

# Social protection Program Effect to Poor Household in Dealing with Natural Disaster; A study on Farmer and Labor Livelihood in mitigating the Flood Hazard

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## Abstract

The occurrence of natural disasters makes a double burden on poor people. Not only consider about the lack of existing welfare condition, but also the effect of natural hazard threatened their livelihood become more severe. However, social protection programs that primarily support poor people's basic needs give side effects to the livelihood in reducing the vulnerability caused by natural hazards. In Indonesia, a national broad safety net program called Program Keluarga Harapan (PKH) also includes a target of poor people in the risk-prone area. Through the crosstab analysis based on the primary data survey, this research aims to identify the effect of safety net programs like PKH as one of the social protections approaches in support mitigation of natural disaster in the poor community. The observation has been done in separate communities consisting of the farmer and cloth labor representing distinctive livelihood and characteristic area differences. Farmer lives in rural areas called Cilacap and batik labor (a traditional cloth) in the coastal urban area called Pekalongan. Comparing two different communities based on the occupation and living region can suggest the limitation and advantages of the PKH program in the context supporting livelihood resilience. It concludes that an intervention of PKH as social protection program for poor people can improve the mitigation process in dealing with a flood though the result show has different effect in the two communities which relate with the occupation and settlement characteristic.

**Keyword:** disaster risk reduction, social protection, poverty and resilience, Program Keluarga Harapan, livelihood resilience

## 1. INTRODUCTION

The severe effect of natural disasters has been perceived mostly by the poor since they are vulnerable to disruption. The adverse impact will mostly dislocate the livelihood of the poor and the marginalized population, such as loss of assets and income, which may also lead the poor to adopt negative coping strategies<sup>1)</sup>. It is like a vicious circle when disaster risk creates the probability of becoming poor(er) and, in the end, increasingly difficult to cope with future risk. If we discuss the

occurrence of natural disasters, climate change is one of the natural phenomena that effect become greater recently. Climate change is likely to have adverse significances on the economy and the labor force over the long term through its impact on the agricultural sector<sup>2)</sup>. Various effect of climate change happens in risk-prone areas such as floods and drought until sea level rise in the coastal area threads livelihood sustainability, especially for the low layer of society.

Natural disaster avoidance triggers less income via altering people's behaviour and thereby increases their probability of becoming poor<sup>3)</sup>. Therefore, the household's socioeconomic status determines its vulnerability to disaster<sup>4) 5)</sup>. The status can be seen from the livelihood in each household. As one aspect of resilience, a livelihood can capture the transformation and long-term change caused by disturbance. Borrowing the lens of livelihood intend to address the limits of adaptation strategies and the development needs of the poorest and most vulnerable people<sup>6)</sup>. Hence, livelihood is the critical entry for identifying and an intervention media to boost poor households' resilience.

The poor household needs external support to stimulate the coping strategies in dealing with disaster effects. The poor household has less capital, but it does not limit the determination to enhance their adaptive capacity. Social protection plays an essential role in strengthening systems' resilience in households or communities, achieving more significant equity, and supporting national human and economic development<sup>7) 8)</sup>. Social protection programs reduce poverty and inequality, help households manage risks, reduce the incidence and impact of shocks, including the natural disaster effect. Shortly social protection enhances opportunities to implement resilience-building measures.<sup>1)</sup>

Due to the threat of disaster, there will be 325 million impoverished people who could be living in the 49 countries most exposed to the full range of natural hazards and climate extremes in 2030<sup>9)</sup>. It includes Indonesia as one of the most countries categorize as high a risk-prone in South East Asia. The geological condition that can trigger tsunami or volcano eruption and the extreme climate event often happened in Indonesia as an archipelagic country. Regards the climate change event, the vulnerable population to poverty will increase by between 15% and 91% due to the increased flooding and drought associated with climate change<sup>10)</sup>. According to National Survey data, some areas with the percentage of the population affected by the disaster are above average national and a level the prevalence of the poor. In the general average affected population of the poor disaster reaches 13 percent or covers 3.61 million inhabitants. There are 18 provinces more than 10 percent of the poor are afflicted by disaster. Even in Aceh, the number reached nearly 60 percent<sup>11)</sup>.

In terms of poverty alleviation, Indonesia has implemented a social protection approach through a

safety net program called Program Keluarga Harapan (PKH). It has being implemented all national wide. The program assists the poor household in maintaining and improving the livelihood, including the household in risk-prone areas. This research is like to identify the extended function of the PKH program and whether it can also support poor people's adaptive capacity in dealing with the natural disaster.

