets and without shade, a lack of toilet facilities and unhygienic working environments are common for fishworkers. The working conditions for women fishworkers are even more challenging. There are no policies that specifically address the working conditions of fisherfolk. However, the table below includes a few infrastructural developments have taken place in West Bengal after several demands and struggles by fishing communities, as well as some social welfare schemes and policies available for fisherfolk, with special reference to Covid-19.

Table 2.6: Policies on decent work conditions

SI. No	Policy	Facilities provided/to be provided	Sponsoring authority	Status
1	Marine Fishing Regulation Act	Safety measure kits, including life jackets, radios and mobiles	Department of Fisheries, state government	Not uniformly provided
2	Social Welfare Schemes	Community toilets in fish landing centres, solar lights, drinking water facilities	Department of Fisheries, state government	Available in almost all 66 landing centres
3	Social Welfare Schemes	Provision of shade in markets	Department of Fisheries, state government	Not covered in all fish markets
4	Social Welfare Measures	Distribution of fishing nets, handis and ice boxes	Department of Fisheries, state government	As of 2019, only eight women have received

Table 2.7: Social insurance and security-related policies

SI. No	Policy	Nature of support	Sponsoring authority	Status
1	West Bengal Accident Insurance (mainly in seas or forests)	₹2 lakhs	State government	Was available but has not been active for the last four months.
2	Pradhan Mantri Suraksha Bima Yojana	₹12 annually	Central government	Accident coverage up to ₹2 lakhs
3	Asangathit Shramikder	₹25 was the beneficiary contribution and ₹30 was contributed by the state.	State government	During Covid-19, the entire ₹55 rupees was provided by the government.

2.1.4. Social inclusion policies for men, women, children and youth, indigenous peoples and their communities, civil society, fishing communities, and migrant fishers and fishworkers and policies preventing discrimination during Covid-19

Apart from capital exclusion, fishing communities in India and across the world are socially excluded. In West Bengal, another important factor that dominates the fishing community is the caste system. In northern Bengal fishing areas, this is not as prevalent, but in southern Bengal, the domination of lower castes by higher castes is very evident. The important fishing castes in southern Bengal include Bor, Jalia Kaibarta, Chasi Kaibarta and Mahishya Kaibarta. Around 70 % of the population is Hindu and 30 percent is Muslim.

Recently, many important policies have been drafted, like the NIFAP and NPMF, but they fail to address the social and economic benefits for small-scale fishing communities. The rights of fisherwomen and children are also not very clearly addressed. During Covid-19, West Bengal has seen no clear and specific policies for the social upliftment of fishing communities. They have received all the benefits and social support that have been declared in general for those below the poverty line.

The following social welfare schemes were available in the past few years but are currently unavailable due to Covid-19.

Table 2.8: Social welfare schemes

Scheme	Nature and benefits	Status	Remarks
Old Age Pension	Monthly pension of ₹300	Not available to fishers due to panchayat favouritism	Old fishers should be enlisted.
Accident Insurance Coverage	Full: ₹30,000 from block Administration and ₹50,000 from beneficiaries Partial: ₹15,000–25,000	Not effective	The mechanism should be made easily operable and effective.
Relief cum Savings	₹600 per year from beneficiary and ₹600 per year from the government. Total return ₹1200 per year. Presently, 7,000 beneficiaries in East Medinipur and 3,000 in South 24 Parganas avail of this scheme.	Inadequate	Both extension in number and enhancement in amount is needed.
Medical Assistance	First aid kits, bleaching powder, halogen tablets, phenyl, ORS	Very inadequate	More local Primary Health Centres, ambulance services and female medical attendants are needed.
Medical Insurance	Provision of medical treatment	Does not exist	This is needed.

Scheme	Nature and benefits	Status	Remarks
Plantation/ Social Forestry	For income generation and environmental protection	Yet to be made available to fishers in general	It is up to the Forest Dept. to take up the matter.
Government- Supported Marine Fishing Cooperatives for Women Fisherfolk	Subsidies for boats, fish seeds and nets	Does not exist. The co-operatives that do exist are either run by NGOs or are SHGs.	Government co- operatives should also exist.
Provision of Working Capital	Protection from putting-out system	Yet to be made available	The government should arrange this with banks through khoti (fish landing centre) committees.
Crèche and Education Schemes	Crèche needed for children of working fisherwomen. Schools needed for children of fisher families.	No crèches. The children of fishworkers who have to be taken with their parents during the full fishing period miss out on schooling. A school temporarily functioned, from 2001–2007, but closed due to the government not paying the teachers their salaries on time.	The issue of crèches and schools should be taken up seriously by the government, NGOs and local government institutions.

In view of the above-mentioned policies and their availability or lack thereof, fishworkers organizations are demanding a separate scheme from the government that will be exclusively for them. Dakshinbanga Matsyajibi Forum in West Bengal and their women's wing have already asked for their demands to be met by the minister in charge, Chandranath Sinha, in early 2020. The women fishworkers demanded a special package named Matsyakanya.

2.1.5. Policies on occupational health and safety and sexual and reproductive health of fishing communities, indigenous peoples, local communities and migrant fishers and policies of assistance during Covid-19

Fishworkers are covered under general health policies that are either introduced or implemented by central and state governments. Despite several meetings with the government by fishworkers organizations, no special health schemes and policies exist for them. The health scheme that is available is given below.

Table 2.9: Health schemes available for fishing communities

SI. No	Policy	Nature of support	Sponsoring authority	Status
1	Swastha Sathi Card	₹5 lakh coverage	State government	There was earlier a provision of ₹2 lakhs. During Covid-19, the amount of coverage has been increased, as declared by the state government. Registration is ongoing.

