THE SOCIO-ECONOMIC IMPACT OF THE COVID-19 PANDEMIC IN POST-DISASTER AREAS: Rapid Assessment in West Nusa Tenggara and Central Sulawesi

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# Content

<table>
<thead>
<tr>
<th>Section</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Foreword by UNICEF</td>
<td>iv</td>
</tr>
<tr>
<td>Foreword by UNDP</td>
<td>v</td>
</tr>
<tr>
<td>Acknowledgements</td>
<td>vi</td>
</tr>
<tr>
<td>Abstract</td>
<td>vii</td>
</tr>
<tr>
<td>Executive Summary</td>
<td>3</td>
</tr>
<tr>
<td>Conclusion</td>
<td>13</td>
</tr>
<tr>
<td>Recommendations</td>
<td>14</td>
</tr>
<tr>
<td>CONTEXTUALIZATION</td>
<td>16</td>
</tr>
<tr>
<td>1.1 Background</td>
<td>16</td>
</tr>
<tr>
<td>1.2 Objective</td>
<td>19</td>
</tr>
<tr>
<td>1.3 Conceptual Framework</td>
<td>19</td>
</tr>
<tr>
<td>1.4 Methodology</td>
<td>20</td>
</tr>
<tr>
<td>1.5 Study Limitations</td>
<td>22</td>
</tr>
<tr>
<td>THE COVID-19 PANDEMIC IMPACT AND HOUSEHOLD VULNERABILITY</td>
<td>24</td>
</tr>
<tr>
<td>2.1 Households’ Vulnerability after the 2018 Natural Disasters</td>
<td>24</td>
</tr>
<tr>
<td>2.2 Impacts of the COVID-19 Pandemic on Income, Employment, and Food Security</td>
<td>26</td>
</tr>
<tr>
<td>2.3 Impact of the COVID-19 Pandemic on Access to Education and Health Services</td>
<td>33</td>
</tr>
<tr>
<td>2.4 Impacts of the COVID-19 Pandemic on Psychological Strain</td>
<td>35</td>
</tr>
<tr>
<td>2.5 Households’ Possible Coping Mechanisms</td>
<td>36</td>
</tr>
<tr>
<td>2.6 The Role of External Support</td>
<td>40</td>
</tr>
<tr>
<td>2.7 Impacts of the Double Disasters</td>
<td>45</td>
</tr>
<tr>
<td>CONCLUSION AND RECOMMENDATION</td>
<td>52</td>
</tr>
<tr>
<td>3.1 Conclusion</td>
<td>52</td>
</tr>
<tr>
<td>3.2 Recommendations</td>
<td>54</td>
</tr>
<tr>
<td>LIST OF REFERENCES</td>
<td>59</td>
</tr>
<tr>
<td>Annex</td>
<td>63</td>
</tr>
</tbody>
</table>
The COVID-19 pandemic has had a significant impact on the lives of vulnerable people. As countries around the world strive to ensure vaccines are available, safe and distributable to populations, the long-term impact of the COVID-19 pandemic on the lives of vulnerable people is still emerging. UNDESA estimated, in the mid-2020 update of the World Economic Situation and Prospects (WESP), that over 34 million people will be pushed into extreme poverty in 2020 alone. This has the potential to reverse years of progress made in poverty reduction and alleviation, drastically undermining efforts to meet the SDG deadline of eradicating extreme poverty by 2030.

Globally, about 1 billion children are multi-dimensionally poor, meaning they lack access to necessities, such as clean water or nutrition. The advent of the COVID-19 pandemic predicts to have caused some 150 million additional children to fall into multi-dimensional poverty. With an increased number of people living under the poverty line in Indonesia, according to figures from BPS in March 2020 (from 9.22 percent to 9.78 percent), there is a strong need to accelerate studies and lessons learnt on the socio-economic impacts of the COVID-19 pandemic on vulnerable groups and children.

In post disaster areas in Indonesia, the impact of the COVID-19 pandemic on the lives of vulnerable people must be further understood in order to counteract the impacts of recession. The earthquakes in West Nusa Tenggara (NTB) and Central Sulawesi in 2018, triggered a range of natural disasters, creating loss of life, loss of livelihood, shelter and significant economic loss for more than 1.8 million people. Amongst these, children were severely impacted having to cope with the trauma of the natural disasters, resulting in the loss of life and disturbance to their every-day lives.

In mid-2020, UNICEF, UNDP and the SMERU Research Institute partnered to conduct a rapid assessment on the impact of the COVID-19 pandemic on these post-disaster zones and the impact on vulnerable households. This study aimed to uncover the impact of the COVID-19 pandemic on key areas of life of the communities in these areas that includes: impact on income, access to education and services, wellbeing and means of coping with economic loss, among others. With support and funding from the United Nations COVID-19 Response and Recover Multi-Partner Trust Fund, this study was able to be conducted in the most affected areas in West Nusa Tenggara and Central Sulawesi.

Loss of income as well as inability to access education and health services will have an invariable knock on effect on the wellbeing of vulnerable groups such as children, elderly and disabled people. Out of approximately 800 households surveyed, approximately 85 percent have children intended to be in education, now subject to potential learning loss. Additionally, approximately 17 percent of households found it difficult to access immunizations due to clinic closures or fear of contracting the virus, creating disturbances in obtaining basic protections from certain illnesses. These factors have caused households to experience increased psychological stress.

This report could not be possible without the commitment and support from other key development partners in Indonesia. I would like to express my gratitude to UNDP for their collaboration in carrying out this study. I would also like to thank SMERU Research Institute for their support in analysis. Furthermore, I hope that this insightful and timely report can guide stakeholders, including government in their discussions and drafting of evidence-based policies, to support carving a path towards sustainable and inclusive recovery for communities impacted by the COVID-19 pandemic.

Debora Comini
UNICEF Representative in Indonesia
Assessing the socio-economic impact of the COVID-19 pandemic is an essential part of our partnership with the Government of Indonesia to ensure that evidence-based information is being utilized as part of the building blocks for a well-targeted and inclusive response. The need for an immediate response to the pandemic has become more urgent for vulnerable communities living in disaster-hit pockets of Indonesia. The South-East Asian nation is home to the so-called “Pacific Ring of fire,” making it one of the world’s most vulnerable places to natural disasters, such as volcanic eruptions, earthquakes and tsunamis.

The earthquakes in Central Sulawesi and West Nusa Tenggara (NTB) in 2018, each measuring above 6.0 in magnitude caused a heavy loss of life and displaced thousands. Communities in both areas were still in recovery when the COVID-19 virus made its way there. As a result, households suffering enormous economic losses because of the 2018 natural disasters, also tend to experience similar economic losses during the COVID-19 pandemic. This heavy burden, otherwise known as the “double burden,” threatens many communities, who are now at risk of falling deeper into poverty.

At the height of the pandemic last year, UNDP Indonesia and UNICEF Indonesia conducted a rapid assessment about the COVID-19 pandemic impacts in Central Sulawesi and West Nusa Tenggara (NTB). Funded by the United Nations COVID-19 Response and Recovery Multi-Partner Trust Fund, this study was done in the most affected districts; North Lombok and East Lombok in West Nusa Tenggara (NTB) and Sigi and Palu in Central Sulawesi. The study found that more than 77.5% percent of all respondents have experienced a “double burden,” where they grapple with losses from both the natural disasters and the pandemic.

Loss of income and property appear to be the main impacts. Of the over 800 households surveyed, around 47.2 percent of households lost their jobs with 21.6 percent reporting limited access to education. The pandemic has also had an impact on coping strategies with 63 percent of households reporting that they do not have savings.

Women have been adversely affected with a significant number – 83.9 percent indicating that they have less income in June than at the start of 2020 indicating that they are far more vulnerable to situations like the pandemic. Persons with disabilities also bear the brunt of the pandemic with 47.9 percent of households with members with disabilities reporting disruption in their daily activities.

This joint report is a result of our fruitful partnership with key development partners in Indonesia. Most notably, I would like to express my gratitude to UNICEF for the exchange of knowledge and expertise which were instrumental to completing this timely study. I would also like to thank the SMERU Research Institute for the analysis support. I hope this report can guide stakeholders especially national and provincial governments, in drafting well-targeted policies towards addressing the impact and supporting a more inclusive, all-of-society approach, one that encourages sustainable and equitable recovery as the country builds forward better from the COVID-19 pandemic.

Norimasa Shimomura
UNDP Indonesia Resident Representative
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Abstract

The Socioeconomic Impact of the COVID-19 Pandemic in Post-Disaster Areas: Rapid Assessment in West Nusa Tenggara and Central Sulawesi

While the recovery phase after the 2018 natural disasters is still underway, the COVID-19 pandemic is an additional burden on households in the provinces of Central Sulawesi and West Nusa Tenggara. This study aims to provide a descriptive analysis of the current socioeconomic status of households and the impact of the COVID-19 pandemic on women, children, the elderly, people with chronic diseases, and people with disabilities. Through self-registered and direct interview methods, the study finds that for almost half of the households, the most significant impact of the COVID-19 pandemic is income reduction. Most households’ income in June/July 2020 is lower than in January 2020. Income reductions are predominantly found among female-headed households because most of them have lower incomes than households headed by men. In addition, these households are headed by women who are mostly engaged in informal employment. The income shock disrupts the food security of households in the lowest income group and risks their children’s development. Children are also at risk for less healthy food consumption which may lead to undernourishment or even obesity. Half of the households with members with disabilities also experience disruptions to their daily activities and employment. The second most significant impact is the disruption in accessing education and health services. Children’s access to education was disrupted during the 2018 natural disasters and now they are experiencing further disruption during the “learn from home” policy intended to protect children from the COVID-19 pandemic. The pandemic also disrupts access to health services, particularly among households with elderly people or those with members suffering from chronic diseases needing regular treatment or therapy. Households with children aged five-years-old and under also experience disruptions to the children’s access to immunization services. The social restrictions policy also affects the mental health of household members with disabilities as well as the treatments that they regularly receive. The third most significant impact is the psychological strain caused by the economic shock or the increase in employment and caretaking responsibilities. Children also suffer from disruptions to their daily lives. Unfortunately, low-income households do not have adequate coping strategies to withstand the impact of the COVID-19 pandemic. Some of them have also not received assistance to cushion the impact. Regarding the double disasters’ impact on households, this study finds that households that are negatively affected by the 2018 natural disasters also tend to be adversely affected by the COVID-19 pandemic. We recommend that the government works with village authorities and communities to collect data on vulnerable households to be used for the disbursement of social assistance, ensure access to education and proper health services, develop an integrated disaster response program, and make sure that no one is left behind.

Keywords:
the COVID-19 pandemic, socioeconomic impact, coping mechanism, household’s vulnerability
Figures

Figure 1. The conceptual framework 17
Figure 2. Basic characteristics of the household sample (%) 22
Figure 3. Household sizes by the presence of children (%) 22
Figure 4. The most significant impacts of the 2018 natural disasters on households by province (%) 25
Figure 5. The most significant impacts of the 2018 natural disaster on households by the presence of children (%) 25
Figure 6. Households’ recovery duration after the 2018 natural disasters by province (%) 26
Figure 7. Households’ recovery duration after the 2018 natural disasters by province (%) 26
Figure 8. The most significant impacts of the COVID-19 pandemic on households (%). 26
Figure 9. Households’ income groups in June/July 2020 (%) 27
Figure 10. Households’ savings and months of living expenses that can be covered (%) 27
Figure 11. Households’ debt or installment loan status (%) 27
Figure 12. Household main breadwinners’ current employment status (%) 27
Figure 13. Changes in households’ incomes by income group (%) 28
Figure 14. The most significant impacts of the COVID-19 pandemic on households by income group (%) 28
Figure 15. Households with food security issues by income group (%) 28
Figure 16. Households’ income groups in June/July 2020 by household head’s gender (%) 29
Figure 17. Household main breadwinners’ current employment status by household head’s gender (%) 29
Figure 18. Changes in households’ income by household head’s gender (%) 29
Figure 19. Households with food security issues by household head’s gender (%) 29
Figure 20. Households’ income groups in June/July 2020 by the presence of children (%) 31
Figure 21. Changes in households’ income by the presence of children (%) 31
Figure 22. The most significant impacts of the COVID-19 pandemic on households by the presence of children (%) 31
Figure 23. Disruptions in the activities of households having members with disabilities (%) 32
Figure 24. Changes in households’ income by the presence of members with disabilities (%) 32
Figure 25. Households with food security issues by the presence of members with disabilities (%) 32
Figure 26. Disrupted health services (%) 33
Figure 27. Disrupted health services by the presence of elderly members and members with chronic diseases (%) 34
Figure 28. Disrupted health services by the presence of children aged five or younger (%) 34
Figure 29. The most significant impacts of the COVID-19 pandemic on households by household head's gender (%) 35
Figure 30. Households' savings and months of living expenses that can be covered by income group (%) 37
Figure 31. Availability of savings to cover at least one month of living expenses by household head's gender (%) 37
Figure 32. Availability of savings to cover at least one month of living expenses by the presence of household members with disabilities (%) 37
Figure 33. Households’ debt or installment loan status by income group (%) 38
Figure 34. Households’ debt or installment loan status by the presence of children (%) 38
Figure 35. Households’ debt or installment loan status by household head’s gender (%) 38
Figure 36. Choices of assets that households will sell by income group (%) 39
Figure 37. Assistance received from neighbors or extended families by income group (%) 41
Figure 38. Cash transfers (left) and food assistance (right) received from the government by income group (%) 42
Figure 39. Cash transfers received from the government by household head’s gender (%) 42
Figure 40. Electricity consumption categories by income groups (left) and electricity bill discounts/subsidies received by electricity consumption category (right) (%) 44
Figure 41. Perceptions of social protection programs' helpfulness by the number of assistance programs received (%) 44
Figure 42. Social assistance received by the presence of children aged five or younger (%) 44
Figure 43. Spending of cash transfers by the presence of children (%) 44
Figure 44. Spending of cash transfers by household head’s gender (%) 45
Figure 45. Preferences on the government’s social assistance by income group (%) 45
Figure 46. Relationships between the most significant impacts of the 2018 natural disasters and the COVID-19 pandemic (n) 47
Figure 47. Households’ economic recovery status after the 2018 natural disasters by the most significant impacts of the COVID-19 pandemic (%) 47
Figure 48. Households affected by the double disasters by income group (%) 48
Figure 49. Households affected by the double disasters by household head’s gender (%) 48
Figure 50. Households affected by the double disasters by the presence of members with disabilities (%) 48
Figure 51. Households affected by the double disasters by the presence of children (%) 49
Figure 52. Households with an income of under IDR 1 million in January 2020 by the most significant impact of the 2018 natural disasters (%) 49
Figure 53. Households with an income of under IDR 1 million in January 2020 by the most significant impact of the COVID-19 pandemic (%) 49
Executive Summary

Background

Indonesia was hit by a series of disasters in the second half of 2018, causing massive economic and social disruptions. Several strong earthquakes hit West Nusa Tenggara in July and August and were followed by a major earthquake in Central Sulawesi in late September, triggering a tsunami and liquefaction. Children were the most affected group and needed psychosocial support to deal with the trauma. Families were separated during the disasters, displaced many, and disrupted children’s access to education, health services, and sanitation (UNICEF Indonesia, 2018). In response to the massive impact of the disasters, many parties including United Nations Children’s Fund (UNICEF) and United Nations Development Programme (UNDP) conducted disaster recovery intervention programs to ease the burden of the community.