Two different communities who are PKH beneficiaries that live in the risk-prone areas have been observed to show the daily asset and capabilities include the strategies when dealing with natural disasters. One is a farmer group in Cilacap, a rural area in the south part of Java island. Meanwhile, the other one is cloth labor in a coastal city named Pekalongan in North Jakarta. Both of these communities had to face the great flood in the past two years. Therefore it is interesting to identify more whether the benefit of the PKH program not only supports but also affects the adaptive and coping strategy to flood.

Hence, the structure of this paper consists of Introduction as background. Next are the literature and methods in observing the basic concepts and exploring the empirical case study. After that, a result and discussion comprise each community's livelihood characteristic, a comparison of impact and strategy in dealing flood between two communities.

## 2. LITERATURES AND METHODS

### 2.1 Poverty Nexus Disaster through Livelihood Lens

The adverse impact of natural hazards underpinned with classic poverty issues becomes an obstacle to achieving a sustainable, inclusive, and resilient society even though the relation between poverty and disaster seems vague. Whereas if we can see more detail, each issue likely to have a causal interrelationship. Longer-term impacts such as income decreased, a lower standard of living, unemployment because of hazards will be born disproportionately by the poorer segment of society<sup>4)</sup>. Meanwhile, poor people and structurally disadvantaged minorities are much less able to respond effectively to disasters<sup>12)</sup>.

Disaster shocks become a source of vulnerability to poverty<sup>13) 14) 15)</sup>. Not only because of the destruction but also avoiding the severely damaged increases people's probability of becoming poor. Therefore

poverty and disaster lead people to more vulnerable and less resilient. Some empirical cases show the connectivity between poverty and disaster include the climate change effect. In Senegal, households affected by a natural disaster were 25% more likely to fall into poverty between 2006-2011<sup>14</sup>). A positive correlation between low-income residents becomes victims because of lack of access to evacuation during the Katrina hurricane<sup>16</sup>).

The vulnerability to poverty increases due to natural disasters like a flood is determined by the household's livelihood characteristics and social and community-specific characteristics<sup>13</sup>). Poverty interferes with livelihood at the same time damaged by the impact of natural disasters. Livelihood can capture systemic transformation and long-term change caused by disturbance. The livelihood lens portrays households' capacity to cushion disturbances includes disaster impact) while maintaining or improving essential properties and functions.<sup>17) 18</sup>).

Livelihood itself consist of assets and capabilities/strategies. It is divided into human capital, social capital, economic capital, and physical capital<sup>19</sup>). The more households have they have, the wider the options available to them to secure their livelihoods<sup>20</sup>). Therefore needs strategies to maintain it in the middle of shocks. Livelihood is sustainable when it can cope with and recover from shocks or even stress, preserve or enhance its capabilities and assets while not undermining natural resources.<sup>21</sup>)

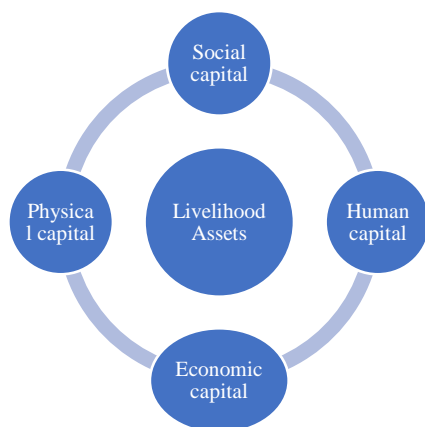


Fig.1 Livelihood Assets

## 2.2 Role of Social Protection in Indonesia

It assumes that being poor and vulnerable has a causal effect connection. Poverty traps become a thread if there less intervention to the vulnerable status. Achieving livelihood resilience should be boost by

external intervention like development programs in the community. It results in more impact on people's vulnerability and helps them escape poverty<sup>22</sup>). Moreover, it needs a comprehensive countermeasure to resolve both poverty and disaster impact at once, not only partially. It is hard to explain one without addressing the other. Hence the inter-connected approach might be the best option to tackle it.

