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The Impact of COVID-19 on Small-scale Fisheries and Coastal Tourism: A Case Study of Mirissa

**Naduni Wickramaarachchi
Koushani Amarasinghe**

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**International Centre for Ethnic Studies
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Front Cover Art: An abstract painting of fish shoaling and schooling as seen by a diver in Raja Ampat, Indonesia. Artist unknown.

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The Impact of COVID-19 on Small-scale Fisheries and Coastal Tourism: A Case Study of Mirissa

by

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1. INTRODUCTION

The rapid spread of COVID-19 generated extensive social and economic effects worldwide. While the impact permeated every community, some communities and sectors showed a higher vulnerability to the effects of COVID-19 and felt the impact more rapidly than others. The pandemic exacerbated pre-existing vulnerabilities and affected more people in the Asia-Pacific region over other regions (Economic & Social Council, 2021). The coastal communities that are already vulnerable to a myriad of social and environmental changes (Bennett et al., 2016; Freduah, Fidelman & Smith, 2017) were further marginalised due to the virus and the prevention mechanisms imposed by governments (Lau et al., 2021).

The drastic implications that COVID-19 has had for coastal communities are becoming evident worldwide (Mohan, 2020; Orłowski, 2020). A study from Kenya reported rising food insecurity among fishing communities even before COVID-19 (Fiorella, Bageant, Mojica et al., 2012). In India, fisheries were entirely closed until people were pressured to point out the vitality of fish products in their food provision (Mohan, 2020). Social distancing measures prevented many small-scale fishers from fishing (Orłowski, 2020). Apart from fisheries, COVID-19 hit the tourism sector and the countries that depend on tourism felt the negative impacts of the crisis for much longer than other countries (Lagos, Poulaki & Lambrou, 2020). Travel restrictions caused a drastic drop in international tourists leading to a severe decline in tourism sector jobs (Jaipuria, Parinda & Ray, 2020). However, little is known about the impact of COVID-19 on different layers of coastal communities in Sri Lanka.

Coastal communities constitute a range of livelihoods. This study focuses on the small-scale fishing and coastal tourism industries in Mirissa, Matara District, Sri Lanka, and aims to deliver a comprehensive overview of the impacts of COVID-19 on the livelihoods and food security of these groups. The effects of social distancing policies on small-scale fisheries varied according to vessel size and types of fishing practices. Many hotels faced complete shutdowns at the onset of social distancing restrictions. This study looks at the ramifications of these policies. It also discusses the role of social protection programmes in facing pandemic-related challenges and the household adaptation strategies used by these communities. Finally, this

study presents some recommendations on how to support small-scale fisheries and tourism sector households in such crises in future.

1.1 Need for the study

Almost all countries around the globe experienced several waves of COVID-19 and underwent drastic changes to their socioeconomic status. Sri Lanka is no exception. A World Bank report (2021) indicates the severity of the pandemic on the Sri Lankan economy. However, this report emphasises that additional data should be available across the multiple layers of communities to explore the full extent of the crisis (World Bank, 2021). Further, the report appeals to researchers to generate quick, wide-ranging data on the impact of COVID-19 as this could lead to interventions that seek to improve household welfare programmes.

Even though researchers have studied the impact of COVID-19 on small-scale fishing households in the global context (Bennet et al., 2020; Fiorella et al., 2021; Freduah et al., 2021;), little is known about the impact caused by COVID-19 on incomes and livelihoods in coastal communities of Sri Lanka. A study conducted in thirteen sites around the coast of Sri Lanka on the impacts of COVID-19 lockdowns on coastal fisheries indicates the severity of the negative impacts. It emphasises the need for further research to investigate the extent of the severity of the issue (Azmy, Jamel, Giritharan & Mangubhai, 2020). In addition, a study on the impact of COVID-19 prevention measures on the tourism sector of Sri Lanka reports the adverse consequences that have resulted, such as unemployment, income loss, supply chain breakdown, and maintenance issues, as well as the negative impact on associated industries and budgetary balances (Udani, 2021).

However, these studies are limited to specific social and economic issues related to coastal sector industries and other geographical areas in Sri Lanka. Therefore, the current study attempts to address this knowledge gap by focusing comprehensively on the impacts of COVID-19 on a coastal community on the south coast of Sri Lanka, with particular attention to livelihood and food security.

1.2 Background of the study

The World Health Organization (WHO) announced a public health emergency due to the rapid spread of COVID-19 and declared it a pandemic on 11 March 2020 (World Health Organization, 2020). The first COVID-19 case in Sri Lanka was reported on 27 January 2020. Since then, the country implemented severe COVID-19 prevention mechanisms that disrupted people's everyday lives and livelihoods. The Sri Lankan Government imposed an island-wide police curfew on 20 March 2020, followed by several lockdowns and travel restrictions. The Government's strict regulations further expanded to closing the airport and halting all inbound and outbound travel (World Bank, 2021). Even though the curfew and restrictions were lifted on 28 June 2020, the country had to impose new lockdowns and intercity travel restrictions in October 2020 due to the surge of the second wave of COVID-19, which appeared in interconnected clusters. The Minuwangoda apparel factory and Peliyagoda fish market clusters caused an exponential increase in cases leading to localised lockdowns, especially in Western, Central and North-Western provinces. The numbers started to fall significantly in late February 2021 and this allowed the country to function as usual. However, by then, the disruption created by the pandemic had put hundreds of thousands of households out of jobs and income-earning opportunities.

COVID-19 caused a significant decline in the country's economy which had just started to progress after 30 years of civil war. Prior to the onset of the pandemic, the country showed an economic growth rate of 2.33 per cent in 2019 (World Bank, 2020). However, a decline of 5.94 per cent has been recorded from 2019, confirming a -3.62 per cent GDP growth rate in 2020. While the socioeconomic data after the COVID-19 outbreak is yet to be published, the estimated data indicate severe negative impacts on the economy and households. A survey conducted by Wimalaweera (2020) found that more than half of businesses in the industries of accommodation and food services, wholesale and retail trade, repair of motor vehicles and motorcycles, construction, education, and professional, scientific and technical activities had closed, and almost two thirds of the employees in these sectors were out of work. Although official government statistics are not available, the World Bank has suggested that the under USD3.20 per day poverty rate increased from 9.2 per cent in 2019 to 11.7 per cent in 2020 (Weerasinghe, 2022). Further, the World Bank

has shown a high level of negative impacts on the poorest and most vulnerable, particularly those with overlapping vulnerabilities (Department of Foreign Affairs and Trade, 2022).

The coastal communities of Sri Lanka consist of diverse cultural and ethnic groups and contribute to GDP through multiple industries. In 2019, the marine fishing industry contributed 1.9 per cent to GDP and this figure was predicted to decline significantly in 2020. The COVID-19 pandemic caused fish harvest and exports of marine capture fisheries to decline by as much as 20 per cent and 26 per cent respectively in 2020. This situation was a huge blow to the livelihoods of the already vulnerable coastal fishing communities (World Bank, 2021). The pandemic caused lower consumer demand, reduced fish prices, and created fish transportation issues due to movement restrictions enforced during the lockdown. The impact of COVID-19 on fishing communities in Sri Lanka is yet to be revealed. However, considering the wide range of actors involved in this sector, it is safe to postulate that a large number of people would have been affected by the sudden collapse of the industry.

Prior to April 2019, Sri Lanka's tourism sector was at its peak in terms of attracting tourists and earnings. However, due to the Easter Sunday bomb attacks, the sector faced a massive decline in 2019. COVID-19 hit the recovery process and the full impact is yet to be understood. According to World Bank estimates, the COVID-19 recovery process in the tourism sector will take a long time and will have unprecedented challenges. Before the pandemic, the tourism industry's revenue contribution was significant. In 2017, the tourism industry generated US\$3.9 billion; in 2018, it rose by 12 per cent to US\$4.4 billion. In 2019, the revenue generated was reported as US\$3.6 billion, and a 50 per cent revenue loss was reported in the year 2020 due to the pandemic (Sri Lanka Tourism Development Authority, 2022). With zero income, the tourism sector faced challenges in retaining its employees. According to the statistics from the Sri Lanka Tourism Development Authority, in 2018, more than 400,000 direct and indirect employees benefitted from the tourism sector. However, direct employees such as hotel staff, suppliers and tourist drivers were affected and lost their jobs due to the pandemic. People at the bottom layers of the supply chain, such as the self-employed, safari boat and jeep operators, tourist guides, and those conducting other related activities, were severely affected.

Even though the negative impacts of COVID-19 on vulnerable communities were visible, there is a gap in knowledge of people's experiences. Furthermore, the longer the time taken to gather information, the harder it has become to address the issues faced by these communities. Therefore, the main objectives of this study are:

1. To assess the impact of COVID-19 on a coastal community's livelihoods and food security with particular attention to the small-scale fishing and tourism sector households.
2. To understand the coping mechanisms adopted by households to manage their livelihood options and food security amid COVID-19.
3. To understand the levels of impact of various social protection schemes and programmes introduced by the Government and other agencies to face livelihood and food security crises.

To fulfill the above-mentioned objectives, the study addressed the following research questions:

- How has COVID-19 impacted the livelihood activities and food security of small-scale fishing households?
- How has COVID-19 impacted the livelihood activities and food security of coastal households engaged in tourism?
- How have these communities adapted to the crisis?
- How have social protection programmes helped households/communities engaged in fisheries and/or tourism to face challenges brought about by COVID-19?

The following section describes the social protection system activated during the COVID-19 outbreak in Sri Lanka. Section three presents the study's conceptual framework and research methodology. Section four elaborates on the study findings on the impacts on livelihoods and food security for small-scale fishing households and households engaged in tourism. The role of social protection measures in facing the challenges are discussed in section five. Section six presents the adaptation strategies used by small-scale fisheries and tourism households during the pandemic. Section seven points out how to prepare for future shocks. Finally, the report presents recommendations on how to face similar situations in future.

2. LIVELIHOOD SUPPORT PROGRAMMES DURING THE COVID-19 OUTBREAK

The COVID-19 induced crisis gave rise to unprecedented challenges to the global economy and the labour force. Similarly, the pandemic drastically affected the labour force and the economy of Sri Lanka (Department of Labour, 2020; World Bank, 2021). Mobility restriction measures and changes in demand and supply chains created constraints on economic activities leading to income losses in many sectors. The impact differed significantly across social sectors and has widened the existing inequalities among different segments of society (International Labour Organization, 2021). To mitigate the impacts on poor and vulnerable communities, the Sri Lankan Government implemented several livelihood support programmes through prevailing welfare programmes such as Samurdhi, elderly allowance, disability allowance, and chronic kidney disease allowance (World Bank, 2021). With the immediate implementation of social support, Sri Lanka became one of the countries to have taken unprecedented steps to mitigate economic deprivation among poor and vulnerable communities through temporary social protection measures (International Labour Organization, 2021).

Social protection schemes are considered the best tool to cushion workers and their families from crisis impacts and boost aggregated demand by increasing cash flow among people. Since Sri Lanka's independence, the country's Government has implemented several social protection schemes to alleviate poverty. These social protection measures can be generally divided into two broad categories: contributory social insurance programmes and non-contributory social assistance programmes.