Given the massive socioeconomic impact of the 2018 disasters, unfortunately, little is known about how the Coronavirus Disease 2019 (COVID-19) pandemic has further affected the households. To investigate this, UNICEF, UNDP, and the SMERU Research Institute conducted a socioeconomic impact assessment of the COVID-19 pandemic on households in the hardest-hit areas, covering topics of livelihood, employment, and access to social services. We collected data from 887 respondents who represented their households. Most (84.1%) are either household heads or spouses, households with 3–5 members (74.8%), and single income (49.8%) or dual-income households (41.4%). Most households also have children (93.2%); 43.9% of them have children aged five or younger and 85.2% of them have children attending school. We have a similar number of respondents in each district; the district with the highest number of respondents is East Lombok, followed by Palu, North Lombok, and Sigi, respectively.
Households’ Vulnerability and the Impact of the COVID-19 Pandemic

a) Households’ Vulnerability after the 2018 Natural Disasters

Most households in this study were affected by the 2018 natural disasters as they lost their homes or jobs/incomes. The most significant impact from the 2018 natural disasters for 43.2% of households is they lose their homes and for 31.2% of households is they lose their jobs/incomes. Households who lost their homes, jobs, or incomes were experiencing heavy economic losses and disruptions in their livelihood (Koirala et al., 2019). Most households with children were affected by the disasters (86%) and 6.7% of households without children lost their family members. As the disasters caused massive destruction, some households lost their children.

After two years, the households are still in the recovery process. Nearly one-third of the households in this study have not recovered financially. It took months for most households to recover and some even took more than a year to do so. After the disasters, many rely on their income from businesses (25.6%) and employment (50.6%). However, 18% of households have to rely on social assistance and family support, indicating that they are not able to sustain their living by themselves. In addition, more than 26% of households that lost their homes are still not living in their own house.

The 2018 natural disasters also disrupted children’s development. There are 28.9% of households with children that have not financially recovered yet and might be struggling to provide adequate nutrition intakes. In the early weeks after the 2018 natural disasters hit, Koirala et al. (2019) reported that parents gave mashed bananas, sugar dissolved in water, and rice water to their babies before the aid arrived, but the aid was never enough. The same study also found that there was a shortage of clean water that caused children to be ill or even malnourished.

Impacts of the COVID-19 Pandemic on Income, Employment, and Food Security

a) Impacts on Income, Employment, and Food Security in All Households

Four months have passed since the first positive COVID-19 pandemic case in the provinces and now households are economically vulnerable. At the end of July or in early August, more than 82% of households had a monthly income of less than IDR 2.5 million. This amount is inadequate for the households to have a decent living. More than half of the households do not have savings (62.8%), have ongoing debts or installment loans (55.5%), and have main breadwinners who either do an informal job, are unemployed, or do unpaid work (55.6%).

The COVID-19 pandemic also has a negative impact on households’ incomes. Compared to January 2020, 68% of households had lower incomes in June/July 2020. Households in all income groups experienced the decrease, but the percentage is substantially higher among households in the lowest income group. Two-thirds of households in the lowest income group also selected losses of jobs/incomes as the most prominent impact of the COVID-19 pandemic. Households with vulnerable incomes are also experiencing food insecurity during the COVID-19 pandemic. The survey shows that 35% of households have eaten less than they should because of lack of money in the past month. The highest proportion of households experiencing food insecurity is in the lowest income group (42.6%), followed by households in the second lowest income group (32%). Moreover, 56.5% of households that have eaten less could not consume protein, fruit, and vegetables regularly.
b) Impacts on Income, Employment, and Food Security of Female-Headed Households

Vulnerable income and employment rates among female-headed households are higher. The percentage of female-headed households in the lowest income group of under IDR 1 million per month is substantially higher than that of the male-headed households. The percentage of female-headed households whose main breadwinners are self-employed without employees or working odd jobs is also higher. This study finds that 74.2% of female-headed households had lower incomes than in January 2020, while only 67.8% of male-headed households faced the same situation. Almost half of female-headed households also suffer from food insecurity. This study finds that 41.9% of female-headed households have eaten less. They also must take care of other vulnerable members. Among female-headed households in this study, 23% have children aged five or younger, 19% have elderly members, 19% have members with chronic diseases, and 26% have members with disabilities.

c) Impacts on Income, Employment, and Food Security of Households with Children

Households with children are also affected negatively by the COVID-19 pandemic. There are 60% of households with children that have monthly incomes of less than IDR 1 million and 68% that have lower incomes in June/July 2020. Moreover, 48.1% of these households perceived losses of jobs/incomes as the most significant impact. Losses of jobs/incomes increase the burden of the households as children are still financially dependent on their family. Income shocks also affect children’s food security and the impact can be long lasting. There are 35% of households with children that have eaten less. Among these households, 58% are unable to consume protein, fruit, and vegetables regularly. After the 2018 natural disasters, UNICEF (2019) reported that there were suboptimal breastfeeding and complementary feeding practices, as well as cases of undernutrition and severe acute malnutrition among children. In addition, Block et al. (2004) found
that macroeconomic shocks also affect children’s micronutrient intakes and may produce long-term effects on children because of reduced quality and quantity of the food consumed.

The COVID-19 pandemic also puts children at risk of eating less healthy food which may lead to undernourishment or even obesity. The COVID-19 pandemic is different from the 2018 natural disasters and it leads to two possible outcomes. On the one hand, households change their consumption patterns and are unable to provide nutritious food because the COVID-19 pandemic has caused a decrease in their income (Wahana Visi Indonesia, 2020). On the other hand, there is an increase in children’s snacking as a way to cope with boredom and stress (Empatika, 2020).

d) Impact on Income, Employment, and Food Security of Households With Members with Disabilities

The COVID-19 pandemic also disrupts the income and employment of households having members with disabilities. This study finds that 47.9% of households having members with disabilities have their daily activities disrupted and 24.6% have their work-related activities disrupted. The income of many households having members with disabilities also decreased, but the percentage is smaller than those without one. The percentage of constant income is also higher among households having members with disabilities. This is probably because households having members with disabilities already had difficulties prior to the COVID-19 pandemic; 62% of households having members with disabilities are in the lowest income group.

Households having members with disabilities also face food insecurity. This study finds that 40% of the households have ever eaten less; this percentage is slightly higher compared to that of households having no members with disabilities (34%). This can be explained as the majority of people with disabilities in Indonesia are living in poverty (Cahyono, 2017; Radissa et al., 2020). They have become more economically vulnerable especially during the COVID-19 pandemic which has forced them to reduce food expenses.

Impacts of the COVID-19 Pandemic on Access to Education and Health Services

a) Impacts on Access to Education

The COVID-19 pandemic has forced children to experience disruptions to accessing education. Learning disruption is a crucial issue, as 85% of the households in this study have children who are currently attending school. In the end of 2019, children already received proper education as UNICEF (2019) reported that education access in Central Sulawesi had mostly returned to the same condition as before the disasters. However, with school closures in March 2020, children must adopt “learn from home” practices. The prolonged school closures and learn from home policy put children in a difficult situation as they face internet barriers, limited access to books, limited teacher’s capacity, and minimum government support in conducting remote learning (Wahana Visi Indonesia, 2020). In West Nusa Tenggara, Empatika (2020) found that teachers are struggling to get students to attend the “class” during the visitation and not all parents feel that they have the responsibility or the ability to educate their children.

b) Impact on Accessing Health Services

The COVID-19 pandemic has disrupted vulnerable household members’ access to health services. One-third of households said that regular treatment or therapy is the most needed health service and is affected by the COVID-19 pandemic. The disruption to accessing health services is more prominent among households with elderly people or members with chronic diseases. This study finds that 46.7% of these households have difficulties in accessing regular treatment or therapy. This is a concerning issue because one-fifth of households in this study have elderly people and members with chronic diseases. These groups are also physically and socially vulnerable.
Meanwhile, the disruption to access to immunization services is quite prominent among households with children aged five or younger. This study finds that 17.5% of households cited challenges in accessing immunization services. The percentage is even higher among households with children aged five or younger as 32% of these households perceive that immunization is the most needed health service which is disrupted by the COVID-19 pandemic. Although health facilities remain open in certain areas, the fear of getting infected by the coronavirus also reduces women and children visits (Empatika, 2020).

During the COVID-19 pandemic, people with disabilities also face additional uncertainty that hampers their daily activities. On the one hand, people with disabilities might not be able to follow the prerequisite health safety protocols, which makes them more likely to be infected by the coronavirus (Centers for Disease Control and Prevention, 2020). On the other hand, in the context of disaster risk reduction, the basic needs of people with disabilities—such as food and clothing, wheelchairs, hearing aids, and glasses—are not always considered in the response of a disaster (Fatimah and Roberts, 2019). The social restrictions policy also disrupts the regular treatment and mental health services needed.

Impact of the COVID-19 Pandemic on Psychological Strain

Many households in higher income groups perceived psychological strain as the most significant impact of the COVID-19 pandemic. This study finds that the highest proportion of households experiencing psychological strain is in the second-highest income group (40%) and in the highest income group (33.3%). As many households in the higher income groups do not experience as much decrease in their incomes as those in the lower income groups, it implies that their psychological strain is not caused by economic shocks. Holding many roles at the same time along with the increasing pressure from the pandemic can cause stress and anxiety. Parents are frustrated and irritated because they find it hard to educate their children, and this could lead to

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violence (Empatika, 2020; UNICEF Indonesia, 2020). Our finding does not suggest that the low-income households do not experience psychological strain, but many suffer more from losing jobs/incomes.

The percentage of male-headed households with psychological strain is higher than that of female-headed households. The COVID-19 pandemic has put men, who are usually the main breadwinner in male-headed households, in a difficult situation because they need to cope with financial instability and adjust to their new role as caretakers. However, our finding does not suggest that female-headed households are not under psychological strain, but they suffer more from loss of job/income. These results indicate that female-headed households are more economically vulnerable than male-headed households.

Children also face psychological strain because their lives are changing. During the pandemic, they must adapt to new approaches to learning as school is closed. School is an important part of their lives as evidenced by UNICEF’s response to the 2018 natural disasters. One of UNICEF’s immediate responses was to build and provide adequate school infrastructure to guarantee a safe place for children to learn, play, and overcome their trauma (UNICEF Indonesia, 2018). Now, with school closures and limited social interactions, children have to deal with boredom, as they must stay and study at home (Wahana Visi Indonesia, 2020).

Households’ Possible Coping Mechanisms

a) Savings

Savings are crucial for smoothing income out of unexpected shocks, yet vulnerable households only have small savings or none. This study finds that 82.7% of households in the lowest income group do not have savings and 15% have savings that are only enough to cover consumption expenses for one month. The second lowest income group might have better savings, but still half of the households do not have savings at all. Compared to male-headed households, female-headed households are more susceptible to shocks because of low or no savings. This study finds that 87% of female-headed households do not have savings to cover consumption expenses for at least one month, while 75% of male-headed households have savings to cover consumption expenses within the same time frame. This condition might be linked to the fact that sample female-headed households have lower incomes and have less-stable jobs compared to their male counterparts. One-third of households having members with disabilities also have savings to cover consumption expenses for at least one month, slightly better than households having no members with disabilities.

b) Borrowing

Households can also borrow from external sources, but borrowing also indicates households’ financial vulnerability. More than half of sample households currently have outstanding debts or installment loans, in which 10.5% of the households just have them since the COVID-19 pandemic. This shows that the percentage of households with new debts or installment loans since the pandemic started is relatively smaller than the percentage of households that have had them since before the pandemic. By income group, households in the middle-to-low income groups are the ones with new debts or installment loans since the COVID-19 pandemic started. Nevertheless, debts can become a driving factor of households’ vulnerability, as it decreases their coping ability.

Most households with children also have a debt or installment loan, and many of them have had it since before the COVID-19 pandemic. It is worrisome because 46.1% of households with children have had debts or installment loans since before the COVID-19 pandemic and 10.5% of households have them since the COVID-19 pandemic. Meanwhile, there is no significant difference between male- and female-headed households in terms of having debts. This study finds that 48% of female-headed households do not have any debts, while only 44% of male-headed households are in the same condition.
c) Accumulating or Selling Assets

Households can also choose to either accumulate or sell their assets as their coping strategy, but the vulnerable ones might not have assets at all. Among all households, 44% chose “Others” to identify which assets they will sell first to make ends meet, which indicate three possibilities. First, they choose to sell other things. Second, they choose to accumulate and not sell any of them. Third, they are not able to sell any of them because they have none, which is possible for households in the lowest income group.

