



**Impact of COVID-19 Pandemic on the Financial Livelihood Assets: A
Case Study in Mahawewa Divisional Secretariat Division, Sri Lanka**

M. W. J. W. Peiris and T. M. S. P. K. Thennakoon*

Department of Geography, University of Sri Jayewardenepura, Sri Lanka

Article Info

Article History:

Received 11 Nov 2021

Accepted 23 Dec 2021

Issue Published Online

01 January 2022

Key Words:

Livelihood Assets

Agriculture

Fisheries

Tourism

COVID 19

ABSTRACT

The most recent catastrophe, COVID-19 changed the lives and the livelihoods of the people in the world and in Sri Lanka. The main objective of this study was to identify the nature of the impact of the COVID-19 pandemic on the financial assets of the community engaged in six (06) livelihood types and the measures taken by the government and social organizations to mitigate the impact. A total of 64 families representing the livelihood types in two Grama Niladhari divisions in the study area were selected for the sample by employing stratified random sampling technique. Data were collected through questionnaire survey and informal discussions while the data analysis was mainly done through Chi Squared Analysis. The study confirmed that the COVID-19 pandemic has adversely affected on the income generation and savings of the community in the study area. Further, 13% (out of 16) and 07% (out of 14) of households engaged in agriculture and fisheries respectively has earned a monthly income of over 150,000 while no household in all categories has earned a monthly income of less than 5,000 before the COVID 19 pandemic. However, the monthly income generation of 82%, and 57% of households who engaged in tourism and both fisheries and self-employments has significantly dropped to less than 5000/= respectively during the COVID 19 pandemic. Also, the pandemic has adversely affected the income generation of the households in fisheries, tourism and self-employment sectors compared to agriculture sector. Savings of the same categories was also reduced due to the pandemic. The study further ascertained that the government and social organizations have taken several measures to provide essential items to cope with the economic impacts of COVID 19.

*Corresponding author

E-mail address:

sunethrapk@sjp.ac.lk

Journal homepage:

<http://journals.sjp.ac.lk/index.php/vjhss>

<http://doi.org/10.31357/fhss/vjhss.v07i01.12>

VJHSS (2022), Vol. 07
(01), pp. 192-206

ISSN 1391-1937

ISSN 2651-0367 (Online)

©Faculty of Humanities
and Social Sciences 2022

1. Introduction

The term livelihood encompasses people's capabilities, assets, income and activities required to secure the necessities of life. One of the earliest and most often cited definitions of livelihood is that "It comprises the capabilities, assets (stores, resources, claims and access) and activities required for a means of living. A livelihood is sustainable which can cope with and recover from stress and shocks (drought, flood, war, etc.), maintain or enhance its capabilities and assets, and provide sustainable livelihood opportunities for the next generation: and which contributes net benefits to other livelihoods at the local and global levels and in the short and long term. (Chambers and Conway, 1992). Livelihoods are the "ways in which people access and mobilise resources that enable them to pursue goals necessary for their survival and longer-term well-being, and thereby reduce the vulnerability created and exacerbated by conflict" (Young et al., 2002). The idea of assets is central to the sustainable livelihoods approach. There are five different types of assets owned by an individual to build community livelihoods which consists of natural, social, human, physical and financial assets (Thennakoon, 2004; Jansen et al., 2006). However, in this study, only the financial assets i.e. income generation, savings and support received from government and social organizations were considered.

Physical and human related incidents have influenced the livelihood systems of the people in any setting. Among the physical incidents, earthquakes, landslides, droughts, cyclones, pandemic diseases are the most prominent and which have the worst impact on the livelihood system. Wars, terrorism, development initiatives can be considered as human related incidents which have an impact on the change of livelihood system too. Among these incidents, pandemic diseases have directly influenced livelihoods and this is the main concern of the present research. Pandemics are large-scale

outbreaks of infectious diseases that can greatly increase morbidity and mortality over a wide geographic area and cause significant economic, social, and political disruption. On 31st December 2019, the WHO (World Health Organization- WHO) was informed about cases of pneumonia of unknown cause in Wuhan, China. A new type of coronavirus, subsequently named COVID-19 was identified by the authorities. WHO Director-General declared the outbreak of COVID-19 as a Public Health Emergency of International Concern (PHEIC) on 30th January and it was characterized as a pandemic on 11th March 2020 (WHO, 2020). Since then, the outbreak has significantly expanded and the virus has spread to 215 countries in every continent except Antarctica.

However, the security measures such as curfews and lock downs to reduce the spread of this deadly epidemic have posed a serious threat to the livelihoods of the global community. As the security measures were implemented, the primary, secondary and tertiary economic activities of the community were seriously affected. As a result, the financial livelihood assets such as income generation and savings of the community in the world were severely affected. Considering the COVID-19 pandemic situation in Sri Lanka, it has been more than a year and six months since the pandemic arrived in Sri Lanka. During the first wave of COVID 19, more than 3000 infected people and 13 deaths were reported in Sri Lanka. The curfew was imposed several times further affecting the livelihoods of the people.