One of the entry points to the existing program in poverty alleviation is social protection. It plays an essential role in strengthening systems' resilience could be households or communities, achieving more significant equity, and supporting national human and economic development<sup>7)8</sup>). The program contains to reduce poverty and inequality; social protection helps households manage risks, reduce the incidence and impact of shocks, and build humans. Sendai framework also stated that building up disaster resilience of the affected communities should consider developing social safety nets linked with livelihood enhancement programs<sup>23</sup>). It can support households not only to cope with shocks but also adapt to climate change and enhance resilience<sup>24</sup>). The implementation of social protection recently took a significant part of the policy to respond to natural disasters and climate shocks in Southeast Asia<sup>2</sup>).

Focussing on Indonesia, the poor people have reached 25,4 million in 2019, and the poverty level 9,14 %<sup>25</sup>). Through National Planning Agency or Bappenas report in 2019 reveal that 18 provinces with more than 10 % of the poor are also affected by disaster impact. The social protection approach through a safety net program is not a new thing. Indonesia has a national program known as Program Keluarga Harapan (PKH). It is a conditional cash transfer that has been implemented since 2007 and get improved until today. In the first stage of this program, it pursues to enhance the quality of human capital on households accessing specified health and education services. The PKH supports to reduce the burden of household/family expenditure for impoverished households (the immediate consumption effect) while investing in future generations through improved health and education (the human capital development effect)<sup>2</sup>). Back in 2016, PKH was the third-largest cash conditional transfer (CCT) in the world, with a massive and rapid scale-up in coverage, from 3.5 million families in 2015 to 6 million families (about 9% of the population) by the end of 2016 and 10 million

households in 2018 <sup>26</sup>). PKH provides a combination of short- and long-term assistance <sup>27</sup>). As it encourages beneficiaries to access and use essential health, nutrition, and education services, it is expected to promote future generations' opportunities and productivity <sup>26</sup>).

Along the time, PKH keeps improving. Shifting beyond the cash transfer, PKH also provides Family Development Sessions through monthly meetings targeting household wives. These information sessions aim in particular, at improving parenting skills, healthy behaviors, child protection, household financing, and productive economy, including saving behavior, financial literacy, and business advice.

A comprehensive approach of PKH also regards the unified database beyond it. The database determines the poverty family based on some indicators from two methods (central and bottom-up approach). Interlinked databases open the possibility of an integration program. This is an excellent point of PKH, so it is possible to connect with other issues or programs like disaster issues. It lacks adequate shock response or protective programs for poor and vulnerable households in Indonesia. Though such a program is necessary to prevent low-income families from falling into poverty in the event of shocks even though they face a high-risk thread of natural hazard. <sup>28</sup>) PKH possibly become the entry point tools to embody this comprehensive approach.

### 2.3 Methods

This paper uses a quantitative approach to identify the effect of PKH program on the livelihood of two poor household households poor household. As a small part of major research, it was elaborate from the result of questionnaires. The field survey was held in 2 regions in West Java, Indonesia, which has urban-rural characteristics. Pekalongan, a coastal city, concentrates many traditional cloth (batik) craftsmen. This city is one of the biggest producers areas of batik in Indonesia. However, the processing of this cloth mostly still conventionally and traditionally.

Meanwhile, Cilacap is a rural area that mostly rice fields and other agricultural areas. Both of this area was severe because of flood in the end 2019 and beginning 2020. The most vulnerable were the poor group in both regions: cloth labor in Pekalongan and farmer in Cilacap. In this research, these groups became target respondents in answering eight pages

of questionnaire regards the livelihoods indicator until the impact and strategy in dealing with the flood.

Using stratified random sampling, the 300 samples have been chosen and categorized in line with this research's purpose. The household becomes unit analysis to examine the program effect. Several steps had been implemented to limit the respondents. The first step to find the sample was to identify the prone area in each of the regions experiencing flood experience. It is derived from analyzing the flood risk map and reconfirm with field observation. The second step was to determine the poor household samples in the prone area and experienced a big flood. It was obtained from the database of the poor household that becomes PKH beneficiaries. The third step was to screen the targets based on occupation. This research limits only to farmer and cloth labor because their profession relies on weather conditions.

The total sample used to analyze the program impact is 300 respondents, each of region 150 respondents. All the samples are PKH beneficiaries from 2015 until 2019.

Moreover, the data processing using cross tab analysis uses Microsoft Excel as a tool to examine each variable. Since this paper is part of the whole dissertation research, it also uses part of the entire dissertation method. A cross tab analysis likely to compare the characteristic between farmer and cloth labor in each variable that measures.

## 3. DATA RESULT

This part consist is designated to gain the answer for this paper. It is to identify how the safety net program can empower the livelihood condition, minimize the effect, and support flood incident strategy in farmer and labor daily life.