Under contributory social insurance and labour market interventions, the Farmers' and Fishermen's Pension and Social Security Benefit Scheme provided an LKR5,000 emergency grant to each farming or fishing household in response to COVID-19. Apart from that, the National Insurance Trust Fund, a government insurance fund, doubled the value of its benefits to health care, police and civil security professionals. In addition, self-employed people, such as owners of three-wheelers and school transportation vans, received some ad hoc relief on lease instalments. These self-employed personnel represent 16.8 per cent of the labour force.

In relation to the non-contributory social assistance programmes, Sri Lanka had the highest pre-crisis coverage in South Asia, which is 27 per cent of its population. As the first step, in April, soon after the announcement of curfew, the Government launched a welfare programme distributing an allowance of LKR5,000 to households already listed under Samurdhi and/or the elderly allowance programmes, as well as newly identified families and individuals. Cash transfers amounting to LKR5.4 million were carried out during the first round in April 2020. This was expanded to LKR5.7 million during the second round in May 2020. In addition, a one-off payment of LKR5,000 was given to low-income families that were not listed under the Samurdhi programmes if one or more members had lost their livelihoods due to the pandemic (World Bank, 2021).

During the third wave of the pandemic, the Government provided LKR5,000 to vulnerable households in two rounds – in April and June 2021. Accordingly, the Government disbursed LKR14.1 billion among 2.8 million eligible households in April and LKR8.2 billion among 1.7 million families in June 2021. In addition, the families who had lost their livelihoods but had yet to receive any assistance were offered an allowance of LKR2,000 in August 2021. A total of LKR11.8 billion was distributed under this program (World Bank, 2021). According to a UNICEF report, over 60 per cent of the population was covered by the aforementioned measures (International Policy Centre for Inclusive Growth, 2020).

The above-mentioned social protection programmes targeted society's poorest and most vulnerable segments. The middle-income category also faced challenges and needed to be covered by a social assistance system. Yet, around 31 per cent of households in the middle-income category were excluded from these social protection schemes (International Policy Centre for Inclusive Growth, 2021). In practical terms, the figure of LKR5,000 for the periods covered needed to be revised and varied according to household size. A UNICEF report shows that individual family members of larger households received less than LKR500. Further, the report highlights that LKR5,000 only covers 7.3% of the standard requirements of a household. Even among the poorest households, the support covered less than 1/5 of average spending and only 21% of average food expenditure (International Policy Centre for Inclusive Growth, 2020).

3. METHODOLOGY

3.1 Conceptual approach

While the impact of COVID-19 spread worldwide, some segments of society faced more severe hardships than others (Mangubhai, Nand, Reddy, & Jagadish, 2021). More and more research has highlighted the severe negative impacts of COVID-19 on marginalised, vulnerable communities (Kantamneni, 2020; Karaye & Horney, 2020). The exact nature of the impact and the causes behind the livelihood disruptions need to be investigated closely to reorient government support effectively and avoid further widening the gaps in vulnerabilities. The conceptual framework of the current study draws upon the literature on vulnerability and supply chain and shows how the disruption of the supply chain exacerbates pre-existing vulnerabilities.

Each discipline views vulnerability in a slightly different manner. The economics literature focuses on economic risk and defines vulnerable households as those who have moved or are likely to move into a state of poverty. Disaster management literature focuses on risks related to natural disasters. Sociologists adopt the term vulnerability as an alternative means of characterising the dimensions of poverty in relation to social conditions (Alwang, Siegel & Jorgensen, 2001). In nutrition literature, vulnerability refers to nutritional vulnerability, usually taken as a probability of inadequate food intake needed to live an everyday and active life (National Research Council, 1986). The current study uses the definition in disaster management literature. The disaster management literature usually examines potential damage to the poor, malnourished, etc., caused by natural disasters (Alwang, Siegel & Jorgensen, 2001). It highlights the poor as the segment most vulnerable to natural disasters. Even though COVID-19 is a health crisis, the World Health Organization's declaration of a pandemic situation caused several disruptions to normal life. Further, a fair proportion of academic literature has used the term 'disaster' to discuss the impacts of COVID-19 (Ilan, 2020; Seddighi, 2020).

Disaster management literature examines both sides of the risk: the elements of risks and responsiveness to risks (Blakie et al. cited in Alwang, Siegel & Jorgensen, 2001). According to their explanations, when natural disasters occur, household

and social systems become (or are prevented from becoming) vulnerable through their response. A definition of vulnerability from this literature is, “...characteristics of a person or group in terms of their capacity to anticipate, cope with, resist, and recover from the impact of a natural disaster” (Blakie et al., 1994, cited in Alwang Siegel & Jorgensen, p. 9). The literature recognises the roles of household assets and access to opportunity (e.g., community and higher-level assets) in determining vulnerability to natural disasters (Vasta, 2004). The literature also points out that the duration of a disaster depends on the resilience capacity of the affected group. The disaster management literature looks at vulnerability from two perspectives: i) risk mitigation or disaster preparedness and ii) disaster relief. Risk mitigation refers to the coping mechanism, and disaster relief refers to external support (Aven, 2016). This literature stresses that a household’s characteristics are essential determinants of vulnerability because these characteristics affect the “mitigation” and “coping” components. These characteristics include the capacity to anticipate, cope with, resist, and recover from the impact of a natural disaster (Alwang, Siegel & Jorgensen, 2001).

This idea is widely accepted and has several underpinnings. First, as the disaster management literature recognises, the poor are, often because of their location, more exposed to risky events (such as natural disasters) (Sharma, Burton, M. van Aalst, Dilley & Acharya, 2000). Second, the poor have less access to assets that can be used to manage risk through their response (Vasta, 2004; Sharma et al., 2000). Third, if social capital requires time and in-kind investments, the poor are less likely to be able to call on social capital claims for ex-post risk management (Reininger, Rahbar, Lee, Chen, Alam, Pope & Adams, 2013). Fourth, the poor tend to be politically voiced less and are less likely to receive social services (Narayan et al., 2000). Fifth, if a vulnerability is defined as vulnerability concerning an outcome (e.g., vulnerability to increased poverty, as discussed below), the poor are more vulnerable because they are closer to or already below the threshold.

Coastal communities are highly vulnerable to sudden shocks due to their geographical locations, the nature of their business, the number of migrant workers employed in industries, and less access to assets (Roberts et al., 2020). The small-scale fishing industry, with little or no storage facilities and with no access to warehousing facilities, face unprecedented hardships in times of disasters (Chang et al., 2017). The tourism industry too, with zero tourism, faced severe negative

impacts and breakdowns in the supply chain (Bai & Ran, 2022). COVID-19 and responses have significantly disrupted the supply chain causing constraints on people's livelihoods.

Research on supply chain disruption gained wide attention recently due to the frequency of sudden shocks occurring worldwide (Pujawan & Bah, 2021; Ivanov, 2020; Stecke & Kumar, 2009). In this literature, the risk pertaining to the supply chain has been grouped into two categories: the mismatch between demand and supply and the risk arising from disruptions to normal activities (Kleindorfer & Saad, 2009). Disruption to routine activities can be caused by natural events, international acts, accidents or pandemics (Bode & Wagner, 2014). In a stable condition, the supply chain can function smoothly and optimise profits. However, in the real world, the supply chain is vulnerable to external forces. The pandemic and related responses affected every node of the supply chain causing constraints on people's livelihoods. Moreover, supply chain disruptions can occur at both production and distribution ends (Bassett, Sharan, Suri, Advani & Giordana, 2022). Based on the relevant literature (Bode & Wagner, 2014; Craighead et al., 2007), supply chain disruption can be defined as "the combination of an unintended and unexpected triggering event that occurs somewhere in the upstream supply chain (the supply network), the inbound logistics network, or the purchasing (sourcing) environment, and a consequential situation which presents a *serious* threat to the normal course of business operations of the focal firm" (Craighead et al. cited p. 132 Bode & Wagner, 2014. P. 5).

Disasters can disrupt or cut off the transport network in coastal communities. Vulnerability is the combination of a system and its actors' exposure and sensitivity to disruptions and their capacity to adapt (McCarthy et al., 2001). Liu et al. (2018) have defined vulnerability from the supply chain perspective as "network vulnerability". Sudden breakdowns of transportation can cause severe negative impacts on the people who depend on the supply chain.

Risk, vulnerability and fishers' poverty are intimately linked and act as parts of a vicious cycle. As stated by Bene (Cited in Béné & Friend, 2011), "Fishing activity may be seen as a source of vulnerability, where vulnerability becomes a source of poverty: People are more prone to poverty because they are more vulnerable; and they are more vulnerable because of the type of activities they pursue, namely

fisheries” (p. 11). Poverty in fishing communities is often related to a number of factors, such as limited access to health, education, and financial capital, and less political power (Béné & Friend, 2011). Fishing communities invariably live close to the sea creating risks for those communities from natural disasters. Apart from that, due to the distance from public facilities, fishing communities are the last to experience economic development. Access to development activities in fishing communities has been blocked by poor infrastructure, remoteness and poor transport facilities (Islam, 2011). Difficulty in accessing markets due to poor transport facilities creates extra issues during disaster situations. As a marginalised group, fishing communities are normally less involved in political activities which means they benefit less from national level developments. Political affiliations are essential for receiving infrastructure facilities, and immediate relief services (Béné & Friend, 2011). In light of all the above factors, Macusi et al (2020) have pointed out five sources that influence vulnerability among fishing communities: the lack of credit access, degradation of environmental sources, natural disasters, and governance.

The tourism sector has been exposed to several socioeconomic, environmental and health crises in the 21st century (Barbhuiya & Chatterjee, 2020). The vulnerability of the tourism sector to sudden socioeconomic and environmental shocks is widely discussed (Scott, Hall & Gossling, 2019). The recent dialogue on climate change raised concerns about the tourism sector due to the sector’s relationship to climatic factors (Calgaro, Lloyd & Dominey-Howes, 2013). Apart from climate challenges, global health crises, political unrest and civil wars have shattered tourism activities and have pushed tourism sector employees into severe hardships in the recent past (Barbhuiya & Chatterjee, 2020). The unpredictable nature of the tourism sector’s income normally creates uncertainty for employees. However, the threat is not the same for every segment of the industry (Hill & Narayan, 2020). Women, youths, and low-income, low-skilled groups are the first group to face higher pay cuts, and job cuts during a crisis. Higher unemployment rates have been reported among women, youth, and low-income and low-skilled workers in tourism during the COVID-19 pandemic (Henahan, 2020). Informal workers, temporary workers, self-employed or individual entrepreneurs, and people in small businesses can be identified as highly vulnerable groups in the tourism sector (Kartseva & Kuznetsova, 2020). During a sudden shock, low-skilled, casual and temporary workers are more likely to lose their jobs in the tourism labour force (UNCTAD, 2020). Low levels

of education and lack of vocational training make it hard for tourism employees to shift their occupations during a sudden shock (Shibata, 2021).