Scientists and other academicians in the world have undertaken numerous researches and investigations on different perspectives of COVID-19 pandemic (Muhammad, Long and Salman, 2020; Dantas et al., 2020; Benjamin et al., 2020; Siddika, 2020; Roy et al., 2020). In the context of Sri Lanka, several researches have been conducted on different perspectives of the COVID-19 pandemic. Several authors have highlighted the

economic impacts of COVID-19 on different sectors such as tourism industry, apparel and textiles, construction and engineering, retail and consumer and bank and finance (International Trade Centre, 2020; Mudalige et al., 2020). Jayatilleke et al. (2020) have created a projection model for COVID-19 cases in Sri Lanka which was applied to different scenarios. When reviewing such literature, it is clear that despite the availability of studies on the overall context of COVID -19 pandemic, there is still a dearth of research on the impact of COVID -19 pandemic on the livelihood systems of the people in Sri Lanka. Since the outbreak of COVID-19 in Sri Lanka, the livelihoods of all the people of the country have come to a standstill due to various security measures taken by the government. The eruption of COVID-19 has affected the agricultural sector in Sri Lanka, which has only loosely integrated with global supply chains. From the outset of the COVID-19 pandemic, the government took timely steps to reduce the impact on agriculture. Prior to the COVID outbreak, the Central Bank of Sri Lanka (CBSL) expected the economy to grow at 4.5-5% with a modest recovery from the Easter Sunday attacks in April 2019 and the political stability after the Presidential elections. However, given the increasing economic consequences from the COVID-19 pandemic, these growth targets seem difficult to achieve (Mudalige et al., 2020). Compared to the industry and service sectors, agriculture has so far been the least affected by the COVID-19 outbreak. Given the circumstances, the government initiated a program to procure fruits and vegetables directly from the farmers to ease the problem of limited wholesale markets. Despite the lockdown, food supply was adequate in the local market throughout the pandemic. However, logistics of food transportation became a challenge causing disruptions in the food supply chains. As a consequence, the farmer who was unable to transport the products and the consumer who had lost their livelihoods were greatly inconvenienced (Mudalige et al., 2020). The

impact of COVID-19 outbreak had a huge impact on the livestock sector. The Department of Animal Production and Health imposed restrictions on importation of live animals and animal products from March 2020 onwards. As a result, their income levels plummeted. Tourism and real estate sector faced uncertain futures and they are among the hardest hit by the economic fallout due to the global COVID-19 outbreak. Tourist arrivals fell by 22% last year because of terrorist bombings of churches and hotels in Easter 2019. Then came COVID-19 and global shutdowns, leading to zero tourist arrivals from April 2020. In this way, almost all the jobs in the country collapsed due to COVID-19 pandemic thereby disrupting the livelihoods of all the community.

Similarly, the COVID-19 pandemic also posed a serious threat to the communities living in *Mahawewa* Divisional Secretariat Division of Puttalam District. There are 16,029 families living in the division with a total population of 60,079. The livelihoods of the community in this division range from fisheries, tourism, agriculture, self-employments, to government sector and the private sector employments. The community who engages in all these forms of livelihood was severely affected by the COVID-19 pandemic. Therefore, it is important to identify the impacts of COVID - 19 pandemic on the livelihood system of community in the study setting by focussing on the following research questions; What kinds of livelihood systems exist in the study setting? What kind of impacts related to the livelihood system emerged in the setting? What are the most affected livelihood systems by the pandemic? In what ways did the government and other social networks contribute to mitigate the impact of COVID- 19 on the livelihood systems? In order to explore these research questions, this study focussed on assessing the impact of Covid-19 pandemic on the financial livelihood assets of the community living in *Mahawewa* Divisional Secretariat Division.

2. Materials and Methods

2.1 Conceptual Framework

When conducting a study in deductive approach and scientific method, the conceptual framework should emerge from the referred literatures. In scientific method, the research should be carried out with minimum biasness. When assessing the impacts of COVID-19 pandemic on financial livelihood assets in a study setting, the dependent and independent variables should have been identified and then the conceptual framework should have been developed. Chambers and Conway's (1992) definition helped to identify the assets presented under the livelihood system. Accordingly, there are five livelihood assets that can be identified from several articles. However, this research focussed only on financial asset. Financial asset is assets and entitlements that have a cash value. It includes income, remittances from family members working away from home, sources of credit, pensions and savings. The community living in this division is engaged in various livelihood occupations

such as, agriculture, fisheries, tourism, self - employment, livestock production etc. Financial assets of this community belonging to all these livelihood categories were adversely affected as discussed in the study problem. The impact of this pandemic on the financial assets of community is at various levels. Accordingly, the study employed different levels by using five-point Likert scale as the strongly high level of impact (05), high level of impact (04), moderate level of impact (03), strongly low level of impact (02) and low level of impact (01). Also, when analysing the impact of COVID-19 pandemic on the livelihood system, the dependent and independent variables were identified and then the conceptual framework was developed as follows.

1. COVID-19 pandemic (X) - Independent variable
2. Livelihood Assets (Y) - Dependent variable

Based on the above independent and dependent variable, the conceptual framework can be created as in Figure 1.

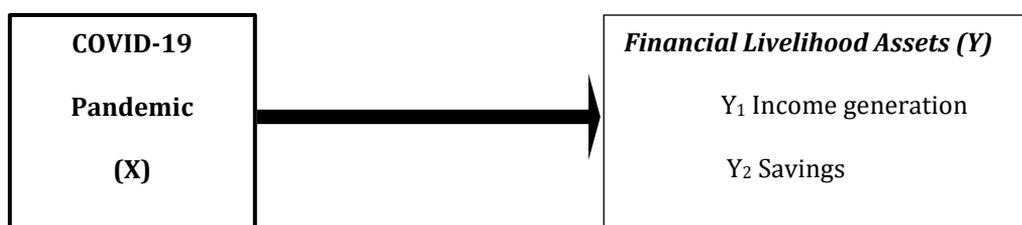


Figure 1. Conceptual Framework

$$(X) f = (y_1, y_2)$$

The sub-variables presented under the dependent variable and several dimensions can also be seen under those two variables.

