

# IMPACT OF COVID-19 ON THE LIVELIHOODS OF FISHERMEN COMMUNITY IN YANAM, PUDUCHERRY: AN ANALYSIS

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**Abstract:***The Global pandemic, COVID-19 has unpredictable impacts on all the sectors of the economy throughout the globe and no exception to the fishing sector. The fisheries sector plays a vital role in the economy by providing food & employment to millions of people and defining the cultural identity of many coastal communities and contributing to keep them alive. The outbreak and the resultant lockdown in India have greatly affected the livelihoods of fishing communities across India. Though the lockdown may help in arresting the spread of corona virus; but has a chronic impact on the livelihoods of vulnerable population particularly on food systems, storage and market chains, both locally and regionally. Yanam is a coastal line in which most of the people depends on fishing for their bread and butter. As a consequence of the current pandemic, thousands of fishermen lost their employment and suffered increasing inequality and poverty. On this backdrop, the present study has been undertaken to analyze the impact of COVID-19 on the Livelihoods of Fishermen community in Yanam, Puducherry.*

**Keywords:***COVID -19, Fishermen Community, Livelihoods, Unemployment, Inequality and Poverty*

## INTRODUCTION:

“Suitable adjustments will have to be made to provide immediate relief to the corona affected fishing communities. This should not be connected to regular payments like fishing ban period compensation”

- Prof M S Swaminathan.

Fisheries sector could be a vital sector of food and nutritional security in India. Over 9 Million people directly rely on fisheries for his or her livelihood of which 80% are small scale fishers. The sector employs over 14 million people and contributes to 1.1% of the Indian GDP. The geographical region of India covers 4 maritime states Tamil Nadu, state, Odisha and state and therefore the Union Territories of Puducherry and Andaman and Nicobar islands. Fishing is especially disburshed with traditional fishing crafts, motorized boats and little mechanized crafts.

Overall the geographical region produces 25% of total Indian marine landings. Small scale fishers in India have issues in three areas: pricing, marketing and organization.

The world Pandemic is random shock for the economy and health system as a full. It disturbed the demand and supply chain of the all sectors of the economy. It's enormous impact on fish and fishery products because of the prolonged lockdown, which directly affected 14.5 million people related with the fisheries sector. The impact includes production, distribution and marketing of inland fisheries, marine products, supply of seed and export seafood items. Complete lockdown within the harbours and also the landing centres has greatly affected the fisher-folks' day-to-day earnings of all the coastal districts. Small scale fisheries especially are accountable for providing fish as a major source of protein at low cost for consumers. This can be particularly important for marginalized communities and lack of fish within the diet will have considerable impact on nutrition security of those people. In some villages near Chennai, small scale fishers fishing near shore areas are struggling to promote their catch. Due to the physical distancing norms, only few fisherwomen are ready to buy fish from the fishermen within the landing centres. Since the time allotted to sell the fish is extremely short, they're forced to sell their catch at lower prices. Women fish vendors are considerably affected because of the lockdown as there's no fishing activity and in some places, only limited boats are fishing. The low catch dropped at the landing centre is subjected to high demand. Even when few women purchase affordable amount of fish from the landing centre for street vending, but due to the pandemic, people don't seem to be purchasing the fish. Customers are seen bargaining for lower cost. And hence, their income has totally reduced and that they face difficult to manage their families.

The laborers engaged within the sector are severely affected. Usually fishing laborers take an advance from boat owners during the lean/ban fishing period. But now boat owners too face financial problems because of the lockdown. So laborers are finding it difficult to satisfy family expenses. People, who had migrated from their state to other states like Kerala and Karnataka for fishing activities, are now without work because of the national lockdown. They back home with no work and income.

The lockdown restrictions also made them to face difficulties in marketing their fish. The fishermen equipped with storage facilities are ready to preserve their catch and that they have possibilities of promoting their harvested fishes soon. There's another section of fishers who are suffering due to lack of storage facilities in marketing their catch and are severely affected. It's going to be discerned that an enormous quantity of fish items were discarded in Chennai due to the unavailability or lack of storage facilities. The export market is on standby and since of this, the complete fishing sector, together with its allied sectors, is affected adversely. Since the lockdown, fish traders aren't allowed to acquire fish and then the export marketing of fish has declined to a great extent.