3.2 Research methods

The research was based on qualitative methods. It used 25 semi-structured interviews (15 interviewees from the tourism sector and ten from the small-scale fisheries industry) to gather information on the impact of COVID-19 on the selected coastal community's small-scale fisheries and tourism industries. The respondents from the tourism sector were chosen using the purposive sample method. First, researchers identified the most common industries related to the tourism activities of the selected area. They then approached the respondents using contacts developed through the snowballing sampling method. As field visits were affected by the economic crisis of the country, the respondents from the small-scale fisheries industry were selected using the non-probability sample method. That allowed the researchers to reach the sample quickly. The survey focused on collecting information on livelihood impacts, entities' support, and the adaptation abilities of small-scale fisheries and tourism sector actors in the Mirissa area of Matara District, Sri Lanka. Due to the prevailing economic crisis in the country, one trained research assistant who lived in the study location was employed to conduct interviews.

The study used snowballing sampling, a non-probability method commonly used in qualitative research. The sample size was defined when it reached the threshold. In the small-scale fisheries industry, the sample was biased in favour of men as it is mostly men who are involved in fishing activities. However, in the tourism sector, the researchers were able to have an unbiased sample in terms of male-female ratio. Tourism sector respondents were interviewed at their business locations and fishers were interviewed at the Mirissa Fishery Harbour area and Udupila area. Table 1 presents the profiles of the 25 respondents, grouping them according to their livelihood/occupation.

Table 1: Profile of the respondents

Type of livelihood/occupation	Gender of respondent
Homestays and restaurants (5)	
Homestay 1	Female
Homestay 2	Female
Restaurant 1	Female
Restaurant 2 + homestay	Male
Homestay 3	Male
Tourism-related industries (5)	
Whale Watching 1	Male
Whale Watching 2	Male
Garments + Fancy items shop	Female
Ornament shop	Female
Gemstones and jewellery shop	Female
Star-class hotels (5)	
Mirissa Gate	Male (owner)
Triple O six	Male (GM)
Lantern	Female (Coordinator)
Sharawi	Male (GM)
Hotel Silan Mo	Male (Casual worker)
Small-scale fisheries (10)	
Fisher 1	Male
Fisher 2	Male
Fisher 3	Male
Fisher 4	Female (wife)
Fisher 5	Male
Fisher 6	Male
Fisher 7	Male
Fisher 8	Male
Fisher 9	Male
Fisher 10	Male

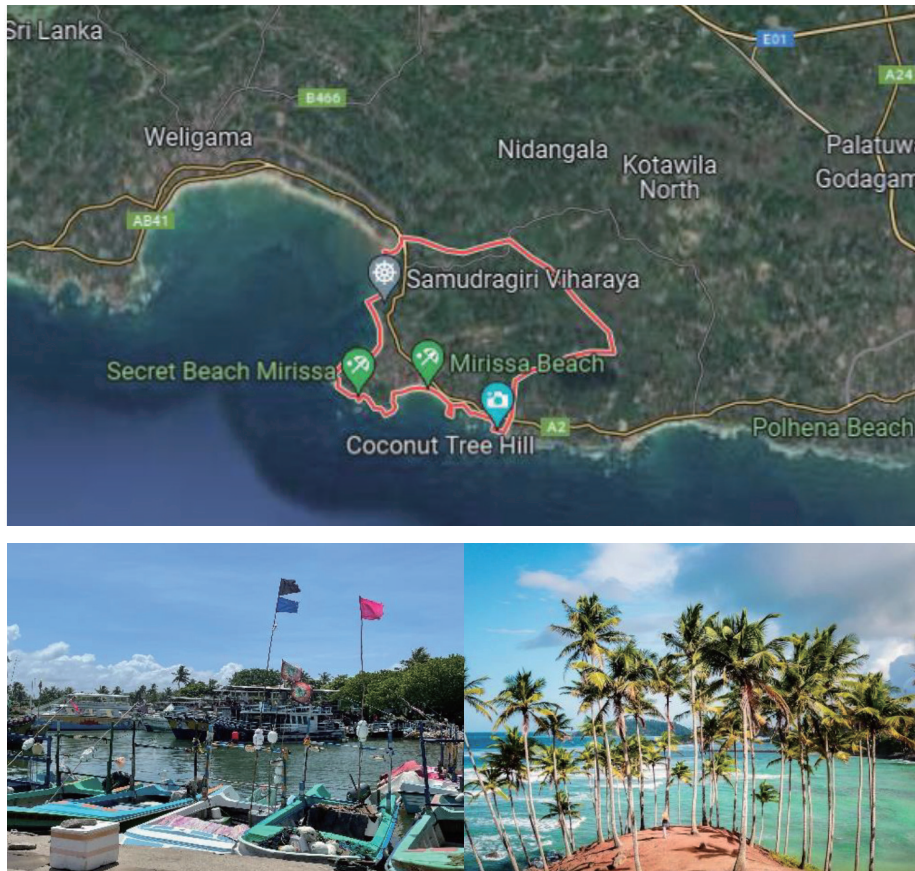
One-on-one interviews, approximately 20-30 minutes in length, were conducted in the native language of the respondents (Sinhala) and all responses were translated into English for data analysis. In keeping with the principles of ethical research, the survey responses were anonymised to protect the respondents' identities.

The study employed a comprehensive thematic analysis approach (Terry, Hayfield, Clarke & Braun, 2017) which enabled the researchers to understand and generalise the insights given by the respondents to the aforementioned four research questions. First, the data was coded to determine patterns and sub-themes that emerged from the data, and after that, themes were generated to explain the insights of the data.

3.3 Study location

Mirissa is a coastal fishing town located in the Matara District of the Southern Province. It is 154 km away from the capital city, Colombo. Mirissa is currently governed by the Weligama Pradeshiya Sabha and administered by the Mirissa Divisional Secretariat. The area's average elevation is 13 ft (4 m) above sea level. It is located towards the end of Weligama Bay. Mirissa has been functioning as a fishing village for generations, with 70 per cent of total households engaged in fishing and related activities. Since its establishment in 1966, Mirissa Fishery Harbour has played a dominant role in the local economy of the area. It has provided multiple livelihood activities which sustain a vast network of direct and indirect beneficiaries. According to statistics, 60 per cent of the fishing households in the area earn more than LKR10,000 per month (USAID, 2006).

Figure 1: Location of Mirissa, Sri Lanka



Mirissa Harbour

Tourist Attractions

Mirissa Fishery Harbour is located 5 km east of Weligama town and is the landing site of multi-day boats of fisheries communities living in the Weligama area. According to statistics there are 518 boats registered with Mirissa Fishery Harbour, of which 184 are multi-day fishing boats, 15 are one-day boats with inboard engines, and 165 are fibre-glass boats with outboard engines. Compared to other fishery harbours in the Matara district, Mirissa Harbour has a higher rate of fish production throughout the year (Urban Development Authority, 2019).

Mirissa also functions as a tourism hotspot in the southern coastal belt due to its broad beach and smooth waves. There are a range of activities that attract local and foreign tourists daily. According to statistics, 60 per cent of tourists visiting the Weligama area also visit Mirissa (Urban Development Authority, 2019). Dolphin and whale watching, a popular activity among foreign tourists, is a highlight of

Mirissa. Surfing is also an emerging tourist activity in the area because of the suitability of its waves. The sand-bottomed wave breaks provide smooth waves, which are ideal for beginners.

The tourism value chain of the area connects the local community and in turn impacts the local economy of Mirissa. Being a small town entirely dependent on these two sectors (fisheries and tourism), Mirissa was selected as a suitable case study to explore the research questions, with particular attention to livelihood and food security during COVID-19.

4. IMPACTS OF COVID-19 ON COASTAL COMMUNITIES

4.1 Impacts on small-scale fisheries households

Mirissa Harbour plays a dominant role in the local economy of the area. It provides multiple livelihood activities which sustain a massive network of direct and indirect beneficiaries. Owing to its unstable economy that mostly depends on fisheries and tourism, Mirissa was severely affected by the consequences of COVID-19. The study's qualitative research approach revealed valuable insights into how COVID-19 impacted livelihood activities and food security in this fishing community.

4.1.1 Livelihood activities

The interview data on livelihood impacts were divided into three main themes (limited accessibility, impacts on income and limited resources) and were further categorised by sub-themes that emerged during the interviews. The perceptions of impacts are presented in Table 2. It is worth noting that some themes emerged repeatedly among those interviewed.

Table 2: The impact of COVID-19 on livelihood activities of the small-scale fisheries industry

Limited Accessibility	Impact on Income	Limited Resources
Restricted/no access to fisheries related activity due to curfew	Change in consumer demand due to restricted movement	Lack of seafood supply reported by processors and sellers
Restricted/no access to customers and market	Price reductions due to excessive supply	Difficulties in accessing resources, such as ice and fuel, due to unaffordability and/or price fluctuations, reported by fishers
Limited access to other fisheries actors' services.	Misperceptions of public on COVID-19 and fishers	

Limited accessibility is the most critical impact on livelihoods indicated by most respondents (See Figure 2). Among the total responses generated, 52 per cent can be categorised under this theme. In addition, fishers and boat owners reported that restrictions in going to sea affected their work the most, confirming the negative impacts of limited access on their main source of livelihood.

During the pandemic, we could not send our boats for rides and fishing due to the curfew imposed and all those travel restrictions. (Male, boat owner, 45 years, Udupila, Mirissa)

Some respondents stated that they were asked to come to work on a roster prepared by the boat owners. This meant they had to wait until they were called for work, which negatively affected their regular income. On the other hand, boat owners reported that the absence of adequate labourers to operate and maintain the boats also had a negative impact on their business.

Restricted/no access to customers and the market was a concurrent theme that emerged during the interview process.

We could not transport the fish we caught either, since all the fish markets, like Manning market in Colombo, were closed. (Male, trader, 58 years, Harbour Road, Mirissa)

Thus, the fishers could not reach their traditional markets and customers during the lockdown period.

The second theme relating to impacts on income, as seen in 36 per cent of the total responses, refers to market forces. Due to the government-imposed curfew, community members and merchants could not go to the harbour to buy fish as they usually did. Fewer people had curfew passes permitting them to travel to the fishery harbour, negatively affecting the regular income of the respondents.

The greatest difficulty we faced was in selling the fish we caught. Fish was sold to merchants at meager prices in those days. And due to the curfew imposed, people could not come to buy fish as usual. (Male, trader and boat owner, 60 years, Udupila, Mirissa)

The price of fish changed drastically because of the excessive supply and lower demand. Therefore, most of the time, fish stocks were left unused or priced very low, which severely threatened fishermen's incomes. Research data indicated that these price changes caused an economic crisis as small-scale fishers usually buy food for their families on a daily basis. Even though the fishermen caught fish, due

to the transportation barriers, they earned very little compared to the effort they put into catching fish.

During the interviews, it was revealed that misperceptions of the fishing community and the sellers by the general public also negatively impacted their income.

There was a rumour that COVID-19 was spreading from fishermen. So, we had difficulties doing our usual job. (Male, fishmonger (retail), 40 years, Bandarawatte, Mirissa).

The reports of an increase in COVID-19 patients in the fisheries sector carried by national media caused people in their neighbourhood to be afraid of coming into contact with fish traders. Therefore, even though these fishers attempted to sell fish from door to door, a minimal number of people bought fish from them due to this misperception. According to respondents, this situation continued for a considerable period.