Different income groups also have different preferences. The percentage of households that will sell gold or jewelry is relatively high (44.4%). By income group, this study finds that the percentage is quite high among households in the middle and second-highest income groups. For households in the lowest income, the percentage is higher for selling their livestock (15.9%) than that for selling gold or jewelry. However, none of female-headed households chose to sell their gold or jewelry. Slightly less than 26% of female-headed households prefer to sell electronic devices. It is important to note that selling productive assets is considered as a costly consumption smoothing strategy (Frankenberg, Smith, and Thomas, 2003; Kochar, 1995; Morduch, 1995).

b) Cash Transfer and Food Assistance Programs from the Government

Half of the sample households received cash transfers or food assistance and most use it to buy groceries or food. More than 42% of households received cash transfers and 49.8% of households received food assistance. Among all households that received cash transfers, 70.4% spent them on groceries or food, and 20.9% used them to pay for education or health expenses. Female-headed households are covered more by the government’s cash transfer program; 61% of female-headed households received cash transfers, while only 41.9% of male-headed households received the same assistance. This finding is in line with the finding of Rahmitha et al. (2016) where female-headed households were covered more by only certain types of social assistance programs from the government than male-headed households. Many female-headed households are often considered poor households by their communities.

However, many households in the lowest income groups did not receive any social assistance and this signals a problem in the targeting process. There are 47% of households in the lowest income group that did not receive cash transfers and 40.9% did not receive food assistance. This study also finds that a small percentage of households with higher incomes received cash transfers or food assistance. This finding signals a targeting problem in the assistance disbursement.

People with disabilities also face difficulties in accessing the assistance programs because of stigmatization and social exclusion. They are often at risk of being left behind in the COVID-19 pandemic response and assistance plans (Root, 2020). They are still marginalized, which causes them to have less access to social assistance programs and important information related to COVID-19 pandemic, including access to fulfilling their economic needs (Radissa et al. 2020). Besides, the implementation of the cash transfer program for this vulnerable group still faces many challenges. Research conducted by Ardhian and Rothe (2020) in Central Sulawesi finds that the
identification of households having members with disabilities for the inclusive cash transfer program took a longer time. This obstacle occurred because many households hid their members with disabilities for fear of social stigma.

c) Electricity Subsidies/Discounts from the Government

To reduce the impact of the COVID-19 pandemic, the government introduced electricity subsidies/discounts for vulnerable households. However, many still did not receive the assistance, and this indicates poor access to it. Most households in the lowest income group are the 450 volt-ampere (VA) and 900 VA electricity customers. However, only 64.2% of households in the 450 VA power consumption category received free electricity bills and 29.9% of households in the 900 VA category received electricity discounts. This shows that many households are still unable to access the incentive.

d) Households’ Response to the Government’s Social Assistance Programs

Most households have positive opinions of the government’s social assistance programs. About 72.4% of households in this study received at least one assistance program. Households that received more programs also give more positive reviews. About 31.9% of households that received three assistance programs perceive that the programs are very helpful. In contrast, only 16.5% of households that received one assistance program have the same perception.

Meanwhile, 79% of households with children aged five or younger are covered by one of the social assistance programs. If managed well by the households, the social assistance will help them fulfill the nutritional needs of the children. The social assistance can also help reduce the households’
out-of-pocket spending on education or health. In addition, 22% of households with children that received cash transfers used the assistance mostly to cover education or health expenses. It indicates that education or health expenses are substantial expenses for households with children and the social assistance reduces the households’ out-of-pocket spending on education or health. Female-headed households also use a larger portion of cash transfers for education or health than male-headed households do.

Each income group also has different preferences regarding the types of assistance programs, other than cash transfer, that they need. This study finds that cash or goods in the form of business capital is the main preference of households in the lowest income group, followed by food assistance. Around 30% of households in the lowest income group have difficulty in fulfilling their food consumption needs. Most households in the second lowest income group also prefer business capital and food assistance, with 10% of households preferring credit deferments.

Interestingly, 48.9% of households in the second-highest income group prefer electricity bill discounts. This finding confirms the news in June 2020 that households’ electricity consumption increased by 13%–20% and resulted in higher electricity bills (Rachmawati, 2020). Meanwhile, many households in the highest income group choose “others” which can mean that they do not need any assistance at all.

Impact of the Double Disasters

Many households are affected by both the 2018 natural disasters and the COVID-19 pandemic. It is important to note that this finding reflects households’ socioeconomic condition, not a causal relation between the impacts of the disasters. Households which suffered heavy economic losses because of the 2018 natural disasters also tend to suffer heavy economic losses during the COVID-19 pandemic. Most households (95%) that perceived losses of jobs/incomes as the most significant impact of the COVID-19 pandemic had also been affected by the 2018 natural disasters. Many vulnerable households
also suffered from the impact of double disasters. If we exclude the answer “others” regarding the COVID-19 pandemic’s impact, both disasters affected 77.5% of households. By income group, 83.7% of households in the lowest income groups and 78% of households in the second-lowest income group are affected by both disasters. The disasters also have affected 74.2% of female-headed households and 78.9% of households having members with disabilities.

The double disasters have also affected many households with children, trapping them in poverty. Around 78.6% of households with children are affected by both disasters. Households with young children tend to suffer economically more than those without children. Consequently, children who grow up in households with socioeconomic vulnerabilities might have their development disrupted. Moreover, lack of nutrition can severely impair their cognitive development, which can cause the intervention in education to break the poverty cycle to not be successful.

All of these findings suggest that households suffering from heavy economic impacts of the double disasters are likely to have been economically vulnerable even before the 2018 natural disasters. In January 2020, prior to the COVID-19 pandemic, 58% of households that lost their homes and 65.7% of households that lost their jobs/incomes because of the 2018 natural disasters had a monthly income of less than IDR 1 million. Many households (66.4%) that lost their jobs/incomes because of the COVID-19 pandemic also had an income of less than IDR 1 million in January 2020. This implies that some households have difficulty in improving their socioeconomic condition in between the periods of the disasters. Koirala et al. (2019) found that prior to the 2018 natural disasters, many household members in Central Sulawesi and West Nusa Tenggara were employed as daily wage workers, such as in construction and mining, or as farm laborers. When the disasters hit, the labor market was disrupted and unemployment increased (REACH, 2019). External support is needed to help the vulnerable households cope with the present and upcoming disasters.
Conclusion

This study finds that most households are vulnerable, as around 29% of households in each study province have not yet fully recovered from the 2018 disasters and 18% of all households can only rely on social assistance and family support. The social restrictions policy to curb the COVID-19 pandemic not only has affected the households’ income and employment, but also their food security and access to education and health services. Households also suffer from psychological strain because of income shocks and increased caretaking burdens. As households are in different income groups and have different vulnerable members to take care of, the COVID-19 pandemic affects each household differently.

For almost half of the households, the most significant impact of the COVID-19 pandemic is losses of jobs/incomes. At the end of July or in early August, more than 82% of households had a monthly income of less than IDR 2.5 million, which is inadequate to have a decent living. Around 68% of households also have lower incomes in June/July than in January 2020. Reductions in income are more prominent in female-headed households because most of them have low incomes and informal employment. Income shocks also disrupt the food security of households in the lowest income group and risk the children’s development. The second most significant impact is the disruption in the access to education and health services. Children’s access to education was disrupted in the 2018 natural disasters and now they re-encounter another disruption because of the learn from home policy. The COVID-19 pandemic also disrupts the access to health services, particularly among households having elderly members or members with chronic diseases needing regular treatment or therapy. Households with children aged five or younger also face disruptions to their access to immunization services. The social restrictions policy also disrupts the regular treatment and mental health services received by household members with disabilities. The third most significant impact is the psychological strain which can be caused by economic shocks or increased burden in employment and caretaking. Many households in higher income groups perceive psychological strain as the most significant impact. The percentage of male-headed households with psychological strain is also higher than that of female-headed households. This is probably because they must cope with income shocks and caretaking roles. Children might also feel stressed because they cannot participate in daily social activities like they normally do in schools.

Unfortunately, low-income households do not have adequate coping strategies to resist the impact of the COVID-19 pandemic. Most of the low-income households do not have savings and more than half of these households have ongoing debts. External support, either from the government’s social assistance programs or from neighbors and families, is crucial for mitigating the impact of the COVID-19 pandemic. Regarding the double disasters’ impacts on households, this study finds that households negatively affected by the 2018 natural disasters also tend to be adversely affected by the COVID-19 pandemic. There are also higher percentages of low-income households as well as households with children that suffer from the impact of the double disasters. These findings suggest that the households were already vulnerable prior to the 2018 natural disasters. The households’ vulnerability might hamper children’s development and trap them in the poverty cycle.
Recommendations

We propose several recommendations for the government, village authorities, and local community members.

- **Use a community-based approach to document vulnerable households and to disburse the assistance.** We recommend that the government work together with village authorities and local community members to document vulnerable households and to disburse the assistance.

- **Involve village authorities and local community members to support the education practices.** Support from village authorities and local community members will ease the parents’ burden in educating their children because not all parents can teach. Parents should be able to stay in touch with schools and teachers so that they will understand what they can do to support their children and to keep up with their assignments.

- **Provide adequate telecommunication infrastructure and open source technologies for teaching and learning.** The government and all stakeholders need to work together to remove technological barriers by investing in digital infrastructure and lowering connectivity costs. Besides, low-tech and no-tech approaches should not be forgotten for the students, especially the most marginalized ones. It is also important to ensure that students have stronger parental support and that learning materials are greatly available.

- **Involve health service providers in making sure that basic health services are accessible.** Government’s responses to the COVID-19 pandemic should be integrated with health services so that the vulnerable groups can still access the treatment they need. The government also needs to keep the immunization programs running even during the pandemic by making regular service schedules and in a different location. We recommend that the government provide support for health workers, so they can optimize the home care visit to reach the vulnerable households. In areas with good access to telecommunication services, health workers can use telemedicine, such as using telephone or WhatsApp, to monitor women and children’s health.

- **Prioritize recovery programs in the poorest areas so that impacts of the COVID-19 pandemic can be minimized or even avoided.** The government should work together with village authorities to make sure that no one is left behind. Good coordination between the government, nongovernmental organizations (NGOs), and other stakeholders is also needed to speed up the recovery process, including the residential building construction.
THE SOCIOECONOMIC IMPACT OF THE COVID-19 PANDEMIC IN POST-DISASTER AREAS
CONTEXTUALIZATION

Two years after the 2018 natural disasters devastated their lives, many households in Central Sulawesi and West Nusa Tenggara have not yet recovered. However, in the midst of their struggle to recover, these vulnerable households must face the consequences of large-scale social restrictions to decelerate the spread of the Coronavirus Disease 2019 (COVID-19) pandemic. This is a glimpse of what people in disaster-affected areas have had to deal with during the COVID-19 pandemic, and provide context for this rapid assessment study. This chapter discusses such contextual background as well as the objective and methodology of the study.

1.1 Background

Indonesia was hit by a series of disasters in the second half of 2018, causing massive economic and social devastation in several regions. A number of strong earthquakes hit West Nusa Tenggara in July and August, followed by a major earthquake in Central Sulawesi in late September, triggering a tsunami and liquefaction. In West Nusa Tenggara, the disaster affected over 400,000 people (including around 140,000 children) and causing damages to 200,000 houses. Meanwhile, in Central Sulawesi, the data recorded that an estimated 1.5 million people were affected (including around 525,000 children) and approximately 105,000 houses were destroyed (UNICEF, 2019). The Indonesian National Disaster Management Agency (Badan Nasional Penanggulangan Bencana/BNPB) estimated that the total loss amounted to IDR 18.2 trillion in West Nusa Tenggara and IDR 13.8 trillion in Central Sulawesi. This total loss was calculated from the loss and damage in the economies’ productive capacity, housing, infrastructure, social, and other sectors (Nugroho, 2018).
Among all, children were the most affected group and needed psychological support to deal with the trauma. The disaster separated them from their family, displaced them from their homes, and disrupted their access to education, health services, and sanitation (UNICEF Indonesia, 2018).

In response to the massive impacts of the disasters, many organizations conducted disaster recovery intervention programs to ease the burden of the victims. Two of them were United Nations Development Programme (UNDP) and UNICEF. UNDP’s team provided cash interventions for work of clearing the aftermath debris as part of its USD 1.4 million rapid disaster relief program, allowing the survivors to have a source of income (UNDP, 2018a). UNDP is also working on a long-term recovery program, initiating engagements with the government and its international partners through the Program for Earthquake and Tsunami Infrastructure Reconstruction Assistance (PETRA) as part of its USD 19.5 million disaster relief program in support of Central Sulawesi and West Nusa Tenggara (UNDP, 2018b). As of 2019, UNICEF Indonesia provided disaster recovery intervention programs amounting to USD 26.6 million for immediate responses, early recovery, and rehabilitation assistance for children affected by the disasters in both West Nusa Tenggara and Central Sulawesi (UNICEF, 2019). The response and recovery programs helped provide clean water supply, promote hygiene and sanitation, provide immunization and health services, promote Infant and Young Child Feeding practices, address severe acute malnutrition, provide psychosocial support for children, and build school infrastructure. UNICEF also provided cash transfer programs in Lombok Utara (West Nusa Tenggara) and Sigi (Central Sulawesi) to assist households with access to food and basic services, targeting young children and pregnant women. In total, the cash transfer assistance reached 6,144 households consisting of 25,457 people, 13,738 of which were children. Without government interventions or non-governmental organizations’ (NGOs) aids, survivors of these disasters would find it more difficult to resume their livelihood and social activities.

After two years, in both post-disaster areas, the recovery programs—focusing on economic livelihoods of the local communities, public facilities, and safer housings—are still underway (Maryanti, Netrawati, and Faezal, 2019; World Bank, 2019). In Palu, the local government is in the middle of processing the last disbursement of post-disaster stimulant funds and encouraging the survivors to register for the funds if they have not received them. According to the Mayor of Palu, there was a break down in coordination efforts between the population and civil registration agency (Dinas Kependudukan dan Pencatatan Sipil/Dinas Dukcapil) of Palu city and the regional disaster management agency (Badan Penanggulangan Bencana Daerah/BPBD), resulting in a gap in the data. The former recorded around 47,000 damaged residential units, but the latter only recorded

![Figure 1. The conceptual framework](image-url)
38,805 units (Sultengraya.com, 2020). On the other hand, households living in their relative’s houses or in empty lots are also overlooked as internally displaced persons. It is approximated that only 9% of households living in informal internally displaced have been recorded (REACH, 2019). Furthermore, the conditions in temporary shelters and evacuation sites have caused numerous social issues, including poor living conditions (Metrosulawesi.id, 2020), limited access to basic services, scarcity of clean water, a high level of open defecation, lack of dietary variety and malnutrition, and insubstantial education for children (REACH, 2019). The progress report of the PETRA project shows that activities to reconstruct damaged buildings caused by the 2018 disasters in West Nusa Tenggara and Central Sulawesi are underway as of June 2020 (UNDP, 2020).