### 3.1 Labour and Farmer in Pekalongan and Cilacap

In achieving the purpose of the research to identify the effect of PKH on the poor household in dealing with natural disaster, the author chose the best-case study of flood risk as representative. Basically, the sector that relies on nature and climate conditions will thread by environmental disruption like disaster and climate change. Agriculture, especially paddy rice, is one of the most affected caused by extreme climate changing <sup>29</sup>). As rice is the staple food in Indonesia, paddy fields exist in many fertile areas.

One of the biggest producers of paddy is the Cilacap region. But at the same time, based on National Disaster Agency information, some part of this area also includes a high-risk area, especially flood<sup>30)</sup>. In line with the risk map, the flood incident also acknowledges by the inhabitants of Nusawungu village. They recently said the frequency of floods more intense. From once a year become twice a year, and disrupt the crop. The most significant flood in the last three years was at the end of 2019.

In completing the case study, the author adds another occupation to identify the livelihood condition as representation. Batik cloth crafting is a famous heredity activity that famous for preserving the culture. The labor still using outdoor sunshine to operate their crafting become batik cloth. The process from painting, coloring until drying relies on the sunny weather. Thus, the business activity will ruin if extreme weather occurs like a flood. The famous city for doing this batik activity is Pekalongan. However, at the same time, this coastal city has experience with flood and sea level intrusion. Located in the northern part of Java island, Pekalongan is exposed to sea-level rise or local people named it as ROB flood combine with river overflow. The most significant flood happened at Pekalongan in January 2020; a combination event makes the flood type in Pekalongan quite different from Cilacap. A coastal flood typical usually categorized as a slow-onset phenomenon. Land subsidence, especially in northern Java, exacerbated the sea level intrusion and overflow river flood.

### 3.2 Demographic of Respondents

The data that input in the processing step is consists of 150 labor samples and 150 farmer samples. All of the samples are PKH beneficiaries. If they include in this program, it means they are categorized as a poor household. The respondents are mostly women from labor and farmer communities. PKH program involving the household wife as the key person to receive the aid. As a family caretaker, the household wife able to allocate and manage not only funding but also understanding the best way to achieve family welfare. Therefore, in this research, most respondents are women, but they were representing their household like the Fig.2 below. It means the housewife should answer some questions that belong to family or her spouse. So it can minimize the gender bias in answering the questions because it is base on

the experience in their own households.

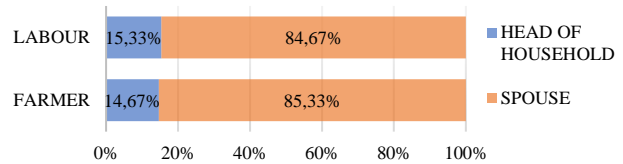


Fig.2 Respondent Status

All respondents are categorized as poor households and PKH beneficiaries, but they started following the PKH program in different years. As you can see in Fig.3, more than 65 % are the recipients since 2019, and the rest is the 2017 recipients. Meanwhile, around 53 % of farmer respondents are the recipients of PKH since 2018, and 39 % are 2017 recipients. It assumed if they were joining the program before the big flood happened, they already got used to managing their daily life with program intervention. Therefore, they already prepare for the disruption that could possibly come.

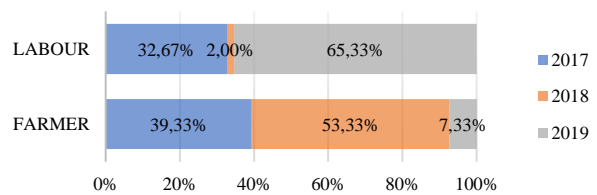


Fig.3 Start Become Beneficiaries

Several household members also considered knowing the characteristics of respondents. Both labor and farmer have 1-4 household members, as you can see in Fig.4. However, the labor community has more household members, around 5-8 people, rather than farmers. Moreover, almost all in both communities also have a dependent member. It can be their children or parents that still live in one household.