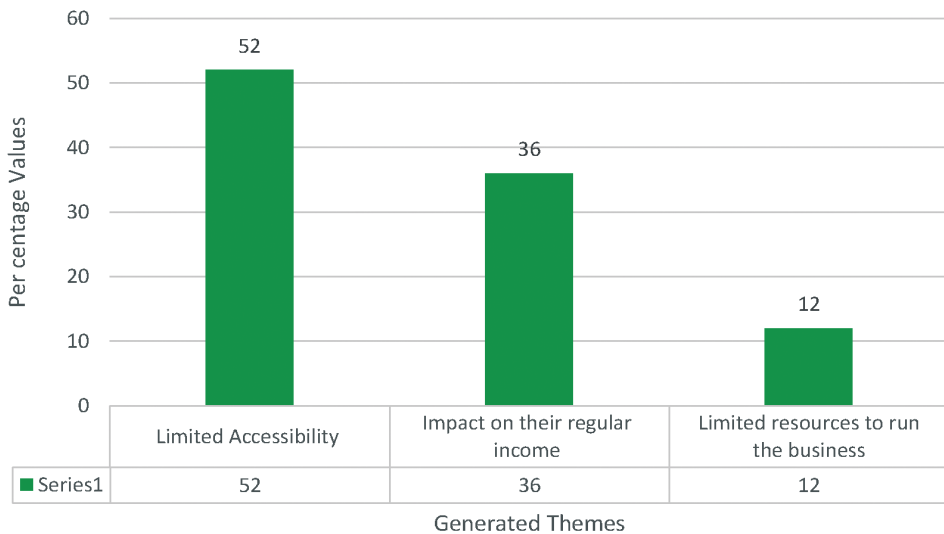
Limited access to other fisheries actors' services also emerged as a difficulty experienced by fishermen when conducting their business. Respondents indicated they could not buy or access the raw materials they needed for their fisheries-related activities during the lockdown period. Because of transport difficulties, the value chain was disrupted, causing adverse effects on the fishing industry. Around 12 per cent of the total responses generated referred to limited resources to run their business. Even though some fishers received curfew passes to access the harbour, they had no access to products, such as ice and fuel. So they faced difficulties in preserving their catch of fish. The decrease in consumer demand for fish resulted in the spoilage of the catch.

It was..... so that we had to keep the fish for days even without ice sometimes. That reduces the quality of fish. We had to sell fish at the lowest possible cost. (Male, trader, 62 years, Harbour Road, Mirissa),

We could not keep our fish for long because we had difficulties getting ice and other necessary preservatives. (Male, boat owner, 56 years, Mirissa Fishery Harbour, Mirissa).

According to the interview data, fish traders stated that limitations in preserving seafood resulted in reductions in the price received for their catch. This is because they had to sell the harvest immediately, causing an excessive supply of fish in the market.

Figure 2: Impact of COVID-19 on livelihood activities of the fishing community



It was noted that the livelihood impact factors emerging from these themes have strong interrelationships with one another, as well as with other impact factors, such as those related to food security. For example, limited accessibility to customers and markets has resulted in a reduction in income for households. The impact on a regular source of income has a direct relationship with food consumption.

4.1.2. Food security

According to the United Nations Committee on world food security, food security means that all people have physical, social and economic access to sufficient, safe and nutritious food that meets their food preferences and dietary needs for an active and healthy life. However, as a community with a fragile economy, the small-scale fisheries households in Mirissa had difficulties getting their food due to the reduction of their income and lack of access to food.

The interview data on food security impacts can be classified into four categories:

1. reduced consumption of luxury goods (reduced income)
2. use of home garden vegetables and/or food exchange (altered food environments)
3. food shortages and higher expenses (disruption in food chains)
4. closure of shops (limited accessibility)

Most interviewees stated that they had access to three basic meals but had to cut down on non-essential food items in their households.

Earlier I bought my children ice cream and such things, but during the pandemic, I could not do any of that. (Male, daily wage labourer, 35 years, Mirissa Fishery Harbour, Mirissa).

There were some shortages in non-essential goods, but of whatever we needed, most was accessible. (Male, watchman, 25 years, Harbour Road, Mirissa).

As households in the village have large plots of land, they have sufficient space to cultivate vegetables and other minor crops for their day-to-day consumption. This was indicated as the main reason that enabled people to get three basic meals per day.

I mean, even if there is a shortage of essential items, we can still have something from our home gardens or our neighbours' home gardens. I don't think it's a big issue. (Female, spouse of a trader, 28 years, Liyanaralage Watta, Udupila Road, Mirissa).

During the fieldwork, it was observed that a part of Mirissa is still an agricultural area used for paddy cultivation. Coconut, jak fruit and other tree crops can be seen in these neighbourhoods. The production of food crops locally helped villagers during the hard times of the pandemic. Most importantly, most respondents pointed out that, as a fishing community, households always had access to seafood for their consumption.

However, fishers referred to the hardships they experienced in reaching shops to purchase food items due to the curfew imposed by the Government. Most of the shops were closed for a certain period.

However, I could not go shopping due to the curfew. The shops were closed and there were problems. The shops closed when we managed to save some money. (Female, spouse of a boat owner, 38 years, Udupila Road, Mirissa).

Conversely, some respondents indicated that they had to limit food consumption in their households due to a lack of money. As previously mentioned, COVID-19 and the lockdowns negatively impacted their regular means of income. This resulted in reduced food consumption in their households.

Yes. It got severely affected. If we had managed to buy 5 kg of rice earlier, during the pandemic, we could only afford 1 kg of rice. We had to cut off some stuff like powdered milk etc. (Male, daily wage labourer, 30 years, Mirissa Fishery Harbor, Mirissa)

Even though most of the respondents managed to continue their basic food consumption pattern, some of them had to cut some items from their daily meals.

4.2 Impacts of COVID-19 on households engaged in the tourism sector

Mirissa has been an attractive tourist destination due to its broad beach and the outdoor activities offered by local businesses. Dolphin and whale watching, and surfing have become profitable activities in the tourism sector in Sri Lanka over the last decades, and Mirissa has become a top-rated destination for these activities. The tourism value chain of the area connects households within the local community and these industries greatly impact the local economy of Mirissa. These activities have also changed the landscape and land use of the area.

There is a trend of converting residential units into commercial or mix use purpose locations because of the increasing demand for accommodation. “Homestays” are now a popular source of income for the community, strengthening interactions between local people and foreign tourists, enabling the latter to understand the Sri Lankan way of life. Further, small and medium-scale stalls selling ornaments and

clothing and other tourism-related products or activities have increased in Mirissa town as it has become one of the significant tourism hotspots in the southern coastal belt. There are a number of star-class hotels operating in the area as well. As elsewhere in the world and Sri Lanka, COVID-19 caused a substantial impact on the tourism industry of Mirissa. This was more so as the fragile economy of Mirissa is primarily dependent on tourism and many other local economic activities are connected to tourism. Therefore, the study findings focus on the impact of COVID-19 on the livelihood activities and food security of households engaged in the coastal tourism sector.

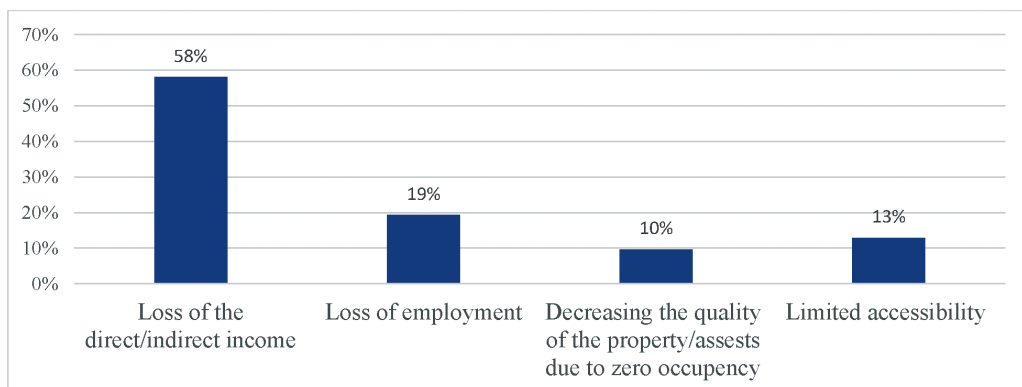
4.2.1 Livelihood activities

The interview data on livelihood impacts were categorised into four broad themes: loss of direct/indirect income; loss of employment; decreasing quality of property/assets due to zero occupancy; and limited accessibility to the workplace. The study covered homestays, restaurants, star-class hotels and other tourism-related businesses within the coastal tourism sector. The findings reveal that most impacts were common to all groups engaged in the tourism sector. However, specific impacts were experienced by different groups in relation to the competencies and capacities of the businesses. For example, star-class hotel owners and homestay business owners struggled to maintain their property/assets more than others. On the other hand, some people who did homestay business did it as a secondary source of income. Therefore, they were able to manage their household expenses and did not have to reduce their staff base as theirs was a family business.

Table 3- Impact of COVID-19 on livelihood activities of households engaged in the tourism industry

Loss of direct/ indirect income	Loss of employment	Decreasing quality of property/assets due to zero occupancy	Limited accessibility to workplace
Lack of foreign arrivals due to the complete lockdown of the country	Reduction in/ pay cuts for casual staff	Need to renovate properties or repair malfunctioning equipment	Hardships felt by workers in reaching the workplace due to curfew
Lack of local customers due to the island-wide curfew imposed by the Government	Lack of jobs for informal workers	Limited staff for maintenance activities	Issues relating to working conditions along the value chain due to restrictions
Restricted/no access to customers and market			
Inability to save money for the off-season			
Lack of access to service charges or additional income for hotel staff			

Figure 3- Impact of COVID-19 on livelihood activities of households engaged in the tourism industry



As shown in Figure 3, the most critical impact on livelihoods was the direct or indirect loss of income, which was mentioned by around 58 per cent of the total responses. The extensive social and economic impacts on the tourism industry in Mirissa during the spread of COVID-19 were primarily caused by the complete shutdown of the country. This resulted in wide-ranging negative impacts on every single actor in the value chain. The homestays, restaurants and star-class hotels of Mirissa are mainly dependent on foreign tourists. Thus, most respondents stated they had to face severe hardships with zero tourist arrivals.

With COVID-19, foreign guests stopped visiting due to the curfew imposed and all those travel restrictions. Therefore, our income dropped drastically. (Female, owner of a homestay business, 48 years, Udupila, Mirissa).

Similarly, local tourists also could not visit due to travel restrictions. Some restaurants and even star-class hotels took action to focus their attention on local tourists. However, these strategies did not succeed due to the travel restrictions imposed by the Government.

Due to the travel restrictions, even the local customers could not visit the restaurant and we lost that income also. (Male, son of a restaurant owner, 28 years, Udupila, Mirissa).

Some respondents also emphasised how their income losses impacted the lives of those who worked under them. This shows how the pandemic severely affected the most vulnerable segment of society. For example, even though the star-class hotel employees continued to receive their salary, they experienced hardship because they did not receive service charges and had to manage with their basic salary.

Loss of employment was the second most crucial livelihood impact, reported in 19 per cent of the total responses, mostly by interviewees from star-class hotels and restaurants. The tourism sector in Mirissa is based on very few permanent staff engaged by employers, as the general practice has been that workers hired during the season would leave during the off-season and engage in other businesses. However, several cases of employees of star-class hotels receiving pay cuts or being terminated due to revenue losses were revealed.