2.1.6. Literacy and education policies for fishing communities in West Bengal

Education is an important tool for social development. Low literacy rates and educational disadvantages in traditional fishing communities are barriers to many aspects of development in West Bengal. As per the statistical report of a research committee literacy rates among the population over seven years of age sat at 78 percent, with women's literacy rates (79.6 percent) being higher than those of men (76.6 percent). Community values, marginalization, economic vulnerability, migration, child labour in fishing activities and domestic responsibilities often hinder literacy in fishing communities. However, there are a few policies and schemes on education and children's right to education that are being adopted and implemented by the government.

Table 2.10: Policies and schemes on education and children's right to education

SI. No	Policy	Nature of support	Sponsoring authority	Status
1	Kanyashree	₹25,000 for a one-time grant under K2 and ₹750 and ₹1000 under K1.	Government of West Bengal	A popular women's empowerment policy for the education of girls, accepted by the United Nations.
2	Shikhashree	Book grant and maintenance grant	State government	The objective of the scheme is to provide financial assistance to SC students of classes V to VIII to improve their participation in pre-matric stages and minimize the incidence of drop-out, especially that of girls.
3	Sabooj Sathi	Distribution of bicycles to school students	State government	In 2015–2016, a scheme was announced for the distribution of bicycles to an estimated 40 lakh students of classes IX to XII in government and government-aided schools and madrasahs in the state.
4	Cooked Mid-Day Meal Project	Cooked meal served to primary and secondary school students	Central and state government	This is a flagship programme of the state. Children in fishing communities are also getting the cooked mid-day meal, and this service was continued during lockdown, by having the food delivered to the children's homes.

SI. No	Policy	Nature of support	Sponsoring authority	Status
5	Schools in Fish Landing Centres	Schools established in the name of the late Harekrishna Debnath	Dakshinbanga Matsyajibi Forum	These schools, found in Sagar Block, Diamond Harbour, are especially for the free education of children from fishing communities.
6	Child Sponsorship Project	Providing free books and materials for art, music and dance education to children from fishing communities	Action Aid and DMF, West Bengal	Around 850 children are enrolled in this project in Purba Medinipur.

Source: Dakshinbanga Matsyajibi Forum

2.1.7. Housing policies in West Bengal targeting fishing communities

With a view to providing free shelter to the poor, the Housing Department of the Government of West Bengal, under the schemes Gitanjali and Amar Thikana, aimed to construct houses. This scheme is being implemented in rural areas and non-municipal urban areas in coordination with seven other government departments.

- a) Fisheries Department
- b) Backward Classes Welfare Department
- c) Minority Affairs and Madrasah Education Department
- d) Forest Department
- e) Sundarban Affairs Department
- f) Paschimanchal Unnayan Affairs Department

₹1.23 lakh is to be given **to** fisherfolk residing in non-coastal areas by the Department of Fisheries, but fisherfolk have not been availing this scheme for the past few years. Another important scheme available under the housing policy is Pradhan Mantri Awas Yojana, which was introduced in 2016 and was implemented jointly by the central and state government. This scheme is only for the economically weaker sections of society. PMAY gives preference to women who are heads of the family to be the owner or co-owner of the house. It is estimated that around 300 fishing families in different districts of West Bengal have successfully used this scheme.

2.1.8. Sanitation, drinking water and energy policies available for fishing communities in West Bengal

The Ministry of Drinking Water and Sanitation (MDWS), Government of India, in collaboration with the Asian Development Bank (ADB), supported the Government of West Bengal in improving drinking water in its arsenic- and fluoride-affected districts, under its National Drinking Water Development Program. Parallelly, the Public Health and Engineering Department (PHED) of West Bengal requested financing support from ADB to achieve its Vision 2020 of 'providing safe, reliable and adequate drinking water to all its citizens'. This West Bengal Drinking Water Sector Improvement Project (WBDWSIP) aims to provide safe, reliable and continuous drinking water as per the Government of India's standard to about 6 million people in the arsenic-, fluoride- and salinity-affected areas of North 24 Parganas, South 24 Parganas, Purba Medinipur and Bankura.

Table 2.11: Scheduled Tribes population in West Bengal Drinking Water Sector Improvement Project districts

District	Scheduled Tribe population	Total population	(%)
West Bengal	5,296,953	91,347,736	5.8
North 24 Parganas	264,597	5,019,553	5.3
South 24 Parganas	96,976	7,054,540	1.4
Bankura	368,690	3,362,420	11.0
Purba Medinipur	27,952	4,649,436	0.6

Source: 2011 Census of India

Fishing community families are also included under this project. Though a lack of acceptable sanitation still exists in the state, there are now drinking water facilities and solar lamps in all the fish landing centres in West Bengal.

2.1.9. Climate change policies for inland and marine fisheries

West Bengal is the most climatically vulnerable and cyclone-prone Indian state. The most devastation took place with three consecutive cyclones that struck the Bay of Bengal region and drastically altered the coast—Fani in 2019, Bulbul in 2019 and Amphan in 2020. The lives and livelihoods of both marine and inland fishing communities have been severely affected. There are no specific schemes or policies for the fishers and fishworkers to cope with these disasters. Along with this, the tourism projects continuing on the coast and the construction of hotels are also responsible for environmental degradation and climatic changes in West Bengal.

2.1.10. Role of cooperatives, trade unions and other institutions working for the welfare of fishing communities, especially during Covid-19

Dakshinbanga Matsyajibi Forum, a registered trade union body, plays an active role in mobilizing the fishing community at large. In this endeavour, there are a few important NGOs, civil societies, trusts and voluntary associations that have played an important role in the socio-economic development and welfare of fishing communities. They include Action Aid, the International Collective in Support of Fishworkers, Oak Foundation, Disha, Medinipur Chhatrasamaj and Midnapore.in.

During Covid-19 and Cyclone Amphan, all the above-mentioned organizations actively supported poor, homeless or workless fisherfolk by distributing grocery items, tarpaulins (tirpal), sanitization kits and masks, and ice boxes, providing fingerlings and chicks as an alternative support for livelihood, and giving cash to SHGs in different blocks of fishing communities so they could start new businesses.

