



FINAL REPORT

INVESTIGATION OF THE IMPACTS OF THE COVID-19 PANDEMIC ON LOCAL AND INDIGENOUS COMMUNITIES' SOCIO-ECONOMIC STATUS



NOVEMBER 2021

RESEARCH TEAM:

Narith POR
Solany KRY
Soknim YON

Table of Contents

TABLE OF CONTENTS	I
FIGURES AND TABLES	III
ACRONYMS	IV
CHAPTER 1: INTRODUCTION	1
1.1. Background	1
1.2. Study Problems	2
1.3. Study Objectives and Questions	2
1.3.1. Objectives	2
1.3.2. Research Questions	2
1.4. Study Significances	2
1.5. Study Scope and Limitations	3
1.6. Study Framework	3
1.7. Limitations of the Study	5
CHAPTER 2: RESEARCH METHODOLOGY	6
2.1. Research Steps	6
<i>Step 1: Inception workshop</i>	6
<i>Step 2: Draft Research Tools</i>	6
<i>Step 3: Consultation Workshop on Research Tools</i>	6
<i>Step 4: Field Data Collection with Communities</i>	7
<i>Step 5: Data Analysis and Reporting</i>	7
<i>Step 6: Validation Workshop on Research Finding</i>	7
<i>Step 7: Launch Research Workshop</i>	7
2.2. Research Sites	8
2.3. Sampling and Sample Sizes	9
2.4. Data Collection	9
2.4.1. Secondary Data	9
2.4.2. Primary Data	10
2.4.3. Data Analysis and Reporting	11
CHAPTER 3: STUDY FINDINGS	11
3.1. Indigenous Communities' Livelihood Profile	11
3.1.1. Occupation and Income	11
3.1.2. Access to Health	14
3.1.3. Access to Education	16

3.1.4. Migration	17
3.1.5. Domestic Violence	18
3.2. Impacts of COVID-19 on Indigenous Communities' Livelihoods	19
3.2.1. Occupation and Income	20
3.2.2. Impacts on Health	22
3.2.3. Impacts on Education	23
3.2.4. Impact on Migration	26
3.2.5. Impact on Domestic Violence	26
3.2.5. Impacts on Natural Resources	27
3.3. Coping Strategies	27
3.3.1. Coping Strategies for Employment and Income	28
3.3.2. Coping Strategies for Health	29
3.3.3. Coping Strategies for Education	31
3.3.4. Coping Strategies for Migration	33
3.3.5. Coping Strategies for Domestic Violence	33
3.3.6. Strategies for Coping Natural Resource Issues	34
CHAPTER 4: CONCLUSIONS AND RECOMMENDATIONS	34
4.1. Conclusions	34
4.2. Recommendations	35
REFERENCES	37
ANNEX	40
LIST OF RESPONDENTS	40
QUESTIONNAIRE	41

FIGURES AND TABLES

Figure 1: Research Framework	5
Figure 2: Sample Sizes	9
Figure 3: Numbers of Students, Girls from Research Sites	17

ACRONYMS

AIDS	Acquired Immunodeficiency Syndrome
AM	Ante Meridiem
CC	Community Chief
CCWC	Commune Committee for Women and Children
CFiMC	Community Fishery Management Committee
CFMC	Community Forestry Management Committee
COVID-19	Coronavirus Disease-2019
DFID	Department for International Development
EIGE	European Institute for Gender Equality
FGD	Focus Group Discussion
HIV	Human Immunodeficiency Virus
IOM	International Organization for Migration
IP	Indigenous People
LGBTIQA	Lesbian, Gay, Bisexual, Transgender, Intersex, Queer, and Asexual
MOEYS	Ministry of Education, Youth and Sport
NRM	Natural Resources Management
NTFP	Non-Timber Forest Products
PDoA	Provincial Department of Agriculture
PM	Post Meridiem
PWD	People with Disability
RFA	Radio Free Asia
RGC	Royal Government of Cambodia
TV	Television
UNDP	United Nations Development Program
USAID	United States Agency for International Development
USD	United States Dollar
VHS	Village Health Support
WHO	World Health Organization

ACKNOWLEDGMENTS

My village (MVi) would like to thank Ponlok Chomnes for its generous support of this research project. The MVi also thank to Mr. Chap Sophanha, a research advisor, and Ms. Sry Bopharath and Mr. Prak Rathyrea, Program Officers, for reviewing and providing feedback on this research.

We would also like to thank officials from the Department of Education, Stung Treng Youth and Sport, Stung Treng Department of Agriculture, Stung Treng Department of Health, Provincial Administration, village heads, village vice-chiefs, and commune councilors for their collaboration and support of this research.

This research would not be possible without support from community leaders in the research sites. We also express our appreciation for community leaders in Samkhoy, Nhang Shum, Khan Maphoeun, Chrob, Svay Rieng, and Tun Sorng villages who helped facilitate data collection in the field and to accommodate researchers. All of the respondents also made this research possible.

Within our organization, many colleagues supported this endeavor. We would like to thank Ms. Lai Sey, Team Leader Assistant, who facilitated some activities of the research. Special thanks also to the research team, Mr. Por Narith, MVi Executive Director, Mr. Kry Solany, MVi Stung Treng Team Leader, and Mrs. Yon Soknim, MVi researcher.

Support for this Research was Funded by:

Ponlok Chomnes

In partnership with Australia's Department of Foreign Affairs and Trade, The Asia Foundation is implementing Ponlok Chomnes: Data and Dialogue for Development in Cambodia to strengthen the capacity of knowledge sector institutions to undertake quality research that informs public policy analysis and dialogue in Cambodia.

The Asia Foundation

The Asia Foundation is a nonprofit international development organization committed to improving lives across a dynamic and developing Asia. Informed by six decades of experience and deep local expertise, our programs address critical issues

affecting Asia in the 21st century—governance and law, economic development, women's empowerment, environment, and regional cooperation.

DFAT - Ponlok Chomnes Donor

The Department of Foreign Affairs and Trade (DFAT) promotes and protects Australia's international interests to support our security and prosperity. We work with international partners and other countries to tackle global challenges, increase trade and investment opportunities, protect international rules, keep our region stable and help Australians overseas.

CHAPTER 1: INTRODUCTION

1.1. Background

The COVID-19 pandemic has impacted the globe as COVID-19 has spread across all continents. In the Mekong region, the virus has especially affected many migrant workers, garment industry workers, indigenous and ethnic minorities, refugees, internally displaced peoples, migrants, urban slum-dwellers, and people working in the informal sector, such as female sex workers (CARE, 2020).

The pandemic spreading in Cambodia, 90,9585 confirmed cases of COVID19 as of 25th August 2021 and 86,993 cases of recovery and 1,841 deaths have affected economic conditions in Cambodia (MoH, 2021).

In Cambodia, surveys have been conducted in 2020 by Future Forum and Angkor Study on the impact of COVID-19 on Cambodia. This research included findings on the economic impact of Covid-19, impacts on wage workers, the effect of Covid-19 on farmers, the effect of Covid-19 on household enterprises, and the effect of Covid-19 on savings and debt. Those studies focused on quantitative information, but an identified gap was that indigenous people were not included in the research.

Indigenous communities and rural people were already vulnerable before the pandemic due to development projects including economic land concession, hydropower dams, and others, and because of predatory practices such as eviction, loss of the lands, rivers, forests, soil, fish, and plants (Earth Rights International, 2014). The pandemic heightened this vulnerability. More than 476 million indigenous people around the world have been hit by COVID19 (Phnom Penh Post, 2020).

In Cambodia, there are 24 indigenous groups (Open Development Cambodia, 2020) who are hypothesized to have faced challenges during the COVID-19 pandemic. But no specific research has been conducted with indigenous communities. Therefore, this participatory study was designed to explore the ***“Impacts of COVID19 Pandemics on Local Indigenous Communities’ Socioeconomics”*** and to fill this gap.

1.2. Study Problems

Cambodia has been a leader in rolling out a national vaccination campaign, but still suffered from many cases of COVID-19. The rising number of cases starting in February 2021 had a ripple effect on the economic livelihoods of many people, especially the most vulnerable. Because indigenous people in Cambodia already had higher levels of poverty, the effects of the pandemic on the socioeconomic status of this group needs to be explored.

1.3. Study Objectives and Questions

1.3.1. Objectives

This study has the following objectives:

- To investigate indigenous communities' socio-economic impacts as a result of the COVID-19 pandemic.
- To explore coping strategies to aid in the socio-economic recovery of indigenous communities.

1.3.2. Research Questions

Two key questions were explored to collect the information pertaining to the study objectives:

- How did the indigenous communities' socio-economic conditions change during the COVID-19 pandemic?
- What strategies were employed to cope with the socio-economic conditions of indigenous communities and what additional strategies should be implemented for the socio-economic recovery of indigenous communities?

1.4. Study Significances

The findings of this study are very important for decision-makers, policy-makers, Civil Society Organizations (CSOs), and local communities. The study findings will be used to influence decision-makers or policy-makers for better policy development, which would benefit indigenous communities and aid in their socio-economic recovery. The study findings can be used by sub-national authorities to develop plans in order to respond to the needs of indigenous communities. The CSOs and local

communities can use the study findings to develop and design their interventions to address the socio-economic status of indigenous communities.

1.5. Study Scope and Limitations

This study applied qualitative analysis and drew upon the knowledge of community and local authorities. The study was conducted from January 1-August 30, 2021. The study focused on several aspects of indigenous livelihoods, including:

- ✓ Education
- ✓ Health
- ✓ Income generation
- ✓ Domestic violence
- ✓ Migration conditions
- ✓ Natural resources

The majority of respondents of the study included people from low income households, vulnerable people, local authorities, and community committees. Respondents were also recruited from the following categories: poor level 1 and poor 2 status; lesbian, gay, bisexual, transgender, queer, intersex, asexual (LGTBQIA) people; PWDs; widows; elderly people; and youth. These groups were the focus to better understand the impact on their livelihoods and their coping strategies during the COVID-19 pandemic.

1.6. Study Framework

MVi applied three approaches to conceptualize this study: Sustainable Livelihood Approach, Gender Approach, and an Inclusive Approach, as shown in Figure 1 and described below.