Accordingly, following two hypotheses can be tested in this study;

H₀ - COVID-19 pandemic has no effect on the financial livelihood assets such as income generation and savings of the community in the selected study setting.

H₁ - COVID-19 pandemic has effect on the financial livelihood assets such as income generation and savings of the community in the selected study setting.

These hypotheses are intended to be studied through deductive and inductive approaches. Basically, the deductive approach builds knowledge and concepts relevant to the research problem and acquires knowledge through literary criticism. The knowledge and theories thus developed are tested in a practical context. In the inductive approach, the reality of the main problem goes to the ground level, and it expects to find out how it actually happens and then presents that reality as knowledge or theory. Accordingly, above hypotheses are explored under the inductive and deductive approaches.

2.2 Study Setting, Population, Sample and Sampling

The *Mahawewa* Divisional Secretariat Division is located in the *Puttalam* District of North Western Province with the absolute location of 7.4573° N latitude and 79.8254° E longitude. *Mahawewa* Divisional Secretariat Division consists of 47 *Grama Niladhari* Divisions (GND's). It has 16,029 families and the total population is 60,079. Out of the total population of the division 52.1% are females and 47.9% are males. Due to the size and the presence of all livelihood types, two GNDs have been selected, namely "*Marawila South*" and "*Pahala Kudawawa*" to cover all the types of livelihoods. Tourism, fisheries and the government and private sector occupations in particular are the main income generating activities in *Marawila South* GND, while *Pahala Kudawawa* is an area inhabited by a large number of communities engaged in agriculture and self-employment. *Marawila South* GND has a total population of 1338 and 405 families while *Pahala Kudawawa* GND has a total population of 670 and 174 families. By using stratified random sampling method, 11% of families (64) from each GND (i.e. 45 and 19) was selected for the sample. This total sample of 64 was divided among the different livelihood categories such as tourism (11), agriculture (16), fisheries (14), self-employments (07), government (09) and private sector employments (07).

2.3 Methods of Data Collection and Analysis

Primary and secondary sources were used to collect data and information. Accordingly, as secondary sources, relevant books, reports and articles from the internet, research reports published by institutions and academicians were referred. As primary sources, questionnaire survey, observation, informal discussions, in-depth interviews and case studies were mainly used to gather information. Questionnaires were delivered to the selected sample while informal discussions on each livelihood system were conducted to collect in-depth details of their livelihoods. As most of the data and information were qualitative belonging to nominal interval levels, Chi-Squared test was employed to analyze the level of impact of COVID-19 pandemic on the livelihood system of the community.

3. Results and Discussion

Although different livelihood types exist in the *Mahawewa* Divisional Secretariat, to assess the impact of this pandemic on the livelihoods of the community, six main livelihoods such as, Agriculture, Fisheries, Tourism, Government sector, Private sector and Self - employment were selected. The monthly income generation pattern of the households engaged in the above livelihood types before and during the COVID 19 pandemic is depicted in Figure 2.

As per Figure 2, majority of the households in agriculture (30%) and fisheries (46%) have earned a monthly income between 125000/= - 150000/=, while 46% and 43% of households in tourism and self-employments have earned between 25000/= - 50000/= per month prior to the pandemic. The majority of households where people engaged in government and private sector employments have earned 50000/= - 75000/= per month. Less number of households engaged only in agriculture (13%) and fisheries (7%) have

earned a monthly income of over 150,000 before the COVID 19 pandemic while none of the household has earned a monthly income less than 5,000 before the pandemic, and a few number of people working in the public (11%), self-employed (28%) and tourism (18%) sectors have received a monthly salary of 5,000 to 25,000. The three livelihoods in this range include three-wheeler owners who provide transportation to tourists, security guards at government banks, and small-scale self-employed persons. None of the

households in all livelihood types except agriculture and fisheries have earned a monthly income more than 75000/= before and after the pandemic. However, the monthly income generation of 82%, and 57% of households who engaged in tourism and both fisheries and self-employments has significantly dropped to less than 5000/= respectively during the COVID 19 pandemic. No such changes can be seen in agriculture, government and private sector employments.