All casual staff, training staff and employees with less than three years of service were suspended. (Male, manager of a star-class hotel, 46 years, Mirissa)

Moreover, these hotels implemented pay cuts for the staff to retain the viability of their businesses as many hoteliers closed down their businesses, negatively impacting local vendors along the value chain.

Limited accessibility to the workplace was mentioned as a livelihood impact by 13 per cent of responses provided. The hoteliers needed help getting their staff to work for regular operations and maintenance. Some hoteliers also indicated difficulties accessing local vendors for supplies they needed to run their operations successfully.

A decrease in the quality of the property or assets due to zero occupancy emerged as another negative impact, reported by 10 per cent of responses, especially by interviewees from homestays and star-class hotels. In addition, it was pointed out that the reduction in casual staff resulted in low property maintenance. Moreover, hoteliers could not expect their maintenance staff to attend work due to travel restrictions.

With the loss of business and the lack of staff, the inability to carry out maintenance was a significant problem due to COVID19 and we had to repair a lot. (Male, front office manager of a star-class hotel, 55 years, Mirissa Road, Weligama)

Homestay owners also reported spending additional money on renovating their rooms because of the extended period of zero-occupancy.

Once rooms were not used for about two years, there were many repairs to get them back into a usable condition. (Female, owner of a homestay business, 65 years, Udupila, Mirissa)

Lack of maintenance caused the decay of items such as air conditioners, electrical equipment and interior decorations.

4.2.2 Food security

The impact of COVID-19 on the food security of households in the tourism sector revealed similarities with those in the fisheries sector. Interview data relating to impacts on food security can be classified into four categories:

1. reduced consumption of luxury goods (due to lower income)
2. use of home gardens for the cultivation of food crops and/or food exchange (altered food environments)
3. food shortages and higher expenses and closure of shops (disruption in food chains/ limited accessibility)

Most respondents indicated they had to cut down on non-essential food items in their households.

The food we could afford was limited due to the drop in income. However, I somehow managed. (Female, owner of a batik business, 65 years, Udupila, Mirissa)

Further, interview data indicated that some households could not get nutritious meals as a result of the loss of income. On the other hand, it was revealed that villagers who cultivated their home gardens could get three basic meals each day.

We cultivated the vegetables we needed by ourselves; we own a small paddy field, which gave us enough rice. So, we managed. Both my husband and I worked on cultivating field crops, and we even sold some amount to outsiders. (Female, owner of homestay business, 65 years, Udupila Road, Mirissa)

Additionally, villagers described the hardships they experienced in reaching supermarkets and retail shops due to the curfew imposed by the Government. However, they pointed out that they consumed whatever was available, sharing these items with their neighbours.

Yes, it was affected. No shops were open during that period, and we had no money as well. We managed to have meals mostly from our home garden.

During the first lockdown, most of the villagers did small-scale agriculture. We cultivated brinjals, ginger, bitter gourd, and chillies. Anyway, we have coconut. So, we managed. (Female, owner of an ornament shop, 35 years, Mirissa)

The above quote highlights the capacity for adaptability of these communities when facing a sudden shock, which was a positive characteristic exhibited by both small-scale fisheries and tourism sector households during the COVID-19 period.

4.3. Impact of COVID-19 on vulnerable groups within the community

The economic consequences of the COVID-19 pandemic permeated every segment of society. The study aimed to understand the economic impact on the most vulnerable groups within the coastal community, such as daily wage earners and casual and temporary staff within the small-scale fisheries and tourism sectors. Being already vulnerable, households engaged in coastal fisheries and tourism were severely hit by the COVID-19 virus and the travel restrictions imposed by the Government. In addition, lockdown situations put a complete halt to business transactions in these sectors, causing hardships for everyone. Despite the pre-existing higher level of vulnerability among the small-scale fisheries and tourism sectors, almost all the interviewees referred to the difficulties caused by COVID-19, with only some responses highlighting the severe burden faced by the already vulnerable segments such as low-income groups, casual workers, and temporary workers.

Respondents highlighted that everyone, regardless of whether they were considered vulnerable or not, faced hardships.

No matter what social status people belong to, all were affected in many ways during the pandemic. (Female, owner of a local food shop, 30 years, Udupila, Mirissa)

All the people, regardless of their economic state, got severely affected by COVID-19. Most people needed more money to run their households and pay for their children's education. However, we managed to share things with them in terms of food. (Female, owner of a local food shop, 30 years, Udupila, Mirissa)

The ramifications of the pandemic were visible in both livelihood activities as well as the physical wellbeing of people. Provincial border closures and confinement measures prevented fishermen from accessing their resources and markets, and closures in business activities in the tourism sector disrupted value chains, thwarting people's ability to access essential goods and services, such as food and health. Moreover, with low and irregular income and low levels of social support, people of the small-scale fisheries and tourism sectors faced severe hardships in managing their basic household needs.

We suffered a significant economic setback since my income from tourism is my family's main income source. As I told you, in those days there was no income but only expenses, thus our usual lifestyle was changed. We had to cut off our travels and entertainment things, you know...mmm... due to loss of income. We even had difficulties bearing our medical expenses. (Male, kitchen hand, 43 years, Udupila, Mirissa)

Yes. We could not afford to prepare fully nutritious meals. With all the travel restrictions, most of the shops were closed. Therefore, not much food was there to buy. We only consumed what we could afford because we had little money. (Male, restaurant owner, 43 years, Udupila, Mirissa)

While the negative impacts of COVID-19 have been felt across the board, the emergence of a 'new normal' caused new hardships for marginalised groups. For example, the online education system added an extra burden on families struggling to manage their daily household activities.

So even though we had less trouble, some families had no income. As far as I know, the shortcomings were not caused by a lack of food and drink but by the cost of the children's online classes and the internet. (Male, daily wage worker, 38 years, Harbour Road, Mirissa)

Those days, they did online classes, and we could not afford the internet bills and mobile phones. But my family members supported them with data cards, internet mobile phones and all. (Male, daily wage worker - agriculture, 38 years, Udupila Road, Mirissa)

Thus, the economic consequences of COVID-19 were felt differently by some segments of society. Casual workers in the tourism sectors and daily workers such as taxi drivers, tourist guides and fishermen experienced significant losses in their income, pushing them to the edge of poverty. In addition, people in the tourism sector suffered severe negative employment impacts such as a reduction in hours worked or termination of work due to zero tourism in the country.

All of my workers are temporary. They work in the season and leave during the off-season. Thus, I did not have to pay monthly salaries during the pandemic because I reduced my staff. My income also dropped drastically during the pandemic since tourists stopped visiting. (Female, owner of a local food shop, 30 years, Udupila, Mirissa)

Some of my workers are also the same [casual workers]. During the pandemic, their income completely crashed. They had to look for bank loans, to pawn jewellery to manage. Some of them sold their valuable things during that time. (Male, manager of a star-class hotel, 46 years, Mirissa Road, Weligama)

All casual staff, training staff and employees with less than three years of service were suspended. Only those over three years of service were left, and they were paid in full, but the service charge was deducted then. (Female, HR manager of a star-class hotel, 36 years, Mirissa Road, Weligama)

Work arrangements and transport conditions exposed vulnerable groups to further risks. For example, fishing activities require the crew to work closely with each other irrespective of health regulations imposed by the Government, thus exposing them to additional risk. Furthermore, during the field visit it was observed that, owing to poor living conditions, fishing households struggled to implement government health guidelines when one of their members contracted COVID-19. Many have limited space in their living quarters, which means limited protection from the virus.

The perception propagated through national and social media following the emergence of the Peliyagoda fish market COVID-19 cluster that fishers were more likely to get and spread the COVID-19 virus, exacerbated the negative impacts

on the fishing community, causing a reduction in demand for fish. Thus, social exclusion and stigmatisation burdened the fishing community, contributing to lower demand and, in turn, having a direct effect on their incomes.

Also, many people were afraid to buy fish, which reduced our income. There was even a rumour that COVID-19 was spreading from fishermen. So we had difficulties doing our usual job. (Male, fishmonger (retail), 40 years, Udupila Road, Mirissa)

Social distancing and confinement measures led to the closure of many fish markets across the country.

We could not transport the fish we caught either since all the fish markets, like Manning market in Colombo were closed. Managing this was quite tricky. We even had to sell the fish by going door-to-door to all the houses in our area. That affected our income quite badly. Due to the curfew, customers could not reach the market as usual. So when we brought fish [to the market], there was no one to buy. So what is the point of it? (Male, trader, 46 years, Mirissa Fishery Harbour, Mirissa).

Every segment of the tourism value chain was hit hard by the complete lack of business operations in the tourism sector . Moreover, travel restrictions and confinement measures gave rise to new vulnerabilities, even pushing star-class hotel owners into an economic crisis.

The distance between rich and poor increased. That was because a lot of poor people work for rich people. Even the rich people could not afford to get people to work for them during the pandemic, but they managed during the pandemic since they had some money. The people who worked for them lost their work entirely at that time; their economy fell further down. (Male, manager of a star-class hotel, 46 years, Mirissa Road, Weligama)

The negative consequences of COVID-19 severely affected the poor segment of the community for whom social protection or insurance schemes were limited in scope and in the amounts disbursed. When the pandemic hit, people had to search for alternative ways of making a living. Those with volatile incomes and

those who needed support the most were not adequately protected and were thus the worst affected. Fishing households with unstable incomes usually have low levels of savings and no insurance protection and were thus severely affected by the pandemic. These factors acted as a vicious circle and widened the inequality gap between rich and poor. With nature determining the success of their catch and seasonality of tourist arrivals, households engaged in fishing and tourism were already vulnerable prior to the pandemic. COVID-19 prevention measures further entrenched the vulnerabilities of these marginalised communities.

5. THE ROLE OF SOCIAL PROTECTION PROGRAMMES IN FACING CHALLENGES

Generally, in a health emergency like COVID-19, social protection programmes are implemented to help affected communities and uplift their lives during difficult periods. Households engaged in the fisheries and tourism sectors of Mirissa received different forms of assistance through the social protection programmes implemented by the Government and community initiatives. Interview data indicated that 82 per cent of respondents had received some form of assistance, whereas 12 per cent of the respondents stated that they did not receive any form of assistance during the lockdown period. Perceptions of assistance were categorised under four themes: lack of any form of assistance; receipt of LKR5,000 distributed by the Government; receipt of food parcels/items; and receipt of assistance from community programmes.

Around 57 per cent of respondents indicated that they had received the cash allowance of LKR5,000 distributed by the Government. According to the statement issued by the Government, this allowance was to be given to families who already received various government allowances and families unable to sustain their livelihood due to travel restrictions (World Bank, 2021). This allowance was provided for three consecutive months.