- ✓ The Sustainable Livelihood Approach was developed by DFID in 1987 (DFID, 2000). This was used to identify livelihood assets and livelihood outcomes. The livelihood assets include human resources, natural resources, social resources, physical infrastructure, and financial resources. The livelihood outcome refers to the employment and income of indigenous people. This study used this approach to identify the impacts of those resources and livelihood outcomes.

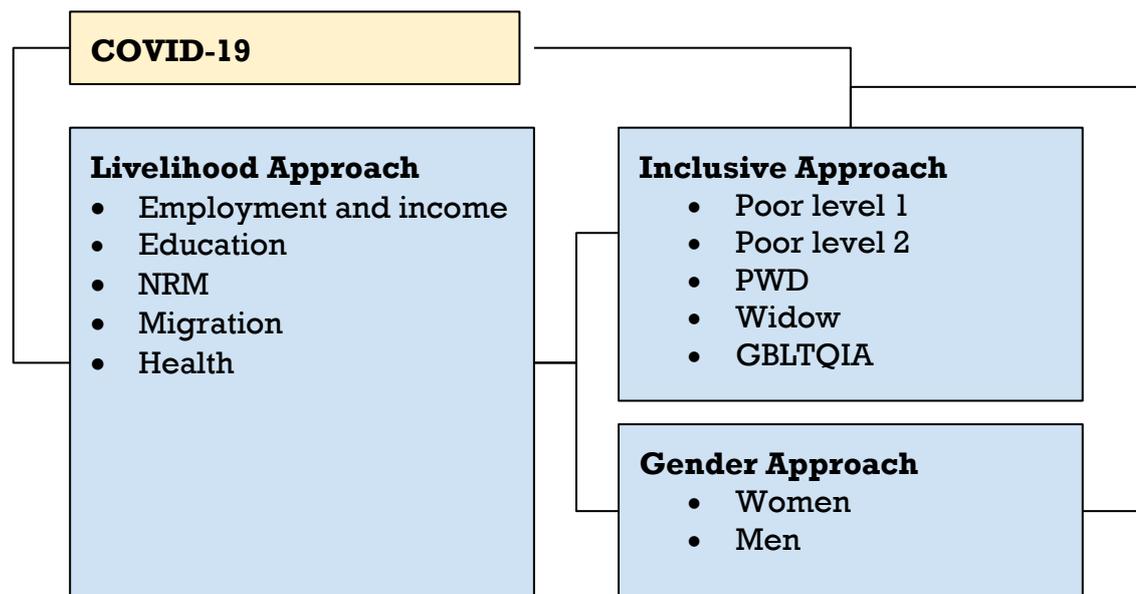
This approach was also used to identify the coping strategies to address the livelihood of the indigenous communities.

- ✓ The Gender Approach refers to gender-based differences in status and power and the discrimination that shapes the needs of women and men (European Institute for Gender Equality [EIGE], n.d). This approach was used to identify the impacts of COVID-19 on women and men, boys and girls in indigenous communities in terms of employment and income, health, migration, violence, and natural resources. This approach helped the research team to identify the coping strategies of local indigenous communities and the responsiveness of the stakeholders in addressing the impacts of COVID-19 on women, men, boys, and girls.
- ✓ An Inclusive Approach was used to ensure that marginalized groups were included in the development process and that they also gained benefits from development (USAID, 2018). This approach was used to explore the impacts of COVID-19 on different including people from poor level 1-families, people from poor 2-¹families, PWDs, widows, elderly, youth, and LGBTQIA.

The three approaches mentioned above were incorporated into the study as illustrated in Figure 1 below.

¹ There are two poverty categories to which **poor households can be assigned**: Poor Level 1 (very poor), Poor Level 2 (poor). These poverty categories are assigned based on the questionnaire scores and consideration of the special circumstances of households.

Figure 1: Research Framework



Source: UNDP, 2000; EIGE, n.d; USAID, 2018

1.7. Limitations of the Study

Travel and gathering restrictions due to a local ongoing outbreak of COVID-19 impacted the timeline of the study and data collection. The field collection was delayed and the original submission date of July 2021 was pushed back. In order to follow the policies but to continue with the study, the data from the last two villages was accumulated by using the Telegram and Messenger online platforms which may have impacted what information was provided since the format of collection differed.

The study focused only on qualitative data and did not collect quantitative data. This limits our ability to deduce quantitative information about the study group's socioeconomic status or to draw upon quantitative data around changes in their socioeconomic status

CHAPTER 2: RESEARCH METHODOLOGY

2.1. Research Steps

The study followed seven steps: an inception workshop, drafting of study tools, consultations on the research tools, field data collection, data analysis and report writing, a consultation workshop on the research findings, and a dissemination workshop on the research finding.

Step 1: Inception workshop

The first step of the study was to hold an inception workshop in March 2021 with 20 participants (11 women, one person from poor level 1-, two people from poor 2²- one widow and one youth, including provincial line departments, local authorities, dowers, 1 representative of persons with disabilities (PWDs), and 8 Committee members of community fishery and forestry) to brief them about the process of the study project.

Step 2: Draft Research Tools

In collaboration with advisors, research tools, including questionnaires, were drafted. Several questionnaires were developed for different respondents. The first type of the questionnaire was used to gather information from focus group discussions. The second type of questionnaire was developed to conduct key informant interviews including with local authorities, provincial line department officials, and marginalized people.

Step 3: Consultation Workshop on Research Tools

The consultation workshop on Research Tools was organized in March 2021. This workshop was conducted with 20 participants (including 11 women, 1 person from poor level 1-families, 2 people from poor 2-families, 1 widow, and 1 youth). The workshop also included local communities, commune chiefs of the study sites, and provincial line department officials from the Provincial Department of Agriculture

² There are two poverty categories to which poor households can be assigned: Poor Level 1 (very poor), Poor Level 2 (poor). These poverty categories are assigned based on the questionnaire scores and consideration of the special circumstances of households.

(PDoA), Provincial Department of Education, Youths and Sport (PDoEYS), Provincial Department of Health (PDoH), and Provincial Government Administration Office. These participants were invited to verify and validate the objectives of the study and to provide feedback.

Step 4: Field Data Collection with Communities

The field data collection occurred from June 8- July 21, 2021 through interviews, group discussion, and observation. Individual Interviews (IDIs) were conducted with 69 key informants. The information was gathered from poor level 1-families, poor 2-families, widow, PWDs, the Commune Council, village head, CFIs(Community Fisheries), school principals, departments' officials from PDoA, PDoEYS, PDoH, and Provincial Government Administration Office). Group discussions (GDs) were held with poor level 1-families, poor 2-families, widows, PWDs, vice village heads, village secretaries, LGBTQIA, representatives, HIV positive representatives, elderlies, and youths respondents. More information can be found in the field data collection section in 2.4.

Step 5: Data Analysis and Reporting

The data was analyzed using ATLAS software to categorize the responses based on the research objectives. This analysis formed the basis of the research report. Feedback on the draft report was provided by a research consultant.

Step 6: Validation Workshop on Research Finding

The validation workshop was conducted on October 26, 2021 with 35 participants (14 women) including provincial department officials, commune chiefs, commune councilors, community leaders, PWDs, and widows. The session was held to validate the research findings.

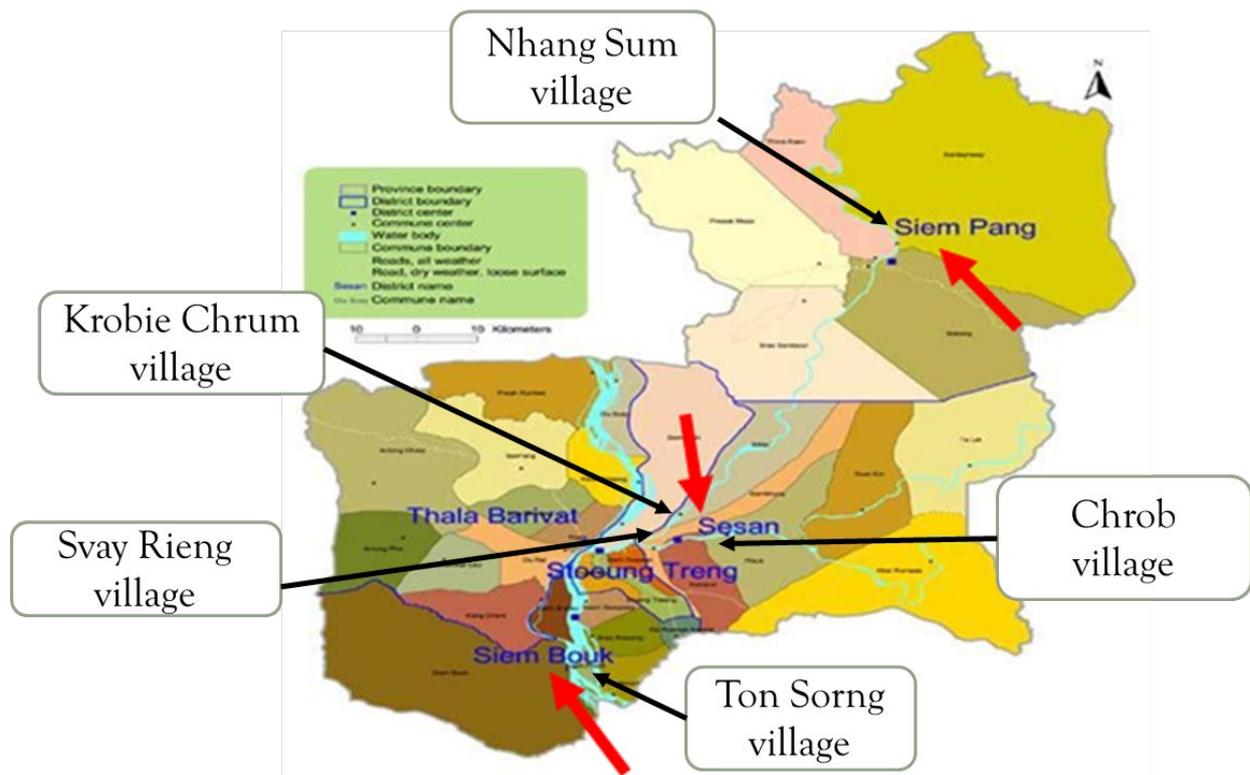
Step 7: Launch Research Workshop

MVi organized a launch workshop on November 22, 2021 to disseminate the findings to relevant stakeholders including local authorities, provincial line departments, CSOs, community leaders, widows, women, PWDs, and LGBTQIA representatives.

