FINAL REPORT

BASIC RESEARCH AND PREPARATION FOR THE SUB PROJECT EARLY WARNING SYSTEM AND EARLY EVACUATION IN JEMBER

EARLY WARNING SYSTEM AND EARLY EVACUATION OF BANJIR BANDANG IN SILO, PANTI AND SUKORAMBI

IN COOPERATION:

YAYASAN PENGABDI MASYARAKAT
(YPM)
WITH

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(JICA)

DISASTER STUDY TEAM
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2010

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I. INTRODUCTION

1.1 Background

Various disasters have occurred in Indonesia. The condition requires the public awareness and readiness any time when natural disasters struck. The lack of public knowledge of the introduction of the signs of natural disasters and efforts to minimize the risks encouraging Japan International Cooperation Agency (JICA), local government non-governmental organizations (NGOs) to provide sufficient knowledge of natural disasters to the people in disaster-prone areas.

Yayasan Pengabdi Masyarakat as community service agencies has conducted community empowerment to eradicate illiteracy and poverty alleviation, training, surveys, and social activities and role in natural disasters management in Kabupaten Jember.

Some potential areas of natural disasters in Kabupaten Jember are Panti, Sukorambi, Silo which have potential floods and landslides. Yayasan Pengabdi Masyarakat cooperates with JICA in Jember district within the framework of "Basic Research and Preparation for the Sub Project Early Warning System and Early Evacuation ".

1.2 Objectives

1.2.1 General Objectives

The purpose of this activity is to assist the Sub-Project Preparation Early Warning System and Evacuation Early in Kabupaten Jember conducted by the Japan International Cooperation Agency (JICA) in cooperation with the Indonesian Government.

1.2.2 Specific Objectives

Particular aim is to examine the Early Warning System and Evacuation Early in the village and kecamatan level that the local government does.

II. SURVEY RESULTS AND DISCUSSION

Survey to examine the early warning systems and evacuation of banjir bandang in Jember is done by interviewing the following respondents:

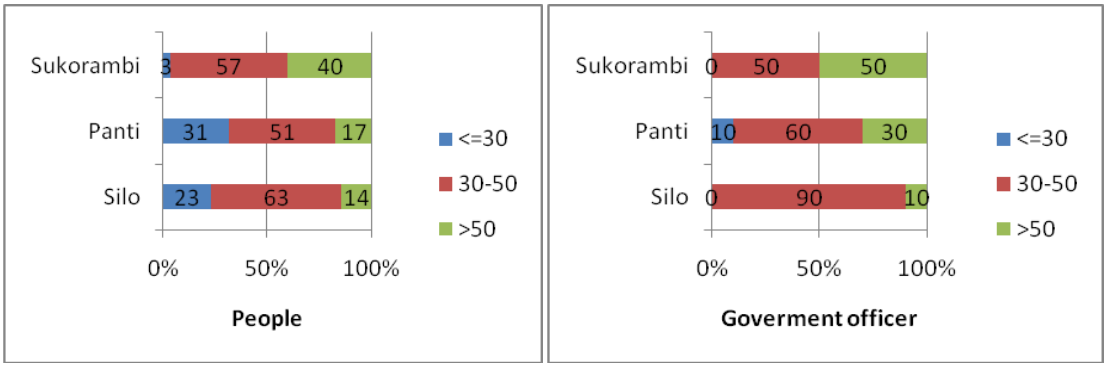
Location	Village	Respondent		Total
		People	Government officer	
Sukorambi	Klungkung	30	10	40
Panti	Kemiri dan Suci	35	10	45
Silo	Pace	35	10	45
	Total	100	30	130

Quantitative data collection was done by structured interviews using questionnaires to the respondents. It also conducted discussion groups and Focus Group Discussion (FGD) to find the meaning of a theme according to the understanding of a group based on the results of the discussion focused on a particular problem.

Results of interviews with the questionnaire and then cross-tabulated and analyzed the frequency of surveys based on location. The results were subsequently discussed in a comprehensive analysis of the results of discussions with community groups and FGD.

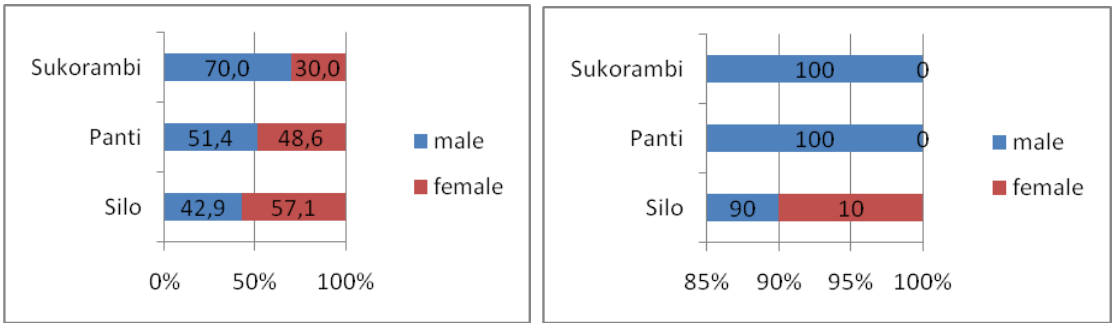
2.1 Characteristics of Respondent

Characteristics of the respondents of early warning systems and evacuation of banjir bandang can be categorized by age group <= 30 years, 30-50 years and> 50 years. This category is to distinguish the respondents for disaster preparedness in dealing with banjir bandang and preparedness to evacuate. Distribution at each location (Graph 1) shows the majority of respondents are in the category 30-50 years age group. This age group is the adult age groups who are already married and responsible for more than 1 person. It is similarly with government officer respondent characteristics. Respondent in Sukorambi besides being dominated by adult age group, it is also in the older age groups (> 50 years). People respondents of Sukorambi located in older age groups reached 40%, while the government officer respondent reached 50%.



Graph 1. Distribution of respondents by age group

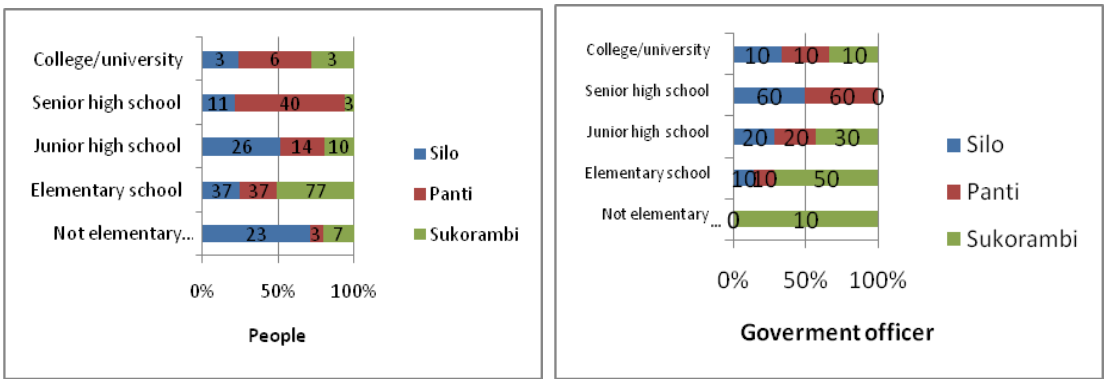
People respondent's gender is balanced enough between the men and women (Graph 2). The balance of these characteristics is expected to eliminate gender bias in the information provided. Government officer respondent has a dominant characteristic of the sexes because males are dominant local government officials filled by men. However there is one female respondent at Silo female who served as the Head Division of Financial in Pace, Silo.



Graph 2. Respondent gender

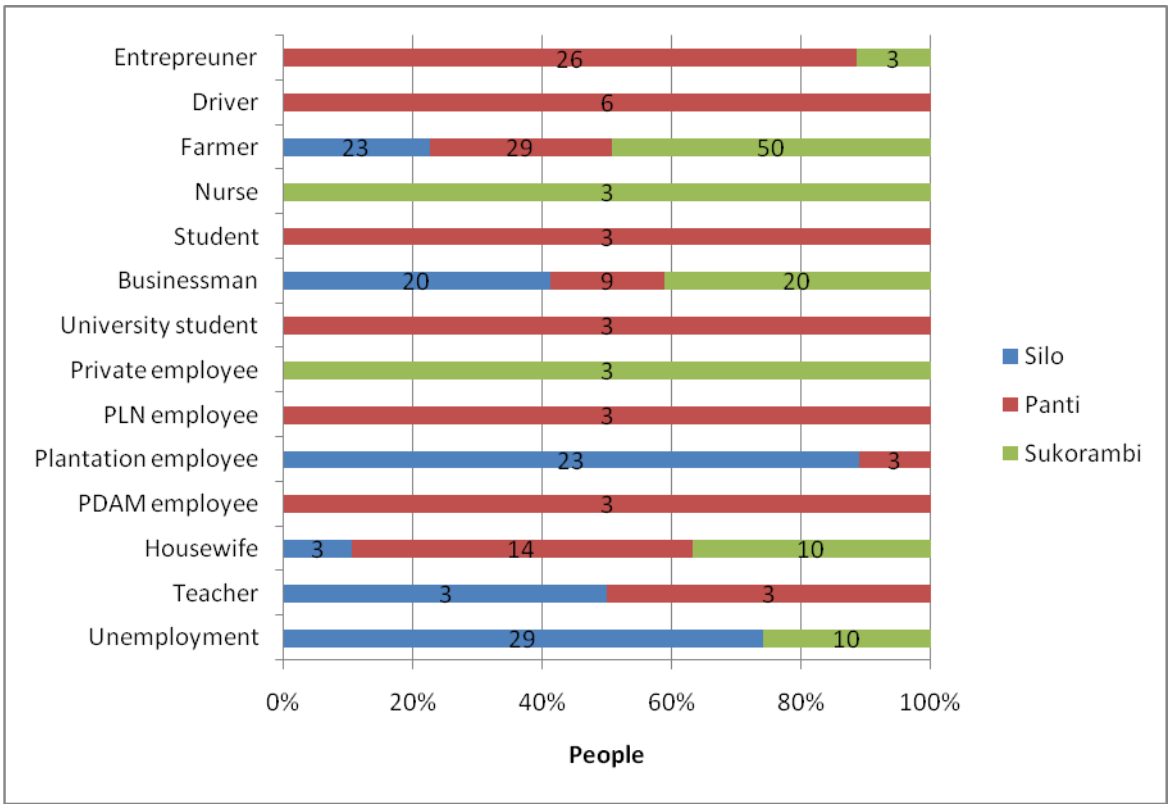
The most prominent education level of respondents is elementary school graduate (77%) located in Panti. The most numerous peoples who did not complete elementary school are in the Silo (23%). The most numerous peoples who graduated from junior high school are in the Silo (26%), Suci (14.3%) and Sukorambi (10%). The most numerous peoples who graduated from high school are in Suci (40%), Silo (11.4%) and Sukorambi (3.3%). People respondents who has higher education in most is in Suci (5.7%), Sukorambi (3.3%) and Silo (2.9%) (Graph 3). People respondents' education level has implications for the understanding of early warning systems and early evacuation of banjir bandang. The majority of government officer respondents had

a high school education level of Silo (60%) and Panti (60%) except in Sukorambi that the majority completed primary school (50%) (Graph 3).



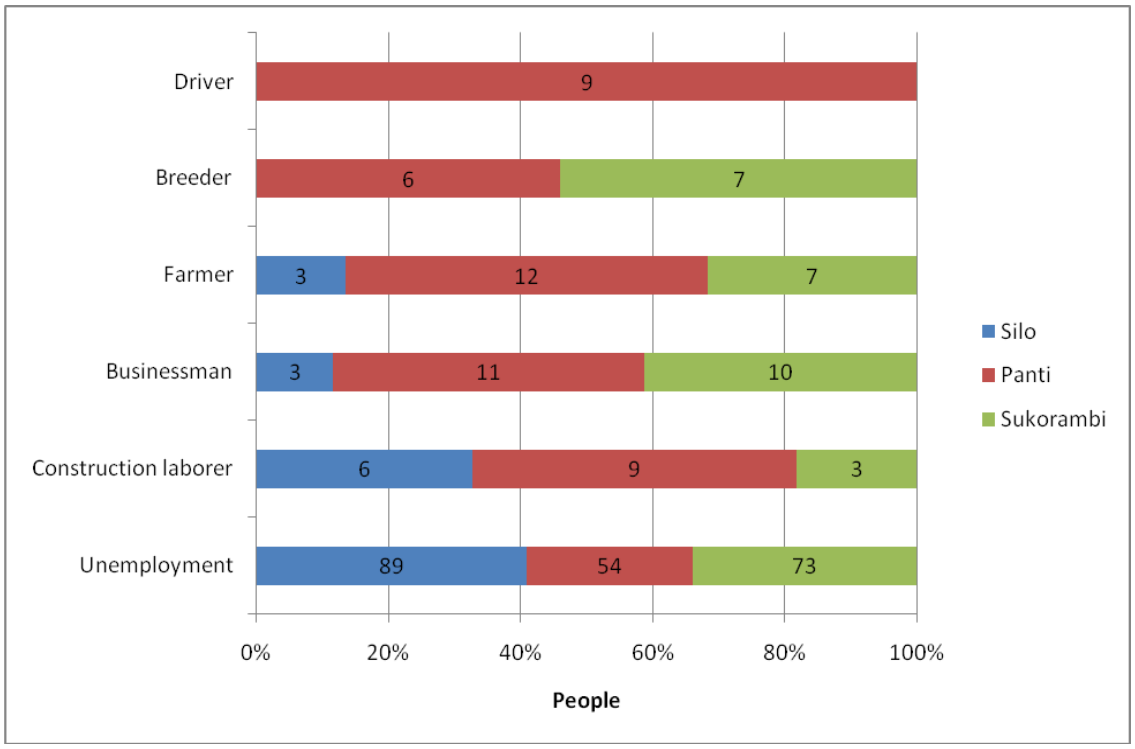
Graph 3. Education level of respondents

People respondents mostly has main livelihood of farmers by 50% in Sukorambi, 29% in Panti and 23% at Silo. Interesting phenomenon is the number of respondents who did do not work at Silo is 29%. Most respondents at Silo are beside as farmers (23%), they also work as plantation workers (23%) (Graph 4).



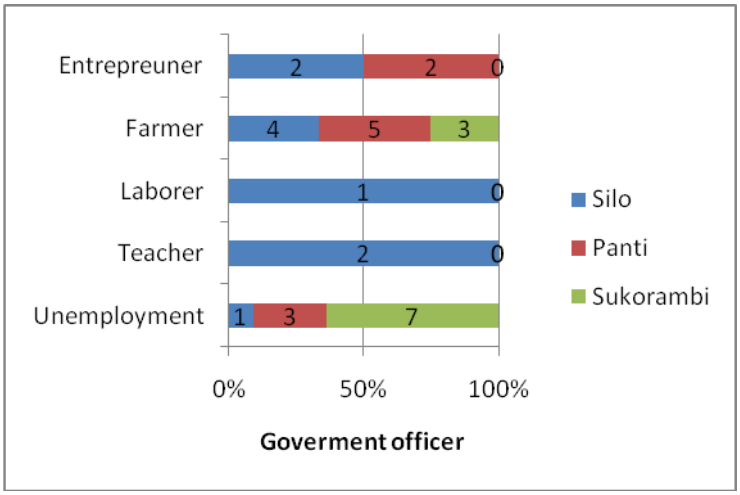
Graph 4. The main livelihood the people respondents

In addition to the above main job, several respondents also had side job. Respondents in Silo mostly do not have a side job (89%), some peoples work as construction workers (6%), traders (3%) and farmers (3%). Respondents in Panti have enough side jobs such as drivers (9%), breeders (6%), farmers (12%), traders (11%) and construction laborers (9%). In Sukorambi, side job of people respondent are a breeder (7%), farmers (7%), traders (10%), and construction laborers (3%) (Graph 5).



Graph 5. People respondents' side job

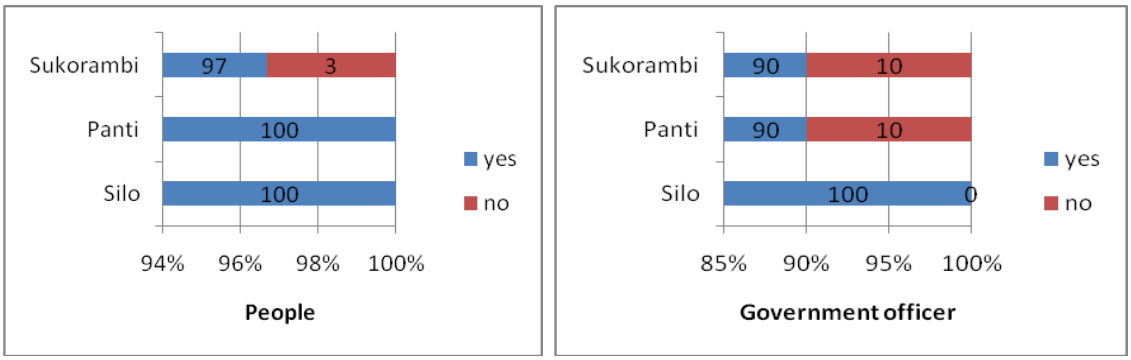
Government officer respondents always expressed that their main job is as government officials. However, many of them who have side jobs such as: farmer, entrepreneur, laborer and teacher. Characteristics of government officer respondents can be viewed in detail on Graph 6.



Graph 6. Government officer respondents' side job

2.2 History of Banjir Bandang

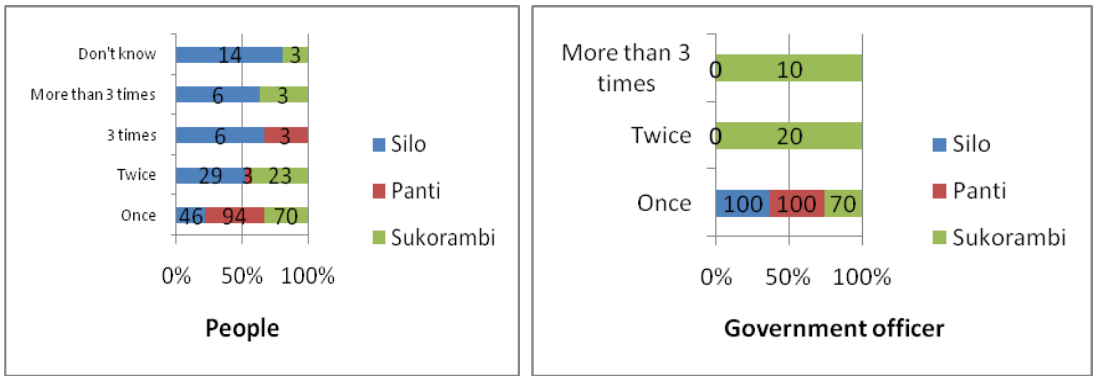
All the respondents knew the banjir bandang that have hit their village, except for respondents in Sukorambi (3%) who answered did not know. These respondents did not know because their home was not affected by banjir bandang and the distance is away from the location of banjir bandang (Graph 7). Something disappointed was happened to the government officer respondent and Sukorambi Panti. Each have 10% of respondents who answered did not know the banjir bandang that struck the village (Graph 7).



Graph 7. Respondents who knows banjir bandang

Respondents who knew the banjir bandang was found to have different knowledge about how many times the banjir bandang struck the region in the last 10 years. Most of the respondents answered that the flood happened only once, namely: Silo (46%) in the year 2009, Panti (94%) in the year 2006 and Sukorambi (70%) in

2002. Many respondents also said that banjir bandang in the region occurred two times, namely: Silo (29%), Panti (3%) and Sukorambi (23%). Even the most ironic is that many people respondents (14%) at Silo who knew banjir bandang, but do not know how many times in the last 10 years (Graph 10). Government respondents answered that most of banjir bandang incident happened only once in the last 10 years, unless there are Sukorambi government officer respondents who answered that the flood occurred 2 times (20%) and more than 3 times (10%) (Graph 8). Different answers about how many times banjir bandang because of differences in understanding among respondents about the definition and criteria of banjir bandang.

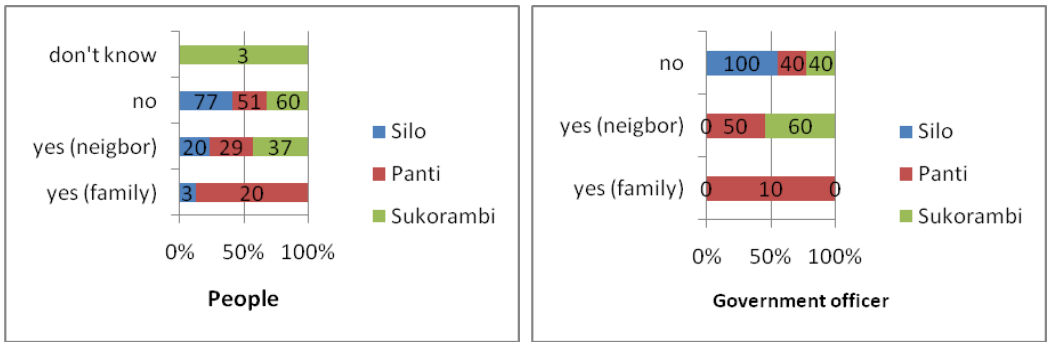


Graph 8. The occurrence of banjir bandang in the last 10 years

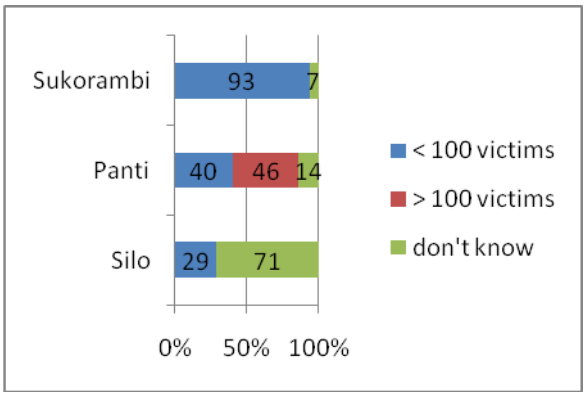
The cause of banjir bandang according to people respondents in Silo is the forest around the mountain slopes whose condition has been barren. High rainfall resulted in the forests are not able to absorb water up and then banjir bandang and landslides occurred. Respondents in Panti argued that the cause was by continuous rain and also the barren land cover or forest vegetation. Vegetation is located on the plateau with a steep slope land. Respondents in Sukorambi believes that the cause of banjir bandang are flooding the shipment from the area after several days of rain and river water decreases even it means going upriver damming. This damming is a large potential to be banjir if broken. When the dam burst its banks the water will flow with great power and be able to pull the tree down to its roots and bring the existing stone along the stream.

Related with the victim caused by banjir bandang, the majority of respondents said none of the victim from their family or neighbors. Victims that befall most experienced neighbors in Sukorambi respondents (37%), and Panti (29%) and Silo (20%). Respondents whose family became victims of banjir bandang hit most people in

Panti (20%) and Silo (3%) (Graph 9). Meanwhile, government officer respondents who experienced due to banjir bandang is Sukorambi (60%) of neighbors who died and Panti (50%) (Graph 9). The biggest number of victim are at Panti with more than 100 victims (Graph 10).