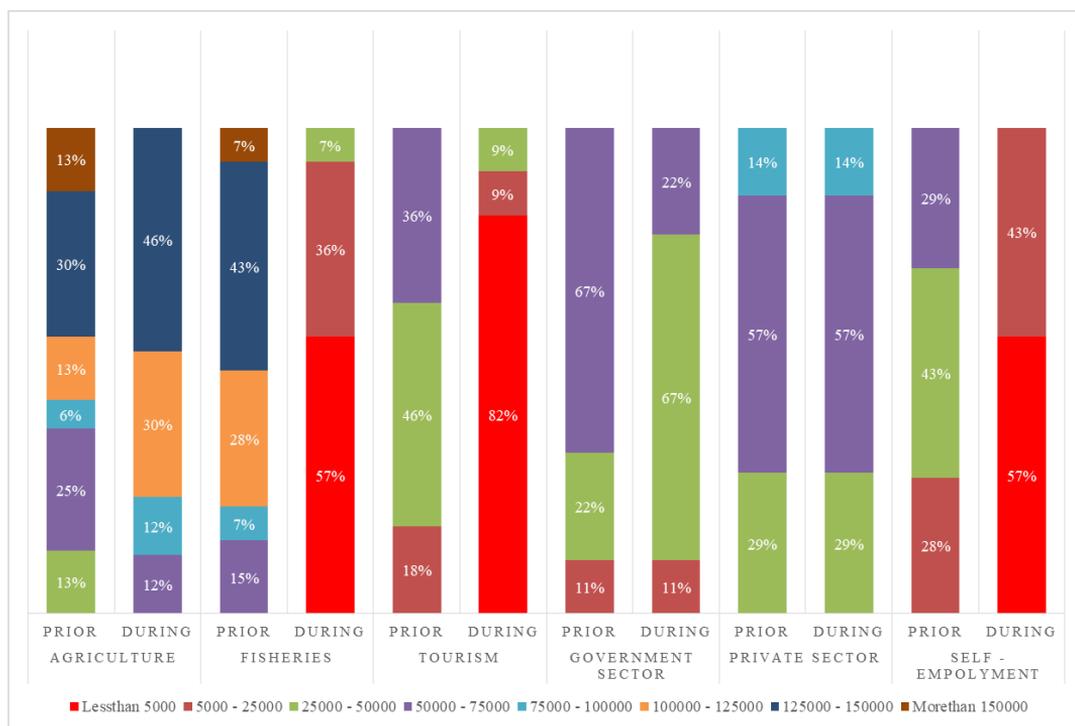


Figure 2. Percentage of the households engaged in various livelihood categories and monthly income generation (LKR.) prior and during the COVID 19 pandemic

The impact of COVID - 19 pandemic on the income generation of people who have engaged in the above livelihood types was tested on various levels. Accordingly, the Chi squared test built on these two hypotheses gives a chi value of 43.28 ($X^2 = 43.28$) after all calculations. Degrees of freedom were obtained as $Df = (C - 1) (R - 1)$, $Df = (5 - 1) \times$

$(6 - 1)$, $Df = 4 \times 5$, $Df = 20$. After finding the degrees of freedom, the theoretical value of the Chi squared distribution should be obtained from the Chi table. The theoretical value of the Chi is 31.41 at the significant level of 0.05 for the 20 degrees of freedom relevant to the problem. Accordingly, the value of chi obtained in calculating the impact of the

COVID - 19 pandemic on the income generation of these six livelihoods exceeds the theoretical value of the chi - type table. So, the null hypothesis is rejected while alternative hypothesis is accepted. Therefore, the null hypothesis that the COVID-19 epidemic has no effect on income generation in the study setting is rejected, and the alternative hypothesis that the COVID-19

pandemic affected the income generation of the community is accepted. Accordingly, it is clear that the income generation of these six livelihood types in the Mahawewa Divisional Secretariat was affected by the COVID - 19 pandemic. Further, people’s perceptions on the level of negative impact was studied and the results are given in Table 1 and Figure 3 related to each livelihood types.

Table 1. Summary of the Chi Squared Test

COVID19 Income generation	Strongly high impact 5	High impact 4	Moderate impact 3	Low impact 2	Strongly low impact 1	nc
Agriculture	4	4	3	3	2	16
Fisheries	7	4	2	1	0	14
Tourism	8	2	1	0	0	11
Government sector	0	0	4	3	2	9
Private sector	0	1	1	4	1	7
Self-employments	4	2	1	0	0	7
Nr	23	13	12	11	5	N = 64

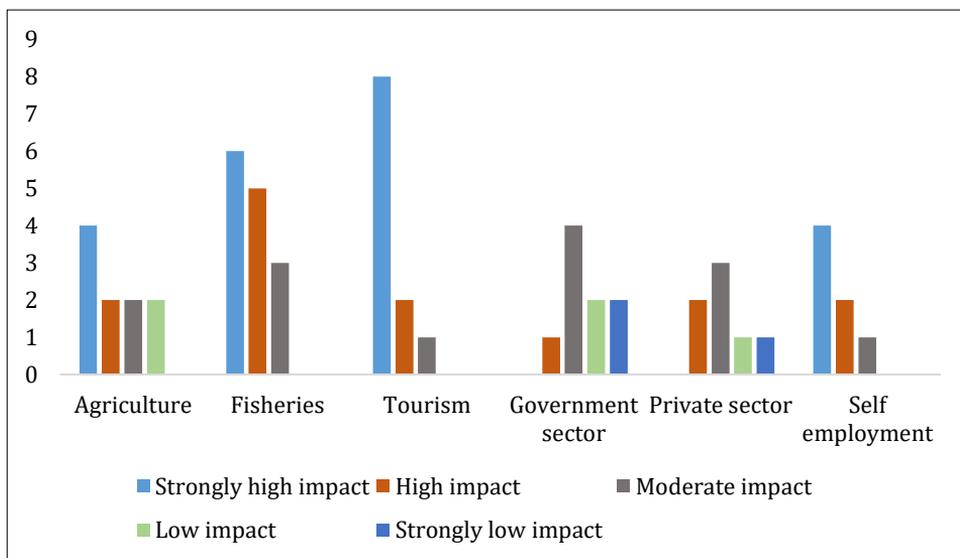


Figure 3. Number of households representing the different levels of adverse impact on income generation in each livelihood types during the COVID 19 pandemic

3.1 Livelihood in Agricultural Sector

Out of the selected sample (64) in two *Grama Niladhari* Divisions, 25% of households depend on agriculture in *Pahala Kudawewa Grama Niladhari* Division. Although the whole country was locked down in March 2020 to control the spread of the pandemic, the government allowed people engaged in agriculture to continue their livelihoods. However, Chi table shows that there has been some impact on their income generation due to various reasons that occurred during the pandemic such as crops had been severely damaged by the heavy rains, government reduced the price of rice in order to provide relief to the ordinary people of the country who were facing various difficulties due to the pandemic. However, 50% of farmers said that they did not have this problem as they had to hand over their paddy harvest to the paddy mills before the price of rice was reduced.