2.2. Research Sites

The research focused on Stung Treng province which is divided into six districts/city (Stung Treng, Thlabariviat, Siem Bok, Sesan, Siem Pang and Borei O'Svay Sen Chey) comprising 34 communes and 128 villages with the total population 164,598 (82, 318 women, 82, 280 men), (Data source from Stung Treng Provincial Department of Planning: 2020). The study was conducted in five indigenous communities such as Nhang Sum (Khmer Khe), Krobie Chrum (Khmer Khe) (, Svay Rieng (Khmer khe), Ton Sorng (Kouy), and Chrob villages (Prov) along the Sekong, Mekong, and Sre Pok rivers located in three districts namely Siem Pang, Siem Bok and Sesan (Provincial Administration, 2020).

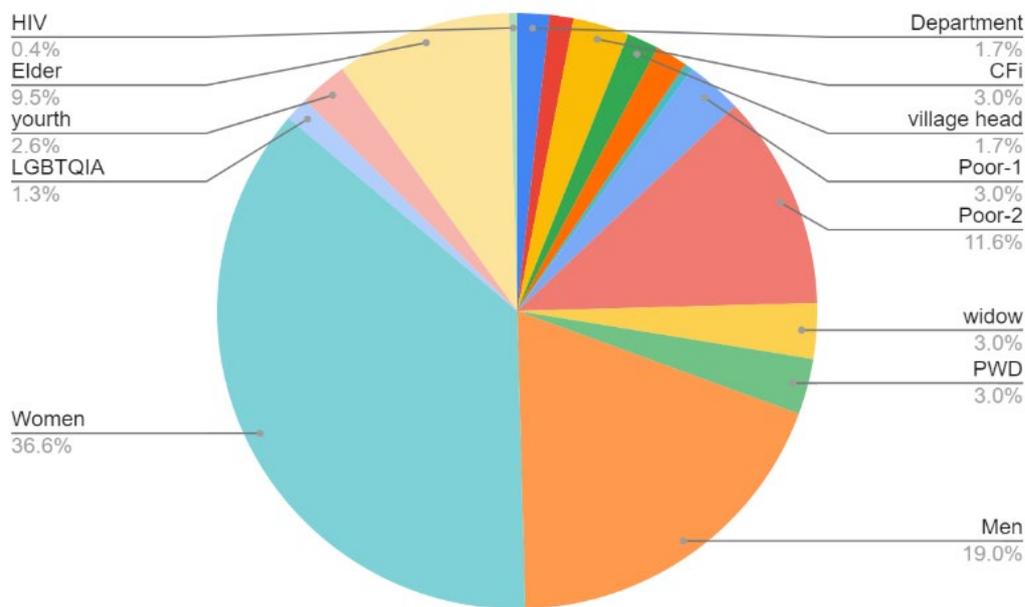
Figure 2: Map of Research Sites



2.3. Sampling and Sample Sizes

Stratified random sampling was employed. In total, 125 people from Nhang Sum village, in Siem Pang district; Chrob village, Krobie Chrum village, and Svay Rieng village in Sesan district; and Tonsorng village in Siem Bouk district were selected as samples. Those people were the people from poor level 1, from poor-level 2, widows, PWDs, LGBTQIA, youths, and HIV positive. Those also counted with Departments, Commune councils, village chief, committee members and school principals as shown in Figure 2.

Figure 3: Sample Sizes



Source: Author, 2021

2.4. Data Collection

Two types of data were gathered including primary data and secondary data.

2.4.1. Secondary Data

The secondary data was gathered from provincial line departments and relevant government agencies and was used to triangulate and add to the primary data collected.

2.4.2. Primary Data

The primary data was collected through focus group discussions, case documentations, and key informant interviews.

(a) **Focus Group Discussions:** Focus Group discussions (FGDs) were employed in this study in order to gather information about the respondents/participants, and grouped by similar backgrounds and experiences (60 Years of Impacts, 2009).

(1) During field data collection, one FGD was conducted in each of the study villages. In total, 56 respondents were invited to join in five different FGDs ranging from five to 12 people . Indigenous community representatives were grouped by the following categories: indigenous women, indigenous youths, PWDs, widows, elderly, poor-1, poor-2, and LGBTQIA. The FGDs were focused on the changes in their socio-economic conditions and communities caused by the COVID-19 pandemic, as well as coping strategies.

(2) FGDs were also conducted during the consultative workshops at provincial level with relevant stakeholders including two groups of indigenous community representatives, one group of provincial department officials, and one group of local authorities. The GDs were preceded by a presentation from indigenous community representatives and a discussion that asked the following questions:

- *What were the additional impacts of COVID-19 on IP socio-economic conditions? What has been done to cope with the impact of COVID-19?*
- *What actions should be taken to support socio-economic recovery?*
- *What are the planning activities that will be done to recover from the worst socio-economic conditions?*

(b) **Key Informant Interviews:** There were 69 respondents interviewed including women, men, PWDs, widows, poor-1, poor-2, as well as other relevant stakeholders (Health Department, Administrative Department, Agriculture Department, Education Department, Commune Chief, and village heads). All key informants were asked the same questionnaires as used during the FGDs.

The findings from the key informant interviews were used for case study documentation.

- (c) **Case study documentation:** Two case studies on the socio-economic changes of the households in the study sites were produced. The case studies are related to the socio-economic impacts on women, men, PWDs, and youths.
- (d) **Observations:** Field visits were conducted to observe the real situation of the socio-economic conditions of the indigenous communities. This approach enabled the study team to better visualize the reality of the socio-economic conditions in the indigenous communities of the study sites. Photos of those conditions were taken and will be attached to the study findings report.

2.4.3. Data Analysis and Reporting

Most of the data is qualitative data. Three types of analysis were applied in this study: content analysis, narrative analysis and framework analysis, as described below:

- Content analysis: The data was classified and summarized by the contents and objectives;
- Narrative analysis: the stories or case studies were produced and presented in the study;
- Framework analysis: mapping and interpretation was used to describe the socio-economic changes.

CHAPTER 3: STUDY FINDINGS

3.1. Indigenous Communities' Livelihood Profile

3.1.1. Occupation and Income

The indigenous communities in research sites relied on rice production, farming, fishing, non-timber forest products (NTFPs) collection, and worked as shop sellers, laborers, teachers, government officials, and loggers for their livelihood and income generation. Of those occupations, most relied on rice production (Group Discussion, 2021; Key Informant Interview, 2021).

Rice production and Farming: 80-90% of the people in the research sites (except in Krabei Chrum village) relied on rice production for consumption but. only few families had income from rice sales as income generation. Of those research sites, only 50% of the people in Krabei Chrum village relied on rice production (Interview with Village Head, 2021). The agricultural land for each of the families in the research sites was 1.5-4 hectares. Some families in Chrob village had more agricultural land in comparison with the people in other research target villages. The indigenous people in Chrob village had around 10 hectares per family for rice production and farming. Rice production occurs only once a year in the rainy season from May to December. The average rice yield was from 1-5 tons per household (Key Informant Interview, 2021).

Besides their consumption, they also had income from rice sales. The incomes from rice sales were mostly reported in Chrob and Nhang Shum villages. About 50% of the families in those villages have sold 1-2 tons per year per family. Few families (10%) of the families have sold from 500-1000 kg per family in Krabei Chrum village (Interview with Village Head, 2021; Interview with Poor level 1, 2021). Most of the families growing rice were middle-class and better-off-families in the research sites. Most of the families with poor level 1 and poor level 2 didn't have the capacity to grow rice as they lacked some agricultural materials and families with elderlies. Those elder families with poor level 1 and poor 2 relied on their assistance from their sons or daughters (Key Informant Interview, 2021; Group Discussion, 2021).

Farming activities were reported in research sites. Of the research sites, the farming was noticed mostly in Chrob village. About 80-90% of the families in Chrob did the farming with rice production. Few families who had or did farming were reported in Tun Sorng and Svay Rieng. The families in Nhang Shum have started farming this year. Their farming also focused on cassava and cashew nuts in Nhang Shum (Key Informant Interview, 2021).

Fishing: Most of the families in the research sites lived along the rivers, including Mekong River, Sesan, Sekong and Srepor rivers, and fished for food and income generation. It was reported that 70-80% of the families fished. They caught around 2-8 kilogram of fish per day per family using a number of fishing gears including gillnets, hook longlines, and others. Boats are needed for fishing. Families classified

as poor level 1 and poor 2 in the research sites had low capacities to fish in comparison with those not in these categories because the poor fishers/families lacked fishing gears and boats for fishing. Most of their fishing occurred along canals or streams nearby their residence (Key Informant Interview, 2021). Of fishers in the research study, 15-20% of the families earned income from fish sales. They could sell 1-6 kilograms of fish per day per family. Their income from fish sales was 10,000-60,000 Riel per day (Key Informant Interview, 2021).

Laborers: The families interviewed in the research sites also described earning income from labor. This kind of job occurred after rice production, farming, and harvest in their communities. From this study in 2021, 20-30% of the families in Nhang Shum and Tun Sorng villages earned incomes from labor sales while 3-4% of the families in Chrob villages and Svay Rieng villages have sold their labor for income. Some people were employed to work in small scale farms in villages, large scale farms (commercial farms) and construction companies. Their income from labor sales varied. The people who worked for commercial farms could earn around 30,000 Riel per day/people. The income from being employed in small scale farms/family scale farming varied from 25,000-30,000 for men and 20,000-25,000 Riel per day for women or widow. Those who worked at restaurants at Stung Treng town earned 300,000-400,000 Riel/month/ (Key Informant Interview, 2021; Group Discussion, 2021).