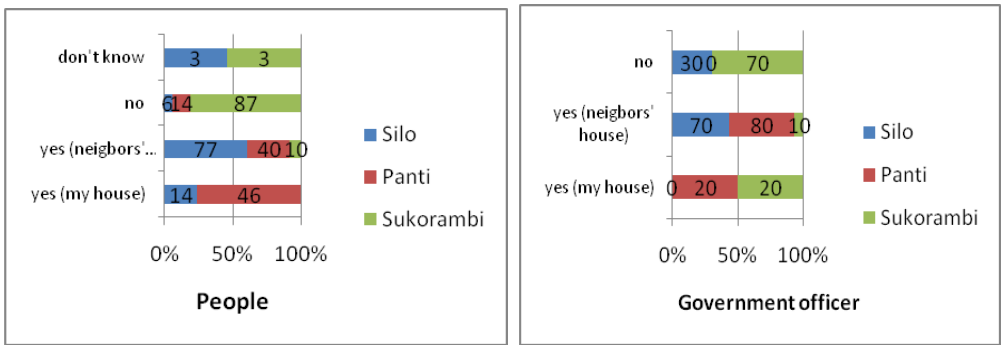


Graph 9. Respondents who experienced victims due to banjir bandang



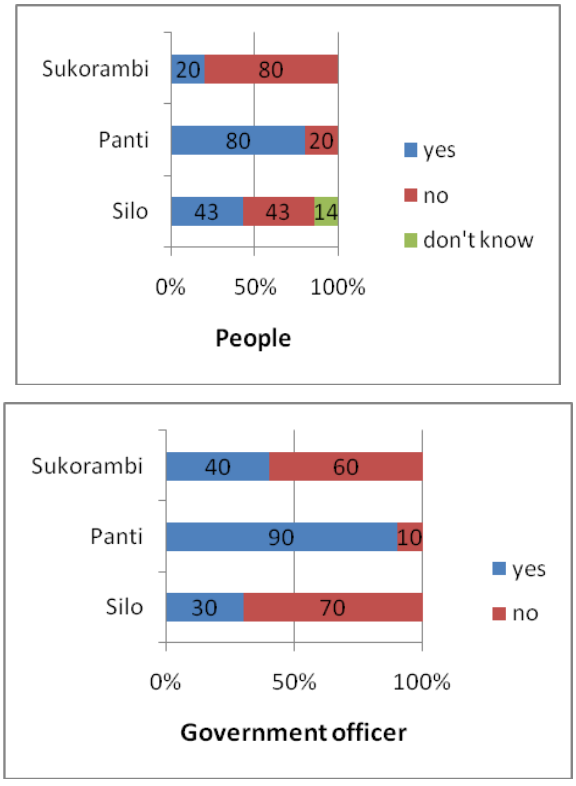
Graph 10. The number of victims due to banjir bandang

Besides causing victims, banjir bandang also caused damage to houses. Respondents whose house was damaged located in Panti (46%) and Silo (14%). Damaged neighboring houses experienced by people in Silo (77%), Panti (40%) and Sukorambi (10%). Respondents whose home was damaged experienced by the local government officer is only in Sukorambi respondents (20%) and Silo (20%). Neighbor's house officer respondents who was damage by banjir bandang is experienced by Panti respondents (80%), Silo (70%) and Sukorambi (1%) (Graph 11).



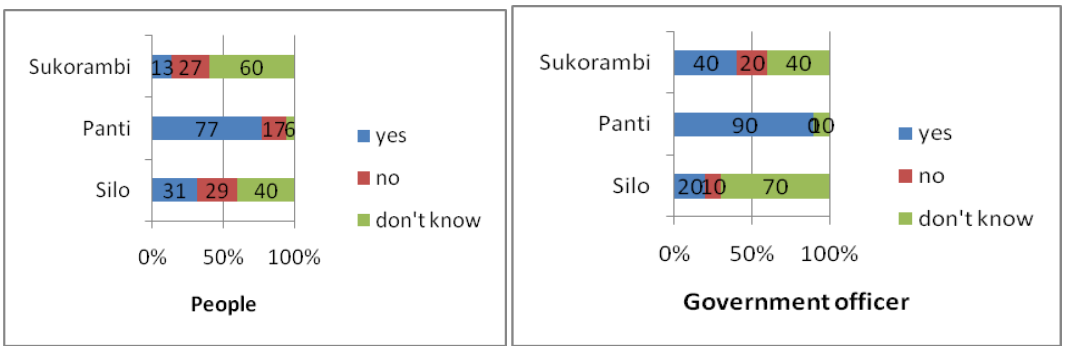
Graph 11. Respondents' house damaged by banjir bandang

The way to anticipate banjir bandang is known by many people in Panti respondents (80%), Silo (43%) and Sukorambi (20%) (Graph 12). Different way of prevention was done such as reforestation, being alert when there is rain, weather monitoring, patrolling at night and so on. There is always a responsive action when banjir bandang occurred namely by moving to higher or more secure location. Similarly with government officer respondents in Panti, there are many repondents who had the way to anticipate banjir bandang (90%), rather than Sukorambi (40%) and Silo (30%) (Graph 12).



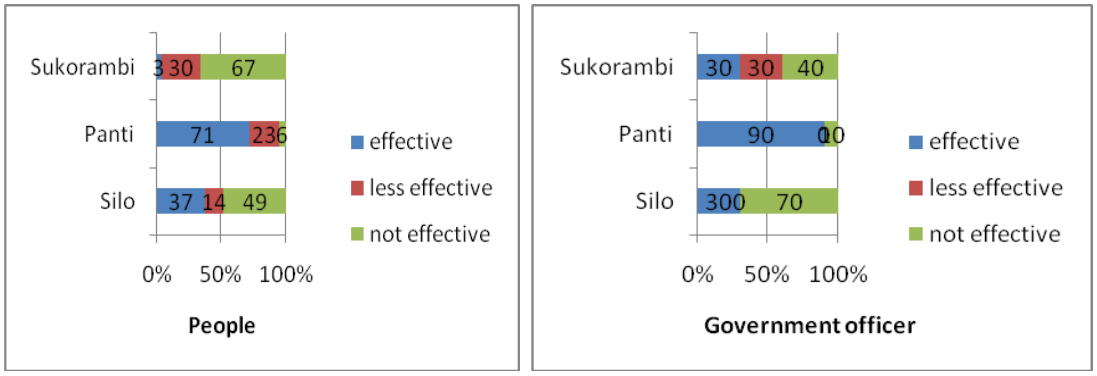
Graph 12. How respondents to anticipate the banjir bandang

The way to anticipate banjir bandang have been applied by the majority of respondents in Panti (77%), for Silo is 31% respondents and Sukorambi is 13% respondents (Graph 13). This condition is almost similar to the government officer respondent in implementation of banjir bandang anticipation, namely the Panti (90%) Sukorambi (40%) and Silo (30%) (Graph 13). The application of banjir bandang anticipation associated with the condition of the existing system. The better existing system and well-coordinated system have higher the potential for its application. Just as Panti that have had relatively good early warning system,, then the survey results indicate a high application of how to anticipate banjir bandang.



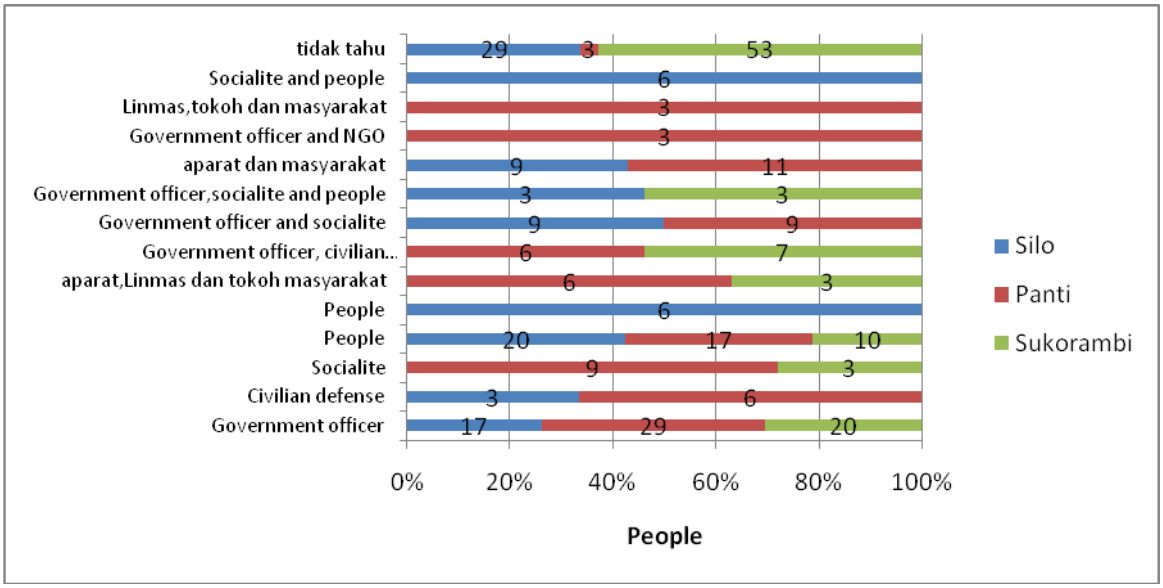
Graph 13. Application of banjir bandang anticipation

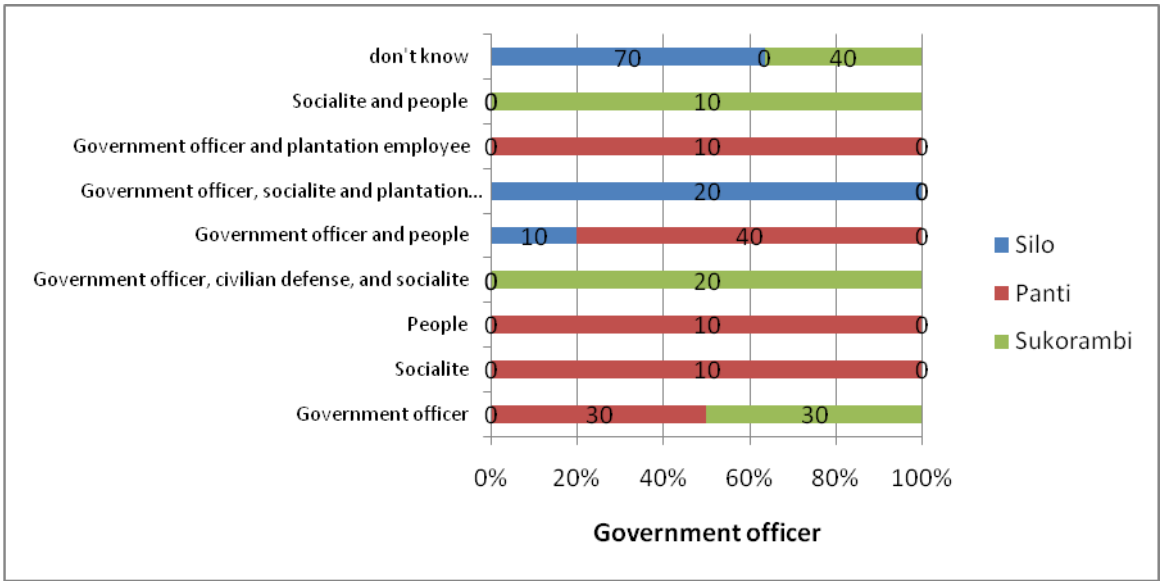
Effectiveness of the implementation of banjir bandang anticipation according to 67% of people respondents in Sukorambi are not effective, as well as 49% of people respondents in Silo. In Panti, people respondents rating is in the contrary, i.e. 71% of respondents considered that banjir bandang anticipation had been effectively implemented. A similar assessment of the effectiveness of the implementation of banjir bandang anticipation given by the government officer respondent of Panti (90%), Sukorambi (30%) and Silo (30%) (Graph 14). People of Silo argues that an effective way of anticipating anticipation is if it can prevent banjir bandang occurrence, prevent water entering into the house, and can reduce the loss/damage. People of Panti see the effectiveness of how the anticipation way from the ability to reduce the victims, the ability to prevent landslides, and prevent water from the river overflow.



Graph 14. Effectiveness of banjir bandang anticipation

In associated with who has role in the anticipation of banjir bandang, most of the people in Silo replied not know (29%). Another 20% said that their own communities that contribute 17% and others said that the officials have the role for this. Panti communities respond contrary, that the in charge is officials (29%), in addition to the community (17%) and the combined forces and the community (11%). Sukorambi people are worse than the people in Silo. It caused because the majority of the people (53%) answered no idea who is responsible for banjir bandang anticipation. Nevertheless there are 20% who said officers who has the role and 10% answered that the communities themselves who play a role. Silo government officials (70%) and Sukorambi (40%) gave a pathetic response as a public servant because they do not know who is responsible for flood anticipation. While most of the Panti government officer (40%) replied that the government and society are equally involved in anticipation of floods (Graph 15).

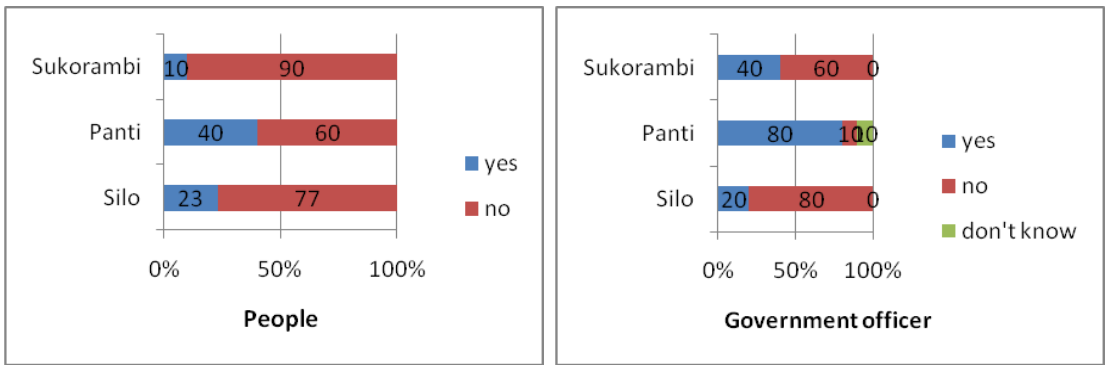




Graph 15. Who is taking role in anticipation of banjir bandang

2.3 Early Warning System of Banjir Bandang

Most of the people in Silo (70%), Panti (60%) and Sukorambi (90%) claimed to have no early warning system of banjir bandang. Likewise, government officers at Silo (80%) and Sukorambi (60%) also answered no early warning system of banjir bandang. Unlike the government officers in Panti, 80% admitted that Panti has an early warning system (Graph 16). The reason why they did not have early warning systems most of the answer is not known. Silo people also admitted not thought to have it because it was used to flood. While Sukorambi people do not understand with early warning systems. Silo and Sukorambi government officers assess their knowledge of the flood is still less, so less encourage them to have early warning systems. Instead Panti people have an early warning system for safety along and help among citizens. Panti government officers added that in anticipation of the system and reduce the risk of flood disasters.



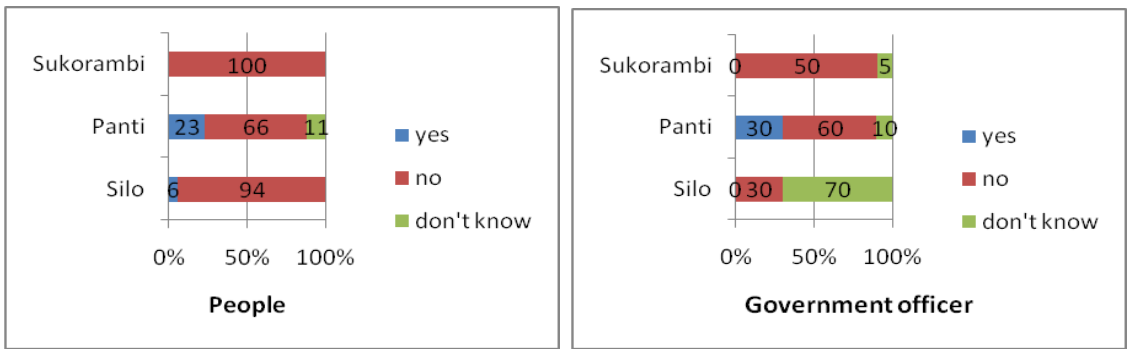
Graph 16. Early warning system of banjir bandang

Early warning system that they have recognized most of the Silo people (94%), Panti (66%) and Sukorambi (100%) is not their own creation, as well as recognition of their government officers (Graph 17). What they call an early warning system was also different understood between them.

Silo Society gave a description of an early warning system by calling the form of activities such as exchanging information among neighbors, signaling if the river overflows, today announced that information with a yell or through loudspeakers, and invite each other to the evacuation site. There is no structured mechanism in running an early warning system. Everything was spontaneous and modest.

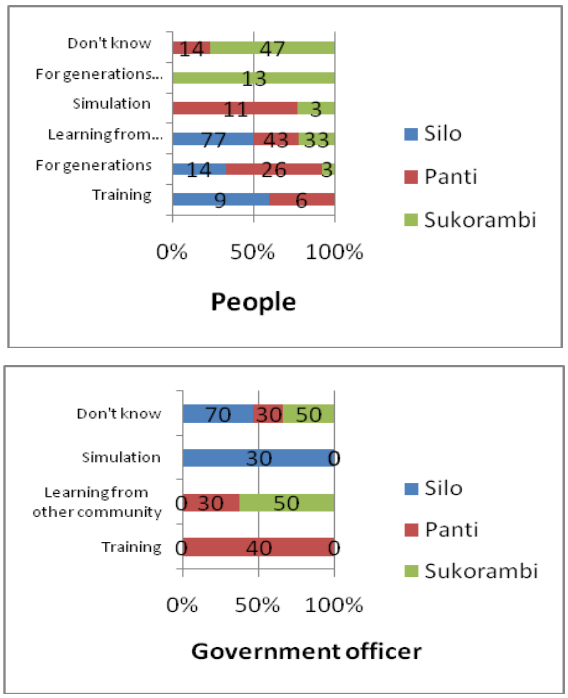
Panti community described early warning system by the warning from the authorities and also from areas of impending floods. This information is then passed through the handy talky is in post-disaster and post hamlet chiefs. In addition, information is disseminated to the public with rafters and loudspeakers in mosques. Some Task Force members also check the condition in the regions above as confirmation and monitoring developments.

Sukorambi community early warning system described by the sign of the top area (plantations) and sounding *kentongan* with code 5 consecutive times interspersed with pauses. In addition information is also disseminated through the speakers / speakers in mosques and in the form of personal communication devices handp Hone and handy talky. Authority to disseminate warning information will be coming flood alert in the hands of the Chief Coordinator Unit (Satkorlak) disaster. Chairman Satkorlak sends the information to the village authorities (village chiefs and its staff) are then forwarded to the head of the hamlet. From the head of this village is then disseminated to the public.



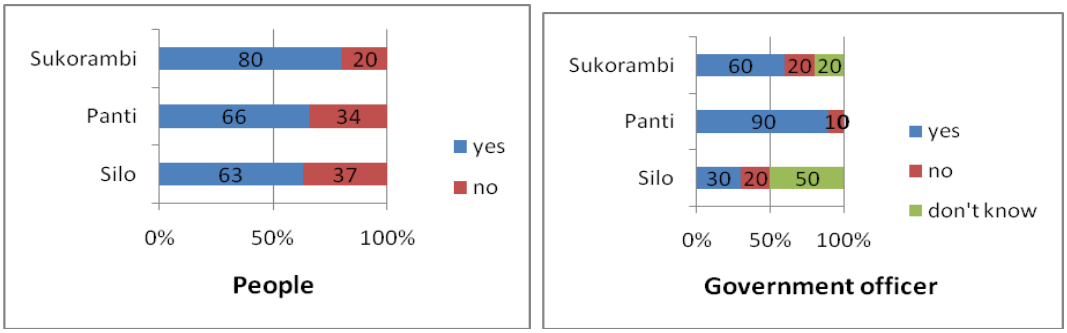
Graph 17. Creation of early warning system of banjir bandang

Because they do not create themselves, Silo people (77%), Panti people (43%) and Sukorambi people (33%) adopted early warning systems of banjir bandang by learning from other communities. It is also recognized by the Panti government officer (30%) and Sukorambi government officer (50%), whereas most of Silo government officer (70%) did not know the source of early warning systems adoption they have (Graph 18). Another source of adoption of early warning systems is custom learned from generation to generation by 14% of Silo people, 26% of Panti people and 3% Sukorambi people. Simulations have been followed Panti people were also the source of their adoption in creating early warning systems.



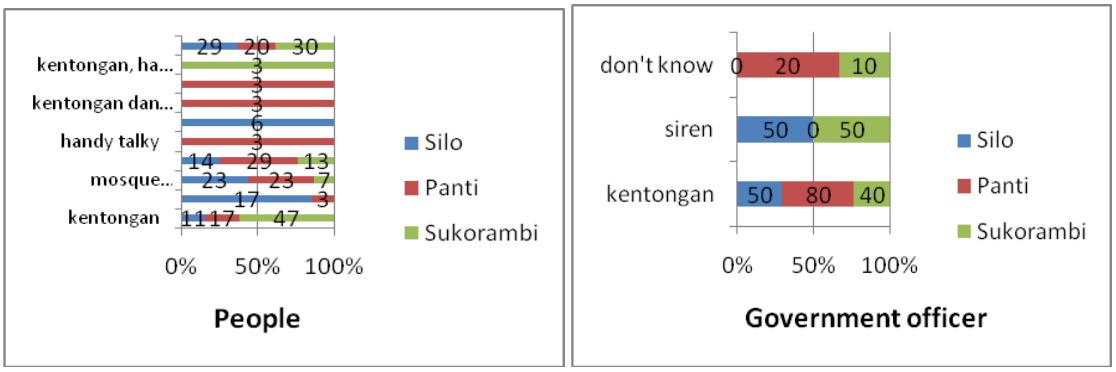
Graph 18. Adoption source of early warning systems

The operation of early warning system of banjir bandang is good, especially with the officer who informed that the warning must be sounded. Silo community (63%), Panti (66%) and Sukorambi (80%) replied that the existing officers who are responsible for operating system. Panti government officers (90%) and Sukorambi (60%) also answered the same thing, but Silo (50%) answered that there is no specific officer responsible for the operation of early warning system they have (Graph 19). Status of these officers is their neighbors, residents of the region upstream (upper) and village officials.



