



## Livelihood disruptions among small-scale fishermen during COVID-19: A qualitative study from coastal Kerala, India

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### Abstract

The covid 19 pandemic has created widespread disruptions across all walks of life. Small-scale fishing communities are suffering the most due to livelihood insecurity. The qualitative study examines the disruptions in the livelihoods of small scale fishermen in Poovar Panchayat, Thiruvananthapuram district, Kerala, due to covid 19. An exploratory research design and in-depth interviews were conducted among 7 fishermen to understand income loss, food insecurity, coping mechanisms, family support and psychological distress during the lockdown period. The findings revealed that restrictions in fishing resulted in loss of daily income, reduced food consumption and emotional trauma. Fishermen and family members adopted alternative livelihood ways such as domestic work, casual labor and support from government agencies and NGO'S to overcome the pandemic. The study opens up the need for targeted social policies, livelihood programs and rapid crisis response strategies to safeguard the marginalized occupation groups during public health emergencies.

**Keywords:** COVID -19, livelihood, unemployment, inequality and poverty

### Introduction

The covid 19, which started as a public health crisis, later turned out to be an economic crisis due to restrictions imposed by the government to control the spread of virus. Although covid 19 does not affect fish and those eating fish. The fishing sector was badly affected by the lockdown restrictions imposed by the government. Kerala has a total population of about 334 lakh (Census 2011). The fisher folk community is estimated to form around 3.13% of the State's population—approximately 10.44 lakh people. They live in 222 marine fishing villages and 113 inland fishing villages. Among them, around 8.04 lakh depend on the marine sector, while about 2.40 lakh depend on inland fisheries. Alappuzha has the largest fisher folk population (1.94 lakh), followed by Thiruvananthapuram (1.73 lakh) and Ernakulam (1.39 lakh).

Covid 19 has affected the economy and health system a standstill. Demand and the supply chain has been devastated. Fish and allied fisheries products are affected because of the prolonged lockdown. The affected areas includes production, distribution and marketing of inland fisheries, marine products, supply of seed and export of sea food items. Complete lockdown of harbours affected fish landing and small scale fisherwomen who worked as fish vendors. The government has restricted the commercial catching and sale of fish as a precaution to avoid overcrowding. Limited time was allocated to sale fish so fish vendors need to sell their fish within speculated time. Hence they are forced to sell fish at lower price. This add more fuel to their fire. Boat owners are another category from fishing sector who are mostly affected due to this pandemic. They pledge everything to the bank and money lenders to purchase boat. Since no activities are happening they are in a dilemma. They are unable to pay their debt. Lack of savings and storage facility for small scale fish vendors created a devastating effect on their livelihood.

### Objectives of the Study

- To examine the impact of the COVID-19 pandemic on the livelihoods of small scale fishermen in Poovar Panchayat.
- To understand the coping mechanisms adopted by fishermen and their families during lockdown periods.
- To analyze access to food, income, and government support among fishing households.
- To suggest policy measures for strengthening livelihood security of coastal fishing communities during crises.

**Table 1:** Kerala - at a glance

Area:	38863 Sq. Km
Districts	14
Revenue Divisions	21
Length of Coastline:	590Km
Fishing Villages	335
Marine	222
Inland	113
Fisher folk Co operative Societies:	838
Affiliated to Matsyafed:	652
Annual Fish Production( in T) 2018-19:	801757
Inland:	192027
Marine:	609730
Fisherfolk Population 2019-20 (Estimated)	1044361
Male	416200
Female	368672
Children	259488
Active Fishermen Registered:	247849
Export of Marine Products from Kerala 2018-19:	1.84 Lakh t

**Source:** Kerala Fisheries Handbook 2020 <sup>[14]</sup>

**Table 2:** Brackish water area and coastal length

Sl. No.	Name of District	Area (in ha.)	Coastal Length (in Km)
1	Thiruvananthapuram	1424	78
2	Kollam	8604	37
3	Alappuzha	15223	82
4	Kottayam	4327	0
5	Ernakulam	16213	46
6	Thrissur	4272	54
7	Malappuram	1796	70
8	Kozhikode	4162	71
9	Kannur	5944	82
10	Kasaragode	3248	70
Total		65213	590

**Table 3:** Details of fish vendors in Thiruvananthapuram district

		2015-16			2016-17			2017-18			2018-19		
Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total		
11730	15102	26832	11730	15102	26832	451	1060	1511	231	412	643		

**Review of Literature**

The coronavirus disease 2019 or Covid-19 pandemic has affected many operations worldwide. This pandemic also owes to the lockdown measures imposed by the affected countries. The total lockdown or partial lockdown devised by countries all over the world mean that most economic activities, be put on hold until the outbreak is contained. The decisions made by authorities of each affected country differs according to various factors, including the country's financial stability. Novel Coronavirus or Covid-19 was first discovered in Wuhan, China on December 31, 2019. Since the first outbreak in Wuhan, the number of cases has spiked in that region. The Chinese government imposed a lockdown for the entire region to contain the spread of this contagious virus. Whilst China reached peak Covid-19 cases of around 80,000 cases at the end of February 2020 [4], other countries around the world had just discovered and learned about Covid-19 cases in their respective countries. Most countries realized the presence of Covid-19 between the end of February and the middle of March 2020 [4].