Non-Timber Forest Products (NTFPs) collection: NTFPs also provided a source of food security and income generation for indigenous communities in the research sites. NTFP included wild honey, mushrooms, wild flowers (orchids), resins, bamboo shoots, wild fruits, wild vegetables, and others. It was reported that 30-50% of the families in Chrob and Tun Sorng villages collected NTFP for food and income generation while the majority of the families in Nhang Shum collected NTFPs. The NTFP collected by those families in research sites include honey, mushroom, wild fruits, wildflowers, resin collection, and rattan collection. The amount of money earned varied, for example, they reported that they could earn 10,000-30,000 Riels per day for mushrooms but only about 10-15 days per season (Key Informant Interview, 2021; Group Discussion, 2021)

Sellers: Some families also earned income from selling products, such as selling fish, groceries, and local meals. Only a few families in each of the research sites (except

in Chrob village and Krabei Chrum villages) had income from product sales. Among the research sites, most sellers were reported in Chrob village. Around 200 families in Chrob village were sellers and they lived in the markets area. This type of occupation was done by the people from other areas who moved to Chrob village. It was noticed that only a few local residents have operated their shops for income generation. Most of the sellers were not classified as poor (Interview, 2021; Group Discussion, 2021).

Government officials: Few families reported income from government official positions. For teachers, village heads, commune councilors, and police officials, incomes range from 300,000-1,000,000 Riels per month (Key Informant Interview, 2021).

3.1.2. Access to Health

The illnesses reported included headache, fever, stomach pain, muscle pain, or diarrhea (Group Discussion, 2021; Interview with Village Head, 2021). The data provided by Village Health Support (VHS) (2021) indicated that no maternal mortality, neonatal mortality, and under-five mortality were confirmed in Chrob and Svay Rieng villages.

Illnesses were treated in different ways. Most of the families in research sites usually drank water boiled with traditional medicine as they thought that it could help prevent disease such as fever, stomach pain, and other common illnesses. Most of the families also took medicine which was bought from small shops in the villages to treat some types of illnesses such as headache, fever, cold, muscle pain, and others. Some of the families have bought medicine from markets and reserved those medicines for disease treatment when they got sick. Some families who had difficulties moving or traveling, e.g. elderly and PWDs, were treated at their homes by doctors who did home visits (Key Interview, 2021; Group Discussion, 2021).

Some families have also accessed health center services. Some families reported that when they could not treat illnesses with the medicine they bought from local shops or markets, they have accessed health center services to consult with doctors and receive treatment at the health center. Beside treatment for illnesses, the health centers' services accessed by people in the research site were mostly involved in

birth delivery. There was a program that promoted and encouraged women to give birth at health centers (Key Interview, 2021; Group Discussion, 2021).

Interviewees noted facing challenges in accessing health centers because the health centers are located far from their residences, except for the Chrob Health Center. The people in Nhang Shum village accessed Siem Pang Health Center, which is located in Siem Pang district about 10 kilometers from Nhang Shum. It took about two hours to reach the health centers. The people in Tun Song village accessed the services of Sre Krasang Health Center, which is located in Sre Kra Sang village. It required travel from the village to the health center by boat. The health center is located about 30 kilometers from Tun Sorng village. People in Chrob accessed the health center situated in Chrob village. The people in Krabei Chrum accessed the services of Kon Mom Health Center that is located in Kon Mom district in Ratanakiri province about 40 kilometers from the village and some people in Krabei Chrum village also accessed the service of Chrob Health Center. The Talat Health Center just recently opened in March 2021 (Key Interview, 2021; Group Discussion, 2021).

Few families also accessed Stung Treng Referral Hospital. The people who accessed the services of Stung Treng Referral Hospital noted that they went to this hospital when their illness became serious. Secondly, people who needed regular treatment (such as for HIV/AIDS, blood pressure,...etc.) went to the referral hospital regularly so that they could collect medicine. Those who accessed referral hospitals include elderlies and poor level 1-families and poor 2-families (Key Interview, 2021; Group Discussion, 2021).

Some families in the research sites also sought treatment at private clinics in the district or Stung Treng province. Some of the reasons for seeking treatment at these clinics included children's illnesses, serious fever, and others. The families using private clinics have better income than poor-1 and poor-2 and some were better off than then the average families in the villages. (Key Interview, 2021; Group Discussion, 2021).

3.1.3. Access to Education

The children in the research sites studied at primary school, secondary schools, high school, and university. In the research sites, there were five primary schools with 1,089 students (548 girls) in 2021 (Interview with Primary School Principals, 2021).

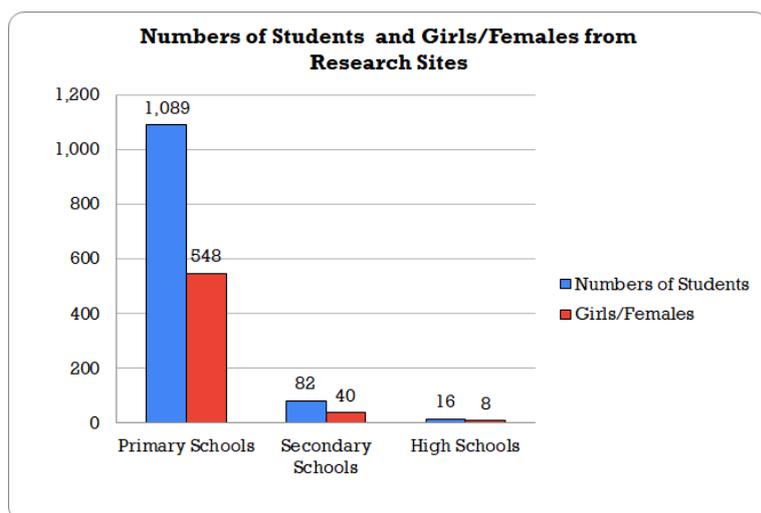
All of the secondary schools were located outside of the villages. There were 82 students (40 female students) in 2021 who continued their studies at secondary schools. It was reported that 60-80% of the students who completed primary school continued their studies to secondary schools. It was reported that 20-40% of the students dropped out of their studies due to reasons including, but not limited to, family economic challenges and geographic barriers. Some students dropped out of their schools to help care for children and to help their parents in crop plantation and rice production. It was also noted that a lack of money to support their students to study at secondary schools was a factor. Some schools were located far from home. For example, students from Krabei Chrum were required to study at the secondary schools at Talat commune about 12 kilometers from Krabei Chrum village or the secondary school at Kamphun commune, which is about 80 kilometers. To encourage the students from poor families to continue their secondary schools, the Royal Government of Cambodia had a scholarship program to support the students from poor families with things such as rice, school materials, and small stipends.

In total, 20 students from research sites were registered to study at high schools. Of those, only 16 students (eight females) from research sites were currently studying at high schools and four students dropped out of high schools. Of the current high school students, two students were from Nhang Shum village, three students were from Tun Sorng village, three students were from Savay Rieng village, and eight students were from Chrob villages. The students from Nhang Shum continued their study at Deicho Siem Pang High School in Siem Pang district town. The students from Krabei Chrum village were required to study at a high school known as Sesan Sowathpheap High School in the district town of Kamphun or Hun Sen Stung Treng High School in the provincial town of Stung Treng province. The students in Svay Rieng village were required to continue their study at the Provincial town of Stung Treng, Sesan or Banlung. The students in Tun Sorng village continued their studies at Toul Vichea High School in Siem Bok district.

“Since I have taught for 20 years, only few students from Nhang Shum village have completed high school,” said Primary School Principal in Nhang Shum village, Siem Pang District

Only one student from Tun Sorng village has continued her studies at the university level in Stung Treng provincial town due to high commitment and strong support from her family, while no other students from the research sites attended university.

Figure 4: Numbers of Students, Girls from Research Sites



Source: Author, 2021

3.1.4. Migration

Migration is defined as “the movement of a person or a group of persons, either across an international border, or within a State” (IOM, 2011). The people in the research sites have migrated to different areas within Cambodia for employment. About 20 of 250 families in Nhang Shum have migrated to work for T.B.Y.B ANGKOR BANANA CO., LTD. in Borei O’Svay Senchey district in Stung Treng about 50 kilometers from Nhang Shum village and 18 of 250 have migrated to Kompong Thom Province to work on rubber farms. Seven families in Chrob villages migrated to Kompong Som and Phnom Penh as construction workers and garment workers while about 30 families migrated to work at a banana company called Hoang Anh' in Kon Mom district, Ratanakiri province. 26 of 208 families in Krabei Chrum villages have migrated to work with large scale farms known as Hoang Anh Romphat in Lomphat district in Ratanakiri province and some indigenous people also went to Phnom Penh to work as construction workers or to work in shops or restaurants. Female youths aged from 17-20 were employed as restaurant or shop workers. It was reported that

20 of 75 indigenous families in Tun Sorng village have sold labor in their village as rice cultivation workers, planting cassava, harvesting, or clearing farms. Ten families have migrated to Ratanakiri province and six families have migrated to Phnom Krahorm, Stung Treng, and Kratie to work as cashew nut harvesting workers and one boy migrated to Stung Treng town to work as an engine shop worker.

Some families also went to work at a banana plantation company, including bringing their spouses and young children. They could earn around 30,000 Riel per day per person. This migration for employment occurred when they were free from rice production and harvests (Key Informant Interview, 2021). Some families from the research sites were employed in Phnom Penh as construction workers while some families were employed as shop workers. The construction workers could earn around 40,000 Riels while shop workers could earn around 20,000 Riels per person (Interview, 2021).

3.1.5. Domestic Violence

Domestic violence was identified in the research sites. Some of the participants in the group discussion reported that 2-4 cases of domestic violence in each of the research sites were identified. They noted that sometimes domestic violence was due to husbands consuming alcohol while their wives worked at home (Group Discussion, 2021) or because of men gambling (Interview with Kbal Romeas Commune Chief, 2021). In Krabei Chrum village, the domestic violence reported to the commune council for intervention decreased in comparison with the previous few years, which the informant attributed to an increase in the community's understanding of the negative impacts of domestic violence (Key Informant Interview with village secretary, 2021).