Thus, most households engaged in fisheries and/or tourism sectors indicated that they had received the cash payment at least once, while very few respondents mentioned receiving all three. Even though they had received this payment, most responded that they did not believe it helped them manage their household's daily expenses. It was pointed out that LKR5,000 was inadequate to meet their needs

Yes [we received the allowance], but LKR5,000 was not much. What can we possibly do with such a small amount?...." (Male, daily wage worker, 27 years, Mirissa Fishery Harbour, Mirissa)

Yes, we received it. But it was not enough to fulfill our needs. We can use it for basic meals, but we have other expenses for the children's education. (Male, trader, 44 years, Mirissa Fishery Harbour, Mirissa)

Even the United Nations International Children's Emergency Fund (UNICEF) indicated that LKR5,000 only covered 7.3% of the standard requirements of a household, and even among the poorest households, support covered less than 1/5 of what was normally consumed, while it covered only 21 per cent of average food expenditure (UNICEF, 2020).

Further, many respondents wanted a better distribution process of this allowance. Even though it was announced that the amount would be distributed according to a list, interview data revealed that this did not happen on the ground. Thus, it was perceived by most of the respondents that the distribution was not fair, and people who were relatively unaffected were more likely to receive the allowance. In addition, interviewees also pointed out that they faced many difficulties in receiving the payment.

At first, when we were asked to come to the office to get that and once we waited so long for it, they said that the distribution was over..... First, they say that it can be received by any member in the family, and later they are told that it can only be received by the respective person.....” (Male, watchman of a boat, 23 years, Mirissa Fishery Harbour, Mirissa)

Moreover, some respondents mentioned that the distribution of the allowance was completely controlled by the Grama Niladharis and those close to them. Because of the authority the Grama Niladharis wielded in the distribution process, they were partial in selecting the families who received the allowance.

The people who had such good connections with the Grama Niladhari received the money, even if they were not that affected. That is quite another hurdle for our country to go forward; the right people are not offered the right thing. (Male, owner of a whale-watching business, 38 years, Mirissa Fishery Harbour, Mirissa)

Around 17 per cent of those interviewed indicated that their households had received food parcels/dry goods from the Government or non-governmental organisations. Food items were mostly received by households in which a member or members had contracted COVID-19.

During the pandemic, the Government and NGOs offered food to those affected. (Female, owner of a homestay business, 48 years, Udupila Road, Mirissa).

However, as in the case of the government cash allowance, respondents indicated that the distribution of food packs was also not fair.

Those who got the disease got a bag containing dry goods, but the rich often received it too. (Male, daily wage worker, 28 years, Mirissa Fishery Harbour, Mirissa).

It was observed that community groups, such as producer organisations and welfare societies, were not very active in Mirissa. Interviewees indicated that there were two to three fisheries and tourism-related societies and general community associations. However, they stated that these associations were not active during the COVID-19 period, and most people did not participate in these. They thus maintained that they had no help from these community-based associations. Moreover, some respondents expressed negative perceptions of the work carried out by such societies.

There were unions, but they have become inactive. So although four to five people talk about such issues, it [the organisation] only works for their benefit. (Male, daily wage worker, 28 years, Mirissa Fishery Harbour, Mirissa).

Nonetheless, the president of the fisheries society said that he had distributed money to those in need at that time. During the interviews, most people acknowledged that there should be some initiative that works for the betterment of the community. Accordingly, they expressed a desire to provide their support to face similar challenges in the future. Most importantly, respondents were willing to engage in community associations that would work for the community's interests. These views revealed that COVID-19 had made people realise the importance of connecting with one another and working together to face significant shocks or similar challenges in the future.

6. HOUSEHOLD ADAPTATION STRATEGIES TO THE PANDEMIC

The above sections of the study offered significant insights into how COVID-19 impacted the livelihood and food security of small-scale fisheries and the coastal tourism sector actors in Mirissa, as well as perceptions of the social protection measures available at macro- and micro-institutional levels. The overall findings reveal that COVID-19 resulted in a decline or collapse along the value chains of these two sectors, with negative repercussions on the area’s local economy. In light of the economic and financial instability that accompanied the pandemic, people experienced many difficulties in their day-to-day lives. One of the study’s aims was to identify the adaptation mechanisms households adopted to survive this challenging time.

The findings indicated that there were some common adaptation mechanisms adopted by households in both the fisheries and tourism sectors and some strategies specific to each sector. The strategies which were commonly used by households in both sectors were divided into four broad themes: assistance from family/ neighbours; assistance received from the Government or NGOs; use of savings and credit services; and lifestyle changes. (See Table 4)

Table 4 - Four adaptation strategies common to households in both coastal tourism and small-scale fisheries sectors

Use of savings and credit services	Assistance from family/neighbours	Assistance from the Government/ NGOs	Changes in lifestyle
Pawning jewellery	Food sharing	Receiving LKR5,000	Reducing cost of entertainment
Withdrawing savings and fixed deposits	Asking for cash loans from richer people (<i>Athamaru</i>)	Lockdown passes issued by the Government for essential services	Refraining from purchasing non-essential food items
Accessing bank loans	Flexibility of shop owners, business owners to provide credit		
	Sharing learning resources		

For households in the fisheries and tourism sectors, using savings and credit services, and assistance from family or neighbours were among the core adaptation strategies. Around 30 per cent of households interviewed in the fisheries sector and 20 per cent of households in the tourism sector indicated that they relied on savings and credit services during COVID-19.

Assistance from family and neighbours emerged as the second-highest adaptation strategy used by households in both coastal tourism and the small-scale fisheries sectors. Around 26 per cent of households interviewed in the fisheries sector and 20 per cent of households in the tourism sector mentioned that they sought assistance from family or neighbours. Respondents considered Mirissa to be a community-minded village with good social relations between neighbours. Many respondents commonly referred to sharing food items. As they had limited access to markets and shops during lockdowns, they indicated that they had shared the vegetables, rice and coconuts they had cultivated with neighbouring families. Interviewees perceived that this practice gave villagers the confidence that they could survive similar situations in the future without the risk of starvation.

I don't really believe we will have food scarcity in this village even with a bigger shock than COVID-19. I mean, even if there is a shortage of essential items, we can still have something from our home gardens or our neighbour's garden. (Male, boat owner, 68 years, Udupila Road, Mirissa).

6.1 Adaptation strategies of households engaged in the coastal tourism sector

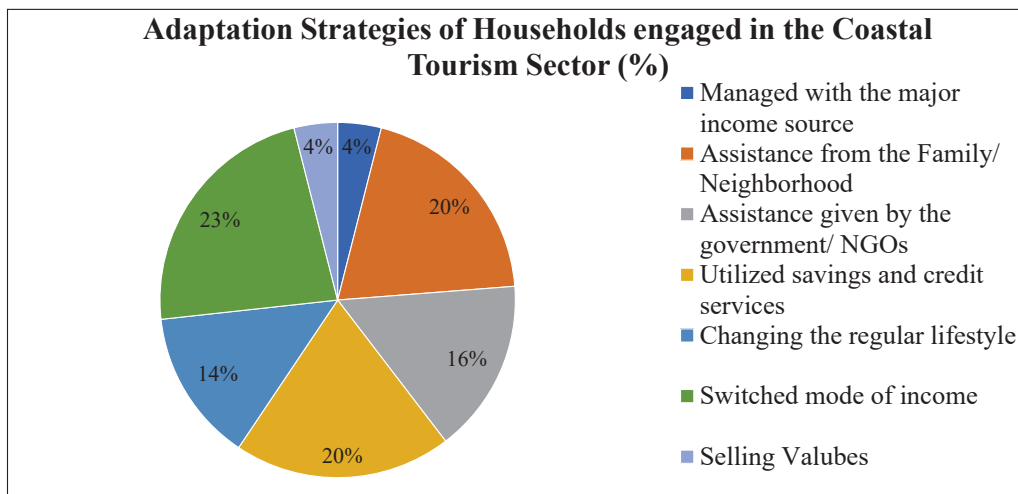
When comparing the small-scale fisheries and tourism sectors in Mirissa, there emerged three adaptation strategies used exclusively by the households engaged in the tourism sector. These were: switching the mode of income, managing with the primary income source, and selling assets (See Table 5).

Table 5 – Additional adaptation strategies of households engaged in the coastal tourism sector

Switching mode of income	Managing with the major income source	Selling assets
Agriculture	Government sector salary	Selling vehicles
Food delivery	Private sector salary	Selling jewellery
Lending money		
Mobilising resources for new markets		
Fishing		
Online pages to sell goods		
COVID-19 related activities (quarantine centres)		

People who engaged in the tourism sector had the opportunity to switch their mode of income as, unlike the fishers, they had some assets to use.

Figure 4: Adaptation strategies of households in the coastal tourism sector by percentage of responses



Reliance on savings and credit was also seen among households engaged in tourism. Pawning jewellery for household expenses was the most common practice mentioned by respondents. However, the respondents from the tourism sector also indicated that they would not be able to survive another similar shock as they had

exhausted their family savings. It was also pointed out that tourism in Mirissa generally has an off-season and it was common practice to utilise their savings in the off-season. However, due to COVID-19, they had no chance to earn a proper income even during the season and thus had to face severe hardship, as they needed more savings to fall back on.

Therefore, during the pandemic, we could not earn money even during the season, so there was no money left to survive in the off-season. So, my family got severely affected. (Restaurant owner, male, 32 years, Mirissa).

Switching the mode of income was the adaptation strategy used by the largest proportion of households within the tourism sector but entirely absent among fishing households. The findings revealed that actors along the tourism value chain managed to use COVID-19 to think innovatively and find new business opportunities according to their capacities. For example, people who ran homestays were actively engaged in small-scale agriculture for their own consumption and sale.

We cultivated the vegetables we needed by ourselves; we owned a small paddy field, giving us enough rice. So, we managed. My husband and I worked cultivating field crops, and we even sold some to outsiders. So we could also find some extra income. (Female, owner of a homestay business, 65 years, Liyanaralage Watta, Udupila Road, Mirissa).

Similarly, most restaurant owners partnered with delivery services and started food delivery in their neighbourhoods. They pointed out that this was a lucrative business that brought a considerable profit. In addition, some respondents mentioned that they were able to deliver food to tourists confined to their hotels and guesthouses during the lockdown, as well as fellow villagers.

The whale-watching industry of Mirissa is an important component of the coastal tourism value chain. However, with the complete shutdown of the country, foreign tourist arrivals had stopped entirely. This significantly impacted their business. With this loss of income, whale-watching operators needed to switch their mode of income, and some reported that they had mobilised their resources for new markets.

I used my boat for parties. It gave me a considerable income. Not only parties, but some used my boat for wedding pre-shoots as well. (Male, owner of a whale-watching business, 40 years, Harbour Road, Mirissa).

Twenty-three per cent of the respondents from the tourism sector reported that they had switched their mode of income. While assistance provided by the Government or NGOs and changes in lifestyle emerged as equally important adaptation strategies in households in the fisheries sector (22 per cent of responses), this was less important for households in the tourism sector (16 per cent and 14 per cent of responses, respectively). Selling assets and managing with the primary source of income were strategies adopted by a small minority (4 per cent in each category) of households in the tourism sector.

Some boat owners in the whale-watching industry indicated that they had switched to fishing. Further, they also engaged in activities such as lending money. Small-scale tourism-oriented shop owners indicated that they had initiated online pages to sell their goods, but these did not function as expected.

The examination of the adaptation strategies adopted by star-class hotels (three-star or above) in the Mirissa area, the findings revealed that the star-class hotel cluster of Mirissa was mainly aimed at the foreign clientele. However, with the lockdown and zero foreign arrivals, respondents indicated that the management had decided to open up their hotels to local tourists. From the point of view of managers, this helped them to run the operations to a certain extent. However, they observed that hotels could not profit by targeting local tourists because they had to adjust the room rates to cater to this market.