One major initiative taken by most of the NGOs and civil society bodies is protecting fisherwomen, especially those who are old, single or widowed, who rely on themselves for income. Food and groceries were provided to them, along with basic welfare schemes announced by the government. Another noteworthy activity of DMF was supporting the widows of those who had been killed by tigers and providing compensation of ₹2 lakhs from the government.

In West Bengal there are not many cooperatives run by fishing communities. There are a few fish vendor cooperatives in Purba Medinipur, but they are not particularly strong or active. This is due to exploitation by moneylenders and a lack of financial support from the government. One cooperative that does run is the fisherwomen-led Maa Sarada Mahila Marine Fisherwomen Cooperative, established in 1991, which has roughly 400 members. In two major coastal districts—Purba Medinipur and South 24 Parganas—there are many fisherwomen-run SHGs.

Each SHG consists of 10 members. They are very active and are working for the welfare of fishing communities, creating small livelihood ventures like fish farming in small ponds by taking leases and rearing livestock.

In India, cooperatives have been successfully implemented in Tamil Nadu, Andhra Pradesh, Karnataka, Kerala and Maharashtra. However, they are mainly run by male fisherfolk. In West Bengal, the performance of cooperatives, SHGs and associations of fisherfolk is poor.

2.1.11. Gender empowerment and gender justice

The contribution of women fishworkers in India's fisheries sector has been equal to, if not more than, that of men. Fishing, fish farming, fish vending, fish drying and sorting, net making and repairing—women are involved in almost every stage. In West Bengal a large section of small-scale fishers is made up of women. Yet they are often socially and economically disadvantaged, neglected and discriminated against. They have either limited or no access to justice and are always confined within their community, dominated and subdued by their male counterparts. In West Bengal women fishworkers are less vocal and aware of their rights. They are highly discriminated against when it comes to receiving benefits or opportunities at the local, state or central level.

Table 2.12: Occupation profile of fishing communities in West Bengal

Mark	eting	Mak repairii	ing / ng nets		ring/ essing	Pee	eling	Lab	our	Fish	ners	Oth	ers*
М	F	М	F	М	F	М	F	М	F	М	F	М	F
4,745	3075	5,241	13,178	420	2,123	478	1054	12,789	3,388			700	85

^{*}Includes persons engaged in auctioning, ice breaking, collection of bivalves, collection of other shells, collection of seaweed, collection of ornamental fish, etc.

Source: Marine Census Report of India, 2010

2.1.12. Role of Dakshinbanga Matsyajibi Forum Women's Wing

For Dakshinbanga Matsyajibi Forum (DMF), organizing women fishworkers and building up their leadership in the organization has been a difficult task. It was suggested that a separate platform be formed for women fishworkers to discuss their problems, draw up their demands and develop leadership. DMF held three workshops to materialize this suggestion. The first, in March 2016, was to draw up the demands of different categories of women fishworkers. The second, organized in April 2017, addressed the necessity of women fishworkers' organizations and their leadership development. June 2017 saw the third and final workshop, held to finalize demands, identify the leadership, form a collective and decide upon a road map for the future.

DMF Women's Wing drew up a charter of demands and has already moved the government with two demands to the Fisheries Minister of West Bengal. The demand for compensation to and rehabilitation of tiger widows was raised in particular. The Minister accepted the demands on principle and promised to meet them gradually, with at least 20 percent in the beginning. However, virtually nothing has been done. DMF Women's Wing held a press conference at the Kolkata Press Club to highlight the plight of tiger widows and joined their male counterparts in a roadblock and demands to the Assistant Director of Fisheries (Marine), Diamond Harbour. Efforts are being taken to collectivize women fishworkers in areas where they have a majority. The following activities have been carried out by the women's wing of DMF:

- Put forward the demands to the Minister in Charge, Fisheries Department
- Submitted several demands at block level

- Developing block-level committees and making women fishworkers aware of their rights and identities
- Participating in different national and international workshops, like one organized by ICSF in Chennai that focused on mainstreaming gender in fisheries
- · Actively mobilizing women Fishworkers

Demands

The women fisherfolk of West Bengal are asking for the following demands to be met by the government:

- Preparing a gender-segregated database to evaluate the role of women fishworkers
- Applying the principle of gender equity to protect and assess women's and men's work in fisheries
- Preparing and implementing women-specific schemes for fishworkers
- Providing preference to women fishworkers in all general programmes and schemes for fishworkers

Apart from the above, DMF puts forward specific demands on behalf of women fishworkers in general and by category, presented in Table 2.13.

Support and assistance provided by different organizations and associations during Covid-19 and Cyclone Amphan

During Covid-19 and Cyclone Amphan, organizations like Dakshinbanga Matsyajibi Forum, Disha, Oak Foundation, Action Aid, ICSF, Medinipur Chhatrasamaj and Midnapore.in played remarkable roles in relief and welfare work for fisherfolk communities in West Bengal. The following relief measures were undertaken in different blocks of the fishing community, like Howrah, Purba and Paschim Medinipur, Jhargram, South and North 24 Parganas, the Sundarbans area and Murshidabad.

- Groceries and ration items were given to fisherwomen residing in the above-mentioned areas. Around 2000–2500 fisherfolk families received this relief grant. Around 50 percent who benefitted from this grant were women.
- 2. ₹4000 were distributed to around 150 individuals or SHGs each to revive their livelihoods or for fish farming or purchasing chics.
- 3. In the above-mentioned areas, 5 kg of fish or chics were also given to around 700 fisherflolk to support their livelihoods. Of these 700, 300 were women.
- 4. Ice boxes and nets were provided to those in need.
- 5. Sanitizer, masks and soap were provided to most of the fisherfolk in all the districts.
- Two tiger widows received ₹1 lakh each as compensation from the government.
- 7. Due to Amphan, many houses were destroyed. In an around 7 khotis (fish landing centres) 500 tarpaulins (tirpals) were distributed.