3.1.6. Natural Resources

Natural resources were also an important for both food and income for indigenous communities. The natural resources they depended on include forests and fisheries. It was reported that 50% of the indigenous people in Chrob gained benefits from forest areas in different ways such as NTFPs. With MVi support, a community forestry with 1073 hectares has been formed to preserve and manage forest resources in sustainable ways (MVi Report, 2021). It was reported that 40% of the forest-reliant

families were from the families who have better income than poor-1 and poor-2 and they earned from 30,000 Riel to 100,000 riels/trip/person. Around 10% of those forest-reliant families were from the families which were classified as poor1 and poor 2. They cited lack of some materials and the far distance to the forest as obstacles. The income of the poor level 1 and poor 2 families was noted to be 10,000 Riel to 20,000 Riels/person/ day (Interview, 2021).

The interview with respondents has confirmed that 10% of families in Svay Rieng from middle class and poor-2 families benefited from forest resources (NTPF collection) and their income was around 12,000 riels/kg. Sla Prey (wild butternut) was sold at 12,000 Riel per kilogram and mushrooms were 10,000 -30,000 Riel per kg (Interview, 2021).

The majority of people in Nhang Shum relied on NTPF. The incomes from NTPF sales were 20,000-40.000 Riels/day from resin sales, 10,000-20,000 Riels/day from bamboo sales, from 10.000-20,000 Riels/day from mushroom sales, and 10,000-20,000 Riels/day from wild fruit sales.

In Ton Sorng village, the majority of the indigenous communities also benefited from NTFPs. Of those, 25% were from the middle class. Their income varied: 20,000-50,000 Riels/day from the sales of wild fruits, logging, and mushrooms; and 25,000-50,000 Riels/day from rattan sales.

Fisheries also existed in many of the research sites. MVi has supported the formation of three community fisheries in three villages, except Chrob and Tun Sorng village (MVi report, 2021). With this protection, the fishery resources provided benefits for the majority of the indigenous communities and rural communities in these three areas (MVi report 2021).

3.2. Impacts of COVID-19 on Indigenous Communities' Livelihoods

This section analyzes the impacts of COVID-19 on the community members' occupation, income, education, health, migration, and levels of domestic violence. These impacts are described below.

3.2.1. Occupation and Income

The group discussion identified a number of negative impacts of COVID-19 on occupation and income of the indigenous people, such as loss of employment, fish price decrease, increase in debts and discrimination.

- a. **Loss of employment and income of migrants:** During COVID-19, most of the indigenous families who migrated for employment returned home, while few remained at their work sites. Those who returned home noted that they had concerns about COVID-19. It was reported that 44.2% of 43 indigenous families who worked with large scale farming have lost their job (Interview, 2021).
- b. **Increases in local employment in communities:** Some indigenous people who returned home have tried to look for jobs in their communities. The jobs in their communities included land preparation, cassava harvests, and rice growing, among others. Their earning potential in their home villages was less than what they could earn when they had migrated to other parts of the country. Men earned 25,000 Riel per day on average in their home villages (heavy work) while women could earn money around 20,000-25,000 Riel per day. High supply of labor for local employment has left many groups discriminated against in terms of gaining employment, including widows, women, elderlies, and PWDs. It was reported that 34.8% of 43 indigenous families had decreased income from selling labor in their own village (Interview, 2021).
- c. **Fish prices declined:** The declining price of fish was also identified during COVID-19. This has a negative impact on fishers who caught fish to sell for income. The price decline has affected 34% of the people who were interviewed (15 of 43 people who interviewed). The decrease of the price of fish was due to the restriction of middle-sellers to buy fish in villages and also difficulties in fish transportation from research site villages to the fish market. This situation occurred during restrictions on movements and gatherings from March to May 2021. Before COVID-19, the price of fish was around 17,000 Riel to 20,000 Riel per kilogram. But during COVID-19 pandemic, the fish price went down to 10,000 Riel to 12,000 Riel per kilogram. Additionally, some small fish and snails could not be sold during the time of restrictions. During the this time,

middle sellers bought smaller amounts of fish due to a decrease in fish demand at the market (Interview, 2021).

- d. **Negative impacts on agricultural production:** Loss of employment and income of migrant families have impacted their ability to buy the agricultural inputs necessary for agricultural production. Before COVID-19, the income from labor sales was used to buy fertilizers, chemicals, and to hire tractors for ploughing. To deal with their recent loss of income, they have adopted different approaches. Some families have borrowed petroleum to fill tractors for ploughing while other families have borrowed money from their relatives to buy materials for agricultural production. Some families have also used saved money from previous times to buy petroleum or materials for agricultural production (Interview, 2021).
- e. **Employment discrimination in local employment in communities:** Elderly people, women, and PWDs were discriminated against in terms of gaining employment in local communities during COVID-19 restrictions because they could produce lower volumes of products in comparison with other groups. During that period, there was a surplus of laborers available to do farming because migrant families returned to their home/villages and were available to take on these jobs (Key Informant Interview, 2021).
- f. **There was an increase in debt of the indigenous people.** In total, 23 of 43 key informants borrowed money from relatives or friends to buy agricultural materials such as fertilizers; and all of 43 key informants also bought groceries on credit. These informants also reported that they paid back their debts late due to loss of the income from their employment. The majority of the people who borrowed money or bought on credit were women.

A woman who is a widow and has five family members in Chrob village said “I have bought groceries on credit from local shops in communities. Before COVID-19, I had paid back within a few days. During COVID-19, loss of my income caused me to delay to pay back. It took around 15 days.”

3.2.2. Impacts on Health

The COVID-19 pandemic had both positive and negative impacts on indigenous communities in the research sites. Since COVID-19, indigenous communities have changed some of their health seeking and hygiene behavior. All of the 125 respondents were aware of the negative impacts of COVID-19 and of how to prevent COVID-19, but their practice of prevention from COVID-19 was still limited. Their prevention practices included wearing masks when they are out of the home, washing hands, and social distancing. But they have also faced some challenges in adhering to prevention protocols. For example, not all of their children regularly washed their hands. They have increased knowledge of COVID-19 and prevention measures through social media, local authorities' actions, and civil society organization (CSO) activities. There were no reported cases of COVID-19 cases in the research sites (Key Informant Interview, 2021; Group Discussion, 2021).

COVID-19 has had negative impacts on the overall health of indigenous communities. These included difficulties in accessing health centers and private clinics. The indigenous groups faced difficulties in accessing health center services because of the restrictions on movement imposed by the government. Movement was permitted but it required approval from the village security guard. The request for approval took time to process. Access to health center services were limited to those who were seriously ill (Group Discussion, 2021).

Moreover, the local communities in the research sites faced challenges in accessing private clinics because the private clinics had concerns about COVID-19 infections and also were concerned to about having to close their clinics if patients tested positive for COVID-19. The private clinics did not allow patients to stay in their clinics, but rather just provided advice to patients and sold medicine for treatment at home.

Respondents reported difficulties in collecting medicine from Stung Treng Referral Hospital. People living with illnesses such as HIV/AIDS or others requiring long-term treatment were required to collect medicine from referral hospitals on a monthly-basis. During COVID-19, these individuals delayed collecting medicine from the hospitals and thus did not continue with their treatment during the period of

restrictions on movement. It was reported that their health has declined (Group Discussion, 2021; Key Informant Interview, 2021).

3.2.3. Impacts on Education

In total, 1,089 students of five primary schools, 548 students (50.32% of the total students) were girls (Interview, 2021). All students are indigenous. From Siem Pang, Svay Reing and Krobie Chrum are “Khme Khe”, and students from Chrob are “Prov” Students from Ton Sorng are “Kouy”. Three main impacts of COVID-19 on the education of the indigenous communities were identified: closing of schools, ineffectiveness of learning, and school-drop-out.

Schools were closed. In research sites, five primary schools in five research villages were closed from 1st March to 2nd November, 2020 (MoEYS, 2021), (Channel News Asia, 2020). In 2020, e-learning and student home visit approaches were adopted (Key Informant Interview, 2021). The lessons were livestreamed on the MoEYS Facebook page (MoEYS, 2020).

Ineffectiveness of e-learning for indigenous students and rural students: The e-learning approach through videos produced by MoEYS was ineffective for indigenous students because the majority of the indigenous students could not regularly access these lessons. Barriers included inability to access the videos, internet connection issues, and lack of TV or phones/devices (Key Informant Interview, 2021).

Challenge of students to access to study through home visits. Home visits were adopted in 2020. This meant that teachers visited students’ homes and taught students in small groups of around five to six students per group. Around 60% of the students could continue their studies while 40% of the students, both boys and girls, could not utilize this approach (Interview, 2021). Some of the students who could not join were from poor-1 and poor-2 families because their parents had brought their kids to rice fields which were far from schools. This had made it difficult for teachers to visit their homes (Interview, 2021).

In 2021, different learning approaches were adopted. Livestreaming on MoEYS’ Facebook page continued and new approaches were introduced. For the students from grades 1 to 4, these new approach included lessons/assignments that were

delivered to students. The students' parents or students were able to pick up lessons/assignments from their teachers at schools. After their completion of the assignments, they submitted the assignments to teachers. It was reported that 40%-60% of students collected their assignments or lessons from teachers. The students who lacked the capacities to collect and bring assignments to schools were the students from poor families because many of them worked in the farms/rice fields with their parents and/or they lacked transportation to travel to schools (Group Discussion, 2021).

For the secondary school and high school students, Telegram groups were formed. The lessons were shared and distributed through these Telegram groups and google meet and learning from home. If the students who did not have the Telegram application (mobile app), they only join online class during exam since they can borrow the phone from relative only during critical period. It was reported that about 40%-50% of the students from Nhang Sum, Svay Rieng and Chrob could not access this education because they could not afford a device. Some of the families also forced their kids to help with farming activities away from their residence. Girls became the most vulnerable group to drop out of schools because they needed to care for siblings at home (Group Discussion, 2021).

Some students dropped out of school. During COVID-19, some students have decided to drop out of school. The number of students who dropped out of primary schools increased during COVID-19. In the academic year 2018-2019, the drop-out rate of school students was 0.4%, compared to 1.65% reported in the academic year 2020-2021 in Svay Rieng and Nhang Sum villages. Moreover, the number of primary school students who failed their class completion also increased. The number of failed primary school students increased from five students to eight students between academic year 2018-2019 and 2019-2020. Some reasons noted for these increases in issues around completion and retention include a lack of learning devices for learning online and children having to support their parents in their farms/rice fields. Longer school closures and a lack of learning materials have discouraged parents to support their kids to go back to school and discouraged students to continue with their studies. Some families who stayed at rice fields far from home have faced the difficulties of sending their children to schools due to less motivation (Interview, 2021).