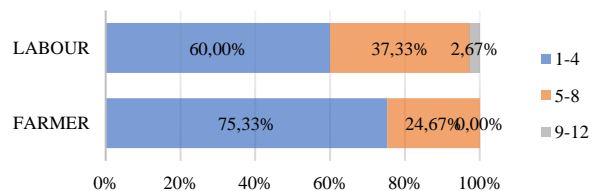


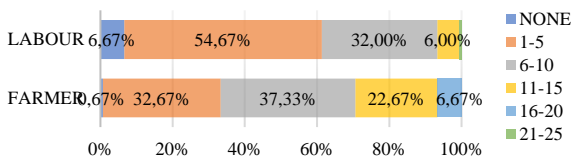
Fig.4 Number of Household Members

### 3.3 Livelihoods in Farmer and Labour

In capturing the livelihood characteristic, this paper is like to examine using sustainable livelihood

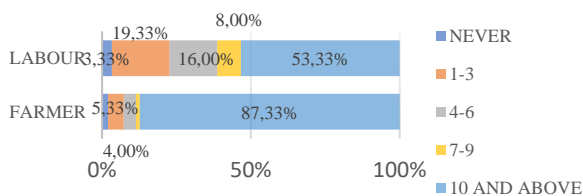
through poor households' capital assets. The variables consist of social capital, human capital, economic capital, and physical capital <sup>31) 21)</sup>. There are 34 questions to identify the livelihood status, but this paper will show the interesting and significant result to portray each capital in livelihood variables.

The first capital to examine the livelihood capability is from the social capital. It can be seen from some community activities that followed of respondents. Around 54% of labor respondents following only 1-5 times per month of community activities. Meanwhile, farmer community has 37% following 6-10 times per month as you can see in **Fig.5** The activities quite vary in farmer rather than in labor, but both of these occupation agree that community service or “kerja bakti – gotong royong” is the frequent activity they followed.



**Fig.5** Number of Community Activities

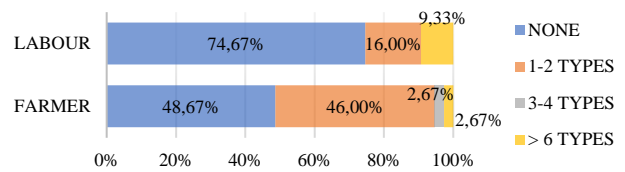
Deeper interaction among the community also happened when the household has difficulties. Basically, the neighbor in these two communities is ready to help since each community's dominant percentage is ten and above. However, in farmer has a bigger number 87 % instead in labor 53 % (**Fig.6**)



**Fig.6** Number People Helps

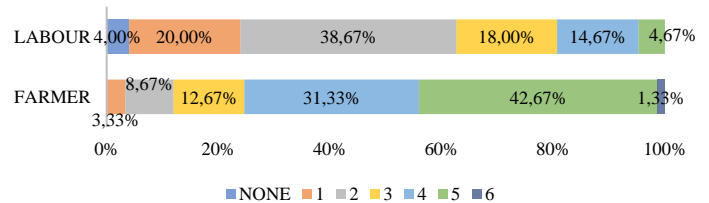
Second, capital is derived from human capacity. It identifies how the household has a chance and implements the additional knowledge to enhance the household's quality of life. One of the human capital indicators is following the capacity-building training. As we can see in **Fig.7**, labor less exposure with capacity training, because there are 74%, has no

experience. Then 46 % has experience with 1-2 types of capacity training.



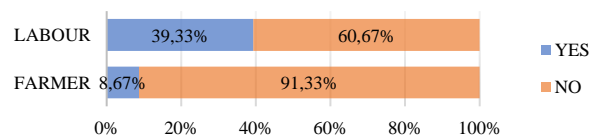
**Fig.7** Capacity Building Training

In daily life, both the farmer and labor community also get used to discussing disaster events, including the preparation. Almost all respondents claim it as their activity in the family. Both communities also stated that they already have an understanding in terms of time when floods occur as local knowledge. However, farmers have more activity types to prepare for the flood incident rather than labor, as we can see from **Fig.8**. The activity started from preparing food, getting information, save the document until preparing the medicines.



**Fig.8** Number of Preparation Types

The third capital is the economic capital. It will portray the condition of financial status from the farmer and labor households. Regards the regular income, both farmers and labor mostly have no regular income. Though farmer has a significant number than labor as seen in **Fig.9**. It is in line with the variance of jobs, the result very significant where 78% of the farmer has more than one job rather than labor than only 20 % (**Fig.10**)



**Fig.9** Regular Income

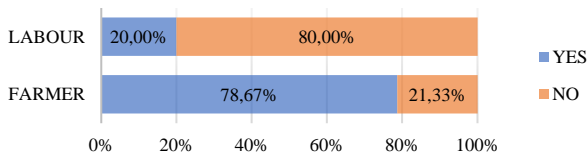


Fig.10 Have Others Job

Other significant results also capture by the income and saving indicators. In farmer dominantly under 1 million for each household and labor 1-1.5 million as seen in Fig.11 Even though the farmer has a lower income. Still, they can have more savings than labor like in Fig.12. Even for the labor around 76 % has no money-saving.