As an alternative, we proposed to open this hotel to local tourists. (Male, manager of a star-class hotel ,46 years, Mirissa Road, Weligama).

Respondents from some star-class hotels reported that the properties were sometimes rented for photography and pre-shoots for weddings and private parties. Respondents from star-class hotels reported that they had been able to recoup some revenue through the tourism promotion/renewal programmes led by the Sri Lanka Tourism Development Authority (SLTDA). In addition, the hotel registration process positively impacted hoteliers' operations. Under this program,

SLTDA relaxed their regulations criteria, allowing small and medium enterprises to register with the Tourism Board. Furthermore, some indicated that the Government cooperated with the hotel association and other relevant health sector agencies to implement quarantine services within hotels. Under this program, the Government allowed hotels classified as three-star and above to provide 14 days quarantine facilities for Sri Lankans and foreigners under the guidelines developed by the Ministry of Health of Sri Lanka.

A small minority of households engaged in tourism observed that they had managed with their primary income source or sold off some of their assets. Interview data revealed that tourism in Mirissa was mostly a part-time business. People with full-time jobs in the government or private sector run homestays and restaurants to earn additional money. Thus, during the lockdown period, some people received their salaries from their employers, which to some extent compensated for the loss of income from tourism.

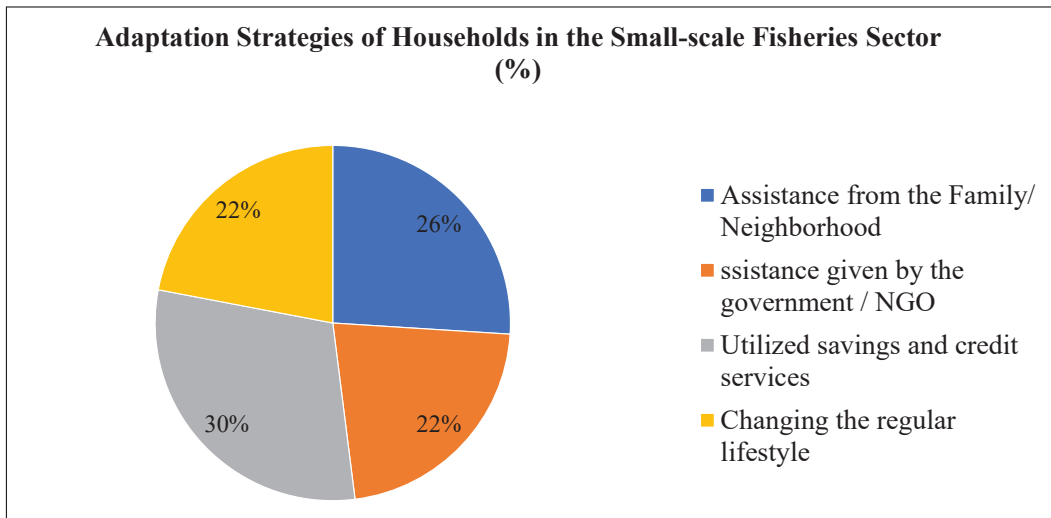
I'm doing this business part-time. I'm a government employee. So I got my salary during the COVID-19 period. (Male, homestay owner, 52 years, Udupila Road, Mirissa).

Among respondents who reported selling off assets, most had to sell their vehicles to pay off the loans they had taken previously.

6.2 Adaptation strategies used by the households in the small-scale fisheries sector

The adaptation strategies used by the households in the small-scale fisheries sector were similar to the strategies used by the households in the tourism sector.

Figure 5: Adaptation strategies of households in the small-scale fisheries sector, by percentage of responses



Using savings and credit services was the strategy relied upon the most by households engaged in small-scale fisheries. With the loss of their regular income, these households used their savings to cover their daily expenses.

..... had some money in my bank accounts. I had to use almost all the money in those accounts to cover my expenses. (Male, trader, 54 years, Mirissa Fishery Harbour)

In terms of credit, they primarily engaged in pawning jewellery. Some respondents said they pawned almost everything they had and could not get these back.

We pawned jewellery. Still, we have yet to get them back. (Female, owner of a food shop, 30 years, Mirissa),

We survived using our savings and by pawning jewellery and such. (Male, owner of a whale-watching business, 38 years, Mirissa Fishery Harbour)

The interview data showed that only a minimal number of respondents had applied for loans during COVID-19. However, this may be because they were aware of their low repaying capacity.

Further, most respondents from fishing households mentioned the assistance the boat owners (employers) gave during the difficult period. They pointed out that employers gave their workers loans when they required money. Moreover, it was indicated that some shop owners provided goods on credit to their customers.

We buy food from shops without giving money immediately. Shop owners are flexible. They know our difficulties. (Male, daily wage worker, 28 years, Mirissa Fishery Harbour)

In contrast to the tourism sector, the respondents from fishing households did not engage in alternative income-earning opportunities during the lockdown.

No, we did not.... But, we somehow hung on to this. (Male, trader, 38 years, Mirissa Fishery Harbour).

Assistance given by the Government or NGOs was a more critical adaptation strategy for fishing households than those engaged in tourism. As discussed in the previous section, the Government distributed an allowance of LKR5,000 among low-income groups for three consecutive months during the lockdown. Most respondents from both the fisheries and tourism sectors reported that they had received the cash transfer at least once. Respondents from fishing households indicated that they were able to manage household expenses to some extent with the assistance they received.

We received Rs5,000/= distributed by the Government. I guess it was distributed for two to three months. We received all three. Even though it wasn't a big amount, it was useful to cover my mother's medical needs. (Male, daily wage worker, 28 years, Mirissa Fishery Harbour)

Moreover, it was reported that households directly affected by COVID-19, with members who had contracted the disease, had received a food pack from the Government.

Changes in lifestyle due to income decline was an adaptation strategy indicated by a larger proportion of respondents from fishing households relative to households engaged in tourism. However, among both groups, the most common change was cutting entertainment and non-essential goods costs.

We had to cut down most of the things that we usually used to do. We did not go on trips, parties. There was no entertainment for my kids at all. (Male, restaurant owner, 50 years, Udupila Road, Mirissa).

Overall, the study revealed some commonly used and innovative strategies of households to adapt to the COVID-19 context. Even with some limitations, most people managed with their savings, and the support of their family and neighbours, the assistance of the Government, and changes in their lifestyle. Furthermore, households engaged in the coastal tourism sector stood out in exploring new business opportunities and trends by mobilising their existing resources, thus providing lessons to be learnt in facing similar situations in the future.

7. PREPARING FOR FURTHER SHOCKS

The COVID-19 outbreak was a sudden shock to the world and created an unprecedented burden on economies and social lives. The profound negative consequences of COVID-19 have opened up some unexpected issues to tackle when facing such sudden shocks in future. Therefore, the lessons taught by the COVID-19 pandemic should be considered thoroughly. The following section will highlight the interview data that discusses the actions that should be taken for future preparedness. These actions can be divided into government sector support, non-government sector support, and community support.

Small-scale fisheries and tourism sector participants received government allowances at least once during the pandemic and this money was valued as a mode of adaptation in challenging times. The respondents highlighted the Government's role in providing economic relief packages and loan forgives for targeted groups in difficult periods. However, some participants wanted more support from the Government. Even though the Government introduced several relief packages at the ground level, these were not distributed fairly. Further, the Government needed to adequately address the real issues faced by the people. For example, the Sri Lankan Government introduced a grace period of six months for the lease payment on three-wheelers. However, most of the participants engaged in the tourism sector did not receive this kind of relief during the COVID-19 period.

No assistance was provided. I had to sell my vehicle because the instalments could not be paid. Even though they said they would reduce interest rates, they did not. (Male, owner of a whale-watching business, 38 years, Mirissa Fishery Harbour, Mirissa)

Even though the Government announced some further concessions on loans and leases in 2021 for the people in the tourism sector, participants were not satisfied with how it worked on the ground level. Therefore, they suggested the active involvement of the Government in implementing such orders, going beyond simply having press conferences. They also mentioned the need to address sector-wise requirements rather than providing generic solutions.

We are facing lots of difficulties in paying our bills, loans and lease. The Government did not get involved in these issues. When we go to the bank or lease agent, they say they cannot give us a grace period. So, what can be done? Where should we go? There are no directions as to what to do. A number of ministers are there, but they need to take necessary actions in relation to their sectors. (Male, manager of a star-class hotel, 46 years, Mirissa Road, Weligama)

In addition to the economic support, participants expected vocational development and technological support from the Government to prepare for future sudden shocks.

It would be good if the Government intervened to provide the people in the tourism industry with the knowledge and training they need to run the industry under the proper guidance during situations like this. (Female, owner of a homestay business, 65 years, Udupila Road, Mirissa)

The government does not assist in uploading and obtaining new technology to face emergencies like this. (Male, manager of a star-class hotel, 46 years, Mirissa Road, Weligama)

Respondents of the small-scale finishing communities also mentioned the need for technical support from the Government, referring specifically to technical support in upgrading storage and transport facilities.

We couldn't sell our harvest during the curfew period. We didn't have storage facilities in our villages. It is essential to have good storage facilities in our villages. Governments should do something. (Male, fishmonger (retail), 40 years, Udupila Road, Mirissa)

Respondents of small-scale fishing communities also mentioned the need to build direct customer relationships through online market platforms. However, they need initial guidance from the Government or private sector to enter into the online delivery system.

This is an excellent lesson for everyone. We need to transfer from our traditional system to modern systems. I have heard about online business. We could have run our business if we had that thing (online market facilities). As villagers, we do not know how to start it. However, the Government or any company can help us. (Male, fishmonger (retail), 40 years, Udupila Road, Mirissa).

COVID-19 created an emergency around the globe. In such situations, governments have to take sudden decisions. However, the interviewees highlighted the need to consider all aspects of value chains before closing the function of some points.

The non-government sector was absent in the study location during the COVID-19 period. Participants identified the role of non-government organisations in assisting tourism and small-scale fishing communities during sudden shocks like COVID-19. Participants highlighted that NGOs could have supported strengthening community bonds, knowledge sharing and empowerment during the pandemic.

The negative consequences of COVID-19 have given rise to a strong reemphasis on building resilient communities. This view was expressed on many occasions by respondents from both sectors.

People will find relief from these difficulties if there is any help from organisations, whether NGOs or other community organisations. We could get to know each other's problems and support. But nowadays, people with pure motives are rare. There should be some initiative from outside the community to form community forums. Everybody has their own agendas. (Female, owner of an ornament shop, 35 years, Mirissa)

The small-scale fisheries industry needs support for innovative interventions in shifting income sources during sudden exigencies like COVID-19. It was observed that the fishing community could not shift their income sources during COVID-19. As mentioned by the participants, lack of technical and market knowledge, and lack of money and assets were the main obstacles faced by the fishing community in shifting their mode of income.

Both the fisheries and the tourism communities identified the need to establish community-level associations to face difficult periods in future.

People need to be sympathetic to others' difficulties. We can face any challenges if we can get together as one community. But now the generation is different. They don't care about others. (Female, owner of a batik business, 65 years, Udupila, Mirissa).