In research sites, 82 secondary students, 40 of whom were girls, studied at secondary schools located outside the villages. In the COVID-19 period, 15 of 42 secondary school students in grade 8 in Chrob village could learn via an online approach which had been introduced by MoEYS while all of the students in Nhang Shum could not study online due to no internet connection. Two students in grade 8 in Tun Shorng village dropped out of schools during COVID-19 pandemic as the school were closed that make them not interest in study any more as well as they want to sell labor to get income to support family. But not dure to the positive COVID-19 tests (Interview, 2021).

A student, who is LGBTQI, who lives in Tung Sorng Village, from Sen Sok secondary school said that “I have difficulties studying online as I don’t have a device for e-learning and I have decided to drop out of school. Owing to the insecurity of food in my family, I have decided to look for a job to generate income.”

The school closure in Stung Treng had negative impacts on high school students from the research sites. In total 16 students from Chrob, Tun Sorng, Nhang Shum and Svay Rieng villages registered and continued their studies at high schools. Four high school students dropped out of school. One of the four school students from Chrob village dropped out of school during COVID-19 (Interview with students in Chrob village, 2021).

Schools were reopened from November 1, 2021 (Khmer Times, 2021). Classroom sizes were made smaller to ensure social distancing. Before COVID-19, there were around 55-65 students per class. After school re-opening, the number of students in each of the classes was about 19 to 25 (Group Discussion, 2021).

Negative impacts of COVID-19 on student learning quality. COVID-19 has had negative impacts on the quality of education. The original pre-COVID schedule at the high schools was that class started 7 to 11 AM in the morning and from 1 to 5 PM in the afternoon six days a week. However, during COVID-19, online studies were done with one subject a day for only 1-2 hours a day. The main subjects were prioritized for students in grade 12. Self-learning was suggested with exercises from teachers (Key Interview with High School Student in Chrob, 2021). It was reported that 67 students were in grade 12 in the 2020-2021 academic year in Chrob village. But only 30 students were able to participate in e-learning due to a lack of internet connection or

poor internet connection in their villages (interview with student, 2021). Even though some students could not join in e-learning classes, they tried joining in exams to receive scores. The number of failed students in primary schools increased in 2021 (Interview, 2021; Group Discussion, 2021)

3.2.4. Impact on Migration

COVID-19 has caused many to lose income. Many migrants were employed in large scale farming in Ratanakiri province. Some migrants were employed in Phnom Penh as construction workers and shop workers. Many indigenous migrant workers returned home because of the insecurity of COVID-19 and therefore lost their jobs. The income of migrant workers lost was around 150 USD to 250 USD per month per person (Group Discussion, 2021).

3.2.5. Impact on Domestic Violence

Domestic violence is defined as physical violence or any behavior controlling over a spouse, partner, girl/boyfriend or intimate family member (ARIZONA COALITION, 2021). Domestic violence was identified in indigenous communities/villages during the COVID-19 pandemic (Group Discussion, 2021; Interview, 2021).

In Tun Sorng village, it was reported that 1 of 43 key informants (2.3% of key informants) have experienced physical violence during COVID-19. During COVID-19, men/husbands went to drink wine outside with their friends. However, their wives were not satisfied with such activity (drinking). Drinking wine has wasted time and cost money while their income lost during COVID-19 (Key Informant Interview, 2021).

One of six members (16% of the respondents in group discussion) in the Group Discussion in Tun Sorng village has confirmed that there was physical violence in their families because they got drunk. During COVID-19, physical violence between wives and husbands occurred more often in comparison to before the pandemic (Group Discussion, 2021).

Eight of 43 key informants had experienced altercations in their families during COVID-19. The informants noted that their perceived causes were that the husbands/men got drunk and spent money on alcohol despite having a loss of

income. They also complained of not having adequate food due to lack of funds. And they noted that women/wives tried reducing expenses or payments during COVID-19 which led to altercations (Interview, 2021).

3.2.5. Impacts on Natural Resources

COVID-19 has also had both positive and negative impacts on natural resources. The natural resources that the indigenous people in the research site relied on were fishery resources and forest resources (including NTFP) (Group Discussion, 2021; Interview, 2021).

During the COVID-19 pandemic, there was increased pressure on fishery resources. The numbers of fishers increased. Because of COVID-19, migrant workers returned home because they lost their jobs and income from their employment in other locations. To support their families, these groups tried catching fish for food and income generation (Key Informant Interview, 2021).

A migrant worker who returned to Svay Rieng village, who had migrated to Ratanakiri province for work in a cashew nut farm, came back home when COVID-19 occurred and said that “I have lost income from employment on the farm after coming back home. I therefore need to catch fish to earn some money and for food.”

Illegal fishing increased during COVID-19. This increase in illegal fishing was recorded in community fisheries in Kbal Romeas, Nhang Sum, Krabei Chrum and Tun Sorng due to fewer fishery protection and patrolling activities. The lower numbers of fishery protection activities was due to the restrictions on gatherings imposed by the government (Interview, 2021).

On the other hand, there were some positive impacts on forest resources identified during COVID-19. The number of illegal logging incidents was reduced in Nhang Shum village in Siem Pang district. This was because of less demand from wood buyers due to restrictions on movement (Interview, 2021).

3.3. Coping Strategies

To address the negative impacts of COVID-19 on indigenous communities' socio-economics, a number of coping mechanisms were adopted. These were reported to

have been used in order to mitigate the negative impacts on occupation and income, education, health, migration, domestic violence, and natural resources.

3.3.1. Coping Strategies for Employment and Income

To deal with loss of employment and income of migrants, a number of adaptive strategies were adopted by these groups. First, local employment was one option for migrant workers who returned back home. Most migrant workers who returned to their homes/communities sought employment as laborers in their own community for a source of income. The local employment options in their communities included farm preparation, crop plantation, cassava harvesting, cashew nut harvesting, and others.

Some people resorted to selling their livestock for income generation. During COVID-19, some families sold fish or livestock to earn income and to support their household needs during COVID-19. Moreover, some families planted vegetables for their family consumption, which could reduce their food expenses. Vegetable sales could also be an additional source of income during COVID-19.

Local communities earned income from NTFP sales. Many of the families harvested bamboo shoots for food and income generation. This livelihood activity could reduce their expenses for their household food and provided additional incomes from NTFP sales.

Some migrants who returned home fished for food and income during COVID-19. With the loss of income from their employment, fishing became a good option to provide food for their families and also income, in particular for the people in indigenous communities and rural areas who lived along the rivers including Nhang Shum, Tun Sorng, Svay Rieng and Krabei Chrum villages. The income from fishing was also used to pay back as described below

Due to loss of their incomes during COVID-19, some indigenous and rural people resorted to buying materials and groceries on credit from the local shops. It was reported that 90% of 43 families in the research sites bought on credits from the local shops, with plans to pay back the amount when they earned income. But repayments for the sellers took longer than before the pandemic because of a lack of capacity of

these groups to earn income. The money earned from fish sales or livestock were used to pay back these local shops.

To address the impact from COVID-19, the government offered payments to poor families in the research sites in Stung Treng province. The donations for poor families and individuals ranged from 102,000 to 200,000 Riel per month. 456 of 7492 poor people received this type of donation from the government (Key Informant Interview)³. This money could be used for basic household needs, and was also used to pay back to the sellers who allowed buyers to buy on credit.

To proceed the community products and contribute to COVID-19 prevention, commune councils also prepared local place/markets to sell the products to the outside group and budget community products as well as they can help with safety protocols. This initiative was reported in Chrob village.

Marginalized people, including PWDs and widowers had difficulties in finding employment. They sometimes sought employment through family members to work on farms such as cassava plantation, cassava harvests, and others. They need further support to be able to be gainfully employed (Interview, 2021).

Stung Treng Department of Agriculture (DoA), in collaboration with local authorities, helped to improve the agricultural system and provided seeds, materials, and technical training for villagers to be able to operate their own small-scale vegetable farms. A program to help villagers to raise chickens or fish was put into place before the COVID-19 pandemic and continues to operate (Interview with DoA, 2021).

3.3.2. Coping Strategies for Health

To mitigate the impacts of COVID-19 on indigenous communities' health, indigenous communities adopted several coping strategies, some with support from local government. These are described below.

³ Nhang Sum village: 41 families, Tonsorng village: 27 families, Chrob village: 63 families, Svay Rieng village: 351 families, Krobie Chrum village: 74 families.

Many indigenous people reported that they rely on traditional medicine to prevent disease and keep them healthy. They continue to use this type of medicine throughout the pandemic (Key Informant Interview, 2021).

The government and CSOs have undertaken awareness raising activities around COVID-19 and how to prevent it. The majority of the indigenous communities in research sites reported that they received this information. They noted that they could access this information through authorities, community committees, and CSOs through word-of-mouth and on social media. Until now, the majority of the indigenous people in research sites reported that they follow safety protocols. These include wearing masks when they go outside, washing hands, and not gathering in large groups. By September 17, 2021, indigenous people aged from six up in the research sites have all been vaccinated against COVID-19. As of November 10, 2021, 87.61% of the total population in Cambodia (16 million people) were vaccinated (MoH, 2021). All people returning or moving to villages were also required to quarantine for 14 days at their home.

To overcome the difficulties in accessing health center services, the indigenous people in the research sites have requested village security guards to accompany them when they need to travel to the health center. But this took time to send a request and grants its approval. Health center staff also went to the village to conduct checkups on pregnant women. Commune councils visited women and their families after giving birth and provided some small materials in Kbal Romeas commune.

The private clinics have not allowed patients to stay at clinics for treatment (in patient services). The clinic doctors did continue with consultations and prescribed medicine to the patients for treatment at home. When serious diseases occurred, the clinic doctors sent the patients to the provincial referral hospitals and health centers.

Patients with HIV/AIDS and other chronic conditions such as high blood pressure had difficulties collecting medicine from Stung Treng provincial referral hospitals due to the travel restrictions. This caused delays in their ability to collect medicine from hospitals. There were reports of HIV/AIDS patients becoming more ill during this time. Blood Pressure Patients tried using medicine available at villages (Interview with HIV/AIDS patient, 2021).