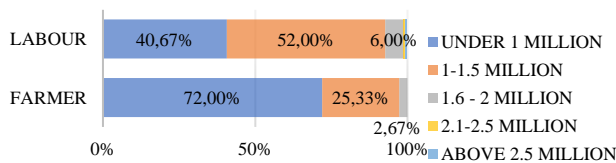


Fig.11 Household Income

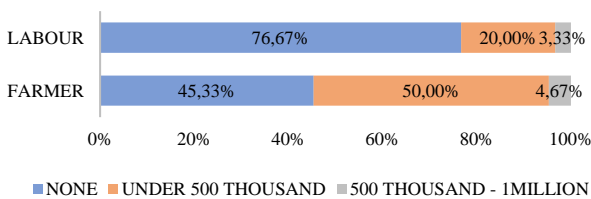


Fig.12 Household Saving

Fourth, capital is related to infrastructure assets. The ownership of the house is one of the critical indicators. Both labor and farmer have a high number of house ownership though farmer higher with 86 % compare with 66 % of labor as seen Fig.13

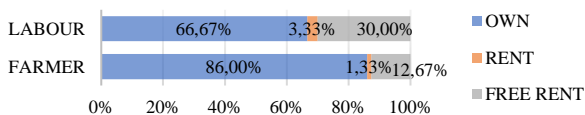


Fig.13 House Ownership

Fig.14 also describes the comparison of flood infrastructure surrounds the residential. In Pekalongan where labor lives, has quite an infrastructure development. Meanwhile, in Cilacap,

the farmer lives still less developed to mitigate the flood effect.

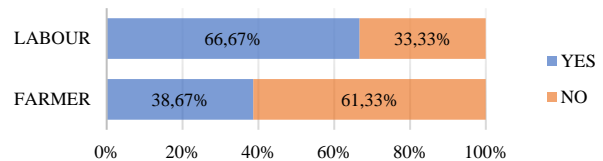


Fig.14 Flood Infrastructure

Based on the result of the livelihood indicators mentioned above, we can see the differentiation of livelihood status between farmer and labor even though they are similar to PKH program beneficiaries. A significant difference is shown in social interaction among the community. Although each community has a good relationship among neighborhoods, farmers have more solid connections than labor. It is also driven by the type of area they live in, which is an urban-rural characteristic. Since labor lives in the central city, Pekalongan is busier than a farmer in Cilacap, farmer more exposure to neighboring areas. Farmer livelihood has more preparation in dealing with disruption, including natural hazards like a flood. It shows that they have more exposure to capacity training and do preventive things before the flood. It is in line with the economic capital where the farmer has a diverse income source rather than labor. Since the farmer in this research is categorized as a peasant, they have more chance to have other income. It is different from cloth labor, where they find other jobs because their skill only focuses on cloth crafting. Moreover, the physical asset a bit similar between farmer and labor.

To sum up the livelihood characteristic in PKH beneficiaries is different. The livelihood of the farmer is less vulnerable to disruption rather than cloth labor. Assuming this differentiate also contributes from the urban-rural characteristics where the labor and farmer live.

### 3.4 Flood Impact and Strategy of Farmer and Labour

If we want to know how to implement flood mitigation, we should identify how the impact and strategy have been worked on households in each community.

As mentioned in the previous sub-chapter, Pekalongan where the laborers live, has a severe big

flood at the beginning of 2020, results from Cilacap, where the farmer lives at the end of 2019. The impact varies in these two communities. The big flood in Pekalongan that experience by the labor made 67 % of them evacuated in the safe place compare with farmer only 3% move from their house like Fig.15 below

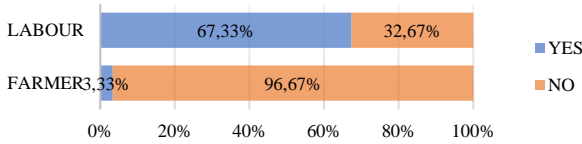


Fig.15 Evacuated

The impact is not only in their house but also the place of working. However, the result is different within each house. The flood is higher in the rice field than in the labor workplace, as seen in Fig.16. Type of impacts a bit similar, especially in income lost. Yet if we examine more detail, the income, labor lost higher than the farmer. Around 46 % of labor said they lost above 500 thousand rupiahs and 51 % of farmer said only lost under 200 thousand rupiahs, as seen in Fig.17.