As households are recovering from the socioeconomic downturn caused by the destructive disasters, they have begun to experience the secondary impacts of the COVID-19 pandemic. Restrictions on movement and social distancing policies have affected livelihoods and the recovery progress (Lombok Post, 2020; Litha, 2020). However, since most survivors living in temporary shelters work as casual laborers who only rely on daily incomes (YAKKUM1 Emergency Unit, 2020), they have no choice but to continue working to meet their daily needs. Doing so, then, makes them fail to optimally comply with the government’s order. Women have been getting busier, as all household members stay home, and children need assistance with the distance learning process, thus imposing psychological strain. For children, school closures and the “learn from home” policy disrupt their learning process. Adults in poor households may prioritize working to meet their basic needs and give a lower priority to helping their children study (UNICEF, 2020). In some cases, parents ask their children to help them in their work to lessen the economic burden, which may push these children into child labor (International Labour Organization, 2020). Access to health services are also disrupted, affecting pregnancy checkups and maternal health services, immunization services, and services for people with disabilities.

Given the massive socioeconomic impact of the 2018 disasters, unfortunately, little is known about how the COVID-19 pandemic has further affected the survivors of the disasters. To investigate this, UNDP and UNICEF conducted a socioeconomic impact assessment of the COVID-19 pandemic on households in hardest-hit areas, focusing on post-disaster districts: Palu city and Sigi district in Central

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1 Yayasan Kristen untuk Kesehatan Umum, or Christian Foundation for Public Health.
Sulawesi and North Lombok Utara and East Lombok in West Nusa Tenggara. The assessment is followed by policy recommendations to mitigate the impacts of the crisis on the most vulnerable households. This study is part of the Assessment of Socio-Economic Impact of COVID-19 on Households in Indonesia, which includes three substudies: (i) a rapid assessment of the COVID-19 pandemic impact in two post-natural disaster districts; (ii) a full-scale study of the COVID-19 pandemic impact on households with a national representativeness which is complemented with a qualitative study; and (iii) three monitoring surveys.

1.2 Objective

This study aims to provide a descriptive analysis of the current socioeconomic condition of households in disaster-affected areas and the impacts of the COVID-19 pandemic on women, children, the elderly, people with chronic diseases, and people with disabilities. We also assess households’ possible coping mechanisms and the vulnerability of the households affected by the double disasters. To achieve these objectives, literature reviews and surveys were conducted to examine households’ socioeconomic conditions during the COVID-19 pandemic and to obtain supporting information. Findings of this study can then be used to improve the design of response and recovery policies or as a basis for improving the existing disaster rehabilitation effort programs.

1.3 Conceptual Framework

When a disaster occurs, households might either successfully resist the shock or become vulnerable. The shock from the disaster affects vulnerable households’ socioeconomic conditions and decreases their food security and productivity. Survivors of a disaster often experience moderate to severe food insecurity, as they have to reallocate their consumption budget as a coping strategy (Kolbe et al., 2010; Sawada and Shimizutani, 2008). In addition, outstanding debts may make these households less likely to increase their borrowing to smooth consumption; thus, they have no other choices but
to reduce their expenditures (Sawada and Shimizutani, 2008). These micro-level poverty traps can also be created by health and social impacts of natural disasters, such as the ones on psychological health and development of the next generation (Hallegatte and Przyluski, 2010). In turn, it will be difficult for these households to rebuild their savings and assets and they might eventually be trapped in the poverty cycle.

The COVID-19 pandemic is adding more and more negative impacts in post-disaster areas since households’ socioeconomic condition has not fully recovered yet. The conceptual framework of this study, as shown in Figure 1, describes that the COVID-19 pandemic has created a double-disaster burden for the people in Central Sulawesi and West Nusa Tenggara to cope with. Since April 2020, all provinces in Indonesia have reported positive COVID-19 cases. The government puts heavy restrictions on socioeconomic activities and people’s mobility. According to Okun’s law (Ball, Leigh, and Loungani, 2013), the restrictions will reduce economic growth and eventually increase unemployment. In addition, self-employed individuals may have decreased incomes because of lack of revenue generation. The magnitude of income shocks may vary among households, depending on various factors, such as employment and industry. Assuming everything else is equal, severe income shocks may lead to costly consumption smoothing strategies, such as selling productive assets (Frankenberg, Smith, and Thomas, 2003). On the other hand, a major protective factor shaping the likelihood of food security is external support (He et al., 2018; Kolbe et al., 2010). Thus, external support from the community and the government is urgently needed to help vulnerable households cope with the impacts of the 2018 disasters and the COVID-19 pandemic.

1.4 Methodology

1.4.1 Data Collection

This rapid assessment study focuses on the most affected districts, i.e., East Lombok and North Lombok in West Nusa Tenggara, and Sigi and Palu in Central Sulawesi. For this study, UNDP and UNICEF expected to collect responses from 800 households to be the study data. The responses were collected using a computer-assisted personal interviewing form by the Enketo Smart Paper for ONA software. Two data collection methods were employed: self-administered and door-to-door surveys. Initially, the link to the digital survey form was introduced through short message service (SMS) blasts to a total of 10,000 targeted population with registered phone numbers and distributed via WhatsApp groups to an undetermined random population. The SMS blasts were carried out following the schedules below.
16 July 2020: SMS messages were sent to a total of 8,000 Telkomsel subscribers in the 4 districts (2,000 subscribers per district)

20 July 2020: SMS messages were sent to a total of 2,000 Indosat subscribers in the 4 districts (500 subscribers per district)

The SMS blasts were allocated based on the information on the estimated distribution of subscribers by district which was provided by the telecommunication providers.

The data collection was originally scheduled to be completed in two weeks after the second SMS blast. By then, only 370 responses were received subsequently to the distribution of both SMS and WhatsApp messages. Because of the low response rate, door-to-door data collection was conducted in collaboration with UNDP and UNICEF local partner institutions. Twenty enumerators were trained in a half-day virtual training session on 6 August 2020 and each was assigned to collect responses from 30 households within 3 days with a strict adherence to the health protocol (wearing a face mask and face shield, and practicing social distancing). In total, 1,027 responses were collected between 16 July and 13 August 2020 from all methods with an addition of 689 responses being received from the door-to-door survey. After data cleaning, 887 responses were found valid with duplicate data and household records with inconsistent answers being removed. Around 74.6% of the data came from the door-to-door interviews conducted by the enumerators.

1.4.2 Instruments

UNDP, UNICEF, and SMERU worked together to develop the instrument which was simplified from the original version to improve the response rate from the self-administered survey respondents. The instrument consists of 32 questions on basic information, social protection and welfare, and disaster experiences.

1.4.3 Sample Characteristics

In this study, we collected data from 887 respondents, each of whom represented their households. Their characteristics are summarized in Figure 2. The sample has slightly more female respondents (56%) than male ones. Most of them (84.1%) are either household heads or their spouses and 3.5% of these household heads are female.

Composition-wise, 74.8% of households consist of 3–5 people. Most households are a single-income (49.8%) or dual-income ones (41.4%). Most households also have children (93.2%), in which 43.9% have children aged five or younger and 85.2% have children attending school. Overall, we have a similar number of respondents in each district, with the highest being in East Lombok (28%), followed by Palu, North Lombok and Sigi, respectively.

Some households have more than one vulnerable member. Figure 3 shows that 96.4% of households with children have three or more household members. Some live with the elderly (17%), members with chronic diseases (18%), or members with disabilities (14.2%). It implies that these households must support more than one member’s needs and it might increase the households’ burden and vulnerability during this period of economic downturn. Women and young girls would also be affected, as the duties to take care of household members are likely to increase during the COVID-19 pandemic.

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2 In total, we collected data from 1,027 households. However, data from 140 households were dropped during the cleaning process for being duplicate data or having inconsistent responses.

3 We did not ask the sex of the heads of household. Thus, to classify households as female-headed or male-headed, we inferred that a household was female-headed if (i) the respondent is female and is the household head (n=28) or (ii) the respondent is male and is the spouse or partner of the household head (n=3).

4 The United Nations (2020a) classifies women, children, the elderly, people with disabilities, people in extreme poverty, informal workers, and households with uncertain incomes as vulnerable groups and suggests that they are at risk of experiencing negative socioeconomic impacts of the COVID-19 pandemic.
1.5 Study Limitations

This study has two limitations. Firstly, the analysis of the household data only covers the sampled households. This study does not represent the condition of all households (the population) in the districts. Secondly, we had to develop the research instrument with only a limited number of questions to suit the initial data collection plan. This implies that we were unable to collect an ideal amount of data and to provide a more comprehensive analysis, including a specific analysis of children’s issues or households’ coping strategies. Therefore, we recommend future studies to analyze coping strategies of the households in the post-disaster areas and the outcome of the strategies. We also recommend future studies to have a dedicated set of questions to analyze how the COVID-19 pandemic affects the livelihoods of female-headed households, households with children, and households having members with disabilities in the post-disaster areas.
THE SOCIOECONOMIC IMPACT OF THE COVID-19 PANDEMIC IN POST-DISASTER AREAS
This chapter elaborates the sampled households’ vulnerability after the 2018 disasters and the impact of the COVID-19 pandemic on the households as well as their possible coping strategies and external support they received.

2.1. Households’ Vulnerability after the 2018 Natural Disasters

The 2018 natural disasters caused massive changes in the livelihoods of households in West Nusa Tenggara and Central Sulawesi. Two years after the disasters, households still have not fully recovered, which makes them vulnerable to another shock such as the one caused by the COVID-19 pandemic.

Most households in this study were affected by the 2018 natural disasters. They lost their homes or their jobs/incomes. The disasters caused 43.2% of households to lose their homes and 31.2% of households to lose jobs/incomes. Responses from households in both provinces also had similar patterns because both were hit by earthquakes (see Figure 4). Meanwhile, there were 15.9% of households in Central Sulawesi and 13.6% of households in West Nusa Tenggara that were unaffected by the disasters. Households that lost their homes, jobs, or incomes experienced heavy economic losses and disruptions to their livelihoods (Koirala et al., 2019).

The percentage of affected households is higher for households with children. Most households with children were affected by the disasters (86%), but the percentage is lower among households without children. Koirala et al. (2019) found that the disasters disrupted the households’ access to healthy food and clean water, thus worsening the
children’s health. Meanwhile, 6.7% of households without children said that the most significant impact was losing their family members. As the disasters caused massive destructions, some households lost children.

After two years, households are still recovering from the disasters. Figure 6 shows that nearly one-third of households have not financially recovered yet. It took months for most households to recover and some even took more than a year to recover. After the disasters, many households rely on their income from business (25.6%) and employment (50.6%). However, 18% of households have to rely on social assistance and family support, indicating that they are not able to sustain their living by themselves. In addition, more than 26% of households that lost their homes are still not living in their own house.

Hardships after the 2018 natural disasters also disrupted the children’s development. Figure 7 shows that 28.9% of households with children have not financially recovered yet and might be struggling to provide adequate nutrition intakes. In the early weeks after the 2018 disasters, Koirala et al. (2019) reported that parents gave mashed banana, sugar dissolved in water, and rice water to their babies before the aid arrived, but the aid was not sufficient. The same study also finds that there was a shortage of clean water that made children ill or even malnourished. Children living in temporary shelters are at risk of having their health disrupted, as they are exposed to poor hygiene (He et al., 2018). Hardships after the 2018 natural disasters also disrupted the children’s development. Figure 7 shows that 28.9% of households with children have not financially recovered yet and might be struggling to provide adequate nutrition intakes. In the early weeks after the 2018 disasters, Koirala et al. (2019) reported that parents gave mashed banana, sugar dissolved in water, and rice water to their babies before the aid arrived, but the aid was not sufficient. The same study also finds that there was a shortage of clean water that made children ill or even malnourished. Children living in temporary shelters are at risk of having their health disrupted, as they are exposed to poor hygiene (He et al., 2018).
2.2 Impacts of the COVID-19 Pandemic on Income, Employment, and Food Security

The COVID-19 pandemic adds more burden to households in the 2018 disaster-stricken areas. The Government of Indonesia has implemented large-scale social restrictions in provinces/districts with a high number of COVID-19 cases. However, the restrictions disturb socioeconomic activities and cause economic downturns in other provinces. Losses of jobs/incomes are the most significant impact perceived by almost half of the households. However, the impacts vary among households with different characteristics. This section presents the impacts of the COVID-19 pandemic on households’ incomes and employment as well as their food security.

Source: Calculated from the rapid assessment survey, 2020.
2.2.1 Impacts on Income, Employment, and Food Security in All Households

Four months have passed since the first positive COVID-19 case in the provinces and now households are facing economic vulnerability. At the end of July or in early August, more than 82% of households had a monthly income of less than IDR 2.5 million, which is inadequate to have a decent living\(^5\). More than half of the households do not have any savings (62.8%), have ongoing debts or installment loans (55.5%), and have main breadwinners who either do an informal job\(^6\), are unemployed, or do unpaid work (56.6%) (see Figures 9 to 12).

The COVID-19 pandemic also has negative impacts on households’ incomes. Compared to their incomes in January 2020, 68% of households had lower incomes in June/July 2020. Households in all income groups experienced a decrease, but the percentage is substantially higher among households in the lowest income group (see Figure 13). Two-third of households in the lowest income group also selected losses of jobs/incomes as the most prominent impact of the COVID-19 pandemic (see Figure 14). The COVID-19 pandemic affects the households’ incomes in at least two ways. First, strict quarantines and road closures that disrupt logistics distribution may hurt micro and small intermediaries in aggregation and distribution (FAO\(^7\), 2020). Second,

\(^5\) We used income as a proxy of vulnerability. In Ministry of Labor Regulation No. 15/2018 about minimum wage, one determinant of minimum wage is the cost to achieve a decent living standard (kebutuhan hidup layak/KHL). KHL is the living standard of a single laborer to be able to have a decent living in a month. The minimum wage in West Nusa Tenggara is IDR 2,183,883 and in Central Sulawesi is IDR 2,303,710. Most of households in this study have more than one member. This indicates that households with a total income of less than IDR 2.5 million are facing challenges to have a decent living, hence being vulnerable.