3.3.3. Coping Strategies for Education

When the schools were closed, different strategies for education were adopted including home visits and e-learning.

Student home visits: Teachers arranged for their students to collect work at school and also conducted home visits. 30-50% of 1,089 students (548 girls) in the primary schools in the research sites were able to collect the papers/lessons from school (Key Interview with Primary School Principal, 2021). Those who could not collect papers/lessons from schools/teachers noted that it was because the students/parents' residences were far from the school and/or the children and parents stayed at their rice fields that were located far from the schools. Traditionally, the indigenous people in research sites stayed near to their rice fields during rice plantation and rice harvest seasons. In 2020, groups of five students were formed whose residences were located near to each other. The teachers then conducted house visits to these students groups. The teachers prioritized the students who were located far from the schools (Interview with Primary School Principal, 2021).

E-learning: MoEYS produced lesson videos for primary, secondary, and high school students (MoE, 2020) and livestreamed these lessons on MoEYS' Facebook pages. The videos produced by MoEYS were also shared by teachers to Telegram groups in particular in Chrob, Tun Sorng, and Svay Rieng.

A teacher in Krabei Chrum village said "During school closures I have invited four students to join in learning via video at my house."

A parent who lives close to the teacher's residence in Krabei Chrum village said "My children have studied via video at their teachers' home."

But most of the students could not access the videos, in particular the students in Nhang Shum village. This was due to several barriers, including lack of materials such as phone or TV or the means to purchase these and a lack of internet connection.

In the upper grades, teachers formed student Telegram groups and provided lessons shared via this means. The teachers have encouraged parents to help their children with their studies and remind them how important education is for their future.

A parent far from school in Krabei Chrum village said that "I have not known about the learning via videos."

A school principal in Nhang Shum village in Siem Pang district said, “In Nhang Shum village, the phone internet is very poor and it was difficult to learn via video or apply an e-learning approach.”

Support from older students: Some primary students were assisted by students. This approach was noticed in Nhang Shum village in Siem Pang district. When students could not understand the lessons/papers delivered by teachers, they approached older students for help. It was noticed that parents in the research sites could not provide coaching for their children due to their capacity limitations.

There was a noticeable increase in inequality during this time of school closures: Many of the students who could access education via online resources were from less vulnerable households in the villages, but the students from poor families could not access education online due to lack of materials including phones and phone credit. Additionally, the students from the poor families stayed with their parents in their rice fields during the COVID-19 pandemic and this made it difficult for them to travel to school to collect lessons.

An indigenous mother/widow, whose child studied grade 1 in Chrob village and who was classified as poor 2-family said that “I did not receive and collect papers for my kids from schools during the COVID-19 pandemic because my house is far from school. It is located about 4 kilometers from school.”

A mother, who was classified as a poor 2-family in Krabei Chrum village, with a child in grade 1 confirmed, “I did not receive and collect any paper from schools for my kids.”

Some support was provided to poor households: Before COVID-19, the school prepared breakfast for all students from grade 1-6. The primary school students in grades 3-6 from poor families received 80,000 Riel per student on a quarterly basis in order to encourage them to continue their studies. During COVID-19, the modality of the scholarship was changed. Rice was delivered to students from poor families and they continued to receive the cash incentive of 80,000 Riels per student on a quarterly basis (Interview with Teacher, 2021).

The Royal Government of Cambodia (RGC) has agreed that all students who studied grade 12 in the 2019-2020 academic year have passed (MoEYS, 2020). There were more 120,000 students (60,000 girls) who passed grade 12 automatically (Radio Free Asia [RFA], 2021).

3.3.4. Coping Strategies for Migration

To address the impacts of COVID-19, a number of coping strategies were adopted, including local employment, fishing, NTFP collection, and government incentives.

Local employment: Migrant workers who returned to the village have tried to look for employment at home in order to generate income and to increase their food security. This local employment includes farm land preparation, cassava harvesting, and cashew nut harvesting.

Some migrants shifted their focus to fishing activities: Some migrant indigenous people and rural people who returned to the village and who lived along rivers, such as in Svay Reang, Tung Sorng, Krabei Chrum and Tun Sorng village in the research sites, restarted fishing for food and income generation for their families. The incomes for fishing could also be used to pay back local shops, buy other food, and to buy materials (Key Informant Interview, 2021).

Government incentives for migrant poor families who returned to live in villages: some poor families who have come back to villages have received support from the government. This support was around 100,000-200,000 Riel per month/family (Key Informant Interview, 2021).

To prevent from COVID-19 spreading in villages, the commune councils have arranged for quarantine at home for 14 days for everyone returning to the village.

3.3.5. Coping Strategies for Domestic Violence

At the local level, commune councils and the Commune Committee for Women and Children (CCWC) were the main actors to facilitate and address domestic violence in their territories.

Domestic violence prevention was facilitated through restrictions on wine sales: The purpose of this action was in order to prevent from COVID-19 infection through gatherings. Authorities have believed that this action of “no sales of wine” contributed to a reduction in alcohol consumption and this also contributed to less domestic violence in families as well.

3.3.6. Strategies for Coping Natural Resource Issues

To prevent illegal fishing during COVID-19, a number of measurements were taken by local communities, authorities, and CSOs.

Some migrant people moving to the villages tried to look for employment focused on farming. This can reduce the pressure on fishery or forest resources in their communities.

To prevent illegal fishing, a number of actions were carried out. MVi has issued a small grant to support the CFi Management Committee and the Community Forest Management Committee (CFMC) in order to support them to protect the natural resources in their communities. The small groups of local communities were formed with social distancing and they were supported to participate in patrolling even during the COVID-19 period (Key Informant interview, 2021). CFi and CF members also played roles to report illegal logging or illegal fishing to CFiC and CFMC. To reduce the costs and time for conservation, a drone was supported by MVi for CFiMC in order to monitor illegal fishing activities in conservation areas with less costs (Key Informant Interview).

Chapter 4: Conclusions and Recommendations

4.1. Conclusions

The COVID-19 pandemic has had negative impacts on indigenous people's livelihoods: employment and income, education, migration of people, health, and natural resources. As a result of COVID-19, the indigenous people have lost their employment and income. The price of fish has decreased which has lowered their ability to make money from selling fish. Migrant workers returned home because they were concerned about their health security and many lost their jobs. Schools were closed because of COVID-19 and this increased education inequality. Health was impacted because it was difficult to access health services due to restrictions on travel. The return migrants have pressured forest and fishery resources through increases in the number of the fishers, which include the migrants who have returned to their own village

The RGC, rural communities, and indigenous communities have taken a number of measures to cope with the issues stemming from COVID-19. Migrant workers tried to look for local employment, used fishing to supplement household consumption and income needs, and often borrowed money from neighbors. Students attempted to use e-learning that was facilitated by the government, teachers visited some student's homes, and older students supported younger students in their school lessons. In terms of health, home visits were facilitated for pregnant women, and people sought permission to travel to health centers. After giving birth, families were visited and offered a small amount of money to support their basic needs. To deal with natural resources, some coping strategies included smaller groups of patrolling teams, support grants from CSOs for forest and fishery resource patrolling, drone delivery to community fishery committees, and requesting community members to report illegal fishing or logging. And to minimize the spread of COVID-19, a mandatory 14 day quarantine at home was imposed to all people returning to the village.

4.2. Recommendations

The research team has several recommendations to support indigenous communities to improve their socioeconomic status, as listed below:

- Agricultural techniques on animal raising and farming (vegetables) should be provided to poor families in order to support them to supplement their household consumption needs and to generate additional income.
- Saving groups should be formed in order for communities or indigenous people to access credit with low interest and without collateral.
- Training on financial management and savings should be facilitated for local communities and indigenous communities in order for them to better support their families and businesses.
- Commune councils should allocate a specific budget to support indigenous communities for their investment initiative capitals.
- Parents should support their children in learning, such as collecting papers/lessons from schools.

- Incentive support from the government should be offered to poor families, specifically gasoline, to enable them to transport their children from rice fields to the schools so that they can collect their school assignments.
- Teacher home visits should continue because it was found to be effective in some areas where the internet connection was poor.
- Local authorities, including Commune Councils, should raise awareness on e-learning to parents.
- Community volunteers should be selected, with some incentives from the government, in order to support students regularly with educational visits and support to their learning.
- Teachers/schools should continue to announce the class schedule to parents as some students did not have access to this information.
- The lessons video should be conducted in local languages, including IP languages, in order to support student learning.
- Older students should be supported to offer educational support to younger students.
- Equipment and materials should be provided to groups of students from poor families to facilitate education, such as phones, etc. so that they are able to access online videos.
- The local government, CSOs, and the Commune Council should continue to disseminate information about the impact of COVID-19 and prevention measures for community members.
- Dissemination about information about domestic violence should be regularly discussed during meetings and support service providers for domestic violence should be invited to join local community meetings.