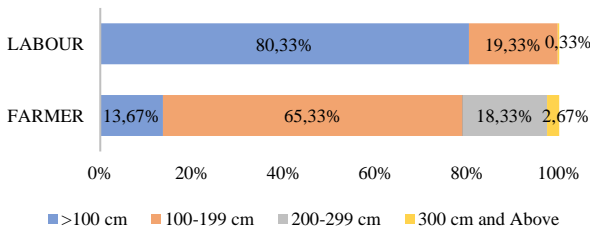


Fig.16 Flood Height

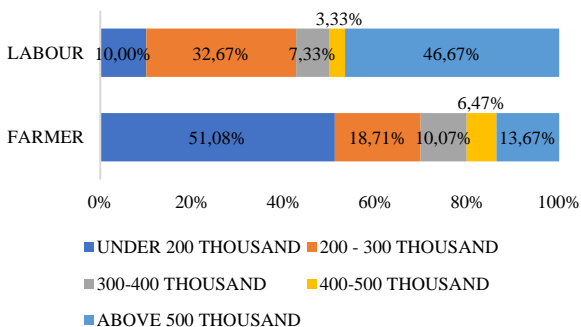


Fig.17 Lost Income

In dealing with the flood impact, both communities got external assistance, mostly from the government following the charity organization. Moreover, 52 % of farmer respondents claimed that 52% need 2-7 days back to normal. In the meantime, around 48 %

of labor need above 14 days to back to normal, like in Fig.18

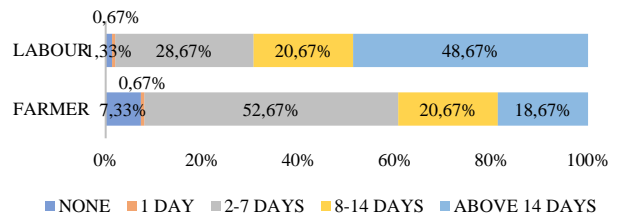


Fig.18 Back to Normal Activities

Furthermore, this paper uses the coping approach to identify the strategy to achieve resilience in dealing with flood risk. It divides from before, during, and after floods. Different strategies have been implemented among the communities.

Before the flood in labor, the dominant strategy is moving assets and clean sewerage compared to farmer had moving assets and preparing food (Fig.19).

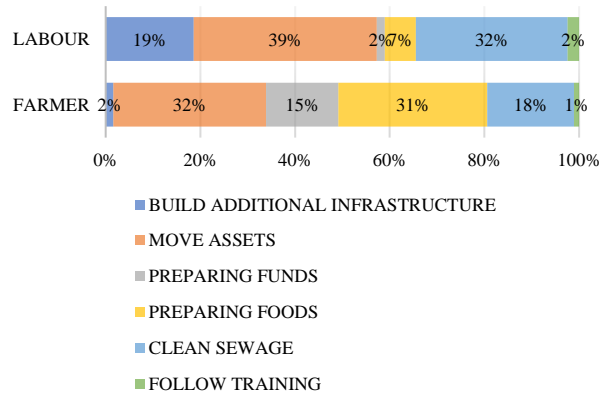


Fig.19 Strategies Before Flood

Another impressive result in strategy during the flood is that both farmers and labor have the same habit: pray throughout the flood. Following labor had experience evacuation meanwhile farmer was monitoring the flood like the Fig.20

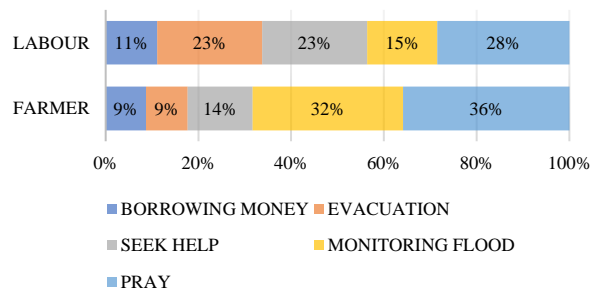
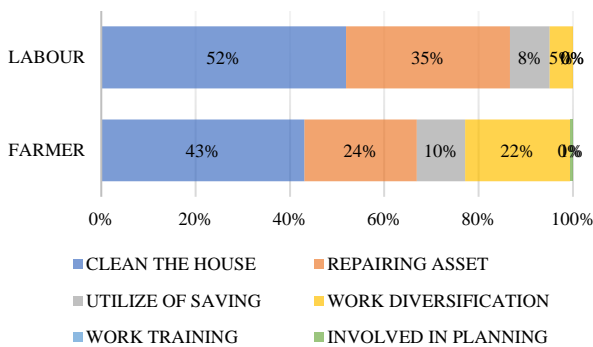