\(^6\) Informal employment status consists of being self-employed without employees or the assistance of family members and working odd jobs.

\(^7\) Food and Agriculture Organization.
demand-side employment effects might also emerge, as companies had to adjust the staffing temporarily or permanently in response to shocks on the demand for their goods or services (World Bank, 2020).

**Households with vulnerable incomes experience food insecurity during the COVID-19 pandemic.**

In the survey, 35% of all households reported that they ate less than they should in June/July for lack of money. Figure 15 shows that the highest proportion of households that have eaten less is in the lowest income group (42.6%), followed by households in the second-lowest income group (32%). Moreover, 56.5% of households that have eaten less also could not consume protein, fruit, and vegetables regularly. This finding is concerning because the condition of poor households could be worsened by poor dietary diversity (World Food Programme, 2020).

Source: Calculated from the rapid assessment survey, 2020.
2.2.2 Impacts on Income, Employment, and Food Security of Female-Headed Households

Female-headed households have lower incomes and more vulnerable employment. Figure 16 and Figure 17 compare the income and employment status of female-headed households and male-headed ones. The percentage of female-headed households in the lowest income group having income under IDR 1 million per month is substantially higher than male-headed households having a similar income. There are also higher percentages of female-headed households whose main breadwinners are self-employed without employees or working odd jobs. Figure 18 shows that 74.2% of female-headed households have lower incomes than in January 2020, while only 67.8% of male-headed households are in the same situation. This study also finds that almost half of female-headed households also suffer from food insecurity. Figure 19 shows that 41.9% of female-headed households have eaten less due to lack of money.

In addition to working for household’s economy, female household heads must take care of other vulnerable members. Among female-headed households in this study, 23% have children aged five or younger, 19% have elderly members, 19% have members with chronic diseases, and 26% have members with disabilities. In their research on female-headed households, Rahmitha et al. (2016) found that divorce is one of the main reasons why women become the head of household.

Source: Calculated from the rapid assessment survey, 2020.
2.2.3 Impact on Income, Employment, and Food Security of Households with Children

Households with children are also negatively affected by the COVID-19 pandemic. There are 60% of households with children that have monthly incomes of less than IDR 1 million (see Figure 20) and 68% that had lower incomes in June/July 2020 (see Figure 21). Moreover, 48.1% of these households perceived losses of jobs/incomes as the most significant impact (see Figure 22). Losses of jobs/incomes increase the burden of the households, as children are still financially dependent on their family. This is consistent with the finding of Friedman and Levinsohn (2002) that poor households with young children tend to suffer adverse economic impacts of the Asian Financial Crisis compared to households without children. With a limited income, these households are vulnerable to income shocks because the education expenditure can significantly contribute to households’ total expenditure (Friedman and Levinsohn, 2002). In the worst-case scenario, children might be forced to drop out of school.

Income shocks might also affect children’s food security and the effect can be long lasting. There are 35% of households with children that have eaten less. Among these households, 58% of them are unable to consume protein, fruit, and vegetables regularly. After the 2018 natural disasters, UNICEF (2019) reported that there were suboptimal breastfeeding and complementary feeding practices, as well as cases of undernutrition and severe acute malnutrition among children. In addition, Block et al. (2004) found that macroeconomic shocks also affect children’s micronutrient intakes and may produce long-term effects on children because of reduced quality and...
quantity of food consumption. According to Harper, Marcus, and Moore (2003), poor nutrition during early childhood can deteriorate children’s future well-being because it restricts their ability to fight diseases and increases chances of sickness. Moreover, lack of nutrition can severely impair their cognitive development, which can cause the intervention in education to break the poverty cycle to not be successful.

The COVID-19 pandemic also puts children at risk of having less healthy food consumption which may lead to undernourishment or even obesity. The COVID-19 pandemic is different from the 2018 natural disasters, and has led to two possible outcomes. On the one hand, households change their consumption pattern and are unable to provide nutritious food because the COVID-19 pandemic causes a decrease in their income (Wahana Visi Indonesia, 2020). On the other hand, there is an increase in children’s snack consumption as a way to cope with boredom and stress (Empatika, 2020).

2.2.4 Impacts on Income, Employment, and Food Security of Households Having Members with Disabilities

The COVID-19 pandemic also disrupts the income and employment of households having members with disabilities. Figure 23 shows that 47.9% of households having members with disabilities have their daily activities disrupted and 24.6% have their work-related activities disrupted. The income of many households having members with disabilities also decreases, but the percentage is smaller
than that of households without members with disabilities. The percentage of constant incomes is also higher within households having members with disabilities (see Figure 24). This might occur because households having members with disabilities already had difficulties prior to the COVID-19 pandemic, as 62% of them are in the lowest income group. People with disabilities are often excluded from labor force participation because of physical and mental limitations. Their exclusion is exacerbated by their family (Fatimah and Roberts, 2019). Instead of helping members with disabilities to be actively involved in the labor force, their families tend to hide them inside the house for fear of stigmatization (Ardhian and Rothe, 2020).

**Households having members with disabilities also face food insecurity.** Figure 25 shows that 40% of households having members with disabilities that are disrupted by pandemic have eaten less; this percentage is slightly higher than that of households without such a condition (34%). This can be explained, as the majority of people with disabilities in Indonesia are living in poverty (Cahyono, 2017; Radissa et al., 2020). This condition makes them economically vulnerable especially during the COVID-19 pandemic, as they are forced to reduce food expenditures. A study conducted by Cahyono (2017) also highlights that poor households having members with disabilities tend to have limited knowledge about food security. As a result, their needs for food and nutrition are often neglected, making them more susceptible to diseases.

**Figure 23.** Disruptions in the activities of households having members with disabilities (%)
Note: There are 142 households having members with disabilities claiming that they experience disruptions.

**Figure 24.** Changes in households’ income by the presence of members with disabilities (%)

**Figure 25.** Households with food security issues by the presence of members with disabilities (%)

Source: Calculated from the rapid assessment survey, 2020.
2.3 Impact of the COVID-19 Pandemic on Access to Education and Health Services

The second most significant impact is the disruption in accessing education and health services. There are 21.6% of households that perceived this disruption as the most significant impact for their households (see Figure 8). It is possible because most households have women and children, as well as the elderly, members with chronic diseases, and members with disabilities. The percentage is also higher among households in the middle income group (41.2%) and the second-highest income group (35.6%) (see Figure 14). This section analyzes how the COVID-19 pandemic affects the households’ access to education and health services.

2.3.1 Impacts on Access to Education

Children are experiencing disruptions in accessing education during the COVID-19 pandemic. The disruption in learning is a crucial issue, as 85% of households in this study have children who are currently attending school. At the end of 2019, children already received proper education as UNICEF (2019) reported that education access in Central Sulawesi mostly returned to the same condition as before the disasters. However, with the school closures in March 2020, children had to adopt the learn from home practices. The prolonged school closures and learn from home activities have put children into a difficult situation due to internet barriers, limited access to books, limited teacher’s capacity, and minimum government support in conducting remote learning (Wahana Visi Indonesia, 2020).

The education practice has changed drastically due to the “learn from home” policy and children must bear the consequences. The absence of direct teaching and learning mechanisms has become a problem not only for teachers and students, but also for parents. A study by Alifia et al. (2020) highlights that inequalities in education infrastructure, access to information technology, and parents’ educational background have hampered the new education practice. The same study finds that during this pandemic, the learn from home policy makes the long-existing inequality even wider. In West Nusa Tenggara, Empatika (2020) found that teachers were struggling to get students to attend the “class” during visitation and not all parents feel that they have the responsibility or the ability to educate their children. A rapid assessment by Wahana Visi Indonesia (2020) finds that 32% of children in middle-to-low income group households did not receive learning from any kinds of programs because of the lack of school capacity and facility.

2.3.2 Impact on Access to Health Services

The COVID-19 pandemic disrupts vulnerable household members’ access to health services. Figure 26 shows that 34% of households said that regular treatment or therapy is the most needed health service and is affected by the COVID-19 pandemic. Other households also reported disruptions to immunization services, pregnancy checkups, as well as childbirth and postpartum care. Plan International (2020) also found that the COVID-19 pandemic disrupted women and children’s access to health services, including maternal, newborn, child, and sexual and reproductive health services. On the supply side, health facilities might postpone these treatments and focus on allocating resources to services that need to be prioritized because of COVID-19 (World Health Organization, 2020b). On

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**Figure 26. Disrupted health services (%)**
Source: Calculated from the rapid assessment survey, 2020.
the demand side, people also avoid going to health facilities because of the high risk of the COVID-19 pandemic. However, this situation raises significant concern since vulnerable household members also need regular treatment. Disrupted access to regular treatment or therapy for physically vulnerable members might worsen their health condition.

The disruption in accessing health services is more prominent among households with elderly members or members with chronic diseases. Figure 27 shows that 46.7% of these households have difficulties in accessing regular treatment or therapy. This is a concerning issue because one-fifth of households in this study have elderly members and members with chronic diseases. These groups are also vulnerable physically and socially. If infected by the corona virus, elderly members, especially those with chronic diseases, would be at a higher risk of becoming severely ill (World Health Organization (2020a). In addition, elderly members are also socially vulnerable because they have limited or no access to minimum income supports or pensions, livelihoods and incomes, and basic services (TNP2K, 2020).

Meanwhile, households with children aged five or younger also face disruptions in accessing immunization services. Figure 26 shows that 17.5% of households cited challenges in immunization services and Figure 28 emphasizes that the percentage is even higher among households with children aged five or younger, as 32% of these households perceive that immunization is the most needed health service that is disrupted by the COVID-19 pandemic. Regarding access to health facilities, although health facilities remain open in certain areas, the fear of getting infected by the coronavirus also reduces women and children's visits (Empatika, 2020). Immunization is crucial for individuals aged five or younger since many kinds of vaccines should be administered during such an age range to prevent them from being infected by vaccine-preventable diseases, such as hepatitis and tetanus (Centers for Disease Control and Prevention, 2019). Disrupted access to immunization services for households with children aged five or younger might compromise children’s immunity against such diseases in the future.

![Figure 27. Disrupted health services by the presence of elderly members and members with chronic diseases (%)](chart1)

![Figure 28. Disrupted health services by the presence of children aged five or younger (%)](chart2)

Source: Calculated from the rapid assessment survey, 2020.
During the COVID-19 pandemic, people with disabilities also face challenges that make them more vulnerable. People with disabilities might not be able to follow the prerequisite health safety protocols, making them more likely to be infected (Centers for Disease Control and Prevention, 2020). On the other hand, in the context of disaster risk reduction programs, the basic needs of people with disabilities—such as food and clothing, wheelchairs, hearing aids, and glasses—have not always been considered in the response to a disaster (Fatimah and Roberts, 2019). The social restrictions also disrupt the regular treatment and mental health care that they need (see Figure 23).

2.4 Impacts of the COVID-19 Pandemic on Psychological Strain

Many households in the higher income groups perceive psychological strain as the most significant impact. Figure 14 shows that the highest proportion of households experiencing psychological strain was found in households in the second-highest income group (40%) and in the highest income group (33.3%). As many households in the higher income groups do not experience as much decrease in their income as those in lower income groups, it implies that their psychological strain is not caused by economic shocks. There are at least two causes of the psychological strain. First, regarding the economic shock, Godderis (2020) highlighted that losing income and job insecurity are two factors that could lead to psychological strain. Second, Tani et al. (2020) found that having double responsibilities of both working and taking care of the family, including children at home, could increase the psychological strain of women. Holding many roles at the same time can cause stress and anxiety along with the increasing pressure that must be faced. Parents are frustrated because they find it hard to educate their children and it can lead to violence (Empatika, 2020; UNICEF Indonesia, 2020). Our finding does not suggest that the low-income households are not stressed too, but many suffer more from losing jobs/incomes.

There is also a higher percentage of male-headed households with psychological strain than that of the female-headed ones. The COVID-19 pandemic has put men, who usually also have the role as the main breadwinner, in male-headed households in a difficult situation because they need to cope with the financial instability and adjust their new role in caretaking. A survey from Cleveland Clinic (2020) finds that men are having difficulties in adopting different roles such as helping their children with their remote learning, keeping up with online work, doing household chores, and other responsibilities. Additionally, the reduction in income also plays a large part in increasing men’s stress level. However, our finding does not mean that female-headed households are not stressed out, as they have a higher percentage of losing jobs/incomes. Again, this result indicates that female-headed households are more economically vulnerable than male-headed households.

Children also face psychological strain because their lives are changing. School is an important aspect in a child’s life, as shown in UNICEF’s response to the 2018 natural disasters. One of UNICEF’s immediate responses was to build and provide adequate school infrastructure because school is a safe place for children to learn, to play, and to overcome their trauma (UNICEF Indonesia, 2018). UNICEF also provided psychosocial support for children and their families (UNICEF, 2019). Now, with school closures and limited social interactions, children experience boredom because they must stay and study at home (Wahana Visi Indonesia, 2020).
2.5 Households’ Possible Coping Mechanisms

With regard to post-disaster vulnerability, unfortunately, low-income households do not have an adequate coping strategy to deal with the impact of the COVID-19 pandemic. After the 2018 natural disasters, households’ livelihoods underwent a disruption; many have been unable to resume the income they could get prior to the disasters and to save (Koirala et al., 2019). This section provides an analysis of the possible coping mechanisms: savings, borrowing, and accumulating or selling households’ assets. This study finds that many households do not have adequate savings. Some households choose to borrow, and it is possible that households with vulnerable economy do not have any assets. Additionally, religious activities are believed to be very helpful for the survivors in coping with the traumatic impact of the disasters. However, it is important to note that we do not have exact information on what coping mechanisms the households employ.