Graph 19. The officer that inform the warning must sounded

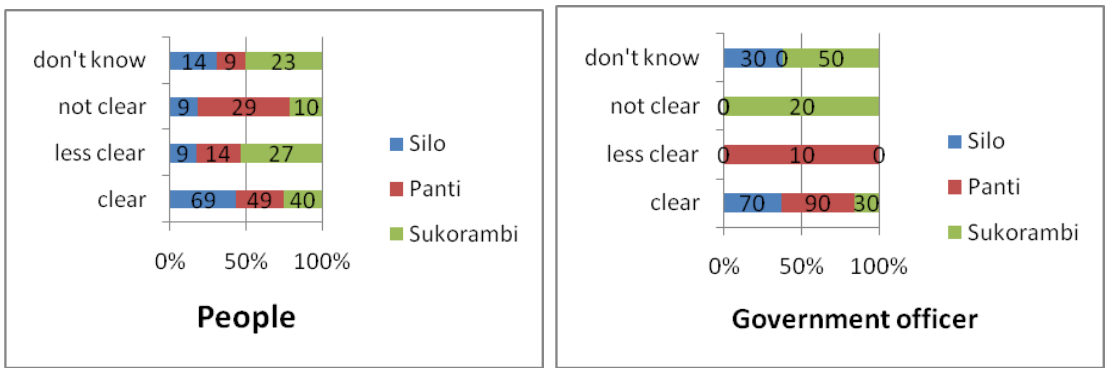
Communication tool for banjir bandang according to most of people and government officer use *kentongan*, the mosque loudspeakers, and sirens. Majority of Silo people (29%) did not know what communication tools they will use when banjir bandang occurred, 23% answered using mosque loudspeakers and 17% will use the sirens. Silo government officers say that the communication tools they use to inform that banjir bandang occurring is *kentongan* and sirens. Panti people using hand phone (29%), the mosque loudspeakers (23%) and *kentongan* (17%) as a communication tool for banjir bandang warnings. Meanwhile, government officers said using *kentongan* (80%) as the main communication tool for banjir bandang warnings. Sukorambi people mostly using *kentongan* (47%), hand phone (13%), and mosque loudspeakers (7%) for a communication tool. Sukorambi government officers will use sirens (50%) and *kentongan* (40%) as communication tools (Graph 20).



Graph 20. Communication tool for banjir bandang warning

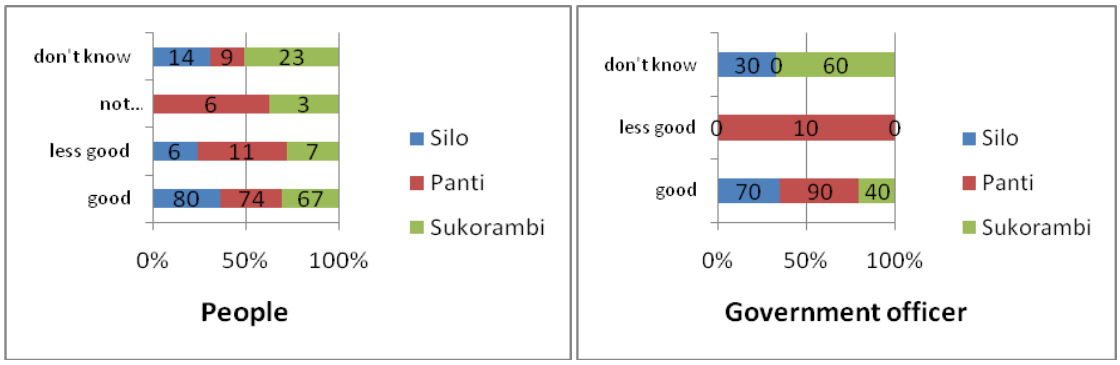
In general, the sound of the warning signs clearly recognized both by the people and government officers (Graph 21). Most Silo people (69%) claimed to sound clear warning signs, others claim 18% less / not clear and the other 14% claimed not to know.

Many government officers of Silo claim clearly sounds a warning sign (70%) and the other 30% did not know the answer. Most of the Panti people (49%) also claimed that the sound of clear warning signs, the other 29% claimed not clear, 14% is not clear, and 9% do not know. The majority of government officers of Panti (90%) claimed a clear warning signal sounds and the other 10% claimed less clear. Many people Sukorambi (40%) who claimed that the warning sound is clear, the other 27% claimed less clear, the other 10% is not clear, and 23% claimed not to know. Sukorambi government officers have the ironic answer, i.e. 50% answered do not know, 30% clear and 20% is not clear (Graph 21).

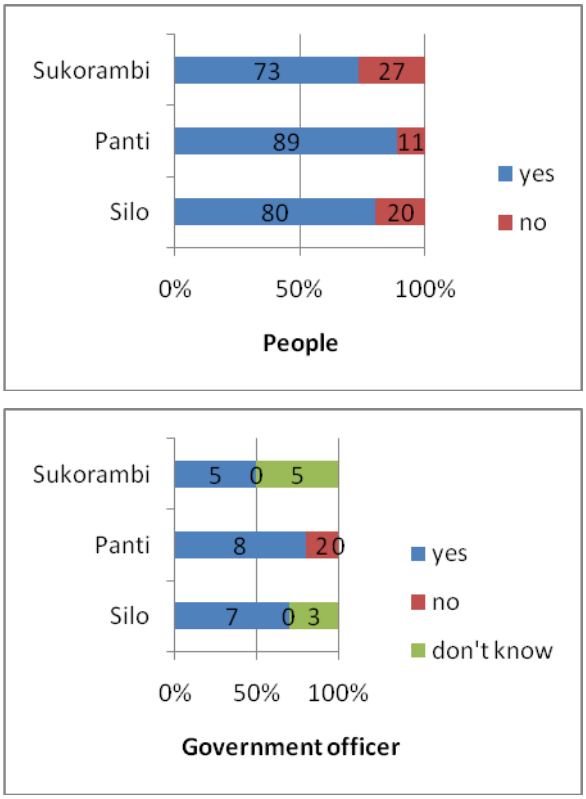


Graph 21. Clarity sound of banjir bandang warning signs

The condition and function of communication devices by the people and government officers considered to be in good condition (Graph 22). Also used by most respondents also understand the meaning of the warning from the device (Graph 23).

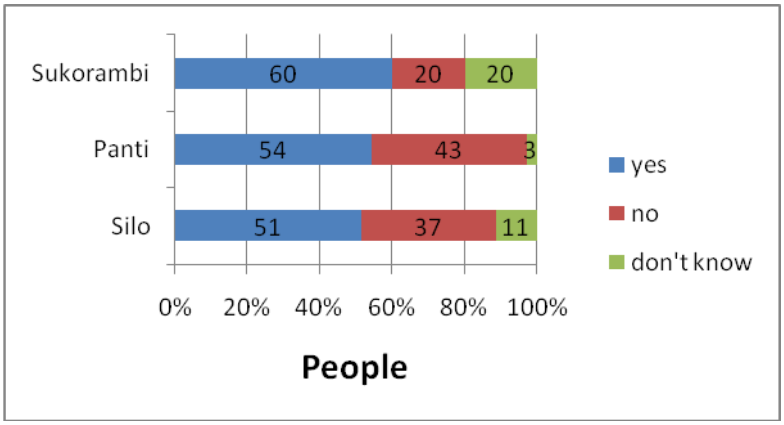


Graph 22. Condition and function of communication tools



Graph 23. Understand with sound of communication tool of banjir bandang warning

Based on the conditions associated with early warning systems above, the people generally considered that the system was effective in reducing the risk of banjir bandang. 51% of Silo people assessed that early warning systems they have applied is effective, the 37% assessed not effective and 11% answered do not know. Most of the Panti people (54%) believe that their system is effective, 43% recognized not effective and 3% answered do not know. Likewise most Sukorambi community (60%) believes their systems are effective, 20% rate is not effective and 20% answered do not know (Graph 24). The results of the effectiveness assessment of early warning systems by the people shows still need to increase the effectiveness. Meanwhile, government officials considered effective if the system can reduce the risk of banjir bandang.

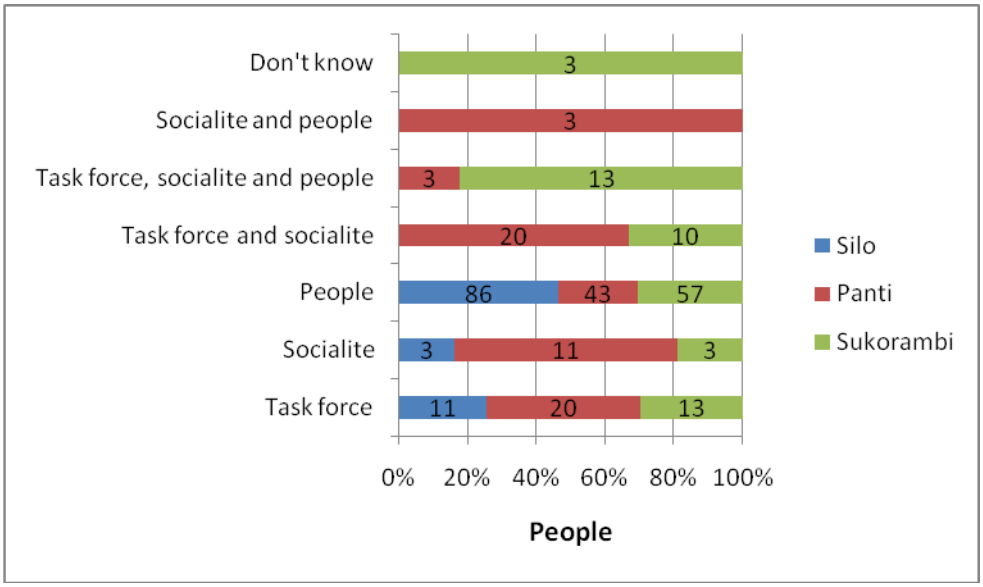


Graph 24. Assessment of the effectiveness of early warning systems

2.4 Evacuation System of Banjir Bandang

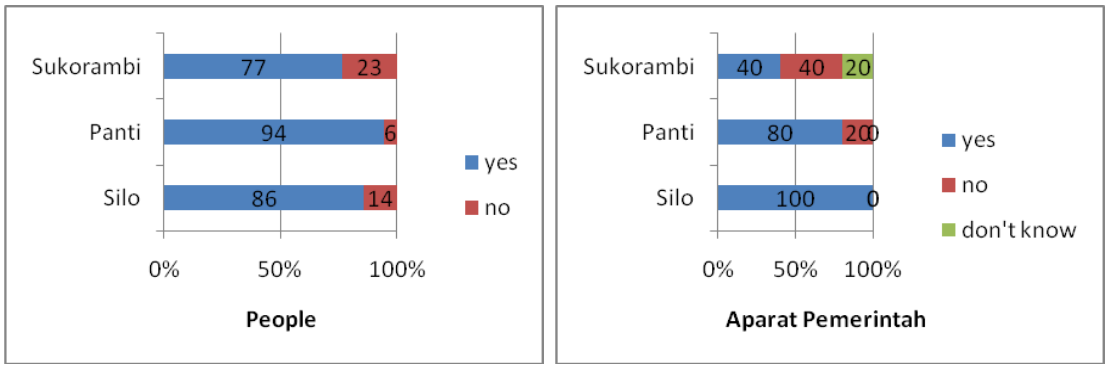
People at Silo will evacuate as heavy rain conditions, the river overflowed and the neighbors began to evacuate. While Panti people began to evacuate when the river overflowed and there was a flood and the neighbors began to evacuate. While Sukorambi people will evacuate when the river overflowed and there was a flood after the rain a few days and when the waters receded abruptly. According to them, the receding river water suddenly indicating stream congestion. Then when the traffic barriers were not strong it will resist pressure and cause banjir bandang. Government officers from three areas basically have the same opinion about the conditions for the evacuation during the heavy rains a few days, the river overflowed and there was a sump rumble.

Who helped evacuate flood, according to most people is the people themselves in mutual assistance. According to the Silo people there are also task force (11%) and community (3%) who had helped the evacuation process. Likewise, Panti and Sukorambi people have almost the same (Graph 25).



Graph 25. Who helped evacuate the people when banjir bandang

Safe location which is used as an evacuation location is much better known by the Silo people (86%), Panti (94%) and Sukorambi (77%). Ideally all people should know because it is the destination when the banjir bandang occurred. Government officers, except Silo was also do not know the location of evacuation and some have no idea what it was the location of evacuation (Graph 26).

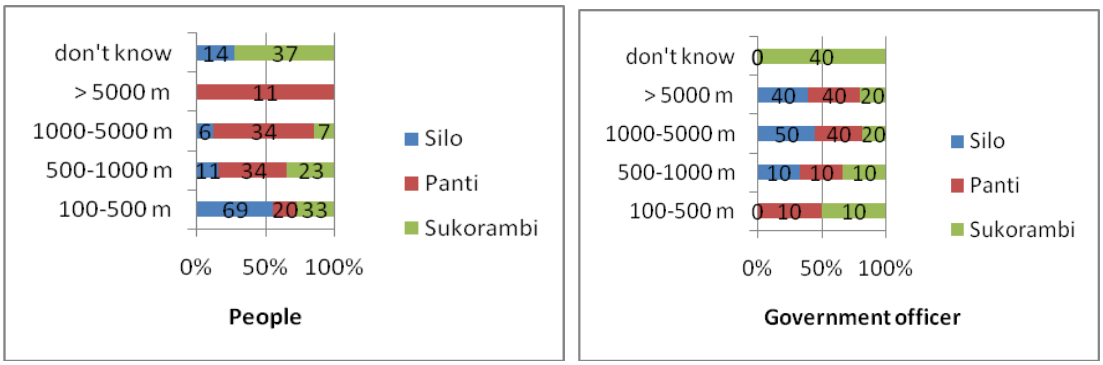


Graph 26. Knowledge of the location would evacuate during banjir bandang

Reasons for choosing the location of the evacuation according to people and government officers was the most secure, accessible, and have adequate capacity and relatively high altitude. Some of the locations specified evacuation include: field, warehouses of plantation companies, and also the village hall.

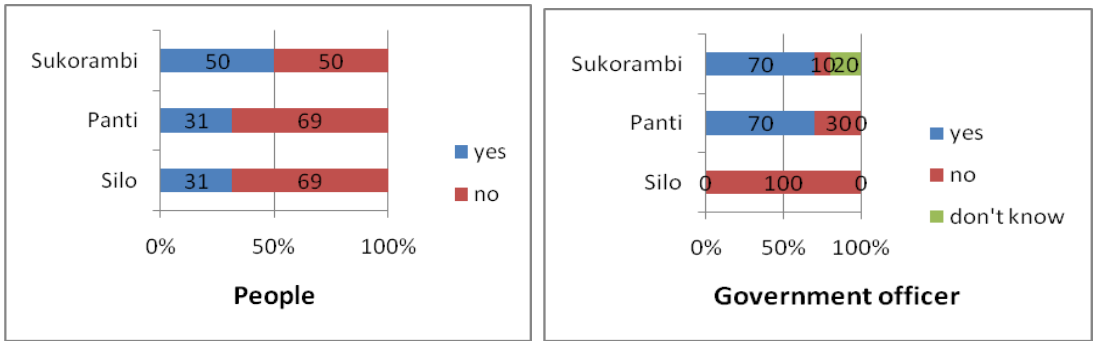
Evacuation distance with the flood-prone locations is one determinant of the location of evacuation safety itself. On Silo evacuation distance and location of flood-

prone according to most people (69%) are at 100-500m. In Panti, distance range 500-1000m. In Sukorambi most people (37%) just do not know the distance to the location of flood prone evacuation. Meanwhile, according to government officers argue most of the distance to be in the range of 1000-5000m (Graph 27). What is known about the distance by people is still indicate a vulnerable. Thus need to be reviewed again the existence of the evacuation location has been set.



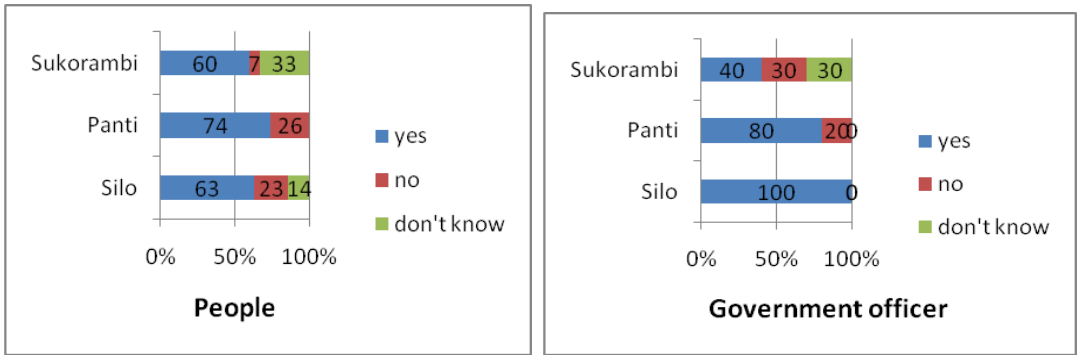
Graph 27. Evacuation distance with the flood-prone locations

Maps or directions signs for evacuation are one of the important completeness of disaster conditions. Survey results show that few people in Panti and Silo (31%) who answered that they had a map and direction signs, while another 69% answered no. Sukorambi people who replied that the area has a map or directions signs for evacuation balanced with who answered no. All of Silo government officers (100%) answered that they had no maps or signs for evacuation instructions. Government officer used by most Panti and Sukorambi (70%) admitted that they already have a map or direction signs. 30% Panti government officers said that they had no maps or signs for evacuation instructions such as 10% Sukorambi government officers. The irony is that there is 20% Sukorambi government officers who answered did not know (Graph 28).



Graph 28. Maps or direction signs for evacuation

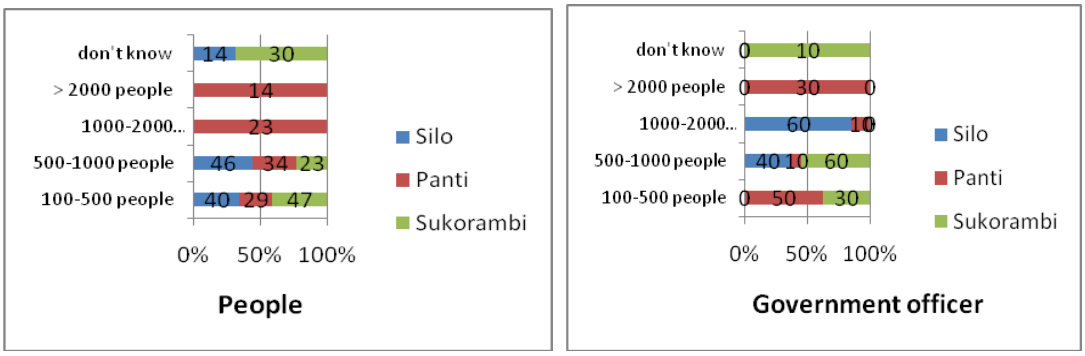
Most of the people and government officials Silo, Panti and Sukorambi argued that the evacuation location can accommodate residents affected by banjir bandang. 63% of Silo people have opinion that the location of evacuation capacity can accept banjir bandang refugees, 23% others think otherwise and the remaining 14% answered do not know. 74% of Panti people argues that the evacuation location can accommodate banjir bandang refugees and the remaining 26% thought otherwise. 60% Sukorambi people believe that evacuation location can accommodate refugees, 7% thought the opposite and 33% answered do not know. The amount of people who answered do not know shows that the location of evacuation has not socialized extensively. Socialization is not evenly distributed across it also occurs in Sukorambi government officers, 30% of them answered no idea about the location of evacuation capacity (Graph 29).



Graph 29. Capacity of evacuation location for banjir bandang refugees

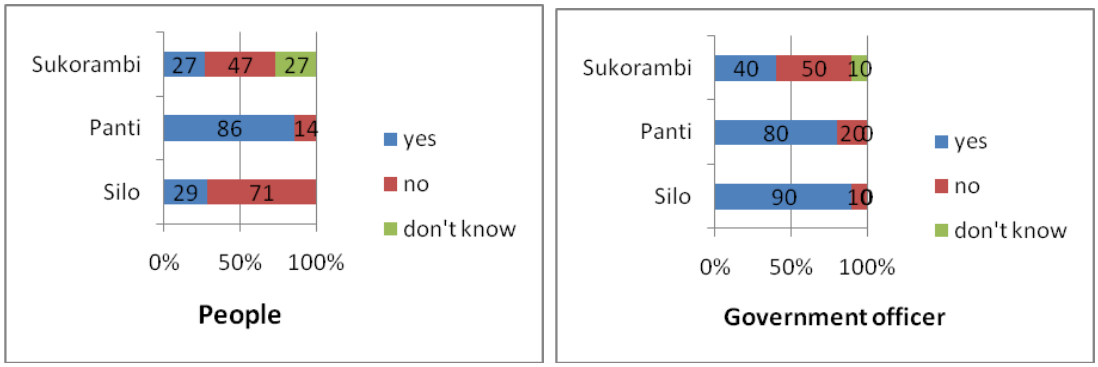
The average capacity of each site according to 46% evacuation Silo people ranging from 500-1000 people, 40% others think can accommodate 100-500 people, and the remaining 14% answered do not know. Most of the Panti community (34%) thought that the average capacity of evacuation location is 500-1000 people, 29% believe the average capacity of 100-500, 23% believe the average capacity of 1000-2000, and the remaining 14% think the average capacity of more than 2000 people. Majority of Sukorambi people (47%) think the average capacity ranging from 100-500 people, 23% think the average capacity from 500-1000 people and 30% answered do not know. Silo government officers' opinion showed that the average capacity of evacuation location more than people expected. 60% of government officers argued that the location Silo evacuation can accommodate 1000-2000 people, 40% of them think can accommodate 500-1000 people. Opinion of Panti government officers about average capacity evacuation location is smaller than people expected. 50% of Panti

government officers argue that the average capacity of 100-500, 30% thought more than 2000 people, 10% of people thought 500-1000 and the remaining 10% of people think 1000-2000 (Graph 30).



Graph 30. The average capacity of evacuation sites

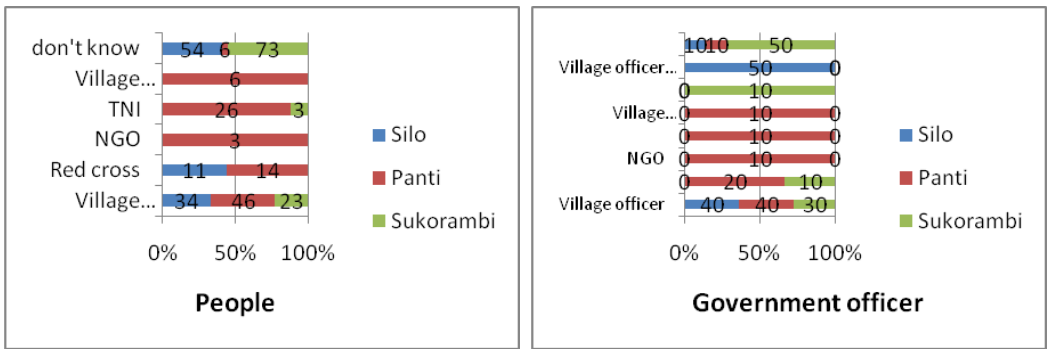
Recording of refugees in the evacuation location is one of important activities to monitor the progress of disaster situations. Of the three locations, the community survey showed at Silo, and Sukorambi there are no record but at Panti by the most people (86%) had record of refugees. Different results obtained from surveys of Silo government officers. 90% of government officers said there were refugees records in evacuation sites and the remaining 10% said the opposite that no recording. In Panti, the survey results to the government officers is similar to the results of the survey to the people, 80% of government officers answered there is record of refugees in evacuation sites. Similarly, the survey results in Sukorambi (Graph 31).