Gagan Deep Sharma and Mandeep Mahendru (2020) [2] 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.

Edward H. Allison, Frank Ellis (2001) [3] 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 economic 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, Lakhn 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) [8]. 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

**Methodology**

Research Methodology is the systematic procedure by which the research starts from the identification of the problem to its final conclusion. The method of research provides tool and techniques by which the research problem is undertaken. Informed consent was obtained from all participants prior to data collection. Participation was voluntary, and confidentiality and anonymity were strictly maintained. No identifying information was recorded. The study followed basic ethical principles of social work research.

**1. Research Design**

The proposed work is a qualitative study using exploratory research design. The focus of the study was to explore the facts related to gain fishermen's perceptions, perspectives, and understandings of their life experiences during coronavirus pandemic. In-depth structured interview as well as experiential method is used for collecting information. The experiential section recorded so that later on the researcher can draw inferences from it.

The study employed the qualitative design through face to face interviews of 7 fishermen participants the participants were selected from a coastal village in poovar. They were subsistence fishermen who depend on their livelihood in fishing. Participants' age ranges from 30- 60 years old and all of them have a family with 5-6 members.

**2. Area of study /Profile**

The present study was conducted in poovar panchayat southern tip of Thiruvananthapuram district. Poovar is a coastal village with a significant population primarily depends on fishing and allied activities for their livelihood. The selection of poovar as an area of study was purposive, since the region was adversely affected by the pandemic, lockdown restrictions, fishing ban and movement limitations. These conditions made poovar an appropriate setting to examine livelihood impact, food insecurity and psychosocial challenges faced by the fishermen during the pandemic.

**3. Universe of study**

The universe of the study comprised small-scale subsistence fishermen residing in the coastal villages of Poovar Panchayat, Thiruvananthapuram District, and Kerala. The study specifically focused on marine fishermen engaged in traditional fishing practices, including hook and line, gill nets, and small trawl operations. From this universe, seven fishermen were purposively selected as study participants based on their direct dependence on fishing for livelihood, residence in the Poovar coastal region, and willingness to share lived experiences during the COVID-19 lockdown.

**4. Schedule of the study**

A series of personal interview session has been Organised between 05/07/2020 to 05/09/2020. In order to collect the facts and evidences used from our subject and their followers regarding issues. Using this session the subject and their followers have discussed various life experiences and current pandemic situation faced by them.

**5. Tools Used**

Two types of tools were employed for collecting information which are

- a. Structured Interview Schedule.
- b. Experiential which are recorded by the investigator, related to their family background, working life, financial situation, support from government, suggestions by them etc.

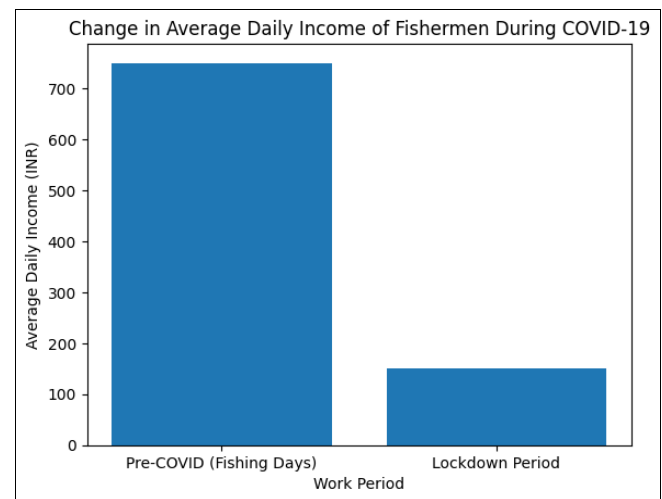
**Discussions**

**1. Unexpected Changes in The Life of Fishing Families**

Most of the fishermen are residing near coastal villages they mainly engaged in fishing activity and depends on the gear they have like hook and line, fishing net and trawl. Some fishermen started their work early in the morning and ends. Late in the afternoon. And some others started late in the afternoon and ended early in the morning. They usually works 6 days a week and sometimes 7 days a week. They didn't earn much but they are happy since they survive from what they have earned. Usually these fishermen earn 500-1000 rupees per day which is just enough for their food and daily household activities.alternately to support the family fishermen wives also engage in fish vending and other casual works. Due to pandemic and with the starting of lockdown they cannot go for work this has affected their livelihood and even they face difficulty to find means for food. *(We face a lot of adversities in fishing. We do not own the sea. If the government will say "stay at home because of COVID 19", then we will follow. If it does not say so, then we will go out to the sea.) - Participant number 1*