The tourism community mentioned the need for strong collective action. The close relationships between neighbours that are created during hard periods was identified as the best way to face difficulties.

As a community, we need to get together and find solutions for our day-to-day problems, which can be handled on the ground. So, living with the unity and caring of the neighbours and villagers will be easier during hard periods. (Female, owner of a homestay business, 65 years, Liyanaralage Watta, Udupila Road, Mirissa)

Due to this crisis, households engaged in both the fisheries and tourism sectors need help in engaging in their livelihoods.

Regarding the current situation in the country, we have shortages of gas and electricity. Without gas, we can't provide a proper meal to our tourists. As the people who bring dollars into the country, we should have special consideration from the Government. At least we should be provided gas to carry on our business. (Male, homestay owner, 52 years, Udupila Road, Mirissa).

This dissatisfaction was extended to the economic crisis, which followed the COVID-19 pandemic and extensively impacted every sector of the country. This economic crisis was the consequence of the mismanagement of the economy by the Government. Corruption and the newly introduced tax cuts increased the country's fiscal deficits. The pandemic battered the tourism sector blocking foreign income earnings to the country. The shortfall in foreign currency reserves resulted in fuel, gas and electricity shortages, as well as import restrictions.

Households in the fisheries sector indicated that the economic crisis was worse for them than COVID-19. Most respondents had stopped or restricted their fishing trips due to the unavailability of fuel. Under such circumstances, government assistance is required. According to the respondents, if fishing is considered an essential service, the Government should be able to ensure supplies of gas and fuel without any delay. However, they pointed out that there had been no Government intervention until that point.

The Government should provide us with the basic needs to run this industry. These are essential goods for people. How can people get their fish if we cannot go out to sea? For instance, we need at least two cans of petrol for our trips. However, most of us fail to get these. (Male, boat owner, 54 years, Mirissa Fishery Harbour).

Respondents indicated that the Government needed to act responsibly in critical situations, as they were the representatives of the public. They pointed out that the Government needed to strategically intervene to resolve the country's economic difficulties. They further suggested that the Government, private institutions and the general public should align with a shared vision and strategically face the economic crisis as well as other similar shocks in the future.

8. RECOMMENDATIONS

The study revealed that both the small-scale fisheries and tourism sectors of Mirissa were destabilised by COVID-19, leading to drastic changes in the lives of households dependent on these economic sectors for their livelihoods and food security. This is mainly because their livelihoods could not resist the market shocks brought about by lockdown measures imposed by the Government during the pandemic. Although our understanding of the implications of COVID-19 is incomplete, there is an urgent need for coordination and planning to prepare societies to face sudden shocks in future. Based on the study's findings, this section proposes recommendations to mitigate future negative impacts of unforeseen external shocks. The severity of the negative impacts of COVID-19 has foregrounded the need for the Government, non-government organisations and communities to act together in supporting, mobilising and empowering small-scale fishing communities and the tourism industry in the coastal area. The recommended actions for each group have been highlighted below.

During the pandemic, the Sri Lankan Government implemented several economic relief measures, such as distributing allowances for low-income families, grace periods for loan and lease payments, and providing dry rations. These programmes provided some sort of relief to the affected households. As sector-wise needs are different, these relief packages should be customised to cater to the varying requirements of the communities. Providing access to interest-free or low-interest bridging loans to enable the continuity of operations and carrying out of necessary renovations is a potential incentive to encourage business owners to restore their businesses. Such loans would provide financial relief to business owners, thereby reducing job losses and protecting future growth in the sector. Moreover, it is also imperative to consider the whole tourism ecosystem and support every actor according to their unique needs. For instance, casual workers need to be covered by insurance schemes to support their day-to-day lives in difficult times. As part of social welfare services, low or no-interest bank loans should be provided to small-scale fisheries and tourism industries to start alternative income-generation activities. With this support, affected households can shift their main income generation mode to alternative sources such as starting delivery businesses, home gardening, fish drying etc.

It is proposed to improve transparency and independently monitor government-subsidised programmes to maintain impartial distribution. Generally, the politicisation of these programmes creates biases in distribution, making poor people poorer and more frustrated. Therefore, an independent body with no personal motives or agendas should handle or at least monitor these programmes. Furthermore, maintaining transparency in these funding programmes is necessary to build people's trust.

A proper value chain assessment should be carried out so that the supply chain can be sustained and businesses can continue running even in difficult situations. Several cases were reported in which the fish harvest was wasted due to disruptions in the supply of ice. These issues can be mitigated by analysing the value chain and its actors prior to these external shocks and deciding how to sustain the supply chain. Further, every aspect of the value chain should be supported before laws and regulations restricting mobility are implemented in an emergency. A bottom-up approach in decision-making is essential rather than taking top-level decisions, since these local communities are the ones who know what exactly they go through in these complex situations. For example, transportation restrictions delayed fish deliveries from the harbour to markets, causing many traders to stop buying from local farmers. This caused a surplus of fish in the Mirissa Fishery Harbour, decreasing the selling price. Therefore, most fishermen indicated that the regulations should be relaxed for essential services because these regulations directly affect the continuity of their livelihoods. In addition, technically advanced fish storage facilities can be established locally to prepare for future shocks.

This situation leads to another recommendation: establishing connectivity between suppliers and buyers. At the beginning of an external shock like COVID-19, government involvement is essential to establish connections between supply and demand. For example, a proper mechanism should enable the immediate transportation of the fish catch to markets. COVID-19 has resulted in emergence of platforms that accelerated digital systems for shopping. As a long-term strategy, it is recommended to develop digital marketplaces and home delivery services that link consumers directly with producers, to stabilise demand and maintain a more resilient supply chain in the future. In addition, local governments could work towards reducing problems associated with product perishability, stabilising

fluctuating supply and demand, and creating local employment in new business ventures.

Disaster management recognises the roles of household assets and access to opportunity (e.g., community and higher-level assets) in determining vulnerability to natural disasters (Vatsa, 2004). Encouraging saving habits among people is essential. It will enhance their ability to survive in difficult situations. Moreover, establishing thrift/used goods societies at the village level could be a potential mechanism to recycle, cut down on waste and provide access to goods to low-income groups, in order to create a sustainable and resilient society.

Further, non-government organisations can engage in community-strengthening activities to help create a resilient society. Buttressing social capital will enhance the existing unity of these communities. Therefore, establishing welfare societies and strengthening community ties are important.

When a disaster occurs, households and social systems become vulnerable through their responses (Alwang, Siegel, & Jorgensen, 2000). Disaster management literature highlights the two mechanisms to respond to a sudden shock: mitigation or disaster preparedness and disaster relief. Therefore, raising awareness on potential external shocks is necessary to prepare communities such as Mirissa to act strategically in similar situations in the future. All social groups, including children, women, disabled and marginalised people, need to be included in these awareness-raising programmes. As the small-scale fisheries and tourism sectors are vulnerable to sudden shocks, these communities need to develop disaster management plans at the local level. In doing so, all the strengths, attributes, and recourses available in those societies should be assessed beforehand. Local-level capacity development activities can be included: anticipating, coping, resisting and recovering. These community initiatives can be led by non-government organisations. (Alwang, Siegel, & Jorgensen, 2001).

Establishing good media practices will prevent the marginalisation of sectors and communities. Negatively targeting a marginalised community can cause further alienation and increase their sense of "otherness." This can severely impact their income. For example, during the COVID-19 pandemic, there was a rumour that the virus was spreading within the fisheries sector, reducing consumer demand for

fish. The media supported this rumour, reporting several cases of COVID-19 from fishing communities of the south coast. Thus, fishers stated that these COVID-19 cases reported by the media, targeting the fisheries community, negatively affected their livelihood.

COVID-19 has made room for people to think differently and act strategically. So, there should be a proper plan to encourage people to do innovative things. For instance, most people lost their primary income source. So, they had to find alternative income methods. There is a need to promote innovative solutions. Non-government organisations can target women and older people with different skills to motivate them to start their own businesses.

Compared to the fishing households, most people engaged in tourism had tactically mobilised their existing resources to new markets. These innovative actions can be further strengthened through the support of NGOs by providing the necessary knowledge and resources.

As a country earning a considerable proportion of its GDP from tourism, Sri Lanka experienced an economic downfall with the decline of tourism. The findings of this study elaborate the consequences of this macro process in Mirissa, a popular tourist destination. With the complete halt of foreign arrivals, most hotels and businesses targeted local visitors by introducing new travel packages and discounted promotions. This can be identified as a positive move because previously this sector had targeted mostly foreign tourists. Actions could be taken to encourage a rise in domestic tourists. In order to restore tourism and increase the number of arrivals, the Government needs to give priority to the proposals of business owners within this sector.

Despite the COVID-19 outbreak, small-scale fisheries and tourism sectors showed some sort of adaptability and resilience by using local resources. Most of the respondents were able to fulfill their food requirements by using local food products. Most importantly, it was this practice that allowed these communities to get sufficient food items for their consumption. However, both communities faced difficulties in finding fresh food. The scarcity of fresh food in some areas, coupled with the lack of money to afford these items, resulted in a reduced consumption of fresh fruits and vegetables during lockdown periods. Thus, the practice of cultivating

home gardens increased during the first lockdown period. As the continuation of this practice will create sustainable communities, it should be encouraged in every part of the country. As it is already practiced in villages, it can be quickly promoted at the national level.

The study revealed that households engaged in fishing and tourism in Mirissa displayed a strong sense of community and provided social support to one another during the pandemic season. Most respondents stated that it was the support of their neighbours that helped them survive during the lockdown period. However, there are no formally organised societies or community initiatives to identify the community's problems and needs as a whole. Thus, these communities could be encouraged to initiate formal spaces to get together to overcome challenges in the future. Local government institutions can support these communities in such initiatives.

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The Impact of COVID-19 on Small-scale Fisheries and Coastal Tourism: A Case Study of Mirissa

**Naduni Wickramaarachchi
Koushani Amarasinghe**

The rapid global spread of COVID-19 had profound social and economic repercussions. Coastal communities, which were already susceptible to various social and environmental changes, found themselves further marginalized due to the virus and the preventive measures enforced by governments. Our understanding of how COVID-19 impacted the different facets of coastal communities in Sri Lanka remains limited. To bridge this gap, this study gathered information about the effects on livelihoods, support from various entities, and the adaptive capabilities of individuals involved in small-scale fisheries and the tourism sector in Mirissa, Sri Lanka.

While the findings revealed similarities across both sectors, the small-scale fishery sector grappled with issues like limited accessibility, income reduction, and resource constraints. In contrast, the tourism sector experienced adverse effects such as the loss of income, unemployment, deterioration of property and assets, and restricted access to workplaces.

The study underscored the necessity for collaborative efforts among the government, nongovernmental organizations, and local communities to support, mobilize, and empower small-scale fishing communities and the tourism sector along the coastal regions. Recognizing the distinct needs of each sector, relief packages should be tailored to address the specific requirements of these communities. Enhancing transparency and establishing independent oversight of government sponsored programs is recommended to ensure impartial distribution. Emphasizing a bottom-up decision-making approach is essential, as local communities possess firsthand knowledge of their experiences in these intricate situations.



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