Graph 31. Recording of refugees the evacuation location

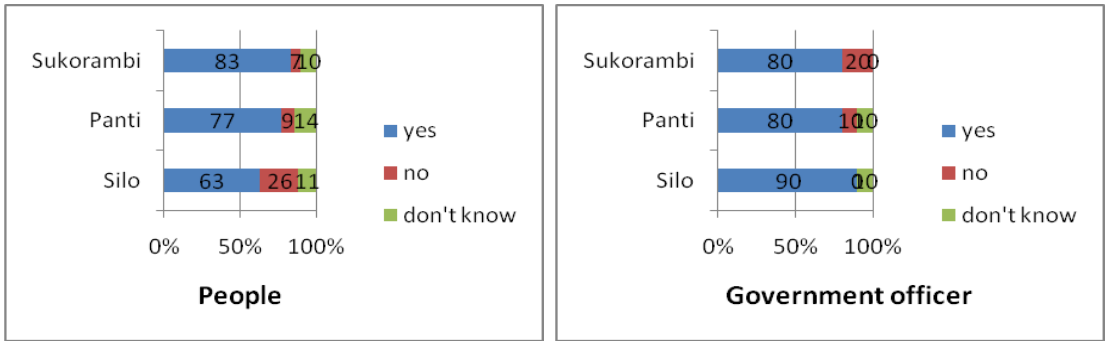
Those who answered no record of refugees in evacuation sites mentioned that most of the recording apparatus is village officers (Graph 32). In addition there are also from outside such as the Red Cross, NGOs, military and *karang taruna* (youth

organizations at village level). According to the Silo people, the recording apparatus of refugees consisted only of the village officers (34%) and PMI (11%). In Panti, almost all the elements involved as a recorder of refugees. In Sukorambi, besides village officers (23%) the recording apparatus of refugees is only from TNI (3%). Meanwhile, according to Silo government officers, the recording apparatus of refugees consisted of village officers (40%) and combined with *karang taruna* (50%). Panti government officers revealed that the recording apparatus largely composed of village officials (40%) and PMI (20%), and the remaining is from other elements. Sukorambi government officials said that the recording apparatus besides from village officials (30%) were from PMI (10%). It is different from the response of the people that mentioned the recording apparatus is from TNI.



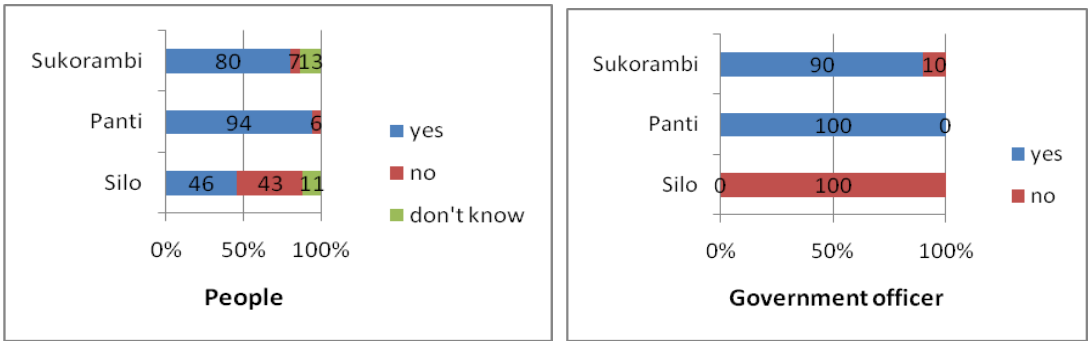
Graph 32. The recording apparatus of refugees in evacuation sites

The results of a survey on the people and government officers indicate that there is activity on the evacuation site to help victims (Graph 33). The answer of victim assistance activities by government officers at Silo and Panti is always higher than the community response. While in Sukorambi contrary, the people response mentioned the existence of the victim assistance activities is higher than government officials, although the answer is not much difference (3%). This is related to the responsibility of government officers in serving the community. So that their answers tend to show that they are doing their job properly (including doing help victims in evacuation sites).



Graph 33. Victim assistance activities in the evacuation site

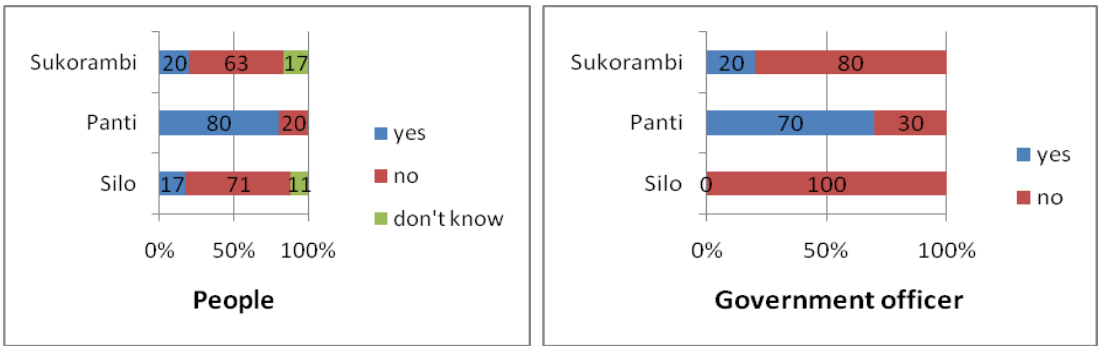
The existence of soup kitchen in the evacuation location is very important, because it related to the provision of logistics refugees. Most of the people and government officers say the soup kitchen at the evacuation location Silo unless government officials who said there is no (Graph 34). Most of the Silo people (46%) said there is a soup kitchen, 43% answered no and 11% answered do not know. In Panti, 94% of people said there was a soup kitchen and the remaining 6% said no. In Sukorambi, 80% of people said there was a soup kitchen, 7% answered no and the remaining 13% answered do not know. The strange answer is from Silo government officers, all of them (100%) said that there is no soup kitchen in the evacuation location. Instead Panti government officers, all of them (100%) answered that there is a soup kitchen at the evacuation site. Majority of Sukorambi government officers (90%) said there is a soup kitchen, and the remaining 10% answered no.



Graph 34. Soup kitchen at the evacuation site

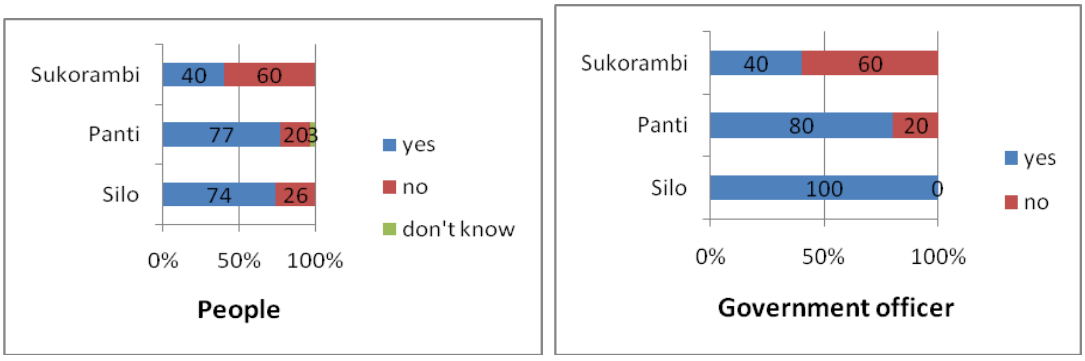
Fulfillment of facilities and infrastructure at the evacuation sites such as tents, clean water, health facilities and so have a good assessment from people and government officers (Graph 35). Silo people (71%) and Sukorambi (63%) considered

that the facilities and infrastructure at evacuation sites has not been fulfilled properly. Instead most Panti people (80%) rate has been fulfilled. Similarly, the opinion of Sukorambi and Silo government officers are almost equal to the people's opinion. Silo government officers (100%) Silo and Sukorambi government officials (80%) said that the facilities and infrastructure at the location of evacuation is not fulfilled properly. Conversely, most Panti government officers (70%) replied that the facilities and infrastructure are met.



Graph 35. Infrastructure facilities in evacuation sites

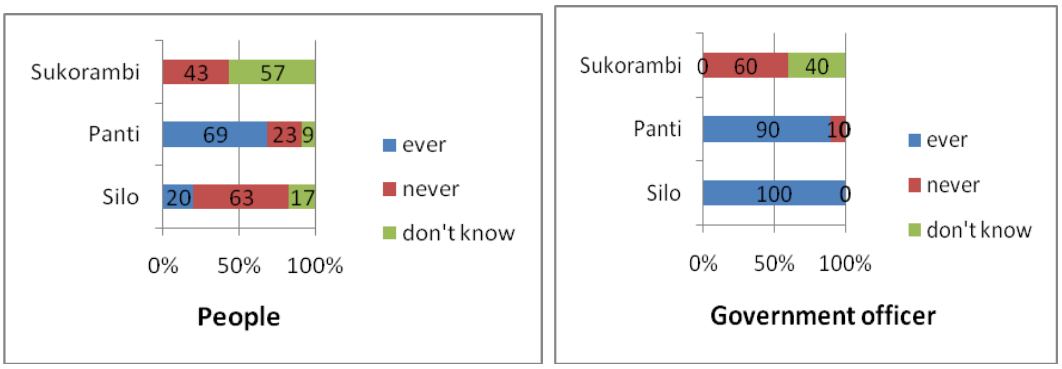
Related to whether or not there are still problems to be solved, people and government officers at Silo and Panti answer there is still many. While in Sukorambi only 40% of the people and government officials also said there was (Graph 36).



Graph 36. Problems that still need to be solved

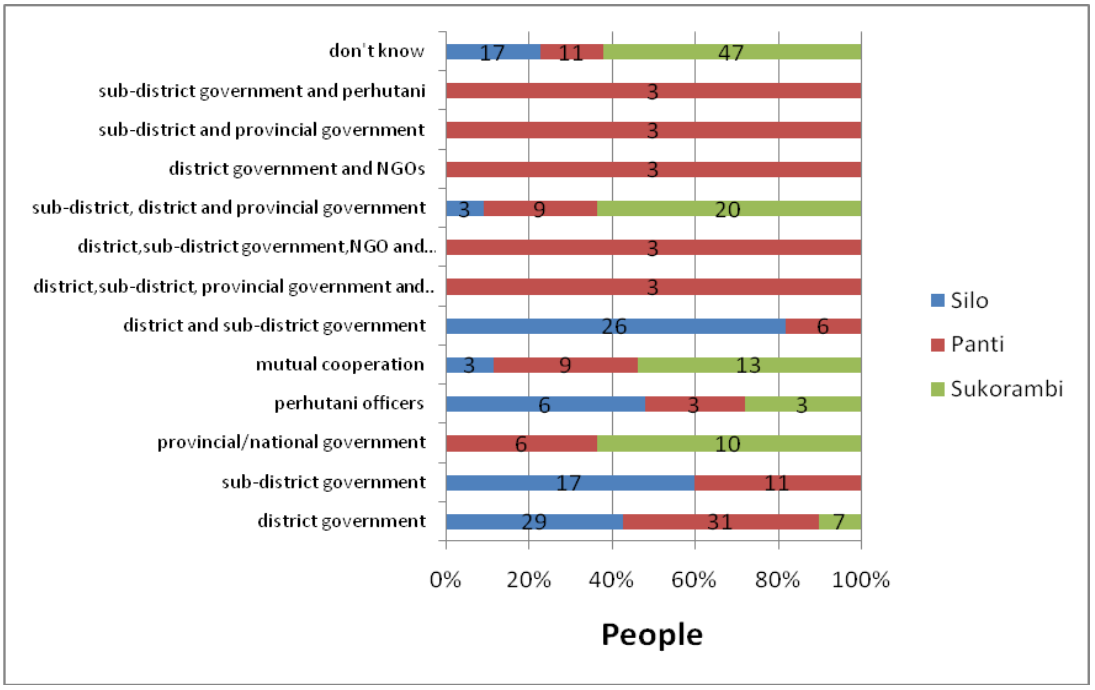
Attempts to solve the problems most often committed by Panti people (69%) and also Silo government officers (100%) (Graph 37). 20% of Silo people also had tried to solve the existing problems. While Sukorambi people have never tried at all as well government officers. Panti government officers also active in trying to solve the

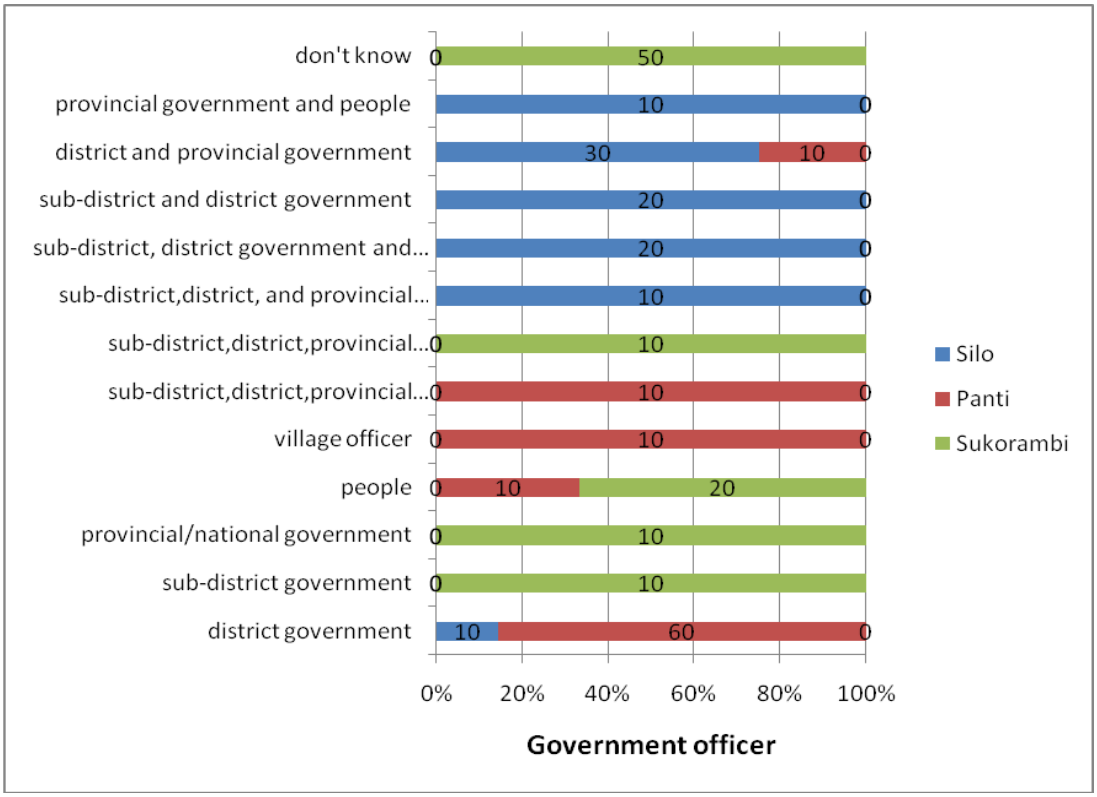
problem, survey results showed 90% of them said had been trying to solve the existing problems.



Graph 37. Ever tried to solve the problem

In trying to solve the problems above, people and government officers involve external parties such as government officials above the village (subdistrict, district, provincial and national), NGOs, and Perhutani (Graph 38). According to Silo people the most helpful to solve the problem is the district and subdistrict government (26%). Panti people argue that the district government is the most helpful (31%). Most of Sukorambi people (47%) answered no idea who is most helpful in solving the existing problems. Silo government officers argue that the district and provincial governments the most helpful (30%). Panti government officers claimed the district government is the only most helpful (60%). Sukorambi government officers like the majority of people (50%) did not know who was most helpful in trying solving existing problems.





Graph 38. Who helps solve problems

III. CLOSING

3.1 Conclusions

Survey results to the public and government officers at Silo, Panti and Sukorambi about early warning systems and early evacuation of banjir bandang can be summarized as follows:

a. People knowledge about banjir bandang is still diverse.
b. The cause of banjir bandang for each location is different. According to the people at Silo the cause was the river overflowed during heavy rains. Respondents in Panti argued that the cause was flood-prone vegetation (located on the plains with a steep slope) to high rainfall. Respondents in Sukorambi argued that the cause of banjir bandang is post flood from the higher region.
c. Areas suffered the most victims (> 100 inhabitants) and physical damage due to banjir bandang is Panti.
d. Early warning system already exists, but is considered ineffective. Among the three locations, Panti have best early warning system because it already comes adequate infrastructure (post, tools and mechanisms). Furthermore Sukorambi because of equipment (assistance loudspeakers placed in the mosque) and great support from plantation in the area of the monitor signs of disaster. At Silo, the early warning system has not been formed because people are in conflict due to the pros and cons of manganese mining plans. So any program that went in there received with suspicion.
e. Early evacuation system already exists, but not well coordinated.

3.2 Recommendations

From the survey findings can be recommended matters as follows:

a. Socialization in wider and deeper about things related to banjir bandang is needed.
b. Development of early warning systems more effective in areas prone to banjir bandang. Effective communication tool for early warning system should consider the user. Satlak level and the government officials need communication tool with a good system and a wide range such as sirens, handy talky (HT) and

mobile phones. At the community level can be used a tool that is practical and easy to obtain, such as *kentongan* and loudspeakers in the mosque / musholla.

c. Development of early evacuation systems better, especially in terms of coordination in areas prone to banjir bandang. This can be done by conducting periodic meetings or training either in the Task Force and government officials or in the community. In addition to strengthening coordination of vigilance also the coming flood.
d. Creating and disseminating hazard maps and evacuation maps and routes and signs in areas prone to banjir bandang.

Nu Respondent

Initial of Enumerator: .....

Community

YAYASAN PENGABDI MASYARAKAT (YPM) AND *JAPAN INTERNATIONAL COOPERATION AGENCY* (JICA)

EARLY WARNING AND EVACUATION SYSTEM OF BANJIR BANDANG AT SILO, PANTI DAN SUKORAMBI

Enumerator: Please inform clearly and briefly about the purpose of this research.

We are an enumerator of research for "Early Warning and Early Evacuation System of Banjir Bandang at Kecamatan Silo, Panti and Sukorambi", Kabupaten Jember. In this opportunity, we will deliver some questions concerning with Early Warning and Early Evacuation System of Banjir Bandang that you/Mr/Mrs know. Your answer will be used only for the research need and the confidentiality will be kept fully.

We are incorporate in the study team under the cooperation between Yayasan Pengabdian Masyarakat (YPM) and JICA to conduct the research activity by gathering data that will be utilized to make the decision and put the priority on the public welfare needs for establishing early warning system and evacuation of banjir bandang.

Name of Enumerator : ……...

Date of Interview : ……./……/……

Date of supervisor checking : ……./……/……

Name & Signature of enumerator: Name & Signature of supervisor

(……) (……)

Nu Respondent | | | | |

Initial of Enumerator: .....

I. Identity of Respondent

1. Name of respondent : ……
2. Respondent Number | | | | |
3. Address : (1) Dusun : ……..RT/RW: ……./……
   (2) Desa : ……
   (3) Kecamatan: ……..

4. Age : ……...
5. Gender : (1). Male (2) Female

6. Education : 1) No Education (2) Elementary School/SD
   (3) Junior High School/SMP (4) Senior High School/ SMA
   (4) D1/D2/D3 Graduate (5) College Graduate

7. Type of respondent : (1) Local/Informal Leader
   (2) Ordinary resident

8. Main Occupation : ……
   Position : ……

9. Side Job : ……
   Position : ……

10. Position or role in the community (directed on duties)
    ……
    ……

II. Historical Occurrence of Flood

1. Did you know about banjir bandang occurrence that ever hit your area?
   (1) Know
   (2) Don't Know
2. How many times banjir bandang occur in your area for recent 10 years?
   (1) 1 time
   (2) 2 times
   (3) 3 times
   (4) More than 3 times (……times)

Nu Respondent | | | | |

Initial of Enumerator: .....

3. When did it occur?

   Year ……

4. Was there any dead victim?
   (1) Yes (my family)
   (2) Yes (neighboring family)
   (3) No
   If yeas, in what year was the occurrence?.....

5. Was the banjir bandang cause any house damage?
   (1) Yes (my house)
   (2) Yes (my neighbor house)
   (3) No

   If yes, in what year the occurrence was?.....

6. How many dead victims resulted by that banjir bandang?

   (1) Less than 100 peoples

   (2) More than 100 peoples

7. Where are the banjir bandang hazard points in your area?
   R/RW …….
   Dusun …….
   Desa …….

   Reason……
   ……

8. Where was the cause of banjir bandang disaster hazard in your area come from?

   (1) Land cover/vegetation.....

   (2) Land condition

   (2) From upstream area/higher location

   (3) The overflow of river when there is heavy rain

   (4) Others ……..

9. Do you have any method of banjir bandang anticipation?
   (1) Yes
   (2) No
   How is the method? Describe briefly! Figure/Draw it!

   ……
   ……
   ……
   ……

10. Is that banjir bandang anticipation method ever been applied by you?
    (1) Yes, ever
    (2) Never

11. In your opinion, is that banjir bandang anticipation method effective enough?
    (1) Yes
    (2) No

    Reason……
    ……
    …….

12. Who has the role in the anticipation of banjir bandang?
    (1) Officers
    (2) Pubic protection/Linmas
    (3) Local Leader
    (4) Others……..

14. Do you know about NGO named FKAB (Forum Komunikasi Anak Bangsa)
    (1) Know (2) Don't Know

15. If you know about their activities, explain about the contribution to your area!
    ……
    ……

16. Do you know about other NGO that the activities related to banjir bandang?
    (1) Know (2) Don't Know

15. If you know about the activities, explain about the activities!
    ……
    ……

III. Early Warning System for Banjir Bandang

1. Do you have any model of early warning system for you and your family and the neighbor as well in case if banjir bandang occur?
    (1) Yes
    (2) No (If no, directly to the question number 4)

    Reason……

2. How do you call that early warning system?
    ……

3. Explain about the early warning system! Explain briefly and describe/figure it!
    ……
    ……
    ……

3. Is that early warning system created by yourself?
   (1) Yes
   (2) No
4. If not, from where did you adopt the early warning system?
   (1) Training
   (2) Hereditary
   (3) Learning from other community
   (4) Others……..
5. Is there any person informing the warning of banjir bandang dangerous?
   (1) Yes, there is
   (2) No
6. If there is any person, who conduct the informing?
   (1) Public protection/Linmas
   (2) Community/peoples in the upstream area
   (3) Neighborhood neighbor
   (3) Others……..
7. What kind of communication tool being used to inform about the warning for banjir bandang dangerous to you?
   (1) Kentongan
   (2) Siren
   (3) Others……..
8. Does the sound of the warning can be heard clearly?
   (1) Clear
   (2) Not clear enough
   (3) Not clear
9. Is the warning tool under sufficient and well-function condition?
   (1) Good
   (2) Not so good
   (3) Not good/Damage
10. Do you understand the meaning of warning from the tool?
    (1) Yes (2) No
11. Do you think that this early warning system is effective?
    (1) Yes (2) No
    Reason

……
……

Nu Respondent | | | | |

Initial of Enumerator: .....