The Union Territory of Puducherry is 479 Sq.kms. in area and has a population of 12,47,953 as per 2011 census with four distinct regions viz. Pondicherry, Karaikal, Mahe and Yanam lying geographically isolated from one another. Yanam region is located about 840 Sq.kms. North-East of Puducherry, near Kakinada in Andhra Pradesh. Yanam spread over an area of around 20 sq. kms within the East Godavari district in Puducherry.

The Union Territory of Puducherry with a coastal line of 45 kms, 1000 sq.km of continental shelves enriched with marine fisheries potential. It has a fishermen population of about 95,467 of which 29,383 nos. of fishermen are actively engaged in fishing from 27 marine fishing villages and 23 inland fishing village / hamlets scattered in and around Union Territory of Puducherry. This Union Territory is additionally endowed with 1400 Ha of fresh water area

within the variety of Ponds and Tanks suitable for both capture and culture fishery. 800 Ha of Brackish water area are available for undertaking Brackish water Prawn Culture. Fishery Sector has become a significant sector enriched with a source of livelihood for generating employment to an outsized extent of the society furthermore as sharing for national food security and valuable foreign exchange earnings. Under marine sector, coastal fisheries in many parts of the country having reached a saturation level, unexploited potential which lies within the deep sea should be tapped up by adopting diversified method of fishing, by implementation of Code of Conduct for Responsible Fishery (CCRF), observance of closed season within the east & geographical area etc. it's imperative to modernize the arena with diversified method of fishing with various new components associated with exploitation of deep sea oceanic fishery resources, sea safety measures, insuring of fishing fleets etc., to confirm availability of fish in prime condition to the consumers and fishing industry. Sea weeds culture, Mud crab fattening is additionally proposed to be haunted and introduction of Artificial Reef for improving livelihood security of Fishermen by resource enhancement.

**Table 1: Fisheries Statistics at a Glance**

Sl. No.		Total	Puducherry	Karaikal	Mahe	Yanam
<b>1</b>	<b>Coastal Length</b>	45 Kms	24	20	1	-
<b>2</b>	<b>Fishing Villages</b>					
	(a) Marine	39 nos.	15	10	3	11
	(b) Inland	11 nos.	10	1	-	
	<b>(c) Total</b>	<b>50 nos.</b>	<b>25</b>	<b>11</b>	<b>3</b>	<b>11</b>
<b>3</b>	<b>Population</b>					
	(a) Marine	68884 nos.	37,412	13444	2428	15600
	(b) Inland	8296 nos.	7,364	932	-	-
	<b>(c) Total</b>	<b>77180 nos.</b>	<b>44,776</b>	<b>14376</b>	<b>2428</b>	<b>15600</b>
<b>4</b>	<b>Fishermen Families</b>					
	(a) Marine	1,7221 nos.	9,353	3,361	607	3,900
	(b) Inland	2,074 nos.	1,841	233	-	-
	<b>(c) Total</b>	<b>19,295 nos.</b>	<b>11,194</b>	<b>3,594</b>	<b>607</b>	<b>3900</b>
<b>5</b>	<b>Fishing Crafts</b>					
	(a) Wooden Mechanised Boats	316 nos.	126	47	12	131
	(b) Steel Mechanised Boats	127 nos.	40	74	-	13
	(c) FRP Mechanised Boats	255 nos.	84	-	2	169
	(d) FRP Catamaran Motorized	1088 nos.	533	410	117	28
	(e) Wooden Catamaran with OBM	70 nos.	-	26	-	44
	(f) Wooden Catamaran without OBM	1207 nos.	168	47	-	992
	<b>(g) Total</b>	<b>3063 nos.</b>	<b>951</b>	<b>604</b>	<b>131</b>	<b>1377</b>