2.5.1 Savings

Savings are crucial to smooth income out of unexpected shocks, yet vulnerable households only have small savings or none. Figure 30 shows that 82.7% of households in the lowest income group do not have savings and 15% have savings that are only enough to cover consumption expenses for one month. The condition might be better for the second-lowest income group, but still half of the households do not have any savings. During shocks, savings are crucial for households in developing countries to smooth income out of unexpected variations (Attanasio and Székely, 2000; Mastrogiacomo and Alessie, 2014). In basic microeconomic theory, income and savings are related and thus it is natural that households in the lower income groups do not have excess income for savings. Households become more susceptible to shocks when their income or savings are reduced as what frequently happens in a negative economic shock since it severely limits their ability to cope (Noerhidajati et al., 2020; Attanasio and Székely, 2000). As the country faces an economic recession because of the COVID-19 pandemic, these groups might fall deeper into poverty.

Compared to male-headed households, female-headed households are more susceptible to shocks because of low or no savings. Figure 31 shows that 87% of female-headed households do not have savings to cover expenses for at least one month, while 75% of male-headed households have savings to cover expenses in the same time frame. This condition might be linked to the fact that the
heads of the households in sample female-headed households have lower incomes and have less-stable jobs than their male counterparts, as shown in Figure 16 and Figure.

Only one-third of households having members with disabilities have savings to cover at least one month of living expenses. Figure 32 shows that 34.5% of households having members with disabilities have savings to cover expenses for at least one month, slightly better in comparison to households without such condition. In Lombok, West Nusa Tenggara, besides savings, people with disabilities, who lost their job, also rely on new job opportunities provided by nongovernmental organization initiatives. These jobs enable them to earn money for daily living during the COVID-19 pandemic (Kustiani, 2020).

2.5.2 Borrowing

Households can also borrow from external sources, but it also indicates the households’ financial vulnerability. As shown in Figure 11, more than half of the households currently have outstanding debts or installment loans, and 10.5% of these households just have gotten into them since the COVID-19 pandemic started. Figure 33 shows that the percentage of households with a new debt or installment loan since the outbreak of the COVID-19 pandemic is relatively smaller than...
the percentage of households that had it before the COVID-19 pandemic. By income group, households in the middle-to-low income groups are the ones with new debts or installment loans since the COVID-19 pandemic started. Nevertheless, debts can become a driving factor of households’ vulnerability, as it decreases their coping ability. Anderloni, Bacchiocchi, and Vandone (2012) found that households’ debt is one of the most significant determinants of their financial vulnerability and the effect is more pronounced when the household has consumer credit. When households’ income after debt payments is sparse, they are not able to save and so become more vulnerable to economic shocks.

Most households with children also have a debt or installment loan, and many of them have had it since before the COVID-19 pandemic. Figure 34 shows that many households with children have debts or installment loans, while many households without children do not have any. It is worrisome because 46.1% of households with children had debts or installment loans even before the COVID-19 pandemic started and there are 10.5% of households that have had it since the outbreak of the COVID-19 pandemic.

There is no significant difference between male- and female-headed households in terms of having debts, but the sources of the debts might be different. From this study, we learn that 48% of female-headed households do not have any debts, while for male-headed households, the percentage is only 44%. One study suggests that male borrowers tend to borrow money from formal institutions, while female borrowers tend to borrow money from informal sources, potentially inhibiting them from improving their well-being through loans (Carpio, 2017). Another study suggests that females choosing informal loans may be because of low education level or little experience in interacting with formal institutions (Farida et al., 2015).

Source: Calculated from the rapid assessment survey, 2020.
2.5.3 Accumulating or Selling Assets

Households can also choose whether to accumulate or to sell their assets as their coping strategy, but the vulnerable ones might not have assets at all. We asked which asset the household will sell first to make ends meet to identify the households’ asset ownership and how they use it as a coping mechanism. Of all the households, 44% of them chose “others”, which indicates three possibilities. First, they prefer to sell other things to sell. Second, they prefer to accumulate and not sell any of their assets. Third, they are not able to sell anything because they do not have any assets, which might be possible for households in the lowest income group.

Different income groups also have different preferences. The percentage of households that will sell gold or jewelry are relatively high (44.4%). By income group, Figure 36 shows that the percentage is quite high in the middle and second-highest income groups. Some households in the lowest income group also prefer to sell gold or jewelry (12.6%), but the percentage for selling their livestock is higher (15.9%). However, none of female-headed households chose to sell their gold or jewelry. Other than the option of “Others”, 26% of female-headed households prefer to sell electronic devices. Meanwhile, another finding is from the households in the highest income group, as 50% of these households opt for selling their vehicles.

<table>
<thead>
<tr>
<th>Income Group</th>
<th>Gold or jewelry</th>
<th>Electronic devices</th>
<th>Vehicles</th>
<th>Livestock</th>
<th>Others</th>
</tr>
</thead>
<tbody>
<tr>
<td>Under 1 Million Rupiah</td>
<td>12.6</td>
<td>11.3</td>
<td>6.6</td>
<td>15.9</td>
<td>53.7</td>
</tr>
<tr>
<td>1 – 2.5 Million Rupiah</td>
<td>26.0</td>
<td>15.0</td>
<td>9.0</td>
<td>13.5</td>
<td>36.5</td>
</tr>
<tr>
<td>2.5 – 5 Million Rupiah</td>
<td>46.4</td>
<td>12.4</td>
<td>10.3</td>
<td>6.2</td>
<td>24.7</td>
</tr>
<tr>
<td>5 – 10 Million Rupiah</td>
<td>51.1</td>
<td>4.4</td>
<td>22.2</td>
<td>2.2</td>
<td>20.0</td>
</tr>
<tr>
<td>Over 10 Million Rupiah</td>
<td>25.0</td>
<td>8.3</td>
<td>50.0</td>
<td></td>
<td>16.7</td>
</tr>
</tbody>
</table>

Source: Calculated from the rapid assessment survey, 2020.
2.5.4 Practicing Religion

Teenagers resorted to spiritual-based efforts to deal with the post-traumatic impact of the disasters. Spiritual or faith-based approach is believed to help the survivors of the disasters to cope with their traumatic impact. A study from Anika, Yusuf, and Tristiana (2019) notes that the teenagers in Lombok, West Nusa Tenggara, turned to religious activities to dispel fear and other negative feelings. Teenagers performed religious practices more as an attempt to get closer to God in order to achieve calm, patience, and resilience in facing the earthquake and its aftermath. Another study also finds that religions affected post-disaster adaptation in adolescents (Wu in Anika, Yusuf, and Tristiana, 2019). Getting closer to God by performing various forms of worship according to one’s religion is seen to play an important role in helping them to adapt to the negative impacts of the 2018 natural disasters. Besides, getting engaged in the community, such as gathering with friends, allows them to share their feelings and trauma. Mutch and Marlowe (2013) highlighted that gathering and chatting with friends about the disaster helped put the disaster into perspective, allowing individuals to start processing the event and making sense out of it.

2.6 The Role of External Support

External support in the form of assistance from neighbors, extended families, and government programs is important to help vulnerable households to cope with the impact of the disasters. In response to the COVID-19 pandemic, the government has launched a massive nonregular social assistance plan for vulnerable households in the form of cash, staple foods, and electricity discounts that should cover at least 30 million households (Ministry of Finance, 2020). In this study, we asked households if they received assistance from their neighbors or extended families, and whether they received these three types of social assistance programs: cash transfers, food assistance, and electricity bill discounts or subsidies.

2.6.1 Assistance from Neighbors or Extended Families

Social capital in a society plays an important role in supporting the vulnerable households; however, the nature of the COVID-19 pandemic is different. Figure 37 shows that 21.8% of households...
in the lowest income group received assistance from neighbors or extended families. The percentage is relatively low given the impacts of the pandemic. A study conducted by Empatika (2020) finds that in East Lombok, most people in the community experienced income shocks because of social restrictions, but received less assistance than they did after the 2018 disasters.

### 2.6.2 Cash Transfer and Food Assistance Programs from the Government

Half the households received cash transfers or food assistance, and most used it for groceries. About 42.6% of households received cash transfers and 49.8% of households received food assistance. Figure 38 shows that 21% of households in the lowest income group already received cash transfers or food assistance prior to the COVID-19 pandemic.

Of all households that received cash transfers, 70.4% spent them to buy groceries or food, and 20.9% used them to pay for education or health expenses.

One-fourth of the low-income households did not receive social assistance, and this signals a problem in the targeting process. At least 77% of households with an income of less than IDR 2.5 million have received both types of assistance. The figure also shows that there is a small percentage of households with higher incomes that received cash transfers or food assistance. This finding shows that there is a problem with identifying the targets for the programs’ disbursement. Oley (2020) examines two problems in the distribution of the COVID-19 pandemic-related social assistance. The first problem is the lack of coordination and unclear mechanism for distributing the social assistance, while the second problem is the inaccuracy of data on social assistance recipients.

More female-headed households are covered by the government’s cash transfer assistance program. Sixty-one percent of female-headed households received cash transfers, while only 41.9% of male-headed households received them. This finding aligns with the finding of Rahmitha et al. (2016) which reveals that female-headed households were covered more than male-headed ones in only certain types of assistance from the government. This happens because many female-headed households are considered poor households in their communities.

People with disabilities also face difficulties in accessing the assistance programs because of stigmatization and social exclusion. The COVID-19 pandemic response and assistance plans often leave behind people with disabilities (Root, 2020). In various policies regarding the COVID-19 pandemic response, people with disabilities are still marginalized so that they find it difficult to access important information related to COVID-19 pandemic and its assistance programs, including access to fulfilling their economic needs (Radissa et al., 2020). Besides, the implementation of cash transfer assistance programs for this vulnerable group still faces many challenges.
Figure 38. Cash transfers (left) and food assistance (right) received from the government by income group (%)

<table>
<thead>
<tr>
<th>Income Group</th>
<th>Under 1 Million Rupiah</th>
<th>1 - 2.5 Million Rupiah</th>
<th>2.5 - 5 Million Rupiah</th>
<th>5 - 10 Million Rupiah</th>
<th>Over 10 Million Rupiah</th>
</tr>
</thead>
<tbody>
<tr>
<td>A. CASH TRANSFER</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>21.0</td>
<td>14.5</td>
<td>7.2</td>
<td>4.4</td>
<td>0.0</td>
</tr>
<tr>
<td></td>
<td>31.9</td>
<td>49.5</td>
<td>6.2</td>
<td>95.6</td>
<td>100.0</td>
</tr>
<tr>
<td></td>
<td>47.1</td>
<td>59.5</td>
<td>86.6</td>
<td>100.0</td>
<td>100.0</td>
</tr>
</tbody>
</table>

Figure 39. Cash transfers received from the government by household head’s gender (%)

<table>
<thead>
<tr>
<th>Household Head's Gender</th>
<th>Female-Headed Households</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>38.7</td>
</tr>
<tr>
<td></td>
<td>58.1</td>
</tr>
</tbody>
</table>

Source: Calculated from the rapid assessment survey, 2020.
Research conducted by Ardhian and Rothe (2020) in Central Sulawesi finds that the identification of households with people with disabilities for inclusive cash transfer programs took a longer time. This obstacle occurred because many households hid family members with disabilities, out of fear of stigmatization. The same study also finds that some parents of children with disabilities stated that they did not intend to obtain the family card or personal identification card to open a bank account for cash disbursement. This condition could occur because they did not believe that their children could ever engage in social or economic activities.

2.6.3 Electricity Subsidy/Discount Programs from the Government

Many vulnerable households also did not receive electricity bill discount or subsidy program, and this indicates inability to access the program. Most households in the lowest income group are 450 volt-ampere (VA) and 900 VA electricity customers. However, only 64.2% of households with 450 VA electricity power received free electricity and 29.9% of households with 900 VA electricity power received electricity bill discounts. This finding indicates that some poor households are not able to access the incentive. Households using prepaid electricity token must access the state company’s website or contact the WhatsApp number, but they are poor and may not have a smartphone or access to the internet to go to the website or to contact the WhatsApp number.

2.6.4 Households’ Response to the Government’s Social Assistance Program

Most households give positive reviews of the government’s social assistance program, but not all households are satisfied. There are 72.4% of households in this study that received at least one assistance program. Meanwhile, households that received more programs give more positive reviews. Figure 41 shows that 31.9% of households that received three types of assistance from the government perceive that the programs are very helpful. In contrast, only 16.5% of households that received one type of assistance have the same perception. On the other hand, there are also households that perceive the programs as not really helpful. Hastuti, Ruhmaniyati, and Widyaningsih (2020) found that beneficiaries of the food assistance program do not have a choice to select the goods/groceries, as they only receive an aid package prepared beforehand. In fact, there are beneficiaries who sell it because they have different needs and preferences. Some beneficiaries also do not have a refrigerator, so they have to immediately consume the groceries. Empatika (2020) also found that households prefer cash assistance because it gives them more flexibility on how to spend it.

Social assistance from the government covers more households with children aged five or younger. As shown in Figure 42, 78.9% of households with children aged five or younger were covered by one of the social assistance programs. If managed well by the households, the social assistance will help the households to fulfill the nutrition that is needed by children aged five or younger. In addition, Figure 43 shows that 22% of households with children, which received cash transfers, used the assistance for education or health expenses. It indicates that education or health expenses are substantial expenses for households with children and the social assistance reduces the households’ out-of-pocket spending on education or health.

Female-headed households use a larger portion of the cash transfers for education or health expenses. Figure 44 shows that one-fourth of the female-headed households spent them for education or health expenses. A study by Thomas (1993) finds that incomes in the hands of women tend to be associated with more expenditure on investments in human capital. The same study also highlights that resources in the hands of women have a bigger impact on the health of their children.
Households with children aged 5 or younger

<table>
<thead>
<tr>
<th>Income Group</th>
<th>Received social assistance</th>
<th>Did not receive any social assistance</th>
</tr>
</thead>
<tbody>
<tr>
<td>UNDER 1 MILLION RUPIAH</td>
<td>4.1</td>
<td>43.7</td>
</tr>
<tr>
<td>1 - 2.5 MILLION RUPIAH</td>
<td>11.5</td>
<td>49.5</td>
</tr>
<tr>
<td>2.5 - 5 MILLION RUPIAH</td>
<td>34.0</td>
<td>51.5</td>
</tr>
<tr>
<td>5 - 10 MILLION RUPIAH</td>
<td>75.6</td>
<td>20.0</td>
</tr>
<tr>
<td>OVER 10 MILLION RUPIAH</td>
<td>75.0</td>
<td>58.3</td>
</tr>
</tbody>
</table>

Notes: There are 642 households that became the beneficiaries of the social protection programs: 242 households received aid from one assistance program, 284 households from two assistance programs, and 116 households from three assistance programs.