IV. Evacuation System of Banjir Bandang

1. Under what condition that you will do the evacuation?
   (1) When there is continuous heavy rain for several days
   (2) The discharge of river starts to be overflow
   (3) Thundering sound of flash flood from higher place
   (4) After receiving warning information from the local government
   (5) After receiving warning information from the local leader
   (6) When other neighbor start to evacuate
   (7) Others (…….……..)
2. Who will help you in the evacuation when banjir bandang likely to occur?
   (1) Task force of Desa
   (2) Local Leader
   (3) Others (…….……..)
3. Do you know the safe place to be used as evacuation site for now?
   (1) Yes
   (2) No

4. What is your reason to choose that location?
   (1) The most safe area
   (2) Reachable (Easy to be reached)
   (3) Huge amount of Capacity
   (4) Others (…….……..)
5. How is the distance between evacuation site and the nearest banjir bandang hazard area?
   (1) 100 – 500 m
   (2) 500 – 1000 m
   (3) 1000 – 5000 m
   (4) More than 5000 m
6. Is there any map or sign guiding to the evacuation site in your village?
   (1) Yes
   (2) No
7. Is the capacity of that location can covers all of the people who are impacted by banjir bandang?
   (1) Yes
   (2) No
8. How many locations (RT/RW, Dusun, Desa) your area that could be utilized as evacuation site?
   a. RT/RW ……. sites
   b. Dusun ……. sites
   c. Desa ……. sites
9. How is the average capacity of each evacuation site?
   (1) 100 – 500 peoples
   (2) 500 – 1000 peoples
   (3) 1000 – 2000 peoples
   (4) More than 2000 peoples

10. Is there any refugee listing at the evacuation site if banjir bandang occur?
    (1)Yes, there is
    (2)No
11. Who has the duty to conduct the refugee listing at the evacuation site?
    (1)Village officers
    (2)PMI
    (3) NGO
    (4)Youth organization (Karang taruna)
    (5) Others……
12. Is there any victim aid handling activity at the evacuation site?

    (1)Yes, there is
    (2)No
13. Who has the duty to conduct victim aid handling at the evacuation site?
    (1)Village Officer
    (2)PMI
    (3) NGO
    (4) Public health service center (Puskesmas)
    (5) Others……
14. Is there any emergency kitchen conducted at the evacuation site?
    (1)Yes
    (2)No
15. Who has the duty to conduct emergency kitchen at the evacuation site?
    (1)Village woman dedication association
    (2)Community
    (3) PMI
    (3) NGO
    (4) Others……
16. Is the facility and infrastructures at the evacuation site already fulfilled?
    (1)Yes
    (2)No

V. The Problems

1. Is there any problem that you think still unsolved?
   (1)Yes, there is
   (2)No
   Mention!
   ……
   ……
2. Have you ever try to solve this problem?
   (1)Yes, ever been tried
   (2)No, never try

Nu Respondent

Initial of Enumerator: .....

3. If you ever tried, how is the result of your problem solving?
   ……
   ……
   ……
4. According to you, who will be able to help in solving the problem? Reason
   (1)Kabupaten Government
   (2)Village Government
   (3)NGO
   (4) National or Province Government
   (4)Others (…….……..)
5. Is there any suggestion from you about establishing more effective early warning system?
   ……
   ……
   ……
   ……
6. Is there any suggestion from you about more effective evacuation handling?
   ……
   ……
   ……
   ……

VI. Map of Respondent Location. Figure out the location of Respondent.

Southern Latitude :

Longitude East :

Altitude : m above sea level

----------000----------

Nu of Respondent

Initials of Enumerator: .....

Government & NGO

YAYASAN PENGABDI MASYARAKAT (YPM) AND *JAPAN INTERNATIONAL COOPERATION AGENCY* (JICA)

EARLY WARNING AND EVACUATION SYSTEM OF BANJIR BANDANG AT SILO, PANTI DAN SUKORAMBI

Enumerator: Please inform clearly and briefly about the purpose of this research.

We are an enumerator of research for "Early Warning and Early Evacuation System of Banjir Bandang at Kecamatan Silo, Panti and Sukorambi", Kabupaten Jember. In this opportunity, we will deliver some questions concerning with Early Warning and Early Evacuation System of Banjir Bandang that you/Mr/Mrs know. Your answer will be used only for the research need and the confidentiality will be kept fully.

We are incorporate in the study team under the cooperation between Yayasan Pengabdian Masyarakat (YPM) and JICA to conduct the research activity by gathering data that will be utilized to make the decision and put the priority on the public welfare needs for establishing early warning system and evacuation of banjir bandang.

Name of Enumerator : ……...

Date of Interview : ……./……/……

Date of supervisor checking : ……./……/……

Name & Signature of enumerator: Name & Signature of supervisor

(……) (……)

Nu of Respondent | | | | |

Initials of Enumerator: .....

I. Identity of Respondent

1. Name of respondent : ……
2. Respondent Number | | | | |
3. Address : (1) Dusun : ……..RT/RW: ……./……
   (2) Desa : ……
   (3) Kecamatan: ……..

4. Age : ……...
5. Gender : (1). Male (2) Female

6. Education : 1) No Education (2) Elementary School/SD
   (3) Junior High School/SMP (4) Senior High School/ SMA
   (4) D1/D2/D3 Graduate (5) College Graduate

7. Type of respondent : (1) Governmental officer (kabupaten)
   (2) Governmental officer (kecamatan)
   (3) Governmental officer (desa)
   (4) Governmental officer (dusun)
   (5) Informal Leader (local leader, religious leader/kyai, etc)

8. Main occupation : ……
   Position : ……

9. Side Job : ……
   Position : ……

10. Position or role in the community: ……..

II. Historical Occurrence of Banjir Bandang

1. Did you know about banjir bandang occurrence that ever hit your area?
   (1) Know
   (2) Don't Know
2. How many times banjir bandang occur in your area for recent 10 years?
   (1) 1 time
   (2) 2 times
   (3) 3 times
   (4) More than 3 times (……times)

Nu of Respondent | | | | |

Initials of Enumerator: .....

3. When did it occur?
   Year ……
4. Was there any dead victim for banjir bandang occurrence?
   (1) Yes (my family)
   (2) Yes (neighboring family)
   (3) No
   If Yes, in what year was the occurrence?.....

5. Was the banjir bandang cause any house damage?
   (1) Yes (my house)
   (2) Yes (my neighbor house)
   (3) No

   If yes, in what year the occurrence was?.....

6. Was the banjir bandang cause any damage on public facilities?

   (1) Yes
   (2) No

   If yes, mention
   ……

7. How many dead victims resulted by that banjir bandang?

   (1) Less than 100 peoples

   (2) More than 100 peoples

8. Where are the banjir bandang hazard points in your area?
   RT/RW …….
   Dusun …….
   Desa …….
   Reason
   ……
   ……
9. Where was the cause of banjir bandang disaster hazard in your area come from?

   (1) Land cover

   (2) Condition of land structure

   (2) From upstream area/higher location

   (3) The overflow of river when there is heavy rain

   (4) Others ……..

Nu of Respondent

Initials of Enumerator: .....

10. Do you have any method of banjir bandang anticipation for the residents?
    (1) Yes
    (2) No

    How is the method? Describe briefly! Figure/Draw it briefly!

    ……
    ……
    ……
    ……

11. Is that banjir bandang anticipation method ever been applied by the residents?
    (1) Yes, ever
    (2) Never
12. In your opinion, is that banjir bandang anticipation method effective enough?
    (1) Yes
    (2) No

    Reason……
    ……

13. Who has the role in the anticipation of banjir bandang?
    (1) Officers
    (2) Pubic protection/Linmas
    (3) Local Leader
    (4) Others……..

14. Do you know about NGO named FKAB (Forum Komunikasi Anak Bangsa)
    (1) Know (2) Don't Know

15. If you know about their activities, explain about the contribution to your area!

    ……
    ……

16. Do you know about other NGO that the activities related to banjir bandang?
    (1) Know (2) Don't Know

15. If you know about the activities, explain about the activities!

    ……
    ……

Nu of Respondent | | | | |

Initials of Enumerator: .....

III. Early Warning System for Banjir Bandang

1. Do you have any model of early warning system for the community if banjir bandang is likely to occur?
   (1) Yes
   (2) No

   Reason……

2. How do you call that early warning system?
   ……

3. If the answer nu.1 is (1) yes, explain about the early warning system! Describe/figure it!
   ……
   ……
   ……
   ……

4. Is that early warning system created by yourself?
   (1) Yes
   (2) No
5. If not, from where did you adopt the early warning system?
   (1) Training
   (2) Book
   (3) Learning from other community
   (4) Others……..

6. Is there any person who has the duty to inform that dangerous warning should be ring in?
   (1) Yes, there is
   (2) No one
7. If the answer of number 6 is yes, who has the duty to inform?
   (1) Public protection/Linmas
   (2) Upstream residents
   (3) Others……..
8. Is there any task force that has role in informing about banjr bandang dangerous warning in this village by using communication tool?
   (1) Yes (2) No
9. If yes, what are the tools being used?
   (1) Handy Talky
   (2) Cell phone
   (3) Others (…….……..)

10. Is that communication tool well-functioned?
    (1) Yes
    (2) No
11. Does the banjir bandang early warning system utilize supporting instrument/tool?
    (1) Yes
    (2) No
12. What is the tool being used for warning signal on banjir bandang occurrence?
    (1) Kentongan
    (2) Siren
    (3) Others……..
13. Refer to the question number 12, Is the early warning sound can be heard clearly?
    (1) Clear
    (2) Not clear enough
    (3) Not clear
14. Is the warning tool under sufficient and well-function condition?
    (1) Good
    (2) Not so good
    (3) Not good/Damage
15. Did the peoples understand about the warning by using those tool?
    (1) Yes
    (2) No
16. How many steps being conducted for the early warning system?
    (1) 2 steps
    (2) 3 steps
    (3) 4 steps
    (4) More than 4 steps (……..)
17. In what condition do you conduct the first warning?
    ……
18. Describe briefly about the first step!
    ……
    ……
    ……
    ……
19. In what condition do you conduct the second warning?
    ……
20. Describe briefly about the second step!
    ……
    ……
    ……
    ……

21. In what condition do you conduct the third warning step?
    ……
22. Describe briefly about the second step?
    ……
    ……
    ……
    ……
23. Until which step of early warning system did you experience to conduct for your community?
    (1) Step 2
    (2) Step 3
24. How effective the early warning system that you made in order to decrease the victims? Explain!
    ……
    ……
    ……

IV. Evacuation System of Banjir Bandang

1. When will you recommend the people to do the evacuation? Reason?
    (1) When there is continuous heavy rain for several days
    (2) The discharge of river starts to be overflow
    (3) Thundering sound of flash flood from higher place
    (4) After receiving warning information from the authorized institution as the instructed steps.
    (4) Others (……..……..)
2. In which step does the evacuation being recommend?
    (1) Step 2
    (2) Step 3
3. Is there any task force for early evacuation handling of banjir bandang in your village?
    (1) Exist
    (2) Not exist
4. Who are included as the task force member of evacuation handling for the banjir bandang victims?
    (1) Village officers
    (2) Public Protection Member
    (3) Local Leader
    (4) Others (……..……..)
5. Is there any person in charge for handling the early evacuation?
    (1) Yes (2) No

6. Do you have any location that can be used as evacuation site?
   (1) Yes
   (2) No

7. What is your reason to choose that location?
   (1) The most safe area
   (2) Reachable (Easy to be reached)
   (3) Huge amount of Capacity
   (4) Others (……..……..)
8. How is the distance between evacuation site and the nearest banjir bandang hazard area?
   (1) 10 – 50 m
   (2) 50 – 100 m
   (3) 100 – 500 m
   (4) More than 500 m
9. Is there any map or sign guiding to the evacuation site?
   (1) Yes
   (2) No
10. Is the capacity of that location can covers all of the people who are impacted by banjir bandang?
    (1) Yes
    (2) No
11. How many evacuation sites you have in your area (RT/RW/Desa/Dusun)?
    ……sites
12. How is the average capacity of each evacuation site?
    (1) 100 – 500 peoples
    (2) 500 – 1000 peoples
    (3) 1000 – 2000 peoples
    (4)More than 2000 peoples
13. Is there any refugee listing at the evacuation site?
    (1) Yes
    (2) No
14. Who has the duty to conduct the refugee listing at the evacuation site?
    (1) Village officers
    (2) PMI
    (3) NGO
    (4)Youth organization (Karang taruna)
    (5) Others……
15. Is there any victim aid handling activity at the evacuation site?

    (1) Yes, there is
    (2) No

16. Who has the duty to conduct victim aid handling at the evacuation site?
    (1) Village Officer
    (2) PMI
    (3) NGO
    (4) Public health service center (Puskesmas)
    (5) Others……
17. Is there any emergency kitchen conducted at the evacuation site?
    (1) Yes
    (2) No
18. Who has the duty to conduct emergency kitchen at the evacuation site?
    (1) Village woman dedication association (3) PMI
    (2) Community (4) NGO
    (5) Others……
19. Is the facility and infrastructures at the evacuation site already fulfilled?
    (1) Yes
    (2) No

V. The Problems

1. Is there any problem that you think still unsolved?
    (1) Yes, there is
    (2) No
    Mention!
    ……
    ……
2. Have you ever try to solve this problem?
    (1) Yes, ever been tried
    (2) No, never try
3. How is the result of your problem solving?
    ……
    ……
    ……
4. According to you, who will be able to help in solving the problem? Reason
    (1) Kabupaten Government
    (2) Village Government
    (3)NGO
    (4) National or Province Government
    (4) Others (……..……..)
5. What is your expectation in establishing more effective early warning system?
    ……
    ……

Nu of Respondent

Initials of Enumerator: .....

6. Is there any suggestion from you about more effective evacuation handling?
   ……
   ……
   ……

VI. Map of Desa office, NGO, Public Facility and Disaster Hazard Area. Please figure out about desa office, public facilities and banjir bnadang hazard area in your village.

Southern Latitude :

East Longitude :

Altitude : m above sea level

Analysis of Community Survey Result on Early Warning System and Early Evacuation in Jember

Age * Respondent code Crosstabulation

Count

		Respondent code			
		Silo	Panti	Sukorambi	Total
Age	16	1	0	0	1
	17	0	1	0	1
	19	1	0	0	1
	20	2	0	0	2
	21	1	0	0	1
	22	1	1	0	2
	23	0	1	0	1
	24	0	2	0	2
	25	0	2	0	2
	27	1	2	0	3
	28	1	2	1	4
	30	0	0	1	1
	31	1	0	2	3
	32	2	0	0	2
	33	2	0	0	2
	34	0	1	2	3
	35	3	1	0	4
	36	0	1	0	1
	37	2	0	0	2
	38	1	1	0	2
	39	2	1	4	7
	40	4	5	3	12
	41	0	1	0	1
	42	0	1	0	1
	43	0	2	0	2
	44	0	0	1	1
	45	2	0	0	2
	47	0	0	1	1
	48	0	1	0	1
	49	0	0	1	1
	50	3	3	2	8
	51	0	1	1	2
	52	0	0	1	1
	53	0	0	1	1
	55	1	2	3	6
	56	1	0	1	2
	57	1	0	1	2
	58	1	0	0	1
	59	0	0	1	1
	60	0	1	0	1
	61	0	1	1	2
	62	0	0	1	1
	63	0	0	1	1
	64	0	1	0	1
	65	1	0	0	1
Total		35	35	30	100

Age category * Respondent code Crosstabulation

Count

		Respondent code			
		Silo	Panti	Sukorambi	Total
Age category	<=30	8	11	1	20
	30-50	22	18	17	57
	>50	5	6	12	23
Total		35	35	30	100

Sex * Respondent code Crosstabulation

Count

		Respondent code			
		Silo	Panti	Sukorambi	Total
Sex	Male	15	18	21	54
	Female	20	17	9	46
Total		35	35	30	100

Education level * Respondent code Crosstabulation

Count

		Respondent code			
		Silo	Panti	Sukorambi	Total
Education level	Not completed elementary school	8	1	2	11
	Completed elementary school	13	13	23	49
	Completed junior high school	9	5	3	17
	Completed senior high school	4	14	1	19
	Completed diploma level	1	2	1	4
Total		35	35	30	100

Respondent type * Respondent code Crosstabulation

Count

		Respondent code			
		Silo	Panti	Sukorambi	Total
Respondent type	Socialite	2	3	1	6
	Citizen	33	32	29	94
Total		35	35	30	100

Main job * Respondent code Crosstabulation

Count

		Respondent code			
		Silo	Panti	Sukorambi	Total
Main job	Don't know	10	0	3	13
	Driver	0	2	0	2
	Entrepreneur	0	8	1	9
	Farmer	8	10	15	33
	Housewife	1	6	3	10
	Learner	0	1	0	1
	Nurse	0	0	1	1
	PDAM Employees	0	1	0	1
	Plantation employee	8	1	0	9
	PLN employees	0	1	0	1
	Private employee	0	0	1	1
	Student	0	1	0	1
	Teacher	1	1	0	2
	Trader	7	3	6	16
Total		35	35	30	100

Position in main job * Respondent code Crosstabulation

Count

		Respondent code			
		Silo	Panti	Sukorambi	Total
Position in main job	Classroom Teachers	0	1	0	1
	Collectors	0	2	0	2
	Contract workers	1	0	0	1
	Don't know	15	0	7	22
	Employee	2	2	1	5
	Handyman	0	1	0	1
	Health workers	0	0	1	1
	Hodge	0	0	2	2
	Housewife	0	5	2	7
	Labor	2	2	3	7
	Manager	1	0	0	1
	Masseur	0	1	0	1
	Middleman	0	0	1	1
	Owner	1	13	11	25
	Perhutani sharecrooper	1	0	0	1
	Resident	5	1	0	6
	Salon owner	1	0	0	1
	Seller Meatballs	0	0	1	1
	Sharecrooper	0	0	1	1
	Shopkeeper	1	3	0	4
	Student	0	1	0	1
	Supervisor	0	1	0	1
	Technician	0	1	0	1
	Tenant	0	1	0	1
	Tenants	1	0	0	1
	Trader	3	0	0	3
	Worker	1	0	0	1
Total		35	35	30	100

Side job * Respondent code Crosstabulation

Count

		Respondent code			
		Silo	Panti	Sukorambi	Total
Side job	99	31	18	20	69
	Breeder	0	1	2	3
	Cattle	0	1	0	1
	Don't know	0	0	1	1
	Driver	0	1	0	1
	Employment of public	0	1	0	1
	Farmer	1	3	2	6
	Farmers and trader	0	1	0	1
	Housewife	0	1	1	2
	Labor	2	2	1	5
	Miller	0	1	0	1
	Taxi driver	0	1	0	1
	Trader	1	4	3	8
Total		35	35	30	100

Position in side job * Respondent code Crosstabulation

Count

		Respondent code			
		Silo	Panti	Sukorambi	Total
Position in side job	99	32	18	22	72
	Driver	0	1	0	1
	Garden owners	0	1	0	1
	Handyman	0	1	1	2
	Helper	0	1	0	1
	hodge	0	1	0	1
	Hodge	0	0	1	1
	Housewife	0	0	1	1
	member	0	1	0	1
	Owner	0	9	3	12
	Shoopkeeper	0	1	0	1
	Tenant	1	1	0	2
	Trader	0	0	2	2
	Worker	2	0	0	2
Total		35	35	30	100

Position/role in community * Respondent code Crosstabulation

Count

		Respondent code			
		Silo	Panti	Sukorambi	Total
Position/role in community	health workers	0	0	1	1
	ordinary	2	0	0	2
	ordinary citizen	31	32	29	92
	ordinary citizens	0	1	0	1
	teacher	1	0	0	1
	village cadres	0	2	0	2
	village officials	1	0	0	1
Total		35	35	30	100

Know the occurence of banjir bandang * Respondent code Crosstabulation

Count

		Respondent code			
		Silo	Panti	Sukorambi	Total
Know the occurence of banjir bandang	Yes	35	35	29	99
	No	0	0	1	1
Total		35	35	30	100

How many times banjir bandang occurred in 10 last years? * Respondent code Crosstabulation

Count

		Respondent code			
		Silo	Panti	Sukorambi	Total
How many times banjir bandang occurred in 10 last years?	Once	16	33	21	70
	Twice	10	1	7	18
	3 times	2	1	0	3
	More than 3 times	2	0	1	3
	Don't know	5	0	1	6
Total		35	35	30	100

Year of banjir bandang occurence * Respondent code Crosstabulation

Count

		Respondent code			
		Silo	Panti	Sukorambi	Total
Year of banjir bandang occurence	2001, 2002	0	0	1	1
	2002	0	0	12	12
	2002, 2005	0	0	2	2
	2002, 2006	0	0	4	4
	2002, 2009	4	0	0	4
	2002,2005,2007	0	0	1	1
	2004, 2009	2	0	0	2
	2005	0	3	1	4
	2005, 2007, 2008, 2009	2	0	0	2
	2006	0	32	5	37
	2007	0	0	1	1
	2008, 2009	4	0	0	4
	2009	18	0	0	18
	99	5	0	3	8
Total		35	35	30	100

Banjir bandang caused victim? * Respondent code Crosstabulation

Count

		Respondent code			
		Silo	Panti	Sukorambi	Total
Banjir bandang caused victim?	Yes (family)	1	7	0	8
	Yes (neighbor)	7	10	11	28
	No	27	18	18	63
	Don't know	0	0	1	1
Total		35	35	30	100

Year of banjir bandang caused victims * Respondent code Crosstabulation

Count

		Respondent code			
		Silo	Panti	Sukorambi	Total
Year of banjir bandang caused victims	1991	0	0	1	1
	2002	0	0	8	8
	2005	0	3	1	4
	2006	0	22	0	22
	2007	0	0	1	1
	2009	10	0	0	10
	99	25	10	19	54
Total		35	35	30	100

Banjir bandang damaged house? * Respondent code Crosstabulation

Count

		Respondent code			
		Silo	Panti	Sukorambi	Total
Banjir bandang damaged house?	Yes (my house)	5	16	0	21
	Yes (neighbor's house)	27	14	3	44
	No	2	5	26	33
	99	1	0	1	2
Total		35	35	30	100

Year of banjir bandang damaged house? * Respondent code Crosstabulation

Count

		Respondent code			
		Silo	Panti	Sukorambi	Total
Year of banjir bandang damaged house?	1990	0	0	1	1
	2002	0	0	2	2
	2005	0	3	1	4
	2006	0	31	0	31
	2009	29	0	0	29
	99	6	1	26	33
Total		35	35	30	100

Victim due to banjir bandang * Respondent code Crosstabulation

Count

		Respondent code			
		Silo	Panti	Sukorambi	Total
Victim due to banjir bandang	< 100 victims	10	14	28	52
	> 100 victims	0	16	0	16
	Don't know	25	5	2	32
Total		35	35	30	100

RT/RW which prone tobanjir bandang * Respondent code Crosstabulation

Count

		Respondent code			
		Silo	Panti	Sukorambi	Total
RT/RW which prone tobanjir bandang	03.03	2	0	0	2
	03.04	3	0	0	3
	1	0	4	0	4
	1 / 3	13	0	0	13
	1 / 4	0	2	0	2
	1, 3	0	1	0	1
	1, 4	0	1	0	1
	2	0	5	0	5
	2 / 2	0	0	1	1
	2 / 4	8	0	0	8
	2 / 5	1	0	0	1
	2, 1	0	1	0	1
	2, 2	0	2	0	2
	2, 5	0	2	0	2
	3	0	1	0	1
	3 / 4	1	0	0	1
	4 / 4	1	0	0	1
	4, 1	0	1	0	1
	5	0	2	0	2
	5 / 2	1	0	0	1
	6	0	1	0	1
	8, 6	0	1	0	1
	do not know	5	11	29	45
Total		35	35	30	100