<b>6</b>	<b>Fisherman Co-operative Societies</b>					
	(a) Apex	1 no.	1	-	-	-
	(b) Central	1 no.	-	1	-	-
	(c) Primary Fishermen Societies	43 nos.	28	10	1	4
	(d) Primary Fisherwomen Societies	21 nos.	4	6	1	10
	<b>(e) Total</b>	<b>66 nos.</b>	<b>33 nos.</b>	<b>17 nos.</b>	<b>2 nos.</b>	<b>14 nos.</b>
<b>7</b>	<b>Member Enrolled in FCS</b>	59,772 nos.	36,366	11,344	2,840	9,222
<b>8</b>	<b>Minor Fishing Harbour</b>	4 nos.	1	1	1 (under Construction)	1 ( under Construction )

Source: Department of Fisheries & Fishermen Welfare, Puducherry

The above table reveals the overall statistics of Fisheries in the all four regions of Puducherry in terms of coastal length, Fishing villages, population and the families depend on Fishing, Fishing crafts, No. of Fisherman Cooperative Societies and the members enrolled and Minor Fishing harbours etc.

## 2. REVIEW OF LITERATURE:

The COVID-19 Pandemic has started in China on 31<sup>st</sup> December 2019 in the city of Wuhan, China and spread throughout the world and has immobilized the world by its health and economic shock (Hongzhou et al., 2020). By observing the terrible severity of the outbreak, World Health Organization (WHO) declared COVID-19 as a global emergency on 30<sup>th</sup> January 2020 (Sohrabi et al., 2020). As the disease is highly transmissible and vaccine has not been developed, so the ways to “Flatten The Curve” (Nicola et al., 2020) include the imposition of self- quarantine, social distancing, travel restrictions, closedown of different public facilities, transportation, even lockdown of the entire country (Dev & Sengupta, 2020). India was with fifty three thousand confirmed cases and seventeen hundreds of deaths (GoI, 2020a). Thus in order to curb the spread, the Government of India imposed a three week long lockdown nationwide on 24<sup>th</sup> March 2020. The GoI spends only 1.5percent of the total GDP on public health (GoI, 2020b) so health system of the country is relatively weaker in comparison to other countries (Dev & Sengupta, 2020). Recent patterns of transmission show that average doubling rate of COVID-19 cases in India is 9.1 days (The Economic Times, 2020a).

Gagan Deep Sharma and Mandeep Mahendru (2020) viewed that the GoI is in a dilemma of whether to save lives or livelihoods, and the government announced lockdown the country by giving priority to lives rather than livelihood. This lockdown has terrible impact on all the sectors of the Indian Economy. Mridula Rani Das, Sunuram Ray, Uttam Kumar, Salma Begum and Satya Ranjan Tarafdar conducted a study to update the livelihood status of fishermen community in Bangladesh in the year 2013. The fishermen of Upazila of Khulna district were deprived of many facilities and the socio-economic condition of the fishermen in the adjacent area was not satisfactory due to the low level of education & incomes and lack of awareness about savings etc. The authors suggest the Government has to formulate a management policy and special considerations in the ban season of the fishing.

Soumyadip Purkait, Sutanu Karmakarm, Supratim Chowdhury, Prasenjit Mali and Surya Kanta Sau analyzed the COVID-19 outbreak and its impact on developing countries like India. The Economy of India has been ruinous because of prolonged lockdown and hence the authors suggested the government and policy makers need to be prepared to minimize the impact of this

shock and V-shaped recovery of the economy in the post COVID period and took this challenge and combat with the pandemic. The authors opined that this sluggish farming sector and stagnant exports are going to put the fishery industry of the country in a severe crisis.

Shnmugarajah Srikanthan analyzed the impact of Climate Change on the Fishermen's Livelihood Development (2013) and classified the climate changes into two categories viz., predictable and unpredictable. The author suggested that the fishermen must be encouraged to save at least a minimum amount from their earnings, in the off season in fishing they can engage some form of self employment, and the government should pay their attention to recover socio - economic condition of families affected by the unpredictable climate change, particularly the government should provide necessary support to fishing laborers' families.