Table 2.13: Demands of women fisherfolk in West Bengal

o, S	General women fishworkers are to be provided with	Women fish vendors are to be provided with	Women fishers are to be provided with	Women net makers and repairers are to be provided with	Women fish farmers are to be provided with	Women fish sorters and dryers are to be provided with
_	Fisher's identity cards in recognition of their occupational dignity	Bank loans at low interest to free them from being fleeced by money lenders and fish depot owners	Priority in issuing boat registrations and licenses	Financial assistance for self-employment in net making and repairing	Financial support for fish farming	Financial assistance for self-employment in fish sorting and drying
2	Priority access to housing schemes for fisherfolk	Ladies toilets and drinking water at whole-sale markets and fish landing centres	Financial support for catching crabs and fish	Provision for independent business opportunities through cooperatives, SHGs or production groups	Priority to get government water bodies on lease with relaxation in lease rents and terms	Provision for independent business opportunities through cooperatives, SHGs or production groups
က	Health and life insurance coverage	Transport facilities from whole-sale markets and fish landing centres to fish markets vending areas	Financial assistance for boats and nets	Yarn and machines for net making at subsidised rates	Security of lease and insurance coverage of water bodies	Cemented platforms for fish sorting and drying, storeroom and office space
4	Old age and infirm pension	Insulated boxes	The right to protect natural fisheries and to fish in all natural waters, including in protected areas	Shaded platforms with drinking water, toilets, storage and office space for net making and repairing	Support for pond cleaning, quality seeds and feed in fish farming	Modern solar fish drying machines with electrical alternatives
5	Maternity and childcare support	Modern weighing machines	Insulated boxes			Light, rest room, crèche, drinking water and toilets at fish landing centres

General women fishworkers are to be provided with	fishworkers d with	Women fish vendors are to be provided with	Women fishers are to be provided with	Women net makers and repairers are to be provided with	Women fish farmers are to be provided with	Women fish sorters and dryers are to be provided with
5 ₹	Childcare centres in the workplace	Markets with all facilities like concrete platform, shade, light, drinking water, ladies and general toilets, drainage, sufficient space for fish selling, storing and passage.	Arrangements to sell their catch at fair prices with proper market linkage			lechnical and other assistance for making and selling different products through fish processing
шъ	Education support for children of women fishworkers	Priority to have space for vending fish in markets				
ა <u>മ</u> ≡ ლ	Savings cum relief scheme along with adequate live- lihood support during the fishing ban period	Protection from extortionists and money lenders				
∢ ٥ ≶	Assistance to form and run cooperative societies of women fishworkers					
π ⊆ :=	Pension for all fishing community widows, including tiger widows					

- 1. Fisherwomen whose homes were destroyed by Amphan were also financially supported to repair their houses.
- 2. Around 23 women received tirpals and grocery items through Tangrachar Matsyajibi Forum, a part of DMF.
- 3. Medinipur Chhatrasamaj and the DMF women's wing distributed tirpals and amla saplings to the fisherwomen in Medinipur and Jhargram.
- 4. With the help of Midnapore.in, 12 widows were given rice, dal, soyabeans, oil, potatoes, onions and a few other grocery items.
- 5. 34 fish vendors were given chicks to revive their alternative livelihoods in Contai, Purba Medinipur. Ice boxes were also provided to a few women fish vendors.

The contribution of women is crucial to the management and sustainability of the sector. With this aim, India's 2017 National Policy on Marine Fisheries (NPMF) and 2018 Draft National Policy on Inland Fisheries and Aquaculture (NIFAP) provide guidance for mainstreaming gender equity in inland and marine fisheries and aquaculture value chains. The policies advocate for increasing the participation of women in decision-making, strengthening women's associations and cooperatives, providing financial support schemes for women, improving working conditions for women along the fisheries value chain, and enhancing women's leadership capacities. However, the tools adopted to empower women fishworkers as important stakeholders in fisheries management and their tenure rights, trade and adaptation to climate change are still being neglected in most Indian states. In West Bengal the gender discrimination against fisherwomen is strongly visible in the following areas:

- Inadequate infrastructure is provided in the landing centres as well as in the market. For example, no clean vending spaces are allotted for female vendors.
- Wage discrimination is high between male and female fishworkers.
- Fisherwomen face exploitation by moneylenders as they have to repay loans with high interest rates and, therefore, are in huge debt.
- Women harvesting crabs and other species have no rights to work in the protected areas of the Sundarbans. They also face harassment and abuse when fishing in these areas.
- There are no specific women-centric policies by the government at the central or state levels, so women fish vendors are unable to compete with their male counterparts. For example, the women vendors in Medinipur have to travel alongside men while collecting fish from landing centres and are often harassed.

Since most of the women in West Bengal in this sector are in small-scale fisheries, the SSF Guidelines, which believe in the principle of gender equality and equity, need to be enacted.

2.1.13. Legislations and schemes for Fishers and Fishworkers in West Bengal with special reference to Covid -19 period.

'Manage, protect, enhance and develop fisheries and aquaculture in the State and generate employment and improve livelihood, nutritional, socio-economic status, safety and welfare of the fishers through viable and sustainable eco-friendly strategies and programmes.'—West Bengal Fisheries Policy, 2015

Fisheries is a state subject. Therefore, the primary responsibility of developing this sector lies with the state government. This sector is known as the sunrise sector of the country. Fisheries not only contribute to economic development and foreign exchange but also provide livelihoods and food security to millions of people. The Government of India has taken several important initiatives for

the overall economic development of the country, but they have failed to cater to the social and economic development of fishing communities. With the aim of enhancing food and nutrition security, tripling foreign exports by 2020, with a focus on benefits flow to fishers and fish farmers, the Integrated National Fisheries Action Plan 2016 was drawn up. The central and state policies and legislations that are being framed for the fisherfolk community in India and specifically for West Bengal are discussed below.