Dusun which prone to banjir bandang * Respondent code Crosstabulation

Count

		Respondent code			
		Silo	Panti	Sukorambi	Total
Dusun which prone to banjir bandang	1	0	4	0	4
	2	0	2	0	2
	3	0	1	0	1
	99	5	0	0	5
	Bunut, Perkebunan Gu	0	1	0	1
	Curah wungkal	5	0	0	5
	Curah Wungkal	15	0	0	15
	curahwungkal	10	0	0	10
	delima dan kantong	0	1	0	1
	gaplek	0	3	0	3
	Gaplek	0	1	0	1
	gaplek barat, kepiri	0	1	0	1
	gaplek dan glengsera	0	1	0	1
	gendir	0	0	11	11
	Gendir	0	0	11	11
	GENDIR	0	0	8	8
	Glengseran	0	1	0	1
	Glingseran	0	1	0	1
	Glundengan	0	3	0	3
	Glundengan dan kepir	0	1	0	1
	kantong	0	3	0	3
	Kantong, Delima	0	1	0	1
	Kantong, Perkebunan	0	1	0	1
	kemiri dan kantong	0	1	0	1
	Kepiring	0	1	0	1
	Krajan	0	2	0	2
	manggis	0	2	0	2
	Manggis, Kaliputih,	0	1	0	1
	Perkebunan Kali Mang	0	1	0	1
	Sodong	0	1	0	1
Total		35	35	30	100

Village which prone to banjir bandang * Respondent code Crosstabulation

Count

		Respondent code			
		Silo	Panti	Sukorambi	Total
Village which prone to banjir bandang	99	5	0	0	5
	gaplek	0	3	0	3
	glundengan	0	1	0	1
	kantong	0	2	0	2
	kemiri	0	3	0	3
	Kemiri	0	8	0	8
	klungkung	0	0	11	11
	Klungkung	0	0	11	11
	KLUNGKUNG	0	0	8	8
	krajan	0	1	0	1
	pace	10	0	0	10
	Pace	20	0	0	20
	panti	0	7	0	7
	suci	0	1	0	1
	Suci	0	9	0	9
Total		35	35	30	100

Reason why prone to banjir bandang * Respondent code Crosstabulation

Count

		Respondent code			
		Silo	Panti	Sukorambi	Total
Reason why prone to banjir bandang	99	5	0	1	6
	below hill	2	0	0	2
	cracks occur	0	0	7	7
	existing house immersed in wat	1	0	0	1
	frequent flooding	0	0	6	6
	landslide-prone	0	3	3	6
	Low areas	0	0	2	2
	near river	20	32	9	61
	Near the plantation / Spot Pro	0	0	1	1
	near the river and below the h	3	0	0	3
	prone to landslides	0	0	1	1
	shallow river	3	0	0	3
	when the flood water brought k	1	0	0	1
Total		35	35	30	100

Causal factor of banjir bandang * Respondent code Crosstabulation

Count

		Respondent code			
		Silo	Panti	Sukorambi	Total
Causal factor of banjir bandang	Vegetation	3	16	0	19
	Soil condition	1	2	5	8
	Consigment flood	9	5	13	27
	River overflowing when heavy rains	10	6	2	18
	Non-planted forest	2	0	1	3
	Landslide	1	0	0	1
	Vegetation and soil condition	1	0	0	1
	Vegetation,soil,consignment flood and overflowing river	1	0	0	1
	land cover, soil condition and overflowing river	0	2	0	2
	Vegetation and consignment flood	1	0	0	1
	Vegetation,consignment flood and overflowing river	0	0	1	1
	Soil condition and consignment flood	0	4	2	6
	Consignment flood and overflowing river	0	0	6	6
	Overflowing river, non-planted forest and landslide	1	0	0	1
	Don't know	5	0	0	5
Total		35	35	30	100

Anticipation to banjir bandang * Respondent code Crosstabulation

Count

		Respondent code			
		Silo	Panti	Sukorambi	Total
Anticipation to banjir bandang	Yes	15	28	6	49
	No	15	7	24	46
	Don't know	5	0	0	5
Total		35	35	30	100

Description of banjir bandang anticipation * Respondent code Crosstabulation

Count

		Respondent code			
		Silo	Panti	Sukorambi	Total
Description of banjir bandang anticipation	99	19	6	19	44
	Afforestation	0	2	0	2
	bags containing soil	1	0	0	1
	Check the weather information	0	1	0	1
	closed fracture	0	0	1	1
	Do not cut down forests	1	0	0	1
	do not know	0	0	6	6
	Elevated	1	0	0	1
	Excavated	1	0	0	1
	fled to higher areas	0	4	0	4
	Forest preserve	0	1	0	1
	form of night watchmen	1	0	0	1
	greening	1	2	3	6
	greening, deepening of the river, improve human resources and public awareness	0	1	0	1
	heavy rain the night, ready to flee into the mosque teruz	1	0	0	1
	held reforestation	0	1	0	1
	keep alert	1	0	0	1
	making embankments	0	1	0	1
	Monitor the flow of the river	0	1	0	1
	Monitor the weather and river flow	0	1	0	1
	on guard every heavy rain lasted ynag night	1	0	0	1
	people wait for upstream information	0	1	0	1
	Preparing for the items in backpack	0	1	0	1
	ran a high place	3	0	0	3
	reforestation	0	4	0	4
	reforestation of the dam and dispose of waste in place	0	1	0	1
	refugees	1	0	0	1
	refugees into high places	0	1	0	1
	river from the top so the water can be broken down for	0	1	0	1
	see the water discharge	0	2	0	2
	sngai dredging, reforestation, reduction of timber cutting	0	1	0	1
	soil and stones	1	0	0	1
	tree planting	0	0	1	1
	vigilant when it rains	1	0	0	1
	water discharge	0	2	0	2

Have been implemented antisipasi banjir bandang anticipation * Respondent code Crosstabulation

Count

		Respondent code			
		Silo	Panti	Sukorambi	Total
Have been implemented antisipasi banjir bandang anticipation	Yes	11	27	4	42
	No	10	6	8	24
	Don't know	14	2	18	34
Total		35	35	30	100

Is the implementation of banjir bandang anticipation effective? * Respondent code Crosstabulation

Count

		Respondent code			
		Silo	Panti	Sukorambi	Total
Is the implementation of banjir bandang anticipation effective?	Yes	13	25	1	39
	No	5	8	9	22
	Don't know	17	2	20	39
Total		35	35	30	100

Reason of banjir bandang anticipation effective or not * Respondent code Crosstabulation

Count

		Respondent code			
		Silo	Panti	Sukorambi	Total
Reason of banjir bandang anticipation effective or not	99	17	3	25	45
	At least if there are provisions to flee dipengung	0	1	0	1
	Because it is characteristic of a flood Bandan	0	1	0	1
	because there are no obstructions	1	0	0	1
	before the floods there is no way to anticipate	1	0	0	1
	building structure is not strong enough	0	1	0	1
	can accommodate more water	1	0	0	1
	cracks are not fast avalanche	0	0	1	1
	efforts to overcome problems	0	1	0	1
	feel safe at home	1	0	0	1
	former mountain landslide so it look more green	0	1	0	1
	good	0	1	0	1
	have yet to demonstrate results	0	0	1	1
	if heavy rain does not stop, direct citizen	1	0	0	1
	if there's anything easy run	1	0	0	1
	just think about saving yourself	1	0	0	1
	know the signs of flooding	1	0	0	1
	minimize risk	0	1	0	1
	More effective than waiting for information from w	0	1	0	1
	no	0	1	0	1
	no one wants to work on	0	1	0	1
	not covered by water	1	0	0	1
	not have land	0	1	0	1
	not yet know the results	0	0	2	2
	nothing can be done	2	0	0	2
	permanent flood	2	0	0	2
	place safe and far from flash floods	1	0	0	1
	Prediction itself is not necessarily appropriate,	0	1	0	1
	reduce the disruption of water running	0	1	0	1
	Reduce the occurrence of floods	0	1	0	1

Who is taking role in banjir bandang anticipation * Respondent code Crosstabulation

Count

		Respondent code			
		Silo	Panti	Sukorambi	Total
Who is taking role in banjir bandang anticipation	Government officer	6	10	6	22
	Civil defense	1	2	0	3
	Socialite	0	3	1	4
	Community	7	6	3	16
	Their self	2	0	0	2
	Government officer, civil defense and socialite	0	2	1	3
	Government officer, civil defense,socialite and community	0	2	2	4
	Government officer and socialite	3	3	0	6
	Government officer, socialite and community	1	0	1	2
	Government officer and community	3	4	0	7
	Government officer and NGO	0	1	0	1
	Civil defense,socialite and community	0	1	0	1
	Socialite and community	2	0	0	2
	Don't know	10	1	16	27
Total		35	35	30	100

Do you know NGO (FKAB) * Respondent code Crosstabulation

Count

		Respondent code			
		Silo	Panti	Sukorambi	Total
Do you know NGO (FKAB)	Know	0	3	0	3
	Don't know	35	32	22	89
	99	0	0	8	8
Total		35	35	30	100

Activity and contribution of FKAB * Respondent code Crosstabulation

Count

		Respondent code			
		Silo	Panti	Sukorambi	Total
Activity and contribution of FKAB	99	35	32	30	97
	Only heard, never felt the contributions	0	1	0	1
	Providing food and clothing assistance	0	1	0	1
	suggest to the children and mothers not to be afraid anymore, give shaman	0	1	0	1
Total		35	35	30	100

Is there NGO related to banjir bandang * Respondent code Crosstabulation

Count

		Respondent code			
		Silo	Panti	Sukorambi	Total
Is there NGO related to banjir bandang	Know	3	10	2	15
	Don't know	32	25	28	85
Total		35	35	30	100

NGO activity related to banjir bandang * Respondent code Crosstabulation

Count

		Respondent code			
		Silo	Panti	Sukorambi	Total
NGO activity related to banjir bandang	2 hours of rain, ran, 1 the device does not exist, neighbors liahat weather	0	7	0	7
	99	1	0	0	1
	addressing flood	31	18	28	77
	aspiration	1	0	0	1
	CDBRM and political parties	2	0	0	2
	community leaders	0	1	0	1
	do not know	0	0	1	1
	Midshipman Earth, providing food and clothing assistance continuously	0	1	0	1
	nature lovers activity	0	0	1	1
	NU, food aid	0	1	0	1
	parties and YDSF	0	1	0	1
	PMI, BPNU, a political party (PKS, PAN, PDI), artists, military, government (the	0	1	0	1
	political party	0	3	0	3
	unej and a university. bayangkara	0	1	0	1
Total		35	35	30	100

***N*arning model when banjir bandang occurs * Respondent code Crosstabulation**

Count

		Respondent code			
		Silo	Panti	Sukorambi	Total
Warning model when banjir bandang occurs	Yes	8	14	3	25
	No	27	21	27	75
Total		35	35	30	100

ason why have or no banjir bandang warning model * Respondent code Crosstabulatio

Count

		Respondent code			
		Silo	Panti	Sukorambi	Total
Reason why have or no banjir bandang warning model	99	17	10	22	49
	alert	0	0	1	1
	Already exist from village officials	0	1	0	1
	Already there is a duty	0	1	0	1
	anticipated flood	0	0	1	1
	Based on info from a neighbor then saw con	0	0	1	1
	based on the experience means kalu creek w	0	0	1	1
	Do not know the warning model	0	1	0	1
	for collective security	0	0	1	1
	for self menyelamtakan	1	0	0	1
	from experience	0	1	0	1
	helping residents	0	3	0	3
	important to rescue citizens	1	0	0	1
	in case of seeking to run a flash flood	0	1	0	1
	It is important to minimize casualties if the floo	0	1	0	1
	joint safety	0	3	0	3
	Just as a sign to alert	1	0	0	1
	Just spontaneity	0	0	1	1
	kasun and citizens through	0	1	0	1
	layman	1	0	0	1
	liveliness kades	0	1	0	1
	make people more afraid	0	1	0	1
	more fast & easy to know residents	1	0	0	1
	mutual harmony among neighbors	1	0	0	1
	neighbors shouted if there was flooding	1	0	0	1
	No information about the warning model	0	1	0	1
	no notification	0	1	0	1
	not understand	0	0	1	1
	power outages and people in fear	1	0	0	1
	ran itself out of fear	0	1	0	1
	residents accustomed to flooding	2	0	0	2
	Responsibility of village officials	0	1	0	1
	river flood alert	0	1	0	1
	ronda night with rafters	1	0	0	1
	safe from flooding	0	1	0	1
	See water disungai	0	0	1	1

Name of early warning system model * Respondent code Crosstabulation

Count

		Respondent code			
		Silo	Panti	Sukorambi	Total
Name of early warning system model	99	30	21	27	78
	Direct communication	0	1	0	1
	gong	1	3	2	6
	HP	0	1	0	1
	kentengan	0	0	1	1
	loudspeaker	0	1	0	1
	mosque speakers	1	1	0	2
	no	0	4	0	4
	ROBBER door	0	1	0	1
	run	0	1	0	1
	shout	2	0	0	2
	Sirens	0	1	0	1
	speakers	1	0	0	1
Total		35	35	30	100

Description of early warning system * Respondent code Crosstabulation

Count

		Respondent code			
		Silo	Panti	Sukorambi	Total
Description of early warning system	+ perangkatdan citizens of the village chief check	0	1	0	1
	99	28	20	27	75
	alert residents when the rains continue and get re	1	0	0	1
	be pronounced	0	1	0	1
	communal invite each other to the evacuation site	1	0	0	1
	Direct tel kasun village parties and societies aro	0	1	0	1
	From the top there is a guard and inform the	0	1	0	1
	great river, the citizens were shouting to give t	1	0	0	1
	If there is flooding tanda2 announced through the	1	0	0	1
	inform the control of HT use	0	1	0	1
	kades pack notify residents between homes	0	1	0	1
	kentengan hitting officer with the symbols were	0	0	1	1
	mutual information between neighbors	1	0	0	1
	night guard, providing a sun sign, if the water	1	0	0	1
	prepare the necessary goods and run away	0	1	0	1
	quick and easy to operate	0	1	0	1
	rafters (5 times beats)	0	1	0	1
	ring	0	1	0	1
	Seeing the signs directly from the river, when the	0	1	0	1
	several residents in the control of river water up	0	1	0	1
	someone yelled there was flooding upstream	0	1	0	1
	the existence of special symbols on the farm	0	0	1	1
	there are special signs of blows that rafters	0	0	1	1
	through speakers announced	1	0	0	1
	to appeal	0	1	0	1
	when heavy rain, then there is a warning	0	1	0	1
Total		35	35	30	100

Creation of banjir bandang early warning system * Respondent code Crosstabulation

Count

		Respondent code			
		Silo	Panti	Sukorambi	Total
Creation of banjir bandang early warning system	Yes	2	8	0	10
	No	33	23	30	86
	Don't know	0	4	0	4
Total		35	35	30	100

Adoption source of early warning system * Respondent code Crosstabulation

Count

		Respondent code			
		Silo	Panti	Sukorambi	Total
Adoption source of early warning system	Training	3	2	0	5
	From generation to generation	5	9	1	15
	Learning from other community	27	15	10	52
	Participating in simulation	0	4	1	5
	From generation to generation and learning from other	0	0	4	4
	99	0	5	14	19
Total		35	35	30	100

Officer who inform banjir bandang warning * Respondent code Crosstabulation

Count

		Respondent code			
		Silo	Panti	Sukorambi	Total
Officer who inform banjir bandang warning	Yes	22	23	24	69
	No	13	12	6	31
Total		35	35	30	100

Status of information officer * Respondent code Crosstabulation

Count

		Respondent code			
		Silo	Panti	Sukorambi	Total
Status of information officer	Civil defense	0	3	1	4
	Upper community	1	9	8	18
	Neighbors	12	8	6	26
	Perhutani employee	1	2	7	10
	Local government	7	3	0	10
	Mosque manager	2	0	0	2
	Naturalist	0	1	0	1
	Civil defense and upper community	0	1	0	1
	Civil defense and neighbors	1	1	0	2
	Civil defense and local government	0	1	0	1
	Upper community and neighbor	1	2	2	5
	Neighbors and Perhutani employee	0	0	2	2
	Neighbors and plantation employee	1	0	0	1
	Neighbors and local government	1	0	0	1
	Don't know	8	4	4	16
Total		35	35	30	100

Communication tool for banjir bandang warning * Respondent code Crosstabulation

Count

		Respondent code			
		Silo	Panti	Sukorambi	Total
Communication tool for banjir bandang warning	Kentongan	4	6	14	24
	Siren	6	1	0	7
	Mosque loudspeaker	8	8	2	18
	HP	5	10	4	19
	HT	0	1	0	1
	Kentongan dan siren	2	0	0	2
	Kentongan and mosque loudspeaker	0	1	0	1
	Kentongan and HP	0	1	0	1
	kentongan, HP dan HT	0	0	1	1
	99	10	7	9	26
Total		35	35	30	100

Clarity of banjir bandang warning signs * Respondent code Crosstabulation

Count

		Respondent code			
		Silo	Panti	Sukorambi	Total
Clarity of banjir bandang warning signs	Clear	24	17	12	53
	Less clear	3	5	8	16
	Not clear	3	10	3	16
	Don't know	5	3	7	15
Total		35	35	30	100

Condition and function of communication tool * Respondent code Crosstabulation

Count

		Respondent code			
		Silo	Panti	Sukorambi	Total
Condition and function of communication tool	Good	28	26	20	74
	Not good	2	4	2	8
	Broken	0	2	1	3
	Don't know	5	3	7	15
Total		35	35	30	100

Understand with sound of communication tool * Respondent code Crosstabulatio

Count

		Respondent code			
		Silo	Panti	Sukorambi	Total
Understand with sound of communication tool	Yes	28	31	22	81
	No	7	4	8	19
Total		35	35	30	100

Assesment of the effectiveness of communication tool * Respondent code Crosstabulation

Count

		Respondent code			
		Silo	Panti	Sukorambi	Total
Assesment of the effectiveness of communication tool	Yes	18	19	18	55
	No	13	15	6	34
	Don't know	4	1	6	11
Total		35	35	30	100

Reason why early warning system effective or not * Respondent code Cross tabulation

Count

		Respondent code			
		Silo	Parti	Sukorambi	Total
Reason why early warning system effective or not	99	4	2	7	13
	ACCURATE AREABLE TOPROVIDE INFO	0	0	1	1
	All the residents gathered directly	0	1	0	1
	already urgent flood dg	0	1	0	1
	although less obvious but could the required infor	0	0	1	1
	applied	0	1	0	1
	appropriate habits	0	1	0	1
	Audible voice	0	0	1	1
	Bad signal	0	0	4	4
	Because a direct view to the river	0	1	0	1
	because his voice loud	2	0	0	2
	because the tool does not reach all areas	1	0	0	1
	better like sirens	0	1	0	1
	better sirens / loud	0	1	0	1
	Blackout could not be used	2	0	0	2
	can be clearly known	1	0	0	1
	can not be accessed by people byk	4	0	0	4
	can not cover all citizens	0	1	0	1
	CANSTILL SOUNDAND FUNCTION	0	0	1	1
	can tell	2	0	0	2
	citizens to be ready	1	0	0	1
	clear	1	0	0	1
	clear and definite	1	0	0	1
	could be heard a lot of people	1	0	0	1
	Could be heard COMMUNTY AND CHEAPER	0	0	1	1
	could reach homes residents	0	0	1	1
	do not know	0	0	1	1
	easy to operate	0	1	0	1
	easy to spread the news	0	0	1	1
	floods have occured	0	1	0	1
	Gong sounded loud	0	0	1	1
	habits of citizens with the bell symbol	0	0	1	1
	HELPFUL INFOFASTER Submission	0	0	1	1
	his voice is clearly heard	0	3	0	3
	if power is	2	0	0	2
	include all citizens	1	0	0	1
	Ineffective, because if the torrential river, the	0	1	0	1

Conditions to evacuate * Respondent code Crosstabulation

Count

		Respondent code			
		Silo	Panti	Sukorambi	Total
Conditions to evacuate	Heavy rains for several days	4	3	6	13
	River overflow	9	7	2	18
	Rumble of flood	2	6	5	13
	After receiving information from local government	0	0	1	1
	When neighbor began evacuate	6	4	2	12
	Not evacuate	0	3	2	5
	River flow subsiding suddenly	0	0	2	2
	Heavy rain,river overflow,rumble of flood,receiving info	0	2	1	3
	Heavy rain,river overflow,rumble of flood and receive info	2	0	0	2
	Heavy rain,river overflow,rumble of flood &neighbor evacuate	2	0	0	2
	Heavy rain,river overflow,rumble of flood &neighbor evacuate	0	1	0	1
	Heavy rains and river overflow	6	4	0	10
	Heavy rains,rumble of flood and receive information	1	1	0	2
	Heavy rains,rumble of flood and neighbors evacuate	1	0	0	1
	Heavy rains and neighbors evacuate	2	1	0	3
	Heavy rains and river subsiding suddenly	0	0	1	1
	River overflow and rumble of flood	0	0	7	7
	River overflow and neighbors evacuate	0	1	0	1
	River overflow,receive information and neighbors evacuate	0	1	0	1
	Receive infroamation from local government and socialite	0	1	0	1
	Don't know	0	0	1	1
Total		35	35	30	100

Who helped evacuate when banjir bandang occurs * Respondent code Crosstabulation

Count

		Respondent code			
		Silo	Panti	Sukorambi	Total
Who helped evacuate when banjir bandang occurs	Task force	4	7	4	15
	Socialite	1	4	1	6
	Community	30	15	17	62
	Task force and socialite	0	7	3	10
	Task force, socialite and community	0	1	4	5
	Socialite and community	0	1	0	1
	Don't know	0	0	1	1
Total		35	35	30	100

Know the location would evacuate during banjir bandang * Respondent code Crosstabulation

Count

		Respondent code			
		Silo	Panti	Sukorambi	Total
Know the location would evacuate during banjir bandang	Yes	30	33	23	86
	No	5	2	7	14
Total		35	35	30	100

Reasons to choose the evacuation site * Respondent code Crosstabulation

Count

		Respondent code			
		Silo	Panti	Sukorambi	Total
Reasons to choose the evacuation site	safe	15	21	12	48
	easy for access	5	1	2	8
	big capacity	2	1	0	3
	high area	2	5	2	9
	safe and accessible area	1	1	1	3
	safe, accessible, and big capacity	3	1	6	10
	safe, accessible and wide area	0	1	0	1
	accessible and big capacity	1	0	0	1
	accessible,big capacity and high area	0	1	0	1
	accessible and high area	0	3	0	3
	big capacity and high area	1	0	0	1
	don't know	5	0	7	12
Total		35	35	30	100

Distance of evacuation site with the banjir bandang prone locations * Respondent code Crosstabulation

Count

		Respondent code			
		Silo	Panti	Sukorambi	Total
Distance of evacuation site with the banjir bandang prone locations	100-500 m	24	7	10	41
	500-1000 m	4	12	7	23
	1000-5000 m	2	12	2	16
	> 5000 m	0	4	0	4
	don't know	5	0	11	16
Total		35	35	30	100

There is map or direction signs for evacuation * Respondent code Crosstabulation

Count

		Respondent code			
		Silo	Panti	Sukorambi	Total
There is map or direction signs for evacuation	Yes	11	11	15	37
	No	24	24	15	63
Total		35	35	30	100