Fig.20 Strategies During Flood



After the flood, almost similar farmers and labor do clean the house and repair assets. A significant difference, the farmer usually choose to have more work diversification, as seen in **Fig.21**



**Fig.21** Strategies After Flood

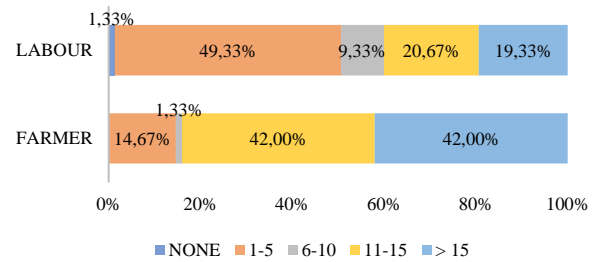
The result of impact and strategy variables shown in this paper has a difference in several points. Labour has experienced a more severe impact of the flood rather than a farmer. Losing farmers' assets are not as high as in labor since the scale of flood in Cilacap not as big as in Pekalongan. It also can be a reasonable explanation why in these two communities has different impact and strategies. Characteristics of flood types make this difference. Slow onset flood occurs in daily farmer life.

### 3.5 Gap and Opportunity of PKH to support Disaster Mitigation

Program Keluarga Harapan (PKH) is a cash transfer program to support the livelihood of poor households. It is not explicitly designated as a protection program for disaster victims. Therefore, there is no direct impact of PKH on disaster mitigation. However, in achieving resilience, we already agree that the livelihood aspect should be strengthening. Resilient from not only the idiosyncratic shocks but also covariate like a natural disaster. Therefore, the stronger the livelihood assets, the more resilient the system is, like poor households dealing with disruption.

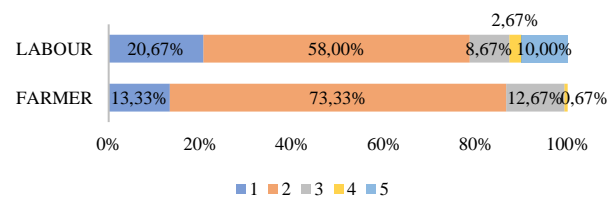
PKH beneficiaries also hold a hidden advantage when dealing with flood effects shown in farmer and labor communities. However, the scale of impact is different according to the type of occupation. Through PKH, the recipient of poor households has significant access to have support from the government and other institutions. As we can see in

the **Fig.22**, all the beneficiaries of PKH have registered in the government database to link with other aid programs. Although all the recipients have other aid opportunities, farmers are more exposed to various kinds of programs than labor.



**Fig.22** Other Aid Programs

Another thing that can link the PKH program to resilience is understanding more family management in terms of health, education, and financial status. PKH provide family development session as a workshop to the member of PKH. From **Fig.23** it can be seen around 73 % of the farmer community take at least two advantage of PKH program more than or 58% of labor.



**Fig.23** Number of Advantage Type

Having more understanding of family management can be good basic to withstand or cushion the effect of livelihood disruption.

## 4. CONCLUSION

Having mitigation action among the poor household need to correlate the poverty alleviation program with disaster issues. Program Keluarga Harapan (PKH), as an existing national widely program, can be an entry point to link poverty alleviation and disaster reduction. PKH helps to maintain the livelihood status at the household level. It comprises to cushion the livelihood from disruption include natural disaster effect. The effect is different in each type of community according to the kind of occupation.

This paper shows the different effects of PKH intervention in poor households between farmer and

cloth labor in dealing with flood risk. Farmer is more resilient than labor though they have the same PKH intervention in terms of livelihood capitals from social and economic until human assets. The effect of PKH intervention on mitigation action is less seen in labor, preferably in farmers. The type of occupation and the characteristic of residential areas, and the types of floods determine the livelihood status.

PKH has the opportunity to have a comprehensive countermeasure as long as the disaster issues should be considered in the program. Further study is to evaluate the development program. It started from the expanding beneficiary target decision by including the disaster victim, the number of cash transfers that consider the lost damage because of the natural hazard until additional topic in the family development session related to mitigation action.

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