*(When I heard about it, I immediately thought of how I am going to feed my family because the government has already pronounced the lockdown policy. But I've heard others have insisted going to the sea in order to provide food for their families.) - Participant number 2*

**Fig 1:** illustrates unexpected changes in the life of fishing families due to lockdown. Before the advent of the pandemic daily fishing brought a meagre and steady income enough to meet food, fuel and school needs. But lockdown restrictions curtailed an end to their routine life. Many families were left with no choice but to rely heavily on government relief, take loans or manage to buy credits from neighbors. The sudden loss in income affected their everyday life. Families struggled to secure regular meals.uncertainty prevailed about their future and intensified psychological stress among fishing families.



**Fig 1**

**2. Access to food and other basic needs**

Strict restrictions were imposed by the government as part of the lockdown. Fishermen are unable to move outside for work and other activities. This has affected their livelihood, government and other Non-Governmental organizations assisted with food and other essential supplies.. *(During the lockdown, we have nothing left. There are no work and livelihood we can turn to. We are literally idle. The government's support and aids are no more'.) -Participant numbers 3, 4*

**Fig 2:** illustrates the principal channels through which fishermen households accessed food and essential commodities during the COVID-19 lockdown. The standstill of all fishing activities led to a profound disruption of income generation, resulting in minimal reliance on personal earnings for household activities. Consequently, government relief programmes and support from non-governmental organizations emerged as the dominant sources of food and basic necessities. This heavy dependence on external assistance reflects the depth of livelihood vulnerability within fishing communities. Furthermore, participant narratives indicate that the gradual reduction and discontinuation of relief measures worsened household food insecurity, intensifying economic instability and reinforcing long-term dependence on fragile support systems.

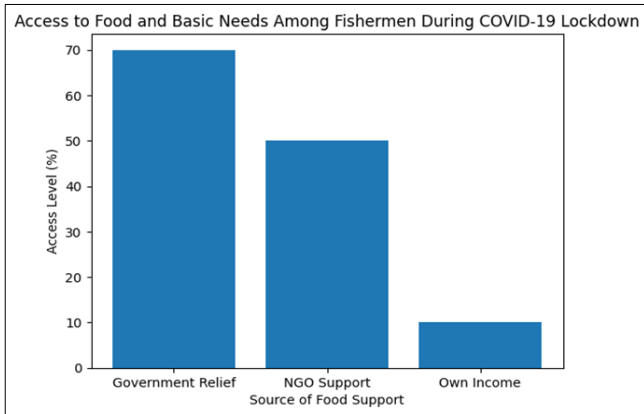


Fig 2

**3. Effect to Livelihood**

For most of the fishermen fishing is the only source of income based on that they are meeting their family expenses. But this is barely enough to fulfill their basic needs. Considering that there were no alternative income generating activities.. Other sources of income, such as construction work, tricycle utility services, small shops, and various business establishments, were also closed. As most fishermen have low levels of formal education, they generally depend on manual labour and daily wage work for survival. However, these employment opportunities were also unavailable during the lockdown period, leaving many families without any source of income.

Small-scale fisheries play an important role in providing food and employment across the world. Nearly half of the global seafood supply comes from this sector, and it supports the livelihoods of a large number of fishing communities. With the outbreak of COVID-19 in early 2020 [7], this sector faced a severe setback. Restrictions on movement, market closures, and reduced demand led to a sudden collapse of fishing-related activities, causing significant income loss and financial insecurity among fishermen and their families.

**Fig 3:** illustrates the extent of livelihood disruption experienced by fishermen during the COVID-19 pandemic. The complete suspension of fishing activities constituted the most significant impact on household income. Alternative livelihood options such as construction work, small trade, and informal services were also severely affected due to widespread lockdown measures. The lack of education and skill diversification further limited fishermen’s ability to shift to alternative employment, resulting in heightened economic vulnerability and dependence on external support.