Capacity of evacuation location for banjir bandang refugees * Respondent code Crosstabulation

Count

		Respondent code			
		Silo	Panti	Sukorambi	Total
Capacity of evacuation location for banjir bandang refugees	Yes	22	26	18	66
	No	8	9	2	19
	Don't know	5	0	10	15
Total		35	35	30	100

RT/RW that can be evacuation site * Respondent code Crosstabulation

Count

		Respondent code			
		Silo	Panti	Sukorambi	Total
RT/RW that can be evacuation site	1	22	9	0	31
	2	3	6	8	17
	3	0	1	0	1
	4	0	3	0	3
	6	0	3	0	3
	99	10	13	22	45
Total		35	35	30	100

Dusun that can be evacuation site * Respondent code Crosstabulation

Count

		Respondent code			
		Silo	Panti	Sukorambi	Total
Dusun that can be evacuation site	1	19	23	13	55
	2	10	7	7	24
	3	1	1	1	3
	99	5	4	9	18
Total		35	35	30	100

Desa that can be evacuation site * Respondent code Crosstabulation

Count

		Respondent code			
		Silo	Panti	Sukorambi	Total
Desa that can be evacuation site	1	13	31	8	52
	2	17	2	0	19
	3	0	1	0	1
	5	0	1	0	1
	99	5	0	22	27
Total		35	35	30	100

Capacity of each evacuation site * Respondent code Crosstabulation

Count

		Respondent code			
		Silo	Panti	Sukorambi	Total
Capacity of each evacuation site	100-500 persons	14	10	14	38
	500-1000 persons	16	12	7	35
	1000-2000 persons	0	8	0	8
	> 2000 persons	0	5	0	5
	Don't know	5	0	9	14
Total		35	35	30	100

here is recording of refugees in evacuation site * Respondent code Crosstabulatio

Count

		Respondent code			
		Silo	Panti	Sukorambi	Total
There is recording of refugees in evacuation site	Yes	10	30	8	48
	No	25	5	14	44
	99	0	0	8	8
Total		35	35	30	100

Recording apparatus of refugees in evacuation site * Respondent code Crosstabulation

Count

		Respondent code			
		Silo	Panti	Sukorambi	Total
Recording apparatus of refugees in evacuation site	Local government	12	16	7	35
	Red cross	4	5	0	9
	NGO	0	1	0	1
	TNI	0	9	1	10
	Local government,red cross and karang taruna	0	2	0	2
	Don't know	19	2	22	43
Total		35	35	30	100

Victim helping activiites in evacuation site * Respondent code Crosstabulation

Count

		Respondent code			
		Silo	Panti	Sukorambi	Total
Victim helping activiites in evacuation site	Yes	22	27	25	74
	No	9	3	2	14
	Don't know	4	5	3	12
Total		35	35	30	100

Officer helping in evacuation site * Respondent code Crosstabulation

Count

		Respondent code			
		Silo	Panti	Sukorambi	Total
Officer helping in evacuation site	Local government	2	10	9	21
	Red cross	12	8	0	20
	Karang taruna	4	5	4	13
	TNI	8	2	1	11
	Local government,red cross, and karang taruna	0	4	0	4
	7	1	0	0	1
	8	0	0	1	1
	9	0	1	0	1
	10	1	1	0	2
	11	0	1	0	1
	12	0	0	3	3
	13	0	0	5	5
	14	0	0	1	1
	15	1	0	1	2
	16	0	2	0	2
	Don't know	6	1	5	12
Total		35	35	30	100

Soup kitchen at evacuation site * Respondent code Crosstabulation

Count

		Respondent code			
		Silo	Panti	Sukorambi	Total
Soup kitchen at evacuation site	Yes	16	33	24	73
	No	15	2	2	19
	Don't know	4	0	4	8
Total		35	35	30	100

Officer of soup kitchen in evacuation site * Respondent code Crosstabulation

Count

		Respondent code			
		Silo	Panti	Sukorambi	Total
Officer of soup kitchen in evacuation site	Dharma wanita	0	0	1	1
	Community	16	10	23	49
	Red cross	1	1	0	2
	NGO	1	6	0	7
	TNI	0	8	0	8
	Dharma wanita and community	0	2	0	2
	Dharma wanita,community ,red cross and NGO	0	3	0	3
	Dharma wanita,community and NGO	0	1	0	1
	Community and NGO	0	2	0	2
	Community and NGO	0	1	0	1
	Community and TNI	0	1	0	1
	Don't know	17	0	6	23
Total		35	35	30	100

Infrastructure facilities in location site * Respondent code Crosstabulation

Count

		Respondent code			
		Silo	Panti	Sukorambi	Total
Infrastructure facilities in location site	Yes	6	28	6	40
	No	25	7	19	51
	Don't know	4	0	5	9
Total		35	35	30	100

Problems that still need to be solved * Respondent code Crosstabulation

Count

		Respondent code			
		Silo	Panti	Sukorambi	Total
Problems that still need to be solved	Yes	26	27	12	65
	No	9	7	18	34
	3	0	1	0	1
Total		35	35	30	100

The kind of problems that still need to be solved * Respondent code Crosstabulation

Count

		Respondent code			
		Silo	Panti	Sukorambi	Total
The kind of problems that still need to be solved		4	0	0	4
	99	8	6	16	30
	about refugee housing d	0	1	0	1
	avalanche	3	0	0	3
	bare forest	1	0	1	2
	Bare forest	1	1	0	2
	Bare forest, road conditions r	0	1	0	1
	bare woods yet dihijaukan	0	1	0	1
	cracks	0	0	1	1
	culvert	0	1	0	1
	DAM damaged	0	1	0	1
	dam on the river burst its ban	0	1	0	1
	deforestation	0	0	1	1
	Deforestation	0	3	0	3
	Dike dam is still not making	0	1	0	1
	do not know	0	0	1	1
	equipment providers to know if	1	0	0	1
	existing general assistance fr	1	0	0	1
	food aid, plengsengan	1	0	0	1
	Handlers victims faster	0	1	0	1
	home indemnity	0	5	0	5
	how to prevent floods band	0	0	1	1
	illegal logging	0	0	3	3
	Illegal logging	0	0	1	1
	illegal logging and the cliff	0	0	1	1
	Illegal logging, forest bare	0	1	0	1
	jalus bend of the river has no	0	1	0	1
	landslide disaster	1	0	0	1
	late food aid	0	1	0	1
	logging	3	0	0	3
	logging and replacement	0	0	1	1
	lost wetland	0	1	0	1
	making embankments and plengse	0	1	0	1
	memorial	1	0	0	1
	overcome flooding	1	0	0	1
	plengsengan	2	0	0	2
	prone areas to monitor, aid	1	0	0	1
	reduce illegal logging	0	1	0	1
	reforestation	2	0	0	2
	refugee camps at night, day	1	0	0	1

Ever tried to solve the problems * Respondent code Crosstabulation

Count

		Respondent code			
		Silo	Panti	Sukorambi	Total
Ever tried to solve the problems	Ever	7	24	0	31
	Never	22	7	13	42
	Don't know	6	3	17	26
Total		35	34	30	99

The result of problem solving * Respondent code Crosstabulation

Count

		Respondent code			
		Silo	Panti	Sukorambi	Total
The result of problem solving	99	27	9	30	66
	by forestry planting	1	0	0	1
	disappointing because the mere	0	1	0	1
	equivocal because some k	0	1	0	1
	exchange program bolsters	1	0	0	1
	Forests already planted, ja?	0	1	0	1
	given sengon & durian tree d	1	0	0	1
	is still not evenly pemberiann	0	1	0	1
	It's getting done penanama	0	1	0	1
	logging equipment was conducte	1	0	0	1
	New maintenance, suda	0	1	0	1
	no responses similar sekal	0	1	0	1
	planting trees	1	0	0	1
	plus the part of the TNI and P	0	1	0	1
	proposal to the village heads,	0	1	0	1
	smolder	1	0	0	1
	Started to be planted, but sti	0	1	0	1
	Starting done to penanama	0	1	0	1
	still cultivated request funds	0	1	0	1
	Still happen penebanga	0	1	0	1
	still no action	0	1	0	1
	still not evenly pemberianny	0	4	0	4
	stop cutting down some tp td	1	0	0	1
	submitted to the village tap-n	0	1	0	1
	there is no solution, cuman se	0	5	0	5
	there was no follow-up develop	1	0	0	1
	there's nothing to dipecahka	0	1	0	1
	've Done greening na	0	1	0	1
Total		35	35	30	100

Who helps solve problems * Respondent code Crosstabulation

Count

		Respondent code			
		Silo	Panti	Sukorambi	Total
Who helps solve problems	District government	10	11	2	23
	Sub-district government	6	4	0	10
	province/national government	0	2	3	5
	Perhutani employee	2	1	1	4
	Mutual assistnce	1	3	4	8
	Sub-district and district government	9	2	0	11
	Sub-district,district,province government and NGO	0	1	0	1
	Sub-district,district government,NGO and Perhutani employee	0	1	0	1
	Sub-district,dictrict and province government	1	3	6	10
	District government and NGO	0	1	0	1
	Sub-district and province government	0	1	0	1
	Sub-district and Perhutani government	0	1	0	1
	Don't know	6	4	14	24
Total		35	35	30	100

Idea to set more effective early warning system * Respondent code Crosstabulation

Count

		Respondent code			
		Silo	Panti	Sukorambi	Total
Idea to set more effective early warning system	99	3	1	17	21
	better handling and be ready and installation	0	0	1	1
	better use of the megaphone masji	1	0	0	1
	Community conciousness	0	0	1	1
	conduct oversight of the mountain to monitor and m	0	1	0	1
	cooperation with growers more level	0	1	0	1
	create clappers	1	0	0	1
	create early warning systems	1	0	0	1
	detector and flash flood early warning	0	1	0	1
	early warning equipment	1	0	0	1
	enhanced role of village officials	1	0	0	1
	equipment for signs of flooding	1	0	0	1
	existing staff and infrastructure	1	0	0	1
	explained more about simulation	1	0	0	1
	flood illumination held	1	0	0	1
	forbidden forest thresh	1	0	0	1
	given early warning	0	1	0	1
	Giving sirens and signs	0	0	1	1
	good enough so it does not need to be improved	0	1	0	1
	Hp and rafters must exist	0	1	0	1
	if you want a disaster, told not to Bingu	0	1	0	1
	imabang river division, made the dike / da	0	1	0	1
	implemented as soon as possible	1	0	0	1
	increase the early warning equipment	2	0	0	2
	means that there is still good enough	0	1	0	1
	megaphone	2	0	0	2
	monitoring of village heads and officials-enough	0	1	0	1
	more community involvement	1	0	0	1
	more enhanced role of the village	1	0	0	1
	more is-other instruments used	1	0	0	1

Analysis of Local Government Survey Result on Early Warning System and Early Evacuation in Jember

Age * Respondents code Crosstabulation

Count

		Respondents code			
		Silo	Panti	Sukorambi	Total
Age	28	0	1	0	1
	31	1	0	0	1
	32	1	0	0	1
	33	1	0	0	1
	35	0	0	1	1
	37	1	1	0	2
	39	1	0	0	1
	40	1	0	0	1
	41	1	0	0	1
	42	0	1	0	1
	43	0	0	2	2
	44	1	3	0	4
	45	0	1	0	1
	46	0	0	1	1
	48	1	0	0	1
	50	0	0	1	1
	51	0	1	0	1
	52	0	0	1	1
	55	0	0	1	1
	57	1	1	1	3
	58	0	1	0	1
	64	0	0	2	2
Total		10	10	10	30

Age category * Respondents code Crosstabulation

Count

		Respondents code			
		Silo	Panti	Sukorambi	Total
Age category	<=30	0	1	0	1
	30-50	9	6	5	20
	>50	1	3	5	9
Total		10	10	10	30

Sex * Respondents code Crosstabulation

Count

		Respondents code			
		Silo	Panti	Sukorambi	Total
Sex	Male	9	10	10	29
	Female	1	0	0	1
Total		10	10	10	30

Education level * Respondents code Crosstabulation

Count

		Respondents code			
		Silo	Panti	Sukorambi	Total
Education level	Not completing elementary school	0	0	1	1
	Completed elementary school	1	1	5	7
	Completed junior high school	2	2	3	7
	Completed senior high school	6	6	0	12
	Completed diploma	1	1	1	3
Total		10	10	10	30

Respondents type * Respondents code Crosstabulation

Count

		Respondents code			
		Silo	Panti	Sukorambi	Total
Respondents type	Village government officer	5	7	7	19
	Hamlet government officer	5	3	3	11
Total		10	10	10	30

Main job * Respondents code Crosstabulation

Count

		Respondents code			
		Silo	Panti	Sukorambi	Total
Main job	Farmer	0	1	6	7
	Village officials	10	9	4	23
Total		10	10	10	30

Position in main job * Respondents code Crosstabulation

Count

		Respondents code			
		Silo	Panti	Sukorambi	Total
Position in main job	BPD	0	0	1	1
	Chair	10	10	3	23
	Owner	0	0	6	6
Total		10	10	10	30

Side job * Respondents code Crosstabulation

Count

		Respondents code			
		Silo	Panti	Sukorambi	Total
Side job	Don't have	1	2	1	4
	Enterpreuner	0	1	0	1
	Farmer	4	5	3	12
	Labor	1	0	0	1
	Pedagang	0	1	0	1
	Teacher	2	0	0	2
	Trader	2	0	0	2
	Village officials	0	1	6	7
Total		10	10	10	30

Position in side jobs * Respondents code Crosstabulation

Count

		Respondents code			
		Silo	Panti	Sukorambi	Total
Position in side jobs	Chair	0	1	5	6
	Don't have	2	2	1	5
	Owner	4	6	3	13
	Sharecropper	0	1	0	1
	Socialite	0	0	1	1
	Teacher	2	0	0	2
	Trader	2	0	0	2
Total		10	10	10	30

Position / role in society * Respondents code Crosstabulation

Count

		Respondents code			
		Silo	Panti	Sukorambi	Total
Position / role in society	Citizen	10	4	0	14
	Socialite	0	6	10	16
Total		10	10	10	30

Knowing the incidence of flash floods * Respondents code Crosstabulation

Count

		Respondents code			
		Silo	Panti	Sukorambi	Total
Knowing the incidence of flash floods	Yes	10	9	9	28
	No	0	1	1	2
Total		10	10	10	30

ow many times a flash flood occurred in the last 10 years * Respondents code Crosstabulatio

Count

		Respondents code			
		Silo	Panti	Sukorambi	Total
How many times a flash flood occurred in the last 10 years	Once	10	10	7	27
	Twice	0	0	2	2
	More than 3 times	0	0	1	1
Total		10	10	10	30

Year flood events * Respondents code Crosstabulation

Count

		Respondents code			
		Silo	Panti	Sukorambi	Total
Year flood events	2002	0	0	7	7
	2002, 2006	0	0	2	2
	2006	0	10	1	11
	2009	10	0	0	10
Total		10	10	10	30

Flash flood casualties * Respondents code Crosstabulation

Count

		Respondents code			
		Silo	Panti	Sukorambi	Total
Flash flood casualties	Yes (family)	0	1	0	1
	Yes (neighbors)	0	5	6	11
	No	10	4	4	18
Total		10	10	10	30

Year flood casualties * Respondents code Crosstabulation

Count

		Respondents code			
		Silo	Panti	Sukorambi	Total
Year flood casualties	1991	0	0	3	3
	2002	0	0	1	1
	2006	0	7	2	9
	99	10	3	4	17
Total		10	10	10	30

Flash floods destroy homes * Respondents code Crosstabulation

Count

		Respondents code			
		Silo	Panti	Sukorambi	Total
Flash floods destroy homes	Yes (my house)	0	2	2	4
	Yes (neighbors' house	7	8	1	16
	No	3	0	7	10
Total		10	10	10	30

Year incidence of flash floods destroy homes * Respondents code Crosstabulation

Count

		Respondents code			
		Silo	Panti	Sukorambi	Total
Year incidence of flash floods destroy homes	2002	0	0	1	1
	2006	0	10	0	10
	2009	7	0	0	7
	99	3	0	9	12
Total		10	10	10	30

Flood damage a public facility * Respondents code Crosstabulation

Count

		Respondents code			
		Silo	Panti	Sukorambi	Total
Flood damage a public facility	Yes	9	7	10	26
	No	1	3	0	4
Total		10	10	10	30

Damaged public facilities * Respondents code Crosstabulation

Count

		Respondents code			
		Silo	Panti	Sukorambi	Total
Damaged public facilities		0	1	0	1
	99	1	2	0	3
	bridge	0	0	3	3
	BRIDGE	7	0	3	10
	BRIDGE, ROAD	1	0	0	1
	BRIDGE, WETLAND	0	0	1	1
	Bridges and Rice	0	0	2	2
	Broken bridges, damaged roads and flooded with mud	0	1	0	1
	field, mosques, schools	0	1	0	1
	MI, MTS, SMA	0	1	0	1
	mosques, schools, boarding schools	0	1	0	1
	Roads damaged	0	0	1	1
	school	0	2	0	2
	Supermarket, BRIDGE	1	0	0	1
	The bridge broken, shattered markets	0	1	0	1
Total		10	10	10	30

Casualties caused by flash floods * Respondents code Crosstabulation

Count

		Respondents code			
		Silo	Panti	Sukorambi	Total
Casualties caused by flash floods	< 100 victims	0	5	10	15
	> 100 victims	0	4	0	4
	Don't know	10	1	0	11
Total		10	10	10	30

RT / RW prone to flash floods * Respondents code Crosstabulation

Count

		Respondents code			
		Silo	Panti	Sukorambi	Total
RT / RW prone to flash floods		0	1	3	4
	02/02	0	0	1	1
	1	0	2	0	2
	1,2	0	1	0	1
	1/4	0	1	0	1
	12 da 6	0	1	0	1
	2,3,4	1	0	0	1
	2/2	1	0	0	1
	2/3	3	0	0	3
	3	0	1	0	1
	3/11	1	0	0	1
	3/4	2	0	0	2
	4/3	2	0	0	2
	6, 11, 2	0	1	0	1
	9	0	1	0	1
	99	0	1	6	7
Total		10	10	10	30

Village flood prone * Respondents code Crosstabulation

Count

		Respondents code			
		Silo	Panti	Sukorambi	Total
Village flood prone	1	0	2	0	2
	2	0	1	0	1
	3	0	1	0	1
	CURAHWUNGKAL	6	0	0	6
	CURAHWUNGKAL, KARANG	2	0	0	2
	Delima	0	3	0	3
	gaplek	0	1	0	1
	gaplek barat, blunde	0	1	0	1
	Gendir	0	0	1	1
	Gunung pasang, Gaple	0	1	0	1
	Kalijompo	0	0	1	1
	kalijompo dan pak al	0	0	3	3
	Kalijompo, Pa'alah	0	0	1	1
	KARANGTENGAH	2	0	0	2
	PA'ALAH, KALIJOMPO	0	0	4	4
Total		10	10	10	30

Village rawanbanjir bandang * Respondents code Crosstabulation

Count

		Respondents code			
		Silo	Panti	Sukorambi	Total
Village rawanbanjir bandang	1	0	2	0	2
	glundengan	0	1	0	1
	kantong	0	1	0	1
	Kemiri	0	3	0	3
	Kemiri, Suci	0	1	0	1
	klungkung	0	0	3	3
	Klungkung	0	0	3	3
	KLUNGKUNG	0	0	4	4
	PACE	10	0	0	10
	suci	0	2	0	2
Total		10	10	10	30

Reason flood-prone * Respondents code Crosstabulation

Count

		Respondents code			
		Silo	Panti	Sukorambi	Total
Reason flood-prone	99	0	0	1	1
	close to the plantation	0	1	0	1
	close to the river	0	2	0	2
	Critical points, near the rive	0	0	1	1
	Critical points, there are cra	0	0	1	1
	FLOW River Running	0	0	1	1
	hazelnut	0	1	0	1
	impassable river	0	1	0	1
	NEAR MOUNTAIN	1	0	0	1
	near river	0	0	1	1
	NEAR RIVER AND MOUNTAIN	1	0	0	1
	NEAR RIVER MERAWAN	5	0	0	5
	no cracks	0	0	2	2
	OF RIVER NEAR	3	0	1	4
	pass water	0	1	0	1
	Passed by the river	0	1	0	1
	Passed by the river, the area	0	1	0	1
	River bank	0	1	0	1
	sacred	0	1	0	1
	there are cracks in the mount	0	0	1	1
	THERE ARE FLOWING RIVER NEAR R	0	0	1	1
Total		10	10	10	30

The cause of flash floods * Respondents code Crosstabulation

Count

		Respondents code			
		Silo	Panti	Sukorambi	Total
The cause of flash floods	Vegetation	0	1	0	1
	Soil condition	0	3	0	3
	Consignment flood	0	1	4	5
	River overflow when heavy rains	3	1	5	9
	Land cover, soil condition & river overflow	0	1	0	1
	Vegetation,consignment flood and overflowing river	4	1	1	6
	Soil condition and consigment flood	3	2	0	5
Total		10	10	10	30

How to anticipate the flash flood * Respondents code Crosstabulation

Count

		Respondents code			
		Silo	Panti	Sukorambi	Total
How to anticipate the flash flood	Yes	3	9	4	16
	No	7	1	6	14
Total		10	10	10	30

Description of how to anticipate the flash flood * Respondents code Crosstabulation

Count

		Respondents code			
		Silo	Panti	Sukorambi	Total
Description of how to anticipate the flash flood	99	7	1	7	15
	activate the task force, coordinating government a	0	0	1	1
	deepened river	0	1	0	1
	evacuated to higher areas	0	3	0	3
	Following the disaster simulation	0	1	0	1
	Patrol every night in the rainy season	0	1	0	1
	Planting annual tree	3	0	0	3
	reforestation	0	1	2	3
	upstream residents use mobile phones to call resid	0	1	0	1
	water discharge	0	1	0	1
Total		10	10	10	30

Never apply the anticipation of flood * Respondents code Crosstabulation

Count

		Respondents code			
		Silo	Panti	Sukorambi	Total
Never apply the anticipation of flood	Ever	2	9	4	15
	Never	1	0	2	3
	Don't know	7	1	4	12
Total		10	10	10	30

ow to anticipate the flash flood which has been effectively applied * Respondents cod Crosstabulation

Count

		Respondents code			
		Silo	Panti	Sukorambi	Total
How to anticipate the flash flood which has been effectively applied	Ever	3	9	3	15
	Never	0	0	3	3
	Don't know	7	1	4	12
Total		10	10	10	30

That play a role in the anticipation of heavy flood * Respondents code Crosstabulation

Count

		Respondents code			
		Silo	Panti	Sukorambi	Total
That play a role in the anticipation of heavy flood	Government officer	0	3	3	6
	Socialite	0	1	0	1
	Community	0	1	0	1
	Government officer,civil defense and socialite	0	0	2	2
	Government officer and socialite	1	4	0	5
	Government officer,socialite and plantation employee	2	0	0	2
	Government officer and plantation employee	0	1	0	1
	Socialite and community	0	0	1	1
	Don't know	7	0	4	11
Total		10	10	10	30

Knowing NGOs (FKAB) * Respondents code Crosstabulation

Count

		Respondents code			
		Silo	Panti	Sukorambi	Total
Knowing NGOs (FKAB)	Know	0	3	0	3
	Don't know	10	7	8	25
	99	0	0	2	2
Total		10	10	10	30