Figure 42. Social assistance received by the presence of children aged five or younger (%)

Figure 43. Spending of cash transfers by the presence of children (%).

Source: Calculated from the rapid assessment survey, 2020.
Each income group also has different preferences regarding the type of assistance program that they need other than cash transfer. Figure 45 shows that cash or goods in the form of business capital is the main preference for households in the lowest income group, followed by food assistance. A relatively high percentage of food assistance programs indicates that around 30% of households in the lowest income group have difficulties in fulfilling their food consumption needs. Most households in the second-lowest income group also prefer business capital and food assistance, with 10% of households preferring credit deferment programs. A study conducted by Empatika (2020) in Lombok Timur finds that rice is one of the biggest expenses for families, as family members consume more food during stay-at-home period and rice is also needed for social events in the community. Interestingly, 48.9% of households in the second-highest income group prefer electricity bill discounts. This finding confirms the news in June 2020 which reports that households’ electricity consumption increased by 13%–20% and resulted in higher spending on electricity bills (Rachmawati, 2020). Meanwhile, many households in the highest income group chose “Others,” which can mean that they do not need any assistance at all.

2.7 Impacts of the Double Disasters

Many households are affected by both the 2018 natural disasters and the COVID-19 pandemic. This study finds that households negatively affected by the 2018 natural disasters tend to be also adversely affected by the COVID-19 pandemic. It is important to note that this finding reflects the households’ socioeconomic condition, not the causal relationship between the impacts of the two disasters.

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8 This study’s findings might be because the question took out “cash money” from the list of options.
Households which suffered heavy economic losses because of the 2018 natural disasters also tend to suffer heavy economic losses during the COVID-19 pandemic. Figure 46 shows the relationship between the most significant impact of the 2018 natural disasters and that of the COVID-19 pandemic. Most households (95%) perceiving losses of jobs/income as the most significant impact of the COVID-19 pandemic were also affected by the 2018 natural disasters. Meanwhile, only 70%–76% of households answering other forms of impacts were affected by the 2018 natural disasters. There are at least two possible explanations for this finding. First, the 2018 natural disasters caused heavy economic losses and made the households vulnerable during the COVID-19 pandemic. Second, the households were already vulnerable prior to the 2018 natural disasters and the shock from the double disasters made it worse. Unfortunately, we cannot conclude which explanation holds because we do not have the data of the sampled households prior to the 2018 natural disasters. Indeed, Figure 47 shows that households that already recovered from the impact of the 2018 natural disasters also suffer from various impacts of the pandemic.

Many vulnerable households also suffer from the double disasters. If we exclude the answer “Others” regarding the impacts of the COVID-19 pandemic, both disasters affected 77.5% of households in this study. By income group, 83.7% of households in the lowest income group and 78% of households in the second-lowest income group are affected by both disasters (see Figure 48). Both disasters also affected 74.2% of female-headed households (see Figure 49) and 78.9% of households having members with disabilities (see Figure 50).

The double disasters also affected many households with children and had them caught in the cycle of poverty. Figure 51 shows that 78.6% of households with children are affected by both
Losses of Jobs/Incomes

- 383 Loss of Residence
- 277 Loss of Job/Income
- 75 Loss of Valuable Items

Losses of Family Members

- 35.5
- 50.0
- 32.1

Psychological Strain of Household Members

- 64.5
- 50.0
- 67.9

Difficulties to Access Education or Health Services

- 30.3
- 81.8
- 69.7

Others

- 76
- 171
- 192

Figure 46. Relationships between the most significant impacts of the 2018 natural disasters and the COVID-19 pandemic (n)

- Loss of Residence: 383
- Loss of Job/Income: 419
- Loss of Valuable Items: 6
- Loss of Family Members: 171
- Psychological Strain of Household Members: 192
- Difficulty to Access Education or Health Services: 99
- Others: 75

Source: Calculated from the rapid assessment survey, 2020.

Households' economic recovery status after the 2018 natural disasters by the most significant impact of the COVID-19 pandemic (%)

- Losses of Jobs/Incomes: 35.5%
- Losses of Family Members: 50.0%
- Psychological Strain of Household Members: 32.1%
- Difficulties to Access Education or Health Services: 18.3%
- Others: 30.3%

Source: Calculated from the rapid assessment survey, 2020.
disasters. As mentioned in the previous section, households with young children tend to suffer economically more than households without children. Consequently, the development of children who grew up in a household with a vulnerable socioeconomic status might be disrupted. Harper, Marcus, and Moore (2003) found that poor nutrition in early childhood can threaten the future well-being of the children because it restricts their ability to fight diseases, and increases the possibility of their suffering from sickness. Moreover, lack of nutrition can severely impair cognitive development, which may cause the intervention in education to break the poverty cycle to not be successful. Rizky, Suryadarma, and Suryahadi (2019) also found that children who spent their education years in poverty earned 87% less than children who grew up in a prosperous family. Differences in skills set or living environment are not the only factors that affect the wage difference; thus, breaking the cycle of poverty would require a complex

<table>
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<tr>
<th>Income Group</th>
<th>No (%)</th>
<th>Yes (%)</th>
<th>No (%)</th>
<th>Yes (%)</th>
<th>No (%)</th>
<th>Yes (%)</th>
<th>No (%)</th>
<th>Yes (%)</th>
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<tbody>
<tr>
<td>UNDER 1 MILLION RUPIAH</td>
<td>83.7</td>
<td>16.3</td>
<td>78.0</td>
<td>22.0</td>
<td>59.8</td>
<td>40.2</td>
<td>46.7</td>
<td>53.3</td>
</tr>
<tr>
<td>1 - 2.5 MILLION RUPIAH</td>
<td>16.3</td>
<td>83.7</td>
<td>59.8</td>
<td>40.2</td>
<td>53.3</td>
<td>46.7</td>
<td>50.0</td>
<td>50.0</td>
</tr>
<tr>
<td>2.5 - 5 MILLION RUPIAH</td>
<td>22.0</td>
<td>78.0</td>
<td>53.3</td>
<td>46.7</td>
<td>50.0</td>
<td>50.0</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5 - 10 MILLION RUPIAH</td>
<td>40.2</td>
<td>59.8</td>
<td>46.7</td>
<td>53.3</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>OVER 10 MILLION RUPIAH</td>
<td>53.3</td>
<td>46.7</td>
<td>50.0</td>
<td>50.0</td>
<td></td>
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</tbody>
</table>

Figure 48. Households affected by the double disasters by income group (%)
Source: Calculated from the rapid assessment survey, 2020.

<table>
<thead>
<tr>
<th>Gender</th>
<th>No (%)</th>
<th>Yes (%)</th>
<th>No (%)</th>
<th>Yes (%)</th>
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<tr>
<td>FEMALE-HEADED HOUSEHOLDS</td>
<td>25.6</td>
<td>74.2</td>
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<td></td>
</tr>
<tr>
<td>MALE-HEADED HOUSEHOLDS</td>
<td>22.4</td>
<td>77.6</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Figure 49. Households affected by the double disasters by household head’s gender (%)
Note: Be advised that there is a sharp difference in the number of sample households between groups.

<table>
<thead>
<tr>
<th>Disability</th>
<th>No (%)</th>
<th>Yes (%)</th>
<th>No (%)</th>
<th>Yes (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>HOUSEHOLDS HAVING MEMBERS WITH DISABILITIES</td>
<td>21.1</td>
<td>78.9</td>
<td></td>
<td></td>
</tr>
<tr>
<td>HOUSEHOLDS HAVING NO MEMBERS WITH DISABILITIES</td>
<td>22.8</td>
<td>77.2</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Figure 50. Households affected by the double disasters by the presence of members with disabilities (%)
Source: Calculated from the rapid assessment survey, 2020.
The socioeconomic impact of the COVID-19 pandemic in post-disaster areas.

<table>
<thead>
<tr>
<th>Losses of Homes</th>
<th>Losses of Valuable Items</th>
<th>Losses of Jobs/Incomes</th>
<th>Losses of Family Members</th>
<th>Unaffected by the Disaster</th>
</tr>
</thead>
<tbody>
<tr>
<td>No</td>
<td>Yes</td>
<td>No</td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td>58.0</td>
<td>42.0</td>
<td>16.0</td>
<td>84.0</td>
<td>65.7</td>
</tr>
</tbody>
</table>

Source: Calculated from the rapid assessment survey, 2020.
Although it may seem spurious to compare households’ income in January 2020 and the impact of the 2018 natural disasters, it may give us a hint about the households’ economic condition prior to the disasters. Koirala et al. (2019) found that prior to the 2018 natural disasters, many household members in Central Sulawesi and West Nusa Tenggara worked as daily workers, such as in construction and mining, or as farm laborers. Then, when the disasters hit, the labor market was disrupted and unemployment level increased (REACH, 2019). Therefore, external support is needed to help the vulnerable households to cope with the impacts of the present and upcoming disasters.

According to these findings, we presume that households that suffered heavy economic impacts of the double disasters are likely to have been economically vulnerable before the 2018 natural disasters. In January 2020 prior to the COVID-19 pandemic, 58% of households that lost their homes and 65.7% of households that lost their jobs/incomes because of the 2018 natural disasters had a monthly income of less than IDR 1 million (see Figure 52). Many households (66.4%) that lost their jobs/incomes from the COVID-19 pandemic also had an income of less than IDR 1 million in January 2020 (see Figure 53). This implies that some households have faced difficulties in improving their socioeconomic condition in between the disasters.

9 Pakpahan, Suryadarma, and Suryahadi (2009) proved that the cycle of poverty does prevail in Indonesia, as their findings show that children who grew up in a chronically poor household are 35 percentage-point more likely to remain in poverty as an adult compared to children from well-off families.

10 Although it may seem spurious to compare households’ income in January 2020 and the impact of the 2018 natural disasters, it may give us a hint about the households’ economic condition prior to the disasters.
3 CONCLUSION AND RECOMMENDATION

3.1 Conclusion

This study provides information on the impact of the COVID-19 pandemic on households in the 2018 disaster-stricken areas in Central Sulawesi and West Nusa Tenggara. Most households in this study are vulnerable, as around 29% of these households in each province have not fully recovered from the disasters and 18% of them can only rely on social assistance and family support. The social restrictions applied in response to the COVID-19 pandemic not only affect the households’ incomes and employment, but also their food security and access to education and health services. These households also suffer from psychological strain. As these households belong to different income groups and have different vulnerable members to take care of, the COVID-19 pandemic affects each household differently.

For almost half the households, the most significant impact of the COVID-19 pandemic is loss of job/income. At the end of July or in early August, more than 82% of these households had a monthly income of less than IDR 2.5 million, which is inadequate to have a decent living. Around 68% of these households also had lower incomes in June/July compared to January 2020. Reductions in income are more predominant in female-headed households because most of them have low incomes and informal employment. The income shock also disrupts the food security of households in the lowest income group and risks the children’s development. On the one hand, one-third of households with children have eaten less and some cannot afford to consume protein, fruit, and vegetables regularly. On the other hand, there is an increase in children’s snacking,
as they try to find a way to cope with boredom and stress for being at home for too long. Thus, these children are at risk of consuming less healthy food which may lead to undernourishment or even obesity. Meanwhile, half of households having members with disabilities also find their daily activities and employment disrupted. Many of them also experience a decrease in their incomes in comparison to their incomes in January 2020.

The second most significant impact is the disruption in access to education and health services. Children’s access to education was disrupted in the 2018 natural disasters and now they are experiencing further disruption because of the “learn from home” policy. Children, especially in rural areas, cannot have adequate learning because their school, teachers, and parents have difficulties with the learn from home system and because of lack of telecommunication infrastructure in the areas. The COVID-19 pandemic has also disrupted access to health services, particularly among households with elderly members or members with chronic diseases who need regular treatment or therapy. Households with children aged five or younger also face a disruption to their access to immunization services for their children. The social restrictions also disrupt the regular treatment and mental health services for household members with disabilities.

The third most significant impact is the psychological strain which can be caused by economic shocks or increased burden in employment and caretaking. Many households in higher income groups perceive psychological strain as the most significant impact. There is also a higher percentage of male-headed households with psychological strain than that of female-headed ones. It is possible that this is because they must cope with income shocks and caretaking roles. Our finding, however, does not necessarily
mean that the lower-income households or female-headed households are not stressed at all. Rather, many of them suffer more from losing jobs/incomes. Children also experience psychological strain from changes in their daily lives.

Unfortunately, low-income households do not have adequate coping strategies to withstand the impact of the COVID-19 pandemic. Most low-income households do not have savings, and more than half of these households have outstanding debts. External support, such as government’s social programs or assistance from neighbors and families, is crucial in mitigating the impact of the COVID-19 pandemic for these households. More than 70% of households received at least one social assistance program despite issues in the disbursement process, as 47% and 40.9% of households in the lowest income group have not received either cash transfers or food assistance, respectively. Furthermore, the electricity subsidy program only reached 64.2% of 450 VA households and 29.9% of 900 VA households.

On the other hand, female-headed households and households with children aged five or younger are covered more by the government assistance than their counterparts. This will greatly help them to fulfill the children’s needs, such as nutrition, education, or health expenses. Lastly, the households in this study mentioned that their fundamental needs are for business capital and food assistance, a signal that they face severe employment disruptions and food insecurity.

Regarding the impact of the double disaster on households, this study finds that households negatively affected by the 2018 natural disasters tend to be also adversely affected by the COVID-19 pandemic. Furthermore, higher percentages of low-income households and households with children are found suffering from the double disasters. The households’ vulnerability might hamper children’s development and trap them in poverty. Based on these findings, we presume that the households were vulnerable prior to the 2018 natural disasters.

3.2 Recommendations

Based on this study’s findings, we propose several recommendations for the Government of Indonesia, village authorities, and local community members.

Firstly, we recommend the use of a community-based approach to document vulnerable households and to disburse the assistance.