Prateep Kumar Nayak, studied about the Fisher Communities in transition in Chilika Lagoon, India and viewed that the sustainable livelihood framework has remained a useful approach to analyze the changes in rural livelihoods, especially in Resource Dependent Communities. The author concludes that the multiplicity of ways through which fisher in Chilika perceive their livelihood, challenges the dominant view that the concept of livelihood is about economic activities and incomes and suggests that livelihoods in resource dependent communities, such as Chilika small-scale fisheries, are far more complex and dynamic. Venkatesh Salagrama (2006) examines the impact of seasonality and shocks upon the fisheries-based livelihoods and importance and the influence of various policies, institutions and processes in addressing the fishers' need to cope with their vulnerability context in a meaningful manner.

FMSP Policy Brief 4 – The Fisheries Management Science Programme (FMSP) and Marine Resources Assessment Group (MRAG) Ltd. discussed about Fisheries and Livelihoods. The key issues are fisheries, especially in developing countries, contribute to livelihoods in a range of ways: directly as food, as a source of income and through other social benefits, such as reduced vulnerability to poverty. These are often complex, dynamic and adaptive. Fisheries can reduce economic and food vulnerability, but they are themselves vulnerable to external influences such as environmental degradation and climate change. To implement effective management, decision-makers have to recognize the roles and importance of fisheries to livelihoods and ensure fisheries are sustainable.

Edward H. Allison, Frank Ellis (2001) Studied about The livelihoods approach and management of small-scale fisheries and concluded that part-time fishing is preferable and the alternative livelihood sources raise the opportunity income of fishing, with potential conservation and economic benefits. The fishermen Geographical mobility is necessary to sustain catches on mobile or fluctuating fish stocks this will give economical benefit. The FAO code of conduct for responsible fisheries, with its provisions to protect small-scale fishers' livelihoods from conflict with larger-scale commercial interests, provides necessary framework for maintaining or enlarging small-scale fisher folks' 'Action Space'.

A.K. Singh, Lakhon Singh and Sunil Kumar analyzed the impact of COVID-19 on economy. India is the second largest fish producing country in the world, with 6.56percent of global production (GoI, 2019). Around 14.5 million people are engaged in fisheries and its allied activities (NFDB) in India, and it has been estimated that around 60percent of the total population consume fish (Shyam, 2016). Fisheries sector of the country contributes about 1.1percent to the overall GDP and 5.23percent to the Agricultural GVA (NFDB). So, in this precarious situation, an attempt was made to examine the potential impact of COVID-19 pandemic on the fisheries sector in India and various mitigation measures to ameliorate the coronavirus shock.

### 3. OBJECTIVES & METHODOLOGY:

In India, fisheries sector is playing a vital role in the socio-economic development of the economy. Its role is significant in providing food & employment to millions of people and towards contributing National GDP. The pandemic hit hard the Yanam Fishing Community, by which thousands of fishermen faced chronic problems of food and employment. On this backdrop, the present study aims to analyze the multi-dimensional economic impacts of the fisheries sector from the pandemic In India as a whole and Yanam in particular.

With this background the present study “*IMPACT OF COVID-19 ON THE LIVELIHOODS OF FISHERMEN COMMUNITY IN YANAM, PUDUCHERRY: AN ANALYSIS*” has been formulated with the following objectives:

1. To study the significance of Fisheries sector in India.
2. To study the impact of COVID-19 on the Fisheries sector in India
3. To analyze the status of Fishermen and the Pandemic impact on Fishermen Community in Puducherry in general and Yanam in particular
4. To analyze the impact on the livelihood of the Fishermen in Yanam
5. To overview the future prospects of Fishermen in Yanam.
6. To suggest the policy recommendation to ameliorate this shock.