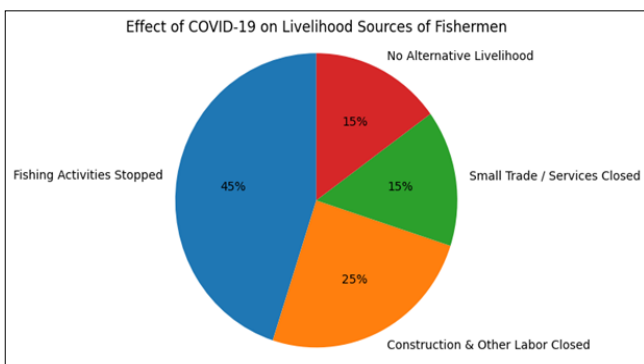


Fig 3

**4. Coping mechanism**

In order to fulfill the both ends meet fishermen engaged in other income generating activities to buy food and other basic amenities for their families. They engaged in vegetable planting, assisting domestic works, firewood gathering and seeking donations from big fish vendors. However the activities does not provide a handful of income to meet their daily expenses. So they are forced to reduce their food intake and rice consumption.

**5. Family support**

The pandemic has ruined the lives of people who earn below average income especially fishing sectors. Since the whole family are depending upon the head of the family to provide support they are prohibited from fishing this resulted in other family members to find alternative employment to support the family. *(Me and my wife helped each other in order to earn money to buy food. My wife works for laundry and dishwashing). -Participant number 1 & 4*

**6. Fear and Worry**

Fear and worries are a common concern for all the people. Most of the people opted to stay home. The culture of accommodating relatives is normally a custom among fishing communities. But it was not entertained in fear of spread of virus. The financial instability increased and the gap between the haves and have notes further widened. This unbalanced situation between groups resulted in increased anxiety and depression, substance abuse and panic disorders in low income families. *(When the authorities asked us to stay at home because of COVID 19, I asked my children to follow and to take care of themselves). -Participant number 7.*

**Fig 4:** presents a conceptual model illustrating the relationship between livelihood loss, psychosocial distress, and coping responses among fishermen during the COVID-19 pandemic. The suspension of fishing activities resulted in severe livelihood disruption, which triggered fear, anxiety, and family-related stress. In response, households adopted short-term coping strategies such as reliance on government and non-governmental assistance, engagement in irregular work, and reduction in consumption. The model highlights the interconnected nature of economic vulnerability and psychosocial well-being, emphasizing the need for integrated livelihood and mental health interventions in crisis response policies.

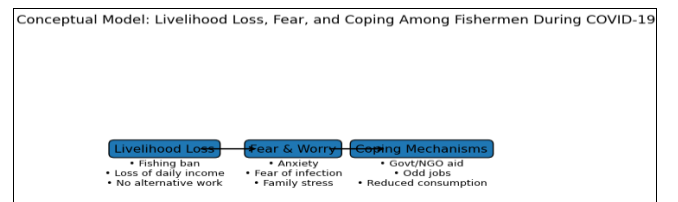


Fig 4

**6. Major Findings**

1. The fishing community was adversely affected by severe livelihood disruption. Before the advent of COVID, they earned a modest 500- 1000 rupees per day. However, lockdown restrictions have curtailed their income generation.

2. The reduced income has resulted in increased food insecurity. Fishermen need to solely depend on government ration and assistance from non-governmental organizations. However, participants reported that the support is temporary and insufficient.
3. Due to low educational background and limited diversification of skills, they are unable to explore different job areas. They can only engage in casual labor, vegetable cultivation and domestic work by women. But these alternatives only provide them minimal and inconsistent income to support their families.
4. The sudden decline in income forced women and children to engage in casual work such as laundry, dishwashing, vending, etc. Women received low wages compared to male highlighting the gender dimensions of livelihood resilience within fishing communities.
5. The fishermen community was facing prolonged fear due to uncertainty about income, food, idleness and the rise of the pandemic. They are unable to fulfil their family obligations, resulting in anxiety and emotional stress. This indicates a strong link between livelihood loss and psychological well-being.
6. The findings highlight the structural vulnerabilities of the fishermen's community. Lack of savings, unorganized workforce, high debt and lack of social security have exposed their real insecure situation along with the pandemic.
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## Conclusion

Just like other sectors the fishermen also experienced bitter impacts of the pandemic. The major income was stopped so family members need to skip meals and search for alternative employment to overcome the financial burden caused by the pandemic they are worried of infection and also anxious on how to support their families. They are forced to engage in unfamiliar works as their coping mechanism to get money to buy food for their families. Despite the authorities' warnings, participants have violated some policies by going out to the sea in order to earn money to provide food in their table, yet, if government can only provide subsidies, then they will heed the stay at home policy. Government and non-government organizations should formulate a mechanism on how subsidies and aids can help marginalized sectors such as these fishermen to survive this pandemic.

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