The Blue Revolution, or the Neel Kranti Mission, emerged as an umbrella scheme of the West Bengal Ministry of Agriculture and Farmers Welfare, Department of Animal Husbandry, Dairying and Fisheries. It was established by restructuring all the existing schemes. The restructured scheme focuses on the development and management of fisheries, covering inland fisheries, aquaculture, marine fisheries including deep sea fishing, mariculture and all activities undertaken by the National Fisheries Development Board (NFDB).

Another goal was to increase the share of Indian fisheries in the export area, doubling the income of fishers and fish farmers with inclusive participation of the socio-economically weaker sections and ensuring environmental sustainability.

- i) The National Fisheries Policy 2020: This was drafted merging three existing policies, namely:
 - a. National Policy on Marine Fisheries, 2017 (NPMF)
 - b. Draft National Inland Fisheries and Aquaculture Policy (NIFAP)
 - Draft National Mariculture Policy (NMP)

Post-harvest elements have also been integrated into the draft policy. The vision of the National Fisheries Policy 2020 is to develop an ecologically healthy, economically viable and socially inclusive fisheries sector. It also aims to provide food and nutritional security to the country in a sustainable manner. The policy's mission is to develop, manage, regulate and conserve fisheries resources. It will ensure productive integration with other economic sectors, such as agriculture, coastal area development and eco-tourism, to meet the SDGs.

- ii) Pradhan Mantri Matsya Sampada Yojana (PMMSY) under Atmanirbhar Bharat Covid-19 Relief Package: This scheme by the Government of India will provide financial assistance for traditional fishers, including fish workers, for various activities, including livelihood and nutritional support for socio-economically backward active traditional fishers' families during the fishing ban/lean period.
- iii) Scheme for production of big-sized fish in large water bodies under NMPS: The State of West Bengal is enriched with beel fisheries, sewage-fed fisheries having variable sizes that are mostly under the administrative control of the state government. These water bodies offer immense scope for the cultivation of big-sized fish. As per the Rastriya Krishi Vikas Yojana (RKVY) guideline, the National Mission for Protein Supplements (NMPS) aims to produce big fish with the application of partial-formulated artificial feed. This will involve fisherfolk cooperatives, SHGs and fish production groups as beneficiaries, uplifting their economic condition and effectively demonstrating the improved technology for production in the sector.
- iv) National Scheme of Welfare of Fishermen: This is a centrally sponsored scheme created for all fisherfolk who are registered with the state or UT government. They will receive ₹50,000 worth of insurance on death or permanent disability. An additional ₹25,000 is also allocated in case of partial disability. This scheme also aims to provide financial assistance to fishers for the construction of homes, a community hall for recreation and a common place to work and the installation of tube-wells for drinking water. There is a savings cum relief component for assistance during the lean period.

The West Bengal State Fisheries Department has also introduced several welfare measure schemes for poor, deprived and marginalized fisherfolk in general, but no specific schemes have been introduced for women fisherfolk. The important schemes are:

- i) Old age pension scheme: This scheme is for old and infirm fisherfolk. As of 2018–19, 8500 fishermen have been enrolled under this scheme and are getting a pension of ₹1,000 per month.
- ii) Accident insurance: This scheme is under the Fishermen's Group Personal Insurance Scheme, where financial assistance of ₹2 lakh is provided to the family members of deceased or untraceable fishermen, and ₹1 lakh to those of permanently disabled fishermen. As of 2017–2018, about 2.17 lakh fishermen have been covered.
- iii) Identity facilitation: Biometric identity cards are being issued by the government to marine fisherfolk; about 2.47 lakh identity cards have already been issued. Marine fishing vessels are being registered under the provisions of the Merchant Shipping Act, 1958 (for mechanized boats) and the West Bengal Marine Fishing Regulation Act, 1993 (for non-mechanized boats).
- iv) Infrastructural facilities in fish landing centres: There are 66 khotis, or fish landing centres, in West Bengal. These khotis are mainly located in Contai, Purba Medinipur, and the Diamond Harbour area of South 24 Parganas. The financial assistance provided by the state government to maintain the khotis covers wages for khoti attendants and sweepers, the development of khuti infrastructure like link roads, submersible pumps, solar lights, fish-drying platforms and bamboo structures, the supply of hygienic materials and small equipment, and the repair of tube-wells.
- v) Distress alert: For the safety and security of fisherfolk, the government has taken up a programme for the free distribution of distress alert transmitters (DAT) to be fitted on vessels. A total of 3656 DATs have been distributed till now.
- vi) Brackish water fishery: The government provides substantial aid to increase the production of fish in regions of brackish water, mainly found in the Sundarbans delta.
- vii) Fish vendors welfare schemes: In 2018, 2230 jal-hundis were distributed to inland and marine fisherfolk, as well as among fisherfolk cooperative societies. Bicycles fitted with insulated boxes were given to 2168 fisherfolk.

Table 2.14: Fisheries Schemes in West Bengal

Development of inland fisheries and aquaculture

Development of marine fisheries infrastructure and post-harvest operations

Strengthening of database in fisheries

Institutional arrangement for fisheries sector

Monitoring, control and surveillance (MCS)

Inland Fisheries:

Distribution of fingerlings

Development of small fish markets

Construction of eco and portable hatcheries

Development of reservoir fisheries, sewagefed fisheries and air breathing fish culture

Development of harbours

Rashtriya Krishi Vikas Yojana:

Launched by the National Development Council (NDC) on 29 May 2007, this scheme was formulated for agricultural development.

National Cooperative Development Corporation:

It is engaged in the promotion and development of cooperatives in agricultural and rural activities.

National Fisheries Development Board:

It was established in 2006 to enhance fish production and productivity in the country and to coordinate fishery development in a holistic manner.