Consistent with the objectives of the study, different techniques have used for the analysis of the data. The data pertaining to the study has been analyzed and presented in tabular forms to make the findings meaningful and easily understandable with simple statistical tools of analysis like ratios, percentages etc. The present study was based on two sources of data viz., primary data and secondary data. Primary data is the first hand information collected from the Fishermen Community of Yanam directly to know the impact of the pandemic on their lives in terms of decrease in the level of employment and incomes. The primary data was collected through direct interview method from sample population of 400 Fishermen. The secondary data related to present study was mainly collected through secondary sources which include various official reports, periodicals, magazines and websites etc.

### 4. ANALYSIS:

In India, over Nine Million people directly depend on fisheries for their livelihood of which 80 per cent are small scale fishers. The industry employs over 14 million people and contributes to 1.1 per cent of the Indian GDP. Fishing is mainly carried out with traditional fishing crafts, motorized boats and small mechanized crafts. Overall the east coast region produces 25 per cent of total Indian marine landings.

As the COVID-19 pandemic continues to spread globally, many countries are putting in place unprecedented lockdown measures designed to contain its impact on public health. However, such measures are having significant impacts on other domains of human activity, including food and nutrition security, jobs, livelihoods, gender equality, and potential social unrest. Fisheries and aquaculture provide nutritious food for hundreds of millions of people around the world and livelihoods for over 10% of the world’s population. All aspects of fish supply chains are strongly affected by the COVID-19 pandemic, with jobs, incomes and food security at risk. Government and industry responses are needed to address the immediate economic and social hardships that the crisis is provoking in the fish sector. Governments also need to maintain long-term ambitions for protecting natural resources and ecosystems, and the viability of fisheries.

Fishing is one of the main occupations of the people in Yanam. The Govt. considers that the people who have an income of below Rs. 74,000/- p.a. as a small scale Fishermen. The fishermen use Mechanized Boats, Fibre Boats and Theppa (especially for Tuna fishing) for

fishing into the sea. They use variety of nets - The four main types of fishing gear that use netting are gillnets, surrounding net, seine nets, and trawls. The fish available in Yanam includes a wide variety of fishes such as Vanjaram / seer fish, shark, shrimp/prawns, Tuna, Squid, cat fish, catla (botche), crabs, Hilsa/pulasa, chanduva/pomfret, mackerel/kanaganthalu, sea bass/pandugappa, konem/sword fish etc. The Owner cum driver boats and only staff driven boats has Min 6 - 9 members. The crew of these boats will get a 1200 per day / 1200 per night – the total staff in the boat will share this 1200 per day (Ex: 6 members in the boat Rs. 200 per day and Rs. 200 per night for each). After catching the fish the owner will give 20% on the total catch in terms of money to the entire crew. The crew in the boat will get an advance of Rs. 30000 to 50000 per trip and driver will get an advance nearly Rs. 100000 approx. The new china engine boats are speed boats with high horse power and big in size and at the same time fish catching also high. These boats are costly and have to pay per day Rs. 2000/ & per night Rs. 2000 for the crew. After catching the fish, the boats will reach the landing center / harbour for the Auction of the Fish in which wholesale companies, sellers and sometimes public will also participate. The seller will take the fish to local markets or they will again export to other areas.

**Table 2: Region-wide distribution of Fishermen in Yanam**

Regions	No. of Fishing Families	No. of People involved in Fishing Activities		
		No. of Men involved in Fishing	No. of Women involved in selling the Fish	Total
Giriyam Pet	112	112 (29.17)	80 (31.25)	192 (30.0)
Savitrinagar	108	100 (26.04)	66 (25.78)	166 (25.94)
DarialaThippa	96	94 (24.48)	50 (19.53)	144 (22.5)
Mettakuru	84	78 (20.31)	60 (23.43)	138 (21.56)
<b>Total</b>	<b>400 (100)</b>	<b>384 (100)</b>	<b>256 (100)</b>	<b>640(100)</b>