As shown in Figure 3 and Table 1, of the 16 households selected for the sample in agricultural sector, 25% reported that the pandemic situation has had a strongly high negative impact on their income generation. Thus, it is clear that from the beginning of the pandemic to the present, the income generation of the farming community has been affected by the COVID 19 pandemic.

3.2 Livelihood in Fisheries Sector

According to the sample selected for the study from the fisheries sector, there are two types of fishermen as Yacht fisherman and Trip boat fisherman. Yacht fisherman earn a daily income. Trip boat fishermen sail for a month or two, and their income depends on the amount of fish they bring from the voyage.

In the first wave of COVID – 19, the whole country was locked down and the consumers were unable to buy fish from the fishermen which resulted in decreasing the monthly income of fishermen. Significantly, during the

Second wave of COVID - 19, fishermen were able to maintain a normal lifestyle, but rumours spread throughout the country that the virus could also be transmitted by eating fish due to the rapid spread of the virus. Because of this rumour, the general public refused to buy fish. This situation has caused further decline in the income of fishermen. In order to cope with the adverse situation and the decline in income, fishermen have sold fish at lower prices every day to attract customers and maintain the lives of the households during the pandemic as depicted in Figure 2.

According to Figure 2, 71% of fishing households have earned between Rs. 100,000 and Rs. 150,000 while 7% have earned more than Rs. 150,000 per month. However, the majority of fishing households (57%) have faced difficulties during the pandemic with the reduction of their income to less than 5000/= per month. The following photographs depict isolated fishing equipment and depopulated areas as the general public refrained from buying fish during the first and second wave of COVID - 19 pandemic (Figure 4).

3.3 Livelihood in tourism sector

Tourism is one of the most important and unique industries in *Mahawewa* Divisional Secretariat Division. Prior to the pandemic, many local and foreign tourists from Italy, Germany, England, South Korea, Russia and China have visited the area during the vacations which in turn resulted in the creation of employment opportunities in the surrounding areas of tourist destinations in the area. However, the study revealed that the pandemic has severely affected their livelihood as depicted in Figure 3 and Table 1. Out of the total households (11) engaged in the tourism sector, 73% mentioned that the pandemic had a strongly high negative impact on their income. In addition, the people in this livelihood category declared that the pandemic was not the only cause for the reduction of their income but also the Easter

terrorist attack on churches and hotels on April 21, 2019 as well. Informal discussions with the hotel managers revealed that most households (50%) that mainly depended on tourism sector have switched from tourist transport service to local people transport at lower rates, from hotel inside work (janitors, waiters, room boys etc.) to outside work at lower salaries (maintain outside environments as labourers). As a results of this transformation, majority of households (82%) indicated a drastic change with a monthly income less than 5000/= during the pandemic (Figure 2) Among all, tourism sector is the mostly and adversely affected

livelihood type by the pandemic. The findings of the present study were confirmed by the study of Karunaratne et al. (2021) that in 2018, 169,003 and 219,484 employees were employed as direct and indirect employees respectively, in the tourism sector and the vast majority of these workers are temporarily unemployed because of the closure of hotels and restaurants, airlines, travel agencies, tourist shops and so on. This has made a severe impact on families who were totally dependent on tourism (Karunaratne et al., 2021).



Figure 4. Store of fishing equipment and depopulated fishing areas in the study area

3.4 Livelihood in Government & Private sectors

People, who mainly depend on income from both the government and private sector employments remain stable even after the pandemic situation due to the receiving of

regular income. However, prior monthly income level of 67% of households where people work in the government sector as teachers and clerical officials at banks, has changed drastically from 50000/= -75000/= to 25000/= - 50000/= as indicated in Figure 1. As seen in Figure 2, it is clear that prior to

the pandemic, there were no households with the monthly income level of less than Rs. 5000. But two households have fallen into that category during the pandemic. Also, perceptions of the people on the level of impact revealed that they had a moderate level negative impact on their income as all the members of the household spend time in the house during the lock-down period and monthly expenditure was higher than that of under the normal situation which resulted in reducing the savings.

Marawila South Grama Niladhari Division is also inhabited by a community employed in the private sector. Seven (11 %) households where people engage in private sector employments (i.e. private institutions and private banks), receive a fixed monthly salary. The study revealed that there is no change in their monthly salary before and after the pandemic as depicted in Figure 2.

However, when analysing the level of impact on income generation as listed in table 1, it was clear that the high and moderate level impacts are reported by 29% (02) of people working in the private sector. This is due to their income cut-down to Rs: 5000 due to the decrease of overtime and monthly attendance bonus. Similar to government sector people, they also highlighted that all the family members have spent time together since the first wave of COVID where the cost was slightly higher than the normal situation which resulted in reducing the savings.

3.5 Livelihood of self-employed

Self - employments such as casual labour, carpentry, masonry, repairing machineries, batik textile making can be mostly seen in this division. The most self-employed households (43%) have earned a monthly income of 25000/= - 50000/= prior to the pandemic as indicated in the figure 1. Although, they earn a considerable amount of money, there was no guarantee for their work even prior to the pandemic. However, due to the lock-down of the whole country during the first wave of the pandemic, their monthly income has been

severely affected. Hence, the monthly income of majority (57%) of households has dropped to less than 5000/= as indicated in Figure 2.