Marine Fisheries:

Development of marine fisheries, infrastructure and post-harvest operation

Development of fish processing, preservation and marketing

Focus on fisherfolk safety

Other Programmes:

Training for fish farmers and unemployed fishers

Managerial subsidy grants for fisherfolk cooperatives

Rural electrification work in fishing villages Strengthening of database

It is clear that all these policies and schemes are meant for the welfare and upliftment of fisheries and the fishing community. However, very few actually receive benefits and allowances. Many of the benefits end up being reaped by non-fishing communities. There are no effective institutions for the poor to access justice. There are state human rights commissions and women's commissions, but they are passive in their role in resolving grievances for this sector. Poor fisherfolk can only raise complaints at khoti committee meetings or at the block-level meetings conducted by their trade union organizations. The traditional rights of fishing communities and traditional institutions need to be recognized in this context to improve the legitimacy of governance institutions.

3. Findings and Recommendations

West Bengal is endowed with rich natural resources, with a wide variety of water bodies in which both capture and culture fishing takes place. Around 6 million workers, including fishers, fish vendors, fish farmers, fish processing workers, boat and net repair workers, sorters and dryers, are engaged in pre- and post-harvest fisheries in the state. In this workforce, around 50 percent are women fishers whose livelihoods are dependent on fisheries. Since 1961, India's per capita fish consumption has more than trebled. Presently, around 60 percent of India's population consumes fish. Fisheries' contribution to the GDP is around ₹1,18,000 crores. Fish production jumped in the last six decades from 0.75 million tonnes in 1950-51 to 10.16 million tonnes in 2014-15. The annual per capita consumption of fish for the entire population is estimated at 5-6 kg, whereas for the fish-eating population it is found to be 8-9 kg, a poor 50 percent of global rates. Today, India is the second-largest fish producer in the world, with a production of 13.7 million metric tonnes in 2018–19. West Bengal fisheries play an important role in making India achieve this position in the global market. Due to over exploitative, destructive and mechanized fishing practices, the state's resources are under tremendous pressure. Indiscriminate encroachment, pollution and the excessive use of water are killing our coastal and inland water bodies. Good fish needs good water. Small-scale and traditional fishing communities are the primary stakeholders who are the custodians of these natural water bodies, and they strive to maintain, protect and conserve the water bodies and fish resources. As Vice President M. Venkaiah Naidu said, environmentally friendly aquaculture can serve as a vehicle for rural development and food security for the rural masses, considering the substantial contribution aquaculture makes towards socio-economic development.

Unfortunately, small, traditional and impoverished fishers and fish farmers are witnessing policy conflicts. Thousands of these fisherfolk have been struggling to protect their livelihoods and water bodies, and are being driven out of lands falling within protected areas, like wildlife sanctuaries and reserves in West Bengal.

The key recommendations put forward by fisherfolk communities, especially small-scale fishers, in West Bengal are described in Table 3.1.

Further, the fishing sector in West Bengal and the huge resources of water bodies are under severe stress. Rivers are poisoned with high levels of pollution. The diversion of water from rivers is harming their ecological flow. Wetlands, lakes and ponds are being encroached upon and filled up by industries and housing. Poor watershed management in catchment areas is cutting down the sources of water for rivers, lakes and wetlands. Natural storm water drainage is obstructed by the construction of roads, railway tracks and real estate, thus subjecting several ponds to intermittent overflow. Run-off from chemical agriculture is destroying the fish resources of wetlands and paddy fields. Thus, thousands of fishworkers along with the tiger widows of West Bengal put forward a 21-point charter of demands, which was led by DMF. The 21-point charter included a number of demands as given in Table 3.2.

Table 3.1: Key recommendations

SI. No.	Category	Recommendations	Activities undertaken in West Bengal	
1	Small and traditional fishing communities' control over resources like land, water, forests, fish, commons and livelihoods	 □ Implementation of Forest Rights Act in the Sundarbans □ Right to fish in Sundarbans waters for forest-dependent fishers □ Right to collect wild honey for forest-dependent honey collectors □ Right to protect the fish and ecological resources of the Sundarbans 	Awareness campaign Signature campaign Community appeals Consultation on legal scope Citizen interface Government interface Display of IEC posters Formation of fisher collectives I-cards and boat registrations	
2	Preferential access of small fishers to fish resources and their right to protect fish resources	 □ Strict implementation of WBMFRA □ Enactment of matching CMFRA □ Extension of exclusive fishing zone for small fishers □ Restriction on large fishing boats on number of crafts, amount of catch and effort □ Stopping destructive fishing methods □ Implementation of SSF Guidelines 	 Awareness campaign Interface with state government National policy workshop on CMFRA Preparation and submission of community appeals Formation of fisher collectives I-cards and boat registrations 	
3	Land rights for coastal fishing communities	□ Identifying and marking community land use and unauthorized/ illegal encroachments □ Land schedules for 43 FLCs collected. Verification ongoing. □ Sensitisation of government authorities to confer community user right of land to the fishing community	 □ GPS mapping for land use in 10 fish landing centres □ Collected land use data provided by fisherfolk organizations to the government 	

SI. No.	Category	Recommendations	Activities undertaken in West Bengal
4	National Policy on Inland Fisheries	Address the need of a National Policy on Inland Fisheries and necessity of national guidelines towards tenure, security, input quality, farming and marketing	 □ Workshop on National Policy on Inland Fisheries with representatives of inland fish workers and other stakeholders from different areas □ Ascertaining policy requirements according to the needs of inland fisheries □ Networking with other national and internal organizations
5	Establishing small fish vendors' rights and entitlements	 Development of small fish vendors' awareness and motivation to know and seek their rights and entitlements Sensitization of government authorities 	 □ Market-based awareness campaign □ Community and government interface in three districts □ Formation of fish vendors' collectives □ I-cards
6	Formation/ continuation of fish workers' collectives at the gram panchayat, block, district and state levels	□ Issuance of government identity cards and boat registration certificates □ Leadership training □ Community capacity building for taking legal and quasi-legal redressal steps □ Identification and communication of needs for block-, district- and state-level collectives	□ 3000 new members to be enrolled □ About 1500 fisher I-cards and 250 boat registrations to be procured □ Three training programmes of three days each for 15 trainees □ Awareness generation on legal redressal □ Preparation of areaspecific demands with general demands and their submission to concerned PRI, state and central government authorities
7	Development and strengthening of fish workers' cooperatives as a step to democratizing society and economy	 Equipping fishworker cooperatives with sound knowledge of business opportunities and requirements Rejuvenating existing non-operational cooperatives to create examples Establishing new cooperatives to demonstrate cooperative formation in practice 	 □ Business prospect survey □ Development/ rejuvenation of two existing cooperatives