Source: Primary Data

The study reveals that the most of the women in the fishing families involve in selling the produce and the fishermen on fishing. They go for fishing as a crew of 10 members on mechanized boats for a period of one month and 6 members on fibre boats for a short duration. The fishing catch depends entirely on the climate changes, seasons and especially on their luck. Every year there is a Fishing Ban for One and half month from 15<sup>th</sup> April to 31<sup>st</sup> May and for that they will receive Rs.5500/-, each ration card every year in summer season. The Govt. of Puducherry granting a subsidy on diesel approximately Rs. 6.50 per litre whereas in Andhra Pradesh Rs. 9 per litre. (Note: if the boat owner wants to get claim this benefit of subsidy, he must insure the boat). Insurance premium will vary from boat to boat (size). In summer, The Fisheries Dept provides Rs. 20,000/- approx. for boat repairs on producing a repairs bill of Rs. 40000/- by the owner of the boat.

Yanam is no exception to the Pandemic impact. The fishermen community was hit terribly by the outbreak. During the lockdown period, many lost their employment and livelihood. As per the study, they receive nothing from the Govt. as excreta during the period.

There are no fixed, regular and uniform incomes for the fishermen community as the catch entirely depends upon the time, climatic conditions etc. It's observed by the study that the fishermen have no awareness of savings. Though in peak seasons their income levels show abnormal raise, they save nothing for the future and off season period. In such period, they face chronic financial problems.

**Table 3: Income levels of Fishermen Community during Pre- COVID, Lock-down and Post Lock-down periods**

Regions	Average Income per Month (Approx. In Rs.)		
	Pre-COVID	During Lock-down	Post Lock-down
Giriyam Pet	11,000	4,000	7,500
Savitrinagar	12,500	2, 500	6,600
DarialaThippa	12,000	3,000	8,000
Mettakuru	10,000	2,800	7,000

Source: Primary Data

Note: The incomes in the above table are the average figures provided by the sample respondents.

The above table reveals that before COVID, the fishermen had an average income of Rs. 11, 375/- p.m. whereas during lock-down it's only Rs. 3, 075/-. The income levels dropped drastically to one-fourth of income of normal period. Fishers have not ventured into the sea since 20<sup>th</sup> March 2020. The annual fishing ban period begins on 15<sup>th</sup> April to 15<sup>th</sup> June along the east coast of India. As a result, marine fishers will effectively lose nearly 90 fishing days this year. So, there is huge pressure among the fishers, fish vendors and fishing labourers as a result of the lockdown. But after lock-down, the situation is little bit encouraging and showing an increasing trend.

#### **4.1. Impact of COVID-19 on Fisheries Sector:**

1. The pandemic affected the livelihoods and day-to-day earnings of the fishermen in Yanam.
2. Small and marginal fishermen who fishing near the shore is struggling to market their catch with new norms and short time available for sales. The vendors have to sell their fish at lower rates nearly 30 per cent lower.
3. Incomes of fish vendors, mainly women, has been badly affected due to the pandemic as fish is not available for sale and they are losing valuable daily income.
4. Migrants to other states for fishing activities remained without work due to national lockdown and some households have been reduced to one meal a day.
5. In the case of trawler fishers, those with storage facilities can preserve their catch from before 20<sup>th</sup> March for marketing later but with greater struggle and at very low prices. Those without storage facilities are severely affected and huge quantities of fish were discarded as well.
6. The export market also stopped as the entire fishing sector chain and its allied sectors are adversely affected.
7. With disruption in supply chain, thousands of ice-plant workers, fishers involved in diesel transportation to the boats and youth are lost their daily wages.
8. The lockdown has also affected maintenance activities of boats and engines potentially causing damage to high-cost assets.

#### **4.2. Government Policies to revive the Fisheries Sector:**

The post-monsoon catch for small scale fishers is an important phase of monetary sustenance. The catch is more diverse than other seasons and the income from the spring sale ensures sustenance for the community during the fish ban period. The ban period is also the period of repair and maintenance of nets and boats and without the spring catch and sale, there will be economic pressure on the community as they would require loans to carry out maintenance costs to be able to resume fishing after the ban period.