3.6 Impacts of COVID 19 on Savings of Community

The next variable to be discussed on financial assets is the impact of the COVID -19 pandemic on savings. The nature of the impact of the pandemic on their savings is quite different for all six sectors. Accordingly, two hypotheses have been formulated based on the following savings variable to determine the impact of the epidemic on the savings of these livelihood communities.

H_0 - COVID-19 pandemic has no effect on the savings of the community living in the selected study setting.

H_1 - COVID-19 pandemic has an effect on the savings of the community living in the selected study setting.

The impact of the COVID - 19 pandemic on the savings of people who engage in the six livelihoods was tested on various levels. Accordingly, the Chi squared test built on these two hypotheses gives a chi value of 43.28 ($X^2 = 43.28$) after all calculations. Degrees of freedom was obtained as $Df = (C - 1)(R - 1)$, $Df = (5 - 1) \times (6 - 1)$, $Df = 4 \times 5$, $Df = 20$. After finding the degrees of freedom, the theoretical value of the Chi squared distribution should be obtained from the Chi table. The theoretical value of the Chi is 31.41 at the significant level of 0.05 for the 20 degrees of freedom relevant to the problem. Accordingly, the value of chi obtained in calculating the impact of the COVID - 19 pandemic on the savings of these six livelihoods exceeds the theoretical value of the chi - type table. So, the null hypothesis is rejected while alternative hypothesis is accepted. Therefore, the null hypothesis that the COVID-19 pandemic has no effect on savings is rejected, and the alternative hypothesis that the pandemic negatively

affects the savings of the community is accepted. Accordingly, it is clear that the savings of these six livelihoods in the Mahawewa Divisional Secretariat was

affected by the COVID - 19 pandemic. Further, people’s perceptions on the level of negative impact was studied and the results are given in Table 2.

Table 2. Chi Squared Test representing negative impact of the pandemic on the savings of the community in each livelihood sector

COVID - 19 Savings	Strongly high impact 5	High impact 4	Moderate impact 3	Low impact 2	Strongly low impact 1	nc
Agriculture	7	3	3	3	0	16
Fisheries	6	5	3	0	0	14
Tourism	8	2	1	0	0	11
Government sector	2	1	2	2	2	9
Private sector	1	2	2	1	1	7
Self-employments	4	2	1	0	0	7
Nr	25	15	15	6	3	N = 64

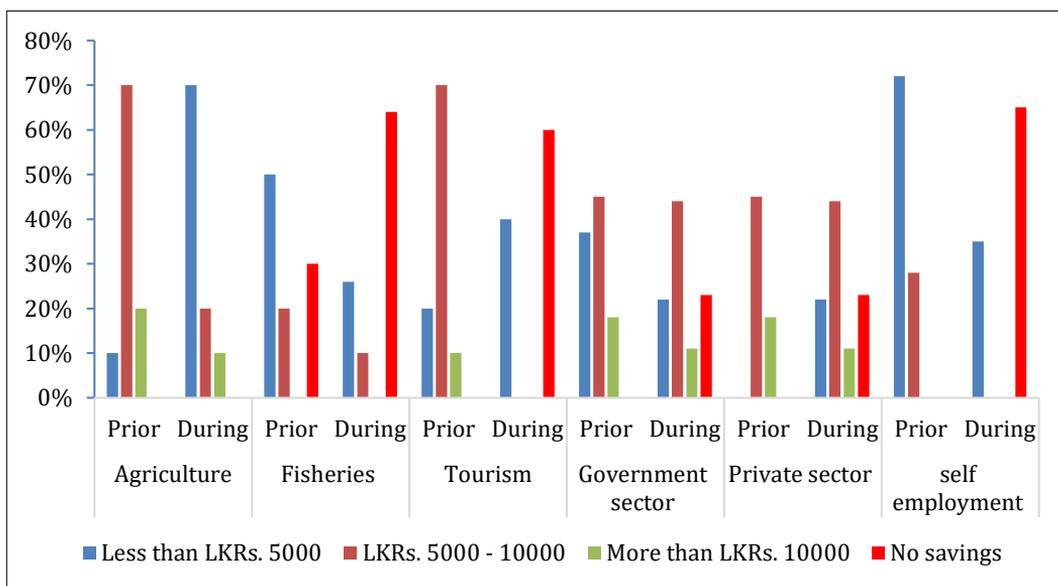


Figure 5. Illustrates the variability of monthly savings (LKR) of the households (%) in each livelihood category prior to and during the COVID 19 pandemic.

As per the perception of farmers, farming community has to spend a considerable amount of money to cultivate their paddy and they are used to saving a little money in the

banks. They stated that their crops had been damaged by heavy rains, which had a significant negative impact on their savings even before the pandemic. Majority of

farmers (70%) have maintained a monthly saving between LKR 5000-10000 prior to the pandemic as indicated in Figure 3. However, due to the pandemic, the savings of 75% of farmers has reduced to less than LKR 5000/= per month.

Study revealed that unlike other communities, the fishing community did not have much concern for savings, and 30% highlighted that they spend their earnings for daily needs. However, 50% of fishermen indicated that their monthly saving was less than LKR 5000/= before the pandemic. Two categories of fishermen belonging to yachts and trip boat, who have not been able to sell their fish, highlighted that they were unable to maintain their savings due to lack of income (64%).

The income of the tourism industry plummeted due to disasters (Easter Attack and COVID 19 pandemic) which resulted in reducing their savings too. They said that they were saving at a reasonable level before the terrorist attack, and that their savings had plummeted since the attack. They said that the amount of savings has completely fallen since the pandemic. As indicated in figure 3, majority of people engaged in tourism sector have saved LKR 5000/- -10000/= per month before the pandemic (70%) and 60% did not have any savings during the pandemic.