SI. No.	Category	Recommendations	Activities undertaken in West Bengal	
8	Awareness building among women fish workers, facilitating women fish workers' group formation and assertion of women fish workers' rights	 □ Make them claim their rights and entitlements □ Stop the early marriage of girls □ Assess the socioeconomic and political status of women fishworkers □ Identify gender gaps/discrimination □ Assess the socioeconomic status of tiger/crocodile widows and advocate for their survival with dignity □ Sensitize government and PRI institutions and authorities on women's issues in fish working □ Engineer institutional policy changes needed for gender equity 	 □ Study of women fishworkers in a few blocks in West Bengal □ Survey of tiger/crocodile widows □ Workshop on women fishworkers' rights □ Advocacy on rights of tiger/crocodile widows □ Formation and development of women fishworkers' groups □ 'Beti Zindabad' campaign □ Awareness generation of women's rights 	
9	Awareness building on child issues and establishment of child centres	 Make parents, children, teachers and society at large aware of child rights Assess and insist on the implementation of RTE Stop child marriage, child abuse and child labour Enhance awareness of child nutrition and hygiene Sensitize panchayat and block-level authorities 	 Status survey on RTE in CSP area Awareness campaign on child nutrition and hygiene, with health check-ups Interface with panchayat and block-level authorities Development of 13 child centres with activities like drawing, games, audio-visual shows and awareness of children's issues 	

SI. No.	Category	Recommendations	Activities undertaken in West Bengal
10	Need for rights and policy directions	Different categories of small-scale fish workers, like fishers, fish farmers and fish vendors, need their right to livelihood and social security through tenure rights, right to the sustainable use of fish resources and water bodies, and right to access finance, infrastructure and social security measures. Gender equity and the rights of women fishworkers are also very important issues, as women constitute a substantial part of the total work force in fisheries.	Awareness campaigns are being undertaken by DMF relating to basic policy directions, like sustainable development, socio-economic upliftment and gender justice.

Table 3.2: Demands

- 1. Right to Water He who wields the net has the right to water body;
- 2. Right to Land Hand over lands used at fish landing centres to fish workers collectives;
- 3. Registration of Fishing Boats;
- 4. Small Scale Fishers of Sunderbans should have the right to fish in the rivers and creeks of Sunderbans;
- 5. Restore without delay fishing communities rights to drying fish in Jambudwip;
- 6. Stop auction of government water bodies stop auctioning of fishing communities' livelihood;
- 7. Close fishing harbours and fishing jetties of West Bengal to trawlers
- 8. Immediate effective steps to protect small scale fishers from attacks and damages by mechanized boats and trawlers in Saptamukhi and Hooghly rivers;
- 9. Stop illegal intensive prawn farming and disposal of prawn from waste water in sea and river waters:
- 10. Immediate release dues of Savings cum Relief Scheme and implement the scheme for all small scale fishworkers irrespective of APL or BPL;
- 11. Permanent arrangement to issue fish workers' identity cards round the year;
- 12. All small scale fish vendors to be provided with cycle, cold box, digital weighing machines as fish markets with modern facilities;
- 13. Comprehensive package scheme "Matsyakanya" to provide finance, infrastructure and social security for all women fish workers and fishers;
- 14. Constitution of a special commission to identify the Tiger Widows of Sunderbans and to provide them with a monthly allowance of Rs 3000 to each of them;

- 15. Immediate steps to provide old age pension to every old and infirm fish workers;
- 16. Constitute Tribal Fish Worker Cooperatives Societies in different parts of Sunderbans;
- 17. Scrap the condition of Panchayat Samitis approval in formation of fish worker's cooperatives societies;
- 18. Managerial subsidy for fish workers' cooperatives should be minimum Rs 48,000 per annum and the amount is to be paid regularly;
- 19. Khoti employees should be made permanent and they should get remuneration for 12 months a year;
- 20. FEOs should not be used for any other administrative works other than fisheries.
- 21. For quick disposal of grievances of fishing communities, special committees should be constituted from block to state levels with government officials, peoples representatives and fish workers' union.

4. Conclusion

Many poor people—tribals, migrants, minorities and other vulnerable groups—depend on estuarine and marine fisheries in West Bengal. Fishing communities draw on a diverse range of natural resources and activities, which generate a living but very little surplus. Access to fisheries resources is heavily infringed upon by larger players. Land use for various fishing related works is under continuous threat of encroachment. Market access and linkages remain very weak, so value realisation for fish is low, while losses are high. MPAs reduce access to resources, making conservation seem like a threat to livelihoods. Social protection measures are inadequate. Small-scale fishworkers, including small fishers and fish farmers, are the largest stakeholders of water bodies and their natural custodians as well. These workers, along with ancillary workers like fish vendors, are not only economically poor but also deprived of their livelihood rights. Degradation of water bodies due to pollution, encroachment and overuse impact small-scale fishers and fish farmers the most. Moreover, a new class of entrepreneurs, with support from the government and financial institutions, are subjecting these small-scale fishers and fish farmers to unequal competition and eventually evicting them from their water bodies. Even official conservation measures for protected areas impose blanket bans on fishing.