References

- 60 Years of Impact (2009). Study tools: focus group discussion. Retrieved from <https://www.odi.org/publications/5695-study-tools-focus-group-discussion>
- B2B Cambodia, Phnom Penh (2021): February 20 2021 Community Incident. Retrieved from <https://www.b2b-cambodia.com/articles/february-20-2021-community-incident-phnom-penh/>
- B2B (2021). February 20 2021 Community Incident – Phnom Penh. Retrieved on 21 November 2021 from <https://www.b2b-cambodia.com/articles/february-20-2021-community-incident-phnom-penh/>
- Benedictine University (2020). Public Health Study Guide: Primary & Secondary Data Definitions. Retried from <https://studyguides.ben.edu/c.php?g=282050&p=4036581>
- CARE (2020). GARMENT WORKER NEEDS ASSESSMENT DURING COVID19. Retrieved from <https://www.careevaluations.org/countries/cambodia/>
- CARE (2020). Regional Mekong Rapid Gender Analysis COVID-19. Retrieved from <https://www.careevaluations.org/countries/cambodia/>
- Channel News Asia (2020). Cambodia reopens schools after COVID-19 shutdown in March. Retrieved from 18th November 2021 from <https://www.channelnewsasia.com/asia/covid-19-cambodia-reopens-schools-after-shutdown-in-march-517726>
- DEFID, (2000). DFID (2000): Sustainable Livelihoods Guidance Sheets. Department for International Development. Retrieved on 18th November 2021 from http://www.livelihoods.org/info/info_guidancesheets.html
- Earth Rights International (2014). Indigenous Futures Submerged by Dams. Retrieved from <https://earthrights.org/blog/indigenous-futures-submerged-by-dams/>
- EIGE (n.d.) gender perspective. Retrieved on 18th November 2021 from <https://eige.europa.eu/thesaurus/terms/1197>
- Future Forum and Angkor Study (2020). Covid-19 Economic Impact . Retrieved from <https://www.futureforum.asia/publications/covid-19-economic-impact-/>
- Future Forum and Angkor Study (2020). Impact of COVID19 on wage workers (2020). Retrieved from <https://www.futureforum.asia/app/download/15567336/The+Effect+of+Covid-19+on+Wage+Workers.pdf>
- Future Forum and Angkor Study (2020). The Effect of Covid-19 on Farmers. Retrieved from <https://www.futureforum.asia/app/download/15567344/The+Effect+of+Covid-19+on+Farming.+v4.pdf>
- Future Forum and Angkor Study (2020). The Effect of Covid-19 on Household Enterprise (MSMEs). Retried from https://www.futureforum.asia/app/download/15567359/The+Effect+of+Covid-19+on+Household+Enterprises_v4+%281%29.pdf
- Future Forum and Angkor Study (2020). The Effect of Covid-19 on Saving and Debt. Retried from <https://www.futureforum.asia/app/download/15612390/Gender+Analysis+at+the+Household+and+Wage+Worker+level.pdf>

- IMO (2011). Glossary on Migration. Retrieved on 2nd November 2021 from <https://www.corteidh.or.cr/sitios/observaciones/11/anexo5.pdf>
- Khmer Times (2021). All schools reopen, with strict measures in place, from Nov 1. Retrieved on 18th November 2021 from <https://www.khmertimeskh.com/50956598/schools-to-reopen-with-strict-measures-in-place-from-nov-1/>
- Ministry of Education Youths and Sport (2020) : Cambodia Education Response plan to Covid-19 pandemic. Retrieved from <https://www.moeys.gov.kh/index.php/en/planning/3858.html#.YTYlf50zY2w>
- MoEYS, (2020). Cambodia Education Response Plan to COVID-19 Pandemic July 2020. Retrieved 10 November 2021 from <https://www.moeys.gov.kh/index.php/en/planning/3858.html#.YYtEv25uI2x>
- MoEYS, (2020). Grade 1 Mathematics, Lesson 8, Curve. Retrieved from https://docs.google.com/document/d/1GPI-QoeVWt-61kvmDM1wQdlmDApsn14y940yVG9_loY/edit
- MoEYS, (2020). Declaration on Result of Examination of Secondary School and High School. Retrieved on 15th November 2021 from <https://www.cpp.org.kh/details/252658>
- Nortajuddin, A. (2020). Cambodia's Economic Challenges Amid The Pandemic. Retrieved from <https://theaseanpost.com/article/cambodias-economic-challenges-amid-pandemic>
- Nortajuddin, A. (2020). Cambodia's Economic Challenges Amid The Pandemic. Retried from <https://theaseanpost.com/article/cambodias-economic-challenges-amid-pandemic>
- Open Development Cambodia (2020). Economic impact. Retrieved from <https://opendevelopmentcambodia.net/profiles/socio-economic-impact-of-covid-19-on-cambodia/>
- Phnom Penh Post (2020). UN chief: Include indigenous people in Covid-19 strategies. Retrieved from <https://www.phnompenhpost.com/national/un-chief-include-indigenous-people-covid-19-strategies>
- RFA, (2020). The Prime Minister of Cambodia, Hun Sen approved for grade 12 students to pass their academic year automatically. Retrieved on 15th.
- World Health Organization (2020). Coronavirus Disease 2019 (COVID-19) Situation Report #20 16 November 2020. Retrieved from https://www.who.int/docs/default-source/wpro---documents/countries/cambodia/covid-19/covid-19-joint-who-moh-sitre-20.pdf?sfvrsn=2562cc2a_2
- World Health Organization Cambodia (2021) : From arrival at the airport to administration at health facilities: COVAX vaccines in Cambodia. Retrieved from <https://www.who.int/cambodia/news/feature-stories/detail/from-arrival-at-the-airport-to-administration-at-health-facilities-covax-vaccines-in-cambodia>
- UNICEF Cambodia (2020) : Continuous learning during COVID-19 <https://www.unicef.org/cambodia/stories/continuous-learning-during-covid-19>
- WHO (2021). From arrival at the airport to administration at health facilities: COVAX vaccines in Cambodia. Retrieved from 19 November 2021 from

<https://www.who.int/cambodia/news/feature-stories/detail/from-arrival-at-the-airport-to-administration-at-health-facilities-covax-vaccines-in-cambodia>

USAID, (2018). Suggested Approaches for Integrating Inclusive Development Across the Program Cycle and in Mission Operations. Retrieved on 18th November 2021 from

https://usaidlearninglab.org/sites/default/files/resource/files/additional_help_for_ads_201_inclusive_development_180726_final_r.pdf

Provincial Administration, (2020). Stung Treng Provincial Administration

ARIZONA COALITION, (2021). About Domestic Violence. Retrieved on 5 November 2021 from <https://www.acesdv.org/domestic-violence-graphics>

Ministry of Planning, IDpoor Process. Retrieved on 05 November 2021 from <https://www.idpoor.gov.kh/about/process>

Annex

List of Respondents

N	Respondents	Number	Women
1	Provincial Department of Education, Youth and Sport Officer	1	0
2	Provincial Department of Agriculture Officer	1	0
3	Provincial Department of Health	1	1
4	Provincial Administrative Officer	1	1
5	Commune Council	3	0
6	Community Fishery Management Committee	4	1
7	Community Forestry Management Committee	3	1
8	Village head	4	1
9	School principal	4	1
10	Students	2	1
11	Village Health Support	2	1
12	Sample from target villages	99	80

Questionnaire

Investigation of Impacts of COVID19 Pandemics on Local Indigenous Communities' Socioeconomics.

Group Discussion Questions:

1. When Covid 19 outbreak appeared, what is the impact on the local community?

Socio-economic factors	Impact description
Education	
Health	
Violence	
Revenue	
Migration and employment	
Natural resources	

2. How does Covid 19 affect widows, poor 1, poor 2, LGBTIQ+, people with HIV, people with disability, elders, men, women, and youths?

Affected people group	Impacts (Both positive and negative)
Single mother	
Poor 1	
Poor 2	
LGBTIQ+	
People with HIV	
People with disabilities	
Elders	
Men	
Women	
Youths	

3. What has your local community done to address the issue?

Intervention	Who support	Beneficiaries	Current progress/results	Challenges	Suggest intervention

4. Did you know that the government has issued Covid 19 guidelines/declaration? And what percentage of those guidelines/declaration have been applied? And what are the risks?
5. What opportunities do local communities see and use and how to address the impact of Covid 19 (health, tourism, agriculture and food security, garment factories, education, return of migrant workers, social protection)?

Questions to KII

1. When Covid 19 outbreak appeared, what is the impact on your family?

Socio-economic factors	Impact description
Education	
Health	
Violence	
Revenue	
Migration and employment	
Natural resources	

2. How did you solve that problem?

Affected people group	Impacts (Both positive and negative)
Single mother	
Poor 1	
Poor 2	
LGBTIQ+	
People with HIV	
People with disabilities	
Elders	
Men	
Women	
Youths	

3. How does you get the supporting from CSOs and local authorities?

Intervention	Supporter	Beneficiary	Progressing/outcomes	Challenges	Suggestion for intervention

4. Did you know that the government has issued Covid 19 guidelines/declaration? And what percentage of those guidelines/declaration have been applied? And what are the risks?

5. What opportunities do local communities see and use and how to address the impact of Covid 19 (health, tourism, agriculture and food security, garment factories, education, return of migrant workers, social protection)?

Questions to local authorities (communes and provincial governor)

1. When Covid 19 outbreak appeared, what is the impact on the local community?

Socio-economic factors	Impact description
Education	
Health	
Violence	

Revenue	
Migration and employment	
Natural resources	

2. How does Covid 19 affect widows, poor 1, poor 2, LGBTIQ+, people with HIV, people with disability, elders, men, women, and youths?

Affected people group	Impacts (Both positive and negative)
Single mother	
Poor 1	
Poor 2	
LGBTIQ+	
People with HIV	
People with disabilities	
Elders	
Men	
Women	
Youths	

3. How does the commune plan / take action to address the impact of Covid 19 on widows, poor 1, poor 2, LGBTIQ+, people with HIV, people with disability, elders, men, women, and youths?

Intervention	Who support	Beneficiaries	Current progress/results	Challenges	Suggest intervention

Questions to Department of Education:

1. When Covid 19 outbreak appeared, what is the impact on the local community?

Socio-economic factors	Impact description
Education	
Health	
Violence	
Revenue	
Migration and employment	
Natural resources	

2. How do poor 1 and poor 2 students, boys and girls, be affected by Covid 19?

3. How does the Department of Education have a plan / action to address the issues of Covid 19? Especially male, female, students of poor 1 and poor 2?

Questions to the Department of Agriculture:

1. When Covid 19 outbreak appeared, what is the impact on the local community?

Socio-economic factors	Impact description
Education	
Health	
Violence	
Revenue	
Migration and employment	
Natural resources	

2. How are the widows, poor 1, poor 2, LGBTIQ+, people with HIV, people with disability, elders, men, women, and youths affected by agriculture? (Receipt of technical training, equipment and agricultural marketing)
3. How is the Department of Agriculture active and contributing to solving the problems of Covid 19?

Questions to the Department of Health:

1. When Covid 19 outbreak appeared, what is the impact on the local community?

Socio-economic factors	Impact description
Education	
Health	
Violence	
Revenue	
Migration and employment	
Natural resources	

2. How are the widows, poor 1, poor 2, LGBTIQ+, people with HIV, people with disability, elders, men, women, and youths affected by community health?
3. How is the Department of Health active and contributing to solving the problems of Covid 19?