Despite the fixed monthly income received by the people working in both government and private sectors, the discussions with them revealed that due to all family members staying at home during the first wave of COVID 19, savings were negatively affected. Another important point is that commodity prices in the country have risen sharply since the onset of the COVID pandemic, and as a result, the savings of those employed in the public and private sectors (23% in each sector) have also fallen to zero as indicated in Figure 5.

As indicated in previous section on income generation, it was evident that the community in self-employment sector has suffered more severely than other sectors during the pandemic. Generally, the community having no stable or regular income level was able to save a little money even prior to the pandemic. As indicated in Figure 5, 72% of people engaged in self-employment have maintained a monthly saving less than LKR 5000/=. However, due to the pandemic, approximately 65% of people have lost their minimum savings (Figure 5). It was evident from the discussions with them that due to the government order for ordinary people to stay at home during the first wave, their self-employment collapsed and their incomes plummeted, leading to a reduction in savings. Also, since the onset of the epidemic, the prices of all commodities have increased rapidly. This also indirectly led to a decline in the savings of the self-employed communities.

3.7 Mitigation Measures taken by the Government & Social Organizations

As highlighted in Development updates of World Bank (2021), to mitigate the impact of the pandemic on the affected most vulnerable groups, the government implemented several livelihood support programs. Several mitigation measures were initiated through existing welfare schemes such as *Samurdhi*, elderly allowance, disability allowance and the chronic kidney disease (CKD) allowance. These programs were implemented in April and May across all 25 districts at a cost of Rs. 47.7 billion. The temporary allowance was extended to waitlisted families and one of the top-up payments was made to existing beneficiaries under the *Samurdhi* and elderly allowance programs. Livelihood support was additionally provided to low-income families not covered under the *Samurdhi* program, where one or more members had lost their livelihood due to the pandemic. Low-income families that were quarantined or in

lockdown areas during the second wave also received relief. These programs were implemented in addition to regular livelihood support programs such as *Samurdhi* and fertilizer subsidies. Similarly, all those programmes were implemented in the *Mahawewa* Divisional Secretariat Division as well. The first step taken by the government to restore the living standards of the people affected by this pandemic was Rs. 5,000 allowance. Also, relief bags including dry food items have been provided by various social organizations and some individuals at their own expense. The discussion held with the farmers revealed that they had a problem in purchasing the required fertilizer during the Lock Down period. However, the government has provided fertilizer to the farmers at a concessionary price to minimize the impact of the epidemic on the farmers. During the period of curfew in the country, the government allowed the fishing community to engage in their livelihood. However, as the impact of the pandemic had affected the income of the fishermen, all the fishermen who had lost their job received Rs. 5,000 subsidy. In addition, various relief programs have been implemented by the business associations and they also have donated Rs. 5000-10000 worth food bags to the fishermen. People who were employed in the tourism sector also have lost their jobs and they too received subsidies provided by the government and social organizations during the first wave of the epidemic. Accordingly, the mitigation measures taken by the government and social organizations have contributed positively to minimise the impact on the communities engaged in various livelihoods.

4. Conclusion and Recommendations

In this study, Income generation and savings were used as the main variables to assess the impact of the COVID - 19 pandemic on the financial livelihood assets of the community in *Mahawewa* DS division and to find how people overcame the negative impacts. The

results of the study proved that overall, the COVID - 19 pandemic had affected the income generation of the community in all six livelihood categories such as agriculture, fishing, tourism, self-employment, private and government sector employments. Especially, the COVID-19 pandemic has had a slightly negative effect on the income generation of the farming community while the fishing, tourism, self-employments were identified as livelihood categories which had a severe negative impact on income generation. Further, to mitigate the negative impact of the pandemic on the affected most vulnerable groups, the government has implemented several livelihood support programs. Several mitigation measures were initiated through existing welfare schemes such as *Samurdhi* and elderly disability and the chronic kidney disease (CKD) allowance programmes. The mitigation mechanism of social organizations in the *Mahawewa* Divisional Secretariat have also contributed to minimize the impact on the affected community in various ways.

In order to help the farming community in the *Mahawewa* Divisional Secretariat to recover from the effects of the pandemic on their livelihoods, it is important to provide free fertilizer subsidy to all farmers. The study also suggests to establish a program to deliver the paddy harvest of farmers to paddy mills at a higher price. The income level of the fishing industry has plummeted due to the pandemic, and the low interest loans should be provided to the people who are engaged in fishing sector to recover from the severe losses of income and savings due to the pandemic. The collapse of the tourism industry which began in 2019 due to Easter attack has been more escalated due to the outbreak of the COVID-19 pandemic. Therefore, it is proposed to formulate a program to provide suitable employments to those who work in the tourism industry and self-employed sectors in a manner that provides them with some income. Also, as to the fishing sector, by providing the low interest loans, the livelihood of these

communities can be improved to a certain level during the pandemic.

Acknowledgement: The researchers like to acknowledge the International Center for Multi-Disciplinary Studies of the Faculty of Humanities and Social Sciences, University of Sri Jayewardenepura for providing a research grant to undertake this research.