This study tried to examine and explore different central- and state-level policies, schemes, legislations and reports for the protection of human rights in small-scale fisheries in West Bengal, with special reference to women, children and indigenous communities. The study also focused on how social development of fishing communities in West Bengal, especially of small-scale fishers, contributes to the effective conservation and sustainable use of marine, coastal, freshwater and brackish water biodiversity. Small-scale fishers are vulnerable and marginalized due to less accessibility to resources and weak processing and marketing facilities. They are more exposed to natural disasters. The existing policy provisions are inadequate and badly implemented.

This study also tried to cover the social development of fishing communities in West Bengal from the perspectives of full-time vs part-time work, informalvs formal, migrant vs resident, and women vs men, as well as looking at health, education, housing, sanitation, potable water and energy. Fishworkers' standard of living was noted, as were the aspects of violence against women and access to justice. The connection between economic development, social development and environmental protection is recognized by the 1995 World Summit on Social Development, but when it comes to fisheries, the emphasis is on economic and environmental issues and less on the social development of fishers and fishing communities.

The following figure enumerates some of the important struggles faced by traditional and poor fishing communities in West Bengal.

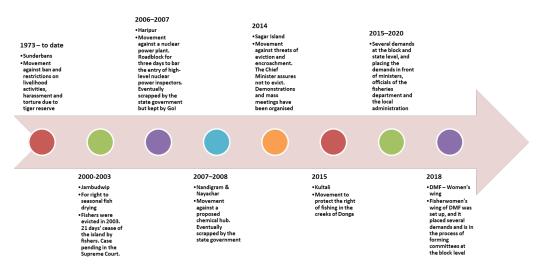


Figure 4.1: A timeline of fisheries struggles in West Bengal

To summarise, the fishing communities of West Bengal, especially small-scale fishing communities, rank very low in terms of social development, owing to their isolation and inaccessibility and denial of rights. Their access to the most basic needs—transport and communication, education, healthcare, energy, water and housing—remains very weak to non-existent. Several social protection programmes exist, but their coverage, scope and effectiveness remain inadequate. Insurance coverage is extremely poor, and even the families of those who die or are maimed in tiger/shark/crocodile attacks receive patchy or no compensation. Pensions for the weaker sections of society (older people, single women and widows) are inadequate and cover only a small proportion of their needs. These existing issues were exacerbated due to Covid-19 and Cyclone Amphan. The challenges and issues of different categories of fishing communities are given in the table below.

Table 4.1: Main challenges and issues I: Tenure and Governance

Fish Workers	Tenure	Governance	
Fishers (marine)	Water: Access and sustainably use fish resources Land: Community user right of land in use	Fish resources: Right to protect fish resources from over and destructive fishing	
		Environment: Right to stop pollution and encroachment on coast	
Fishers (inland)	Water: Access natural water bodies and sustainably use fish resources	Fish resources: Right to protect fish resources from poisoning and non-fisheries water use; release of reservoir water; replenishment of fish	
	Land: Right to access water bodies	stock	
		Environment: Right to stop pollution and encroachment on rivers and banks	
Fish farmers	Water: Security of lease for ponds; availability of government water bodies	Arrangements for quality inputs: Fish seed, feed, expertise/training, treatment	
		Environment: Right to stop pollution, filling up/ encroachment of ponds, extortions	
Fish dryers/ sorters	Land: Community user right of land in use	Arrangements for sufficient and quality inputs: Raw fish	
		Environment: Right to stop pollution and encroachment on coast	
Fish vendors	Right to space in markets	Right to participate in governance of landing centres and markets, and conduct vending peacefully without extortions	
Women Fishworkers	Gender equity in tenure rights	Gender equity in right to governance of workplaces and activities	

Table 4.2: Main challenges and issues - II: Finance, Infrastructure and Social Security

Fishworkers	Finance	Infrastructure	Social security
Fishers (marine)	Freedom from the clutch of money lenders and fish depot owners Formation and conduction of economic selforganizations, like cooperatives and	Basic infrastructure for fish landing centres: offices, rest rooms, storage, fish drying platforms, community halls, drinking water, toilets, lights, cyclone shelters, ice factories	Comprehensive social security cover: housing, old age pension, life and health insurance, support for children's education, insurance of boats and nets, insurance of fish ponds
Fishers (inland)	SHGs Accessing bank loans	River approach roads, jetties, market transportation, ice factories	
		Pond side shelters	
Fish farmers			
Eigh durage/ contour		Drying platforms, shelters, crèches,	
Fish dryers/ sorters		cycles, motorcycles,	
Fish vendors		pick-up vans, markets with facilities, cold chain and storage	
Women fishworkers	Gender equity in accessing finance	Provisions for women as required in the facilities	Women-specific schemes

To summarize, fishing communities and other coastal-dependent communities are socially, economically and culturally at risk. They face social and political marginalization, and poverty and poor-working conditions are widespread. The livelihoods of coastal and inland fishing communities are further endangered by the depletion of fish stocks, caused by overfishing. Other vulnerabilities include the degradation of aquatic environments and natural disasters. Since the 1990s, coastal communities in India have been raising their voice under the National Fishworkers Forum. States have their own organizations to create awareness of fishing rights and welfare schemes available to fishworkers from the government, mobilizing them under one umbrella and ensuring their participation in different national and international workshops and training programmes. In West Bengal, the leading fisherfolk organization, DMF, is also keeping no stone unturned in the social and economic development of fishworkers. Regular demonstrations, rallies, demands and block meetings are put forward.

Currently, most of the global organizations related to fisheries are demanding social protection and sustainability. With this objective, this study tried to focus on the social and economic status of the fishing community, particularly in West Bengal, and how the sustainable use of resources can contribute to their overall development. The study also tried to give an overview of the activities of small-scale fishers and the challenges they face while they march ahead, with the support of fishworker organizations, for their survival.

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Social Development and Sustainable Fisheries: West Bengal

Prepared by:

Dr Shilpa Nandy

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.

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