Helping the poor and vulnerable households through various kinds of social assistance is crucial to enable them to cope with and recover from this downturn. However, our survey result suggests that many vulnerable households still do not receive cash transfers or food assistance. This is possibly because of lack of coordination and outdated government database regarding vulnerable households (Hastuti, Ruhmaniyati, and Widyaningish, 2020; Oley, 2020). While the COVID-19 pandemic makes the government more aware of the importance of good and updated data, updating the database take a considerable amount of time and resources. Therefore, we recommend that the government work together with
village authorities and local community members in neighborhood units to document vulnerable households and to disburse the assistance. This recommendation is based on Kurniawan’s (2020) study which finds that village authorities are capable of managing the disbursement, in which village authorities and local community members work together to document which households need assistance and provide them with cash assistance sourced from the Village Fund (Dana Desa) if these households are not covered by the government’s assistance.

For targeting people with disabilities, the related stakeholders in consultation with village authorities should hold a public community meeting to introduce the program objectives and beneficiary criteria. People with disabilities or their caregivers should be invited and encouraged to participate in the meeting to raise their voice and needs. The stakeholders must ensure that people with disabilities could attend the meeting together with their caregivers for translation of information and support them to participate in it. This recommendation has the following implications.

1. The government will have updated data on vulnerable households and can use it for targeting the beneficiaries of social assistance programs.
2. Village authorities and local community members can better understand their own community and their ability to manage their resources. This will lead them to acting efficiently and to reducing the old habit of merely waiting for and following orders from higher authorities.
3. Vulnerable households have more opportunities to be covered by the assistance.

Secondly, we recommend that village authorities and local community members support education. The COVID-19 pandemic has revealed that education is not just the responsibility of schools and teachers and that we must innovate to allow
children to have proper education. With limited telecommunication infrastructure, village authorities and local community members in neighborhood units can work together with schools and teachers to:

1. identify and list children in the community that need education (not only existing school students);
2. identify and list community members who can and are willing, to assist schools and teachers in providing learning materials, in managing the learning session, and other supporting roles;
3. assess children’s numeracy and literacy skills;¹¹
4. create small groups of children with similar numeracy and literacy skills; and
5. plan regular home-visit schedules and inform it to their parents.

Support from village authorities and local community members will ease the parents’ burden in educating their children because not all parents can teach their children well. Ideally, parents should be able to communicate with schools and teachers to help them understand what they can do to support their children and to keep up with their assignments.

**Thirdly, the government should provide adequate telecommunication infrastructure and open source technologies for teaching and learning.** The digital solutions need to place equity and inclusion at the center to ensure that all children can benefit from them (United Nations, 2020). Therefore, government and all stakeholders need to work together to remove technological barriers by investing in digital infrastructure and lowering connectivity costs. In addition, low-tech and no-tech approaches should not be forgotten for the students, especially the most marginalized ones. It is also important to ensure that students have stronger parental support and greater availability of learning materials.

**Fourthly, we recommend that the government works together with health service providers to ensure continued access to basic health services.** The government’s response to the COVID-19 pandemic should be integrated into the health services to ensure that vulnerable groups can access the treatments they need. They also need to keep the immunization programs running even during the pandemic by making regular service schedules and carrying it out in a separate location from the public health facilities. We recommend that the government provides support for health workers to enable them to optimize the home care visit to reach the vulnerable households, especially those living in areas with poor infrastructure. Community visits by health officers is the safest way for parents and children, rather than going to health centers (Kawal COVID-19, 2020). In areas with good access to telecommunication services, health workers can use telemedicine, such as via telephone or WhatsApp, to monitor women and children’s health. A great example of government support has been done by the government of the

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city of Surabaya, East Java (Tribunjatim.com, 2020). The city government appointed a special health facility for pregnant women services equipped with a neonatal intensive care unit (NICU) in a non-COVID-19 referral hospital to minimize the risk of exposure to the virus. We recommend that government, health facilities, and health workers also cover the following issues.

a) Availability of alternative ways to access health services by considering time arrangement, place, and possible methods for consultation and therapy. This will ease the patient’s anxiety of catching COVID and help them to access the treatment they need.

b) Psychological support to relieve psychological strain, for both children and adults. This support should be easily and safely accessible. It can be in the form of remote care, such as via telephone, or support from peers and local community members.

c) Government’s assistance for people with disabilities. The government needs to expand their coverage of social assistance programs for people with disabilities by clearly identifying the needs of people with different types of disabilities.

Finally, the government and community must develop and agree on an integrated disaster response system to develop community resilience, especially in disaster-prone areas, such as in Central Sulawesi and West Nusa Tenggara. Efforts to develop the system should begin by integrating existing disaster risk reduction programs with the COVID-19 pandemic responses. The government and NGOs should then increase village authorities and local community members’ knowledge and awareness of, as well as strengthen their capacities in, humanitarian response and standards. In this way, local community members can be the first response team when a disaster strikes before reinforcement arrives. Their role becomes even more important if the community is in remote areas or in areas with a challenging topography, as the reinforcement might be delayed because of unexpected circumstances. It is equally important to understand the needs of vulnerable groups, including children, elderly people, and people with disabilities, in these disaster-prone areas. Village authorities and local community members should start collecting information on the vulnerable groups and develop a database.
LIST OF REFERENCES


INTRODUCTION

The Statistics Indonesia is collaborating with UNDP and UNICEF to conduct a Survey of the COVID-19 Pandemic Impact on the Community’s Socioeconomic Condition. This survey is administered to randomly selected households in several provinces in Indonesia. Your participation in this survey is critical because it will greatly help the Government understand socioeconomic impacts of the COVID-19 pandemic so as to formulate better policies for the Indonesian society.

This survey is voluntary as well as confidential and the result of the survey analysis will not display individual data. The data and information you give through phone interviews will be kept confidential and protected by the Law on Statistics. In addition, this survey has no connection with tax reports or other obligations. Households will not be charged for their participation in this survey.

Are you willing to take this survey? [YES/NO]

RESPONDENT’S INFORMATION MODULE

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<th>Variables</th>
<th>Questions</th>
<th>Answers Choices</th>
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<td>Choose the province you are located in</td>
<td>52. NUSA TENGGARA BARAT</td>
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<td></td>
<td>72. SULAWESI TENGAH</td>
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### BASIC INFORMATION MODULE

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2. Household head’s spouse  
3. Household head’s child or child-in-law  
4. Household head’s parent or parent-in-law  
5. Other adults |
| a2 | What is your sex?                                                        | 1. Male  
2. Female |
| a3 | How many household members eat and drink on a daily basis in your household? | 1. One person  
2. Two people  
3. Three people  
4. Four people  
5. Five people  
6. Six people  
7. Seven people  
8. Eight or more people |
| a4 | How many members of your household work to earn income?                   | 1. One person  
2. Two people  
3. Three people  
4. Four people  
5. Five people  
6. Six people  
7. Seven people  
8. Eight or more people  
9. None |
| a5 | How many members of your household are currently attending school or college? | 1. One person  
2. Two people  
3. Three people  
4. Four people  
5. Five people  
6. Six people  
7. Seven people  
8. Eight or more people  
9. None |
<table>
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<th>Answers Choices</th>
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<td>How many members of your household are 60 years old or older?</td>
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</tr>
<tr>
<td></td>
<td></td>
<td>2. Two people</td>
</tr>
<tr>
<td></td>
<td></td>
<td>3. Three people</td>
</tr>
<tr>
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<td></td>
<td>4. Four people</td>
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<td>5. Five people</td>
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<td>6. Six people</td>
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<td>7. Seven people</td>
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<td></td>
<td></td>
<td>8. Eight or more people</td>
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<tr>
<td></td>
<td></td>
<td>9. None</td>
</tr>
<tr>
<td>a7</td>
<td>How many members of your household are 5 years old or younger?</td>
<td>1. One person</td>
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<td></td>
<td></td>
<td>2. Two people</td>
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<td>3. Three people</td>
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<td>4. Four people</td>
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<td>7. Seven people</td>
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<tr>
<td></td>
<td></td>
<td>8. Eight or more people</td>
</tr>
<tr>
<td></td>
<td></td>
<td>9. None</td>
</tr>
<tr>
<td>a8</td>
<td>How many members of your household have a history of chronic diseases, such as diabetes, heart attack, hypertension, cancer, etc.?</td>
<td>1. One person</td>
</tr>
<tr>
<td></td>
<td></td>
<td>2. Two people</td>
</tr>
<tr>
<td></td>
<td></td>
<td>3. Three people</td>
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<tr>
<td></td>
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<td>4. Four people</td>
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<td>5. Five people</td>
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<td>6. Six people</td>
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<td>7. Seven people</td>
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<td>8. Eight or more people</td>
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<td>9. None</td>
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<td>a9</td>
<td>What is the current employment status of the main breadwinner in your household?</td>
<td>1. Self-employed without employees/assisted by family members</td>
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<td></td>
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<td>2. Self-employed with employees/non-permanent workers</td>
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<td>3. Working as a laborer, employee, or official</td>
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<td>4. Working odd jobs</td>
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<td>5. Unemployed/doing unpaid work</td>
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<tr>
<td>a10</td>
<td>What was the employment status of the main breadwinner in your household in January 2020?</td>
<td>1. Self-employed without employees/assisted by family members</td>
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<tr>
<td></td>
<td></td>
<td>2. Self-employed with employees/non-permanent workers</td>
</tr>
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<td>3. Working as a laborer, employee, or official</td>
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<td>5. Unemployed/doing unpaid work</td>
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<tr>
<td>a11</td>
<td>In the past month, what is the total monthly income of all members of your household on average?</td>
<td>1. Under IDR 1 million</td>
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<td>2. Between IDR 1 and 2.5 million</td>
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<td>3. Between IDR 2.5 and 5 million</td>
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<td>4. Between IDR 5 and 10 million</td>
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<td></td>
<td></td>
<td>5. Over IDR 10 million rupiahs</td>
</tr>
<tr>
<td>No</td>
<td>Questions</td>
<td>Answers Choices</td>
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</tr>
</tbody>
</table>
| a12 | Compared to January 2020, how is your household's monthly income on average? | 1. Increasing  
2. Constant  
3. Decreasing |
| a12a| In January 2020, what was the total monthly income of all members of your household on average? | 1. Under one million rupiah  
2. Between IDR 1 and 2.5 million  
3. Between IDR 2.5 and 5 million  
4. Between IDR 5 and 10 million  
5. Over IDR 10 million |
| a13 | Which health services does your household need and are most affected by the COVID-19 pandemic? | 1. Immunization  
2. Pregnancy, childbirth, and postpartum care  
3. Regular treatments or therapies  
4. Emergency services  
5. None |
| a14 | If there is a household member with disabilities, which activity will be most disrupted by the COVID-19 pandemic? | 1. Daily activities  
2. Work-related activities  
3. Regular treatments or therapies  
4. Mental health care  
5. No household members with disabilities or no interruption |

**FINANCIAL AND SOCIAL SECURITY MODULE**

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<tr>
<th>No</th>
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</thead>
</table>
| b1  | Has your household currently been receiving social assistance in the form of a cash transfer from the government? | 1. Yes, since last year  
2. Yes, since the COVID-19 pandemic  
3. No |
| b1a | What is most of the cash transfer used for? | 1. Buying groceries or food  
2. Paying debt or installments  
3. As business capital  
4. Paying education or health expenses  
5. Others |
| b2  | Has your household ever received food assistance (sembako) from the government? | 1. Yes, since last year  
2. Yes, since the COVID-19 pandemic  
3. No |
| b3  | Has your household ever received electricity subsidy/discount program? | 1. Yes, free electricity  
2. Yes, 50% discount on the electricity bill/token  
3. No |
| b4  | Which PLN electricity power category is installed in this house? | 1. 450 VA  
2. 900 VA  
3. 1,300 VA  
4. 2,200 VA  
5. More than 2,200 VA  
6. Not using PLN electricity |
<table>
<thead>
<tr>
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<th>Answers Choices</th>
</tr>
</thead>
</table>
| b5 | How helpful is the social assistance from the government to fulfill daily needs of your household? | 1. Very helpful  
2. Quite helpful  
3. Not really helpful  
4. Did not receive assistance |
| b6 | Since April 2020, has your household received cash assistance/sembako from neighbors/extended families? | 1. Yes  
2. No |
| b7 | Does your household have sufficient savings to support the family?         | 1. Yes, it can support the family for at least 6 months  
2. Yes, it can support the family for at least 3 months  
3. Yes, it can support the family for at least 1 month  
4. Yes, it can support the family for less than 1 month  
5. Does not have savings |
| b8 | What is the status of the house you are living in?                        | 1. Self-owned house  
2. Parents/children/relatives’ house  
3. Others’ house without rents  
4. Lease/contract  
5. Others |
| b9 | If you have to sell an item to make ends meet, which item will be sold first? | 1. Gold or jewelry  
2. Electronic devices  
3. Vehicles  
4. Livestock  
5. Others |
| b10| Is there a member of your household who has debts or ongoing installment loans? | 1. Yes, since before the COVID-19 pandemic  
2. Yes, since the COVID-19 pandemic  
3. No |
| b11| Besides cash transfer, which government's program does your household need the most? | 1. Food assistance  
2. Electricity bill discounts  
3. Credit deferments  
4. Business capital assistance  
5. Others |
| b12| In the past month, has your household ever eaten less than it should because of lack of money? | 1. Yes  
2. No |
| b13| In the past month, has your household been able to still consume protein, fruits, and vegetables regularly? | 1. Yes  
2. No |
<table>
<thead>
<tr>
<th>No</th>
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<th>Answers Choices</th>
</tr>
</thead>
</table>
| c1 | In 2018, what was the most significant impact of the disaster on your household? | 1. Losses of homes  
2. Losses of valuable items  
3. Losses of jobs/incomes  
4. Losses of family members  
5. Unaffected by the disaster |
| c2 | After the disaster, what was the main source of income of your household? | 1. Business  
2. Employment  
3. Family support  
4. Social assistance  
5. Others |
| c2a| After the disaster, how long did it take to restore the household’s economy to the pre-disaster condition? | 1. Less than three months  
2. Three to six months  
3. Six to twelve months  
4. More than twelve months  
5. Household’s economy has not yet recovered |
| c3 | What is the most significant impact of the COVID-19 pandemic on your household? | 1. Losses of jobs/incomes  
2. Losses of family members  
3. Psychological strain on household members  
4. Difficulties to access education or health services  
5. Others |