5. References

- Jayatileke, A.U, Dayarathne, S., De Silva, P., Siribaddana, P., Abeygunawardana, A.B.S, Nieveras, O., De Silva, N. & De Silva, J. (2020). COVID-19 case forecasting model for Sri Lanka based on Stringency Index. doi.org/10.1101/2020.05.20.20103887
- Niehof, A. & Price, L. (2001). *Rural livelihood systems: a conceptual framework*. International Potato Center. Retrieved from: <http://www.amerzon.com>
- Begum, R. and Mobeen, A. (2020). Impacts of Pandemics on Economy - Focusing on the Measures and Employee Performance in Banking Industry of Pakistan during COVID-19. *European Scientific Journal ESJ*, 16(16),13-20. doi.org/10.19044/esj.2020.v16n16p13
- Benjamin, Y.Q.T., Nicholas, W.S., Lee, K.H., Jing, M., Goh, Y., Leonard L.L., Zhang, Y.K., Chin, H. , Ahmad, A., Khan, F.A., Shanmugam, G.N., Bernar, P.L., Sunnuy, S., Chandra, B., Jonathan, J. Y., Paliwal, O.P.R., Wong, L.Y.H., Sagyanathan, R., Chen, J.T., Ying Ng, A.Y., Teoh, H.L., Ho, C.S., Ho, R.S. & Sharma, V.K. (2020). Psychological Impact of the COVID-19 Pandemic on Health Care Workers in Singapore. *Ann Intern Med*, 173(4), 317-320. Retrieved from: <https://pubmed.ncbi.nlm.nih.gov/32251513/>
- Chambers, R., & Conway, G. (1992). *Sustainable rural livelihoods: practical concepts for the 21st century*. Institute of Development Studies (UK).
- Chew, N.W.S., Lee G.K.H., Tan, B.Y.Q., Jing, M., Goh, Y., Ngiam, N.J.H., Yeo, L.L.L., Ahmad, A., Ahmed, K. F., Napoleon, S. G., Sharma, A.K., Komalkumar, R.N., Meenakshi, P.V., Shah, K., Patel, B., Chan, B.P.L., Sunny, S., Chandra, B., Ong, J.J.Y., Paliwal, P.R., Wong, L.Y.H., Sagayanathan, R., Chen, J.T., Ying Ng, A.Y., Teoh, H.L., Tsivgoulis, G., Ho, C.S., Ho, R.C. & Sharma, V.K. (2020), A multinational, multi centre study on the psychological outcomes and associated physical symptoms amongst healthcare workers during COVID-19 outbreak. *Brain Behav Immun*. 88, 559-565. doi: 10.1016/j.bbi.2020.04.049. Epub 2020 Apr 21. PMID: 32330593
- Dantas, G., Siciliano, B., França, B. B., Da Silva, C. M., & Arbilla, G. (2020). The impact of COVID-19 partial lockdown on the air quality of the city of Rio de Janeiro, Brazil. *Science of the Total Environment*, 729, 139085.
- Roy, D., Tripathy, S., Kar, S.K., Sharma, N., Varma, S.K. & Kaushal, V. (2020). Study of knowledge, attitude, anxiety & perceived mental healthcare need in Indian population during COVID-19 pandemic. *BMC Public Health*, 20,1541. Retrieved from:32283510
- Food and Agriculture Organization of the United Nations. (2007). *Report of the National sharing of experiences and lessons learned: Davao City, Philippines. 7-10 March 2006*. Rome, Italy.
- Gabarin, A. U. (2019). *Standard operating procedure for rescue operation in human-made disaster management in Nigeria*. Doctoral dissertation, Universiti Tun Hussein Onn, Malaysia.

- International Trade Centre (2020). *Impact of covid19 on the global market and local industry of textile & clothing*. Final Report. Retrieved from: https://www.intracen.org/uploadedFiles/intracenorg/Content/Redesign/Projects/GTEX/ImpactofCovidonTCindustry_Egypt_eng.pdf
- Jansen, H. G., Pender, J., Damon, A., Wielemaker, W., & Schipper, R. A. (2006). Policies for Sustainable development in the hillsides of Honduras: A quantitative livelihoods approach. *Agricultural Economics*, 34, 141–153. doi.org/10.1111/j.1574-0864.2006.00114.x
- Karunarathne, A.C.I.D., Ranasinghe, J.P.R.C. & Sammani, U.G.O. (2021). Impact of the COVID-19 pandemic on tourism operations and resilience: stakeholders' perspective in Sri Lanka. *Worldwide Hospitality and Tourism Themes*. 13 (3), 369-382. doi. 10.1108/WHATT-01-2021-0009 <https://www.emerald.com/insight/1755-4217.htm>
- Muhammad, S., Long, X., & Salman, M. (2020). COVID-19 pandemic and environmental pollution: A blessing in disguise?. *Science of the Total Environment*, 728, 138820.
- Sidhdika, A. (2020). COVID-19 and Bangladesh: A study of the public perception on the early measures taken by the government. Retrieved from: <https://www.dovepress.com/public-trust-in-covid-19-prevention-and-responses-between-january-and--peer-reviewed-fulltext-article-RMHP>
- perception on the early measures taken by the government. Retrieved from: <https://www.dovepress.com/public-trust-in-covid-19-prevention-and-responses-between-january-and--peer-reviewed-fulltext-article-RMHP>
- Thennakoon, S. (2004). Rural livelihood strategies and the five capitals: a comparative study in selected villages of Sri Lanka. In *Proceedings of the 18th European conference on modern South Asian Studies*. Lund, Sweden, July.
- World Health Organization, WHO (2020) Corona Virus Situation Report. Retrieved from: <https://www.who.int/emergencies/diseases/novel-coronavirus-2019/situation-reports>.
- Yang, L., Liu, M., Lun, F., Min, Q., Zhang, C., & Li, H. (2018). Livelihood assets and strategies among rural households: comparative analysis of rice and dryland terrace systems in China. *Sustainability*, 10(7), 2525.