To maintain fish production and address food security concerns, governments can exclude fish production from lockdown orders where possible (OECD, 2020[2]). Such measures would also reduce hardship for coastal communities, which rely heavily on the sector. However, this may not be possible everywhere, and additional measures, such as temporary income support for affected fishers and fish processing workers, may be needed.

The design of policy responses, along with how they are implemented, will be critical in ensuring that they both provide support to those that require it, and do so in a way that avoids either encouraging unsustainable fishing (now or in the future), or creating tomorrow's market distortions. Further, maintaining and enforcing an appropriate regulatory framework during and immediately after the current crisis is crucial for the long-term sustainability of the sector, including for international fisheries. Responses to, and learning from, the crisis may also be an opportunity to accelerate transformations in the fisheries and aquaculture sector to build its resilience to future shocks.

Various development & welfare oriented schemes are implemented from time to time with the objectives of augmenting Marine, Freshwater and Coastal fishery production as well as for uplifting the socio-economic status of the fisher folk with due focus on safeguarding the interest of all sectors of fisher folk and for conserving the Marine, Inland and Brackish Water resources on a sustainable basis. Special thrusts were focused to accomplish the above goals through the successive plan periods. As a result of it, the socio-economic status of the fishermen has developed considerably.

To encourage and motivate the fishermen students to persuade their school studies, cash awards will be given to students who secure 75% and above in HSC ad SSLC. Fishermen youth will be deputed to CIFNET institutes to undergo training in vessel navigation course and marine fitter course. Fishing Harbour at Yanam is under various stages of construction and steps to complete construction will be taken early. Under post harvest hygienic handling of fish, the department will provide ice boxes at subsidies cost to fish vendors.

The Govt. of Puducherry implementing welfare measures to the Fishermen Community in enhancing their livelihoods through various schemes through Fisheries & fishermen Welfare dept. Under welfare measures to fishermen, this department is extending Old Age Pension to 6022 fishermen, financial assistance during uniform fishing ban as well as free clothing and cash assistance during lean season to 20,400 fishermen families besides extending financial assistance @ Rs.2,000/- to the families of deceased old age pensioners to meet out their funeral expenses, financial assistance @ Rs.1,50,000/- and Rs.2,00,000/- to the families of Missing fishermen and deceased fishermen respectively, while fishing. Fishermen are also supplied with fishery requisites at subsidized rates.

## **5. CONCLUSIONS:**

Fishery Sector has become a vital sector enriched with a source of livelihood for fishermen and also generating employment to a large extent of the society as well as sharing for national food security and valuable foreign exchange earnings. It is imperative to modernize the sector with diversified method of fishing with various new components related to exploitation of deep sea oceanic fishery resources. In order to regulate the fishing efforts and to conserve the fishery resources, the Fisheries department is regularizing the fishing crafts operated in the Union Territory by adopting uniform online registration, colour coding and also ensuring the sea safety equipments and marine risk insurance for safety of fishermen and fishing crafts.

COVID-19 outbreak has been deemed a global health emergency, and its impact on developing countries like India is one of heightening concern. India, with its apt governance, took the

situation as a challenge and doing in all way of possibilities to combat with the pandemic. At the same time, the government and policymakers need to be prepared to minimize the impact of the shock and V-shaped recovery of the economy in the post COVID period.

Fisheries and aquaculture provide nutritious food for hundreds of millions of people around the world and livelihoods for over 10% of the world's population. All aspects of fish supply chains are strongly affected by the COVID-19 pandemic, with jobs, incomes and food security at risk. Government and industry responses are needed to address the immediate economic and social hardships that the crisis is provoking in the fish sector. Governments also need to maintain long-term ambitions for protecting natural resources and ecosystems, and the viability of fisheries.

Economic, equity and environmental considerations all point to similar best practices: supporting the incomes of those most in need rather than subsidizing inputs or fishing effort, and ensuring that evidence-based management remains in place and is enforced. Transparencies in policy responses will help build trust in the future of fish value chains and markets, and enable learning from the crisis to improve the sustainability and resilience of fisheries and aquaculture.

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