Activities and contributions FKAB * Respondents code Crosstabulation

Count

		Respondents code			
		Silo	Panti	Sukorambi	Total
Activities and contributions FKAB	99	10	7	10	27
	distribution of aid and community education	0	1	0	1
	provision of basic necessities	0	1	0	1
	Receive assistance from outside sources and deliver on citizens	0	1	0	1
Total		10	10	10	30

Other NGOs that have anything to do with flash floods * Respondents code Crosstabulation

Count

		Respondents code			
		Silo	Panti	Sukorambi	Total
Other NGOs that have anything to do with flash floods	Know	0	3	0	3
	Don't know	10	5	8	23
	99	0	2	2	4
Total		10	10	10	30

Other NGO activities related to floods * Respondents code Crosstabulation

Count

		Respondents code			
		Silo	Panti	Sukorambi	Total
Other NGO activities related to floods	99	10	7	10	27
	antisipasi penebangan	0	1	0	1
	CDRM, menanam bibit sengon laut dipinggir sungai dan tanah yang dilalui banjir	0	1	0	1
	NU, membantu korban bencana dan memberikan bantuan baik kesehatan maupun keperlua	0	1	0	1
Total		10	10	10	30

Models in case of flash flood warnings * Respondents code Crosstabulation

Count

		Respondents code			
		Silo	Panti	Sukorambi	Total
Models in case of flash flood warnings	Yes	2	8	4	14
	No	8	1	6	15
	Don't know	0	1	0	1
Total		10	10	10	30

Reason has no model or flash flood warnings * Respondents code Crosstabulation

Count

		Respondents code			
		Silo	Panti	Sukorambi	Total
Reason has no model or flash flood warnings	2	1	0	0	1
	99	2	1	2	5
	a shout	0	0	1	1
	ABLE TO OVERCOME AND DISASTER SITUATIONS Mastering	0	0	1	1
	COMMUNITY DPT caution	1	0	0	1
	easily heard	0	1	0	1
	easily operated	0	1	0	1
	easily understood	0	1	0	1
	FLOOD OF KNOWLEDGE KRG	2	0	0	2
	FROM PMI	1	0	0	1
	Hard	0	1	0	1
	helping residents	0	1	0	1
	LESS KNOWLEDGE	1	0	0	1
	no features khsus	0	1	0	1
	NO NEED TO, BECAUSE NEVER FLOOD	0	0	1	1
	not sure	0	0	2	2
	precaution	0	0	1	1
	reduce damage	0	0	1	1
	safe from flooding	0	0	1	1
	So that no victim should disaster strike	0	1	0	1
	to be more vigilant	0	1	0	1
	To be wary when the floods come	0	1	0	1
	TTG FLOOD PENGANGGULANGAN NOT KNOW	1	0	0	1
	USUALLY JUST ORDINARY FLOOD	1	0	0	1
Total		10	10	10	30

Early warning system model name * Respondents code Crosstabulation

Count

		Respondents code			
		Silo	Panti	Sukorambi	Total
Early warning system model name	99	7	4	7	18
	ALARM BANJIR	0	0	1	1
	belum diberi nama	0	1	0	1
	kentengan	0	0	1	1
	kentongan	0	1	1	2
	loudspeaker	0	2	0	2
	SPEAKER	3	0	0	3
	tanggap darurat	0	1	0	1
	titir	0	1	0	1
Total		10	10	10	30

Description of an early warning system * Respondents code Crosstabulation

Count

		Respondents code			
		Silo	Panti	Sukorambi	Total
Description of an early warning system	99	9	2	7	18
	announced for the anticipated	0	1	0	1
	ASSIGNED Observer, MONITORING FLOOD, FLOOD DATA	0	0	1	1
	beaten with few blows as a sign	0	0	1	1
	from plantation told a security guard to their vil	0	1	0	1
	IF THE WATER IS HIGH THEN IMMEDIATE COMMUNITY Pind	1	0	0	1
	kentongan upstream direct sound evacuation	0	1	0	1
	large water due to broadcast on mosque speakers	0	1	0	1
	perangakat bekerjasam village with growers	0	1	0	1
	Picket officers check if the rain falls con	0	1	0	1
	sounds before the flood	0	1	0	1
	sounds of certain symbols	0	0	1	1
	There are people on duty to guard and menginfo	0	1	0	1
Total		10	10	10	30

Warning system created his own self * Respondents code Crosstabulation

Count

		Respondents code			
		Silo	Panti	Sukorambi	Total
Warning system created his own self	Yes	0	3	0	3
	No	3	6	5	14
	Don't know	7	1	5	13
Total		10	10	10	30

Source adoption of early warning systems * Respondents code Crosstabulation

Count

		Respondents code			
		Silo	Panti	Sukorambi	Total
Source adoption of early warning systems	Training	0	4	0	4
	Learning from other community	0	3	5	8
	Following simulation	3	0	0	3
	99	7	3	5	15
Total		10	10	10	30

Officers informsi flood hazard warning * Respondents code Crosstabulation

Count

		Respondents code			
		Silo	Panti	Sukorambi	Total
Officers informsi flood hazard warning	Yes	3	9	6	18
	No	2	1	2	5
	99	5	0	2	7
Total		10	10	10	30

Status information officer * Respondents code Crosstabulation

Count

		Respondents code			
		Silo	Panti	Sukorambi	Total
Status information officer	Upper community	0	4	5	9
	Neighbors	3	6	1	10
	Don't know	7	0	4	11
Total		10	10	10	30

Communication tool for flash flood warning * Respondents code Crosstabulation

Count

		Respondents code			
		Silo	Panti	Sukorambi	Total
Communication tool for flash flood warning	Kentongan	5	8	4	17
	Siren	5	0	5	10
	99	0	2	1	3
Total		10	10	10	30

Clarity of the sound of the warning signs * Respondents code Crosstabulation

Count

		Respondents code			Total
		Silo	Panti	Sukorambi	
Clarity of the sound of the warning signs	Clear	7	9	3	19
	Less clear	0	1	0	1
	Not clear	0	0	2	2
	Don't know	3	0	5	8
Total		10	10	10	30

Conditions and warning devices function * Respondents code Crosstabulation

Count

		Respondents code			Total
		Silo	Panti	Sukorambi	
Conditions and warning devices function	Good	7	9	4	20
	Not good	0	1	0	1
	Don't know	3	0	6	9
Total		10	10	10	30

Understand the meaning of the warning devices * Respondents code Crosstabulation

Count

		Respondents code			Total
		Silo	Panti	Sukorambi	
Understand the meaning of the warning devices	Yes	7	8	5	20
	No	0	2	0	2
	99	3	0	5	8
Total		10	10	10	30

Steps taken in the early warning system * Respondents code Crosstabulation

Count

		Respondents code			Total
		Silo	Panti	Sukorambi	
Steps taken in the early warning system	2 steps	7	3	1	11
	3 steps	0	5	5	10
	4 steps	0	0	1	1
	> 4 steps	0	1	0	1
	Don't know	3	1	3	7
Total		10	10	10	30

Conditions make the first warning * Respondents code Crosstabulation

Count

		Respondents code			
		Silo	Panti	Sukorambi	Total
Conditions make the first warning	99	3	1	3	7
	ALERT 1 = HEART HEART	0	0	1	1
	BRING WATER overflow LUMPUR	0	0	2	2
	danger signs	0	1	0	1
	during high water	0	1	0	1
	gong sound society was the first heavy rains	1	0	0	1
	has a maximum water along the river	0	1	0	1
	heavy rain	1	0	0	1
	heavy rain accompanied by wind	1	0	0	1
	high rainfall	0	1	0	1
	High water & weather in the upper dark	0	1	0	1
	INCREASED A LITTLE WATER, MUD	0	0	1	1
	long downpour	0	2	0	2
	MUD FLOOD WATER WILL COME	0	0	1	1
	provide information to alert people	1	0	0	1
	river water management, more hunaj 24th hour	0	1	0	1
	river water mixed with mud	1	0	0	1
	START UP WATER	0	0	1	1
	The first gong in bad weather conditions and huj	2	0	0	2
	water overflow the plantation	0	1	0	1
	WATER WILL COME LARGE ENOUGH	0	0	1	1
Total		10	10	10	30

Description The first step * Respondents code Crosstabulation

Count

		Respondents code			
		Silo	Panti	Sukorambi	Total
Description The first step	99	3	3	3	9
	bad weather and heavy rain then sirens lit	1	0	0	1
	check conditions of rainfall and river heights	0	1	0	1
	check the condition of the rain and river heights	0	1	0	1
	Citizens have HATI2	0	0	1	1
	community alert	1	0	0	1
	contact kasun	0	1	0	1
	employees leave the forest	1	0	0	1
	more than 3 days of rain	0	2	0	2
	officer to inform the condition of security Kaur	0	1	0	1
	provide information to alert people	1	0	0	1
	residents evacuated	0	1	0	1
	Residents of the GIVE INFORMATION	0	0	1	1
	RIVER WATER overflow	0	0	1	1
	Rumble, MUST BE ADVISED OF THE COMMUNITY	0	0	1	1
	SMALL WATER PLUS LUMPUR	0	0	1	1
	The first warning signal sounds	2	0	0	2
	WATER CAME IN LARGE NUMBER	0	0	1	1
	when disasters occur	1	0	0	1
	WHEN WILL COME muddy water, residents are expected	0	0	1	1
Total		10	10	10	30

Conditions make the second warning * Respondents code Crosstabulation

Count

		Respondents code			
		Silo	Panti	Sukorambi	Total
Conditions make the second warning	99	3	3	3	9
	ALERT 2 = caution	0	0	1	1
	BRING WATER MATERIAL	0	0	1	1
	COME roar of the water	0	0	1	1
	dirty river water mixed with mud and bubbles	1	0	0	1
	evacuate immediately when disasters occur	1	0	0	1
	positive news bajir	0	1	0	1
	river upstream of the greater	0	1	0	1
	river water began to rise to the settlement	1	0	0	1
	river water overflowing	2	0	0	2
	River water ride, strong winds,	2	0	0	2
	soil mixed with mud and wood	0	1	0	1
	water began to rise to housing	0	1	0	1
	WATER CONTAINING HEAVY MATERIAL	0	0	1	1
	WATER overflow and BERMATERIAL	0	0	1	1
	water overflows to the river mouth	0	2	0	2
	water rose to the housing & mixed mud	0	1	0	1
	WATER, MUD, STONE SMALL	0	0	2	2
Total		10	10	10	30

Description The second step * Respondents code Crosstabulation

Count

		Respondents code			
		Silo	Panti	Sukorambi	Total
Description The second step	99	0	1	0	1
	asked to alert residents	4	3	3	10
	disseminating info TO COMMUNITY, THEN EVACUATION	0	1	0	1
	elderly, women & children in evacuation	0	0	1	1
	evacuated to the evacuation site	0	1	0	1
	gong beaten pounding	1	0	0	1
	INCREASED WATER AND dangerous	0	1	0	1
	kasun contact officer for evacuation preparations	0	0	1	1
	krn turbid river mud	0	1	0	1
	Releasing LIVESTOCK	0	1	0	1
	residents asked to evacuate	0	0	1	1
	Residents expected to release their livestock	0	1	0	1
	The second bell sounds are expected to be displace	0	0	3	3
	when the rising river water and mud	3	0	0	3
	when the river rose all immediately evacuate	1	0	0	1
	WHEN WILL COME muddy water, residents are expected	1	0	0	1
Total		0	0	1	1
		10	10	10	30

Conditions do third warning * Respondents code Crosstabulation

Count

		Respondents code			
		Silo	Panti	Sukorambi	Total
Conditions do third warning	99	10	4	5	19
	BIG rumble, the flood AND MATERIAL LARGE	0	0	1	1
	HAZARD ALERT	0	0	1	1
	Height increased dramatically, BRINGS MORE BE MATE	0	0	1	1
	high-water discharge directly receding all dr	0	1	0	1
	INCREASED WATER WHEN, AND IN TOTAL flood came BES	0	0	1	1
	overflowing water from the river	0	1	0	1
	pairs up the mountain	0	1	0	1
	really flash floods	0	1	0	1
	residents collected	0	1	0	1
	upstream flooding	0	1	0	1
	WATER, MUD, STONE, WOOD	0	0	1	1
Total		10	10	10	30

Description The third step * Respondents code Crosstabulation

Count

		Respondents code			
		Silo	Panti	Sukorambi	Total
Description The third step	1st	1	0	0	1
	99	9	5	5	19
	check the condition of the river	0	1	0	1
	INCREASED AIR VELOCITY, residents evacuated	0	0	1	1
	MATERIAL AND rumble accompanies muddy water	0	0	1	1
	postal contact with ht	0	1	0	1
	Residents are expected to v acate / hamlet	0	0	1	1
	Residents were evacuated to safe places	0	0	1	1
	residents who were evacuated at the place provided	0	1	0	1
	run as fast as	0	1	0	1
	VILLAGE IN AN EMPTY	0	0	1	1
	wrga ev acuation through the speakers	0	1	0	1
Total		10	10	10	30

Step in early warning systems that have implemented * Respondents code Crosstabulation

Count

		Respondents code			
		Silo	Panti	Sukorambi	Total
Step in early warning systems that have implemented	Second step	5	7	5	17
	Third step	0	1	1	2
	Don't know	4	2	4	10
Total		9	10	10	29

Effective early warning system * Respondents code Crosstabulation

Count

		Respondents code			
		Silo	Panti	Sukorambi	Total
Effective early warning system		1	0	0	1
	99	3	0	4	7
	can be understood by citizens	0	1	0	1
	citizens is very responsive / effective	0	1	0	1
	CLEAR SOUND by citizens	0	0	1	1
	effective	0	1	0	1
	effective because of flood does not caused victims	5	0	0	5
	effective because of flood events does not swallow	1	0	0	1
	effective business	0	1	0	1
	effective enough	0	1	0	1
	EFFECTIVE ENOUGH, already experienced	0	0	1	1
	effective, sdh help citizens	0	1	0	1
	MANY PEOPLE KNOW THAT	0	0	1	1
	more nice & quickly understood	0	1	0	1
	quite well and many who knew	0	1	0	1
	unprecedented floods again	0	1	0	1
	UNTIL NOW THIS AD IS STILL ONE VICTIM SOULS	0	0	1	1
	VERY EASILY IMPLEMENTED	0	0	1	1
	victims could save lives	0	1	0	1
	YES, BECAUSE ALREADY IMPLEMENTED	0	0	1	1
Total		10	10	10	30

Conditions will conduct evacuation * Respondents code Crosstabulation

Count

		Respondents code			
		Silo	Panti	Sukorambi	Total
Conditions will conduct evacuation	Heavy rains for several days	0	1	0	1
	River overflow	0	2	0	2
	Rumble of flood	0	1	2	3
	After receiving information from local government	0	0	1	1
	Heavy rains,river overflow,rumble of flood etc.	2	2	0	4
	Heavy rains,river overflow and neighbors begin to evacuate	7	0	2	9
	Heavy rains and river overflow	1	1	0	2
	River overflow and rumble of flood	0	1	2	3
	Receive information from government and socialite	0	2	0	2
	Don't know	0	0	3	3
Total		10	10	10	30

Steps recommended evacuation * Respondents code Crosstabulation

Count

		Respondents code			
		Silo	Panti	Sukorambi	Total
Steps recommended evacuation	Second step	10	10	10	30
Total		10	10	10	30

Task Force evacuate flood handling * Respondents code Crosstabulation

Count

		Respondents code			
		Silo	Panti	Sukorambi	Total
Task Force evacuate flood handling	Yes	8	10	5	23
	No	2	0	5	7
Total		10	10	10	30

Member task force evacuation of flood handling * Respondents code Crosstabulation

Count

		Respondents code			
		Silo	Panti	Sukorambi	Total
Member task force evacuation of flood handling	Local government	1	6	3	10
	Community	0	1	0	1
	Local government,civil defense and socialite	1	0	2	3
	Local government and civil defense	0	1	0	1
	Local government and socialite	0	1	0	1
	Local government and socialite	5	1	0	6
	Don't know	3	0	5	8
Total		10	10	10	30

Who helped evacuate flood * Respondents code Crosstabulation

Count

		Respondents code			
		Silo	Panti	Sukorambi	Total
Who helped evacuate flood	No	10	10	10	30
Total		10	10	10	30

Know the location of safe used as evacuation sites * Respondents code Crosstabulation

Count

		Respondents code			
		Silo	Panti	Sukorambi	Total
Know the location of safe used as evacuation sites	Yes	10	8	4	22
	No	0	2	4	6
	99	0	0	2	2
Total		10	10	10	30

Reasons for choosing the location evacuation * Respondents code Crosstabulation

Count

		Respondents code			
		Silo	Panti	Sukorambi	Total
Reasons for choosing the location evacuation	Safe	5	1	1	7
	Accessible	1	0	1	2
	High area	0	1	2	3
	Safe and accessible	2	1	0	3
	Safe,accessible and big capacity	2	3	2	7
	Safe,accesible and wide area	0	2	0	2
	Don't know	0	2	4	6
Total		10	10	10	30

Distance evacuation location with flood-prone locations * Respondents code Crosstabulation

Count

		Respondents code			
		Silo	Panti	Sukorambi	Total
Distance evacuation location with flood-prone locations	100-500 m	0	0	1	1
	500-1000 m	1	1	1	3
	1000-5000 m	5	4	2	11
	> 5000 m	4	4	2	10
	5	0	1	0	1
	Don't know	0	0	4	4
Total		10	10	10	30

There are maps or road signs evacuation instructions * Respondents code Crosstabulation

Count

		Respondents code			
		Silo	Panti	Sukorambi	Total
There are maps or road signs evacuation instructions	Yes	0	7	7	14
	No	10	3	1	14
	99	0	0	2	2
Total		10	10	10	30

Capacity of the location of evacuation includes residents affected * Respondents code Crosstabulation

Count

		Respondents code			
		Silo	Panti	Sukorambi	Total
Capacity of the location of evacuation includes residents affected	Yes	10	8	4	22
	No	0	2	3	5
	Don't know	0	0	3	3
Total		10	10	10	30

RT / RW that can be used as evacuation sites * Respondents code Crosstabulation

Count

		Respondents code			
		Silo	Panti	Sukorambi	Total
RT / RW that can be used as evacuation sites	1	5	3	1	9
	2	5	2	1	8
	4	0	1	0	1
	5	0	1	0	1
	6	0	1	0	1
	99	0	2	8	10
Total		10	10	10	30

Hamlet which can be used as evacuation sites * Respondents code Crosstabulation

Count

		Respondents code			
		Silo	Panti	Sukorambi	Total
Hamlet which can be used as evacuation sites	1	6	8	1	15
	2	4	2	3	9
	99	0	0	6	6
Total		10	10	10	30

Villages that can be used as evacuation sites * Respondents code Crosstabulation

Count

		Respondents code			
		Silo	Panti	Sukorambi	Total
Villages that can be used as evacuation sites	1	10	9	0	19
	2	0	1	4	5
	99	0	0	6	6
Total		10	10	10	30

Average capacity evacuation of each location * Respondents code Crosstabulation

Count

		Respondents code			
		Silo	Panti	Sukorambi	Total
Average capacity evacuation of each location	100-500 persons	0	5	3	8
	500-1000 persons	4	1	6	11
	1000-2000 persons	6	1	0	7
	> 2000 persons	0	3	0	3
	Don't know	0	0	1	1
Total		10	10	10	30

There is a listing of the refugees in the location of evacuation * Respondents code Crosstabulation

Count

		Respondents code			
		Silo	Panti	Sukorambi	Total
There is a listing of the refugees in the location of evacuation	Yes	9	8	4	21
	No	1	2	5	8
	99	0	0	1	1
Total		10	10	10	30

The registrar of refugees in evacuation sites * Respondents code Crosstabulation

Count

		Respondents code			
		Silo	Panti	Sukorambi	Total
The registrar of refugees in evacuation sites	Local government	4	4	3	11
	Red cross	0	2	1	3
	NGO	0	1	0	1
	Karang taruna	0	1	0	1
	Local government,red cross,NGO and karang taruna	0	1	0	1
	Local government and red cross	0	0	1	1
	Local government and karang taruna	5	0	0	5
	Don't know	1	1	5	7
Total		10	10	10	30

There are a victim assistance activities in the location of evacuation * Respondents code Crosstabulation

Count

		Respondents code			
		Silo	Panti	Sukorambi	Total
There are a victim assistance activities in the location of evacuation	Yes	9	8	8	25
	No	0	1	2	3
	Don't know	1	1	0	2
Total		10	10	10	30

Officers who do help in the evacuation site * Respondents code Crosstabulation

Count

		Respondents code			
		Silo	Panti	Sukorambi	Total
Officers who do help in the evacuation site	Local government	1	0	3	4
	Red cross	0	1	2	3
	Karang taruna	0	1	2	3
	Volunteer	0	3	0	3
	Local government and red cross	1	0	0	1
	Local government,red cross and karang taruna	0	2	1	3
	Local government,red cross,NGOand karang taruna	0	1	0	1
	Local government, NGO and volunteer	1	0	1	2
	Local goverment, NGO,karang taruna & volunteer	0	0	1	1
	Local government,karang taruna & volunteer	2	0	0	2
	Local government and volunteer	4	0	0	4
	Red cross and NGO	0	1	0	1
	Red cross and karang taruna	0	1	0	1
	Don't know	1	0	0	1
Total		10	10	10	30

There is a common kitchen in the location of evacuation * Respondents code Crosstabulation

Count

		Respondents code			
		Silo	Panti	Sukorambi	Total
There is a common kitchen in the location of evacuation	Yes	0	10	9	19
	No	10	0	1	11
Total		10	10	10	30

General kitchen worker at the location of evacuation * Respondents code Crosstabulation

Count

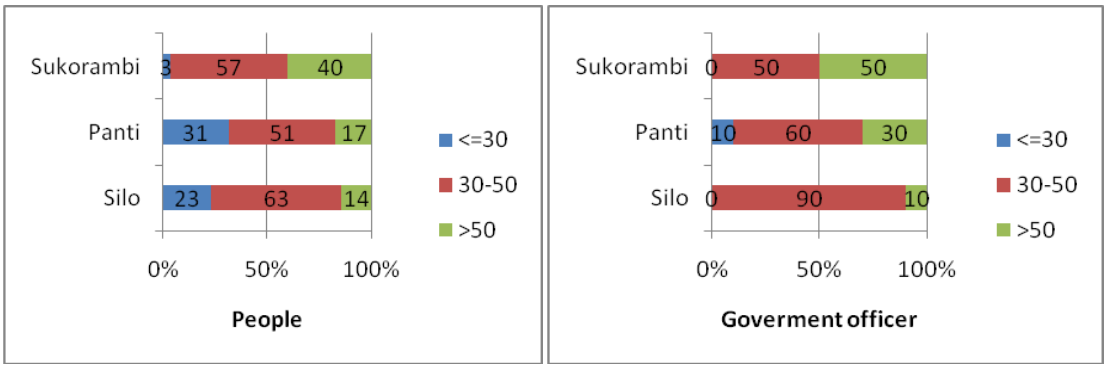
		Respondents code			
		Silo	Panti	Sukorambi	Total
General kitchen worker at the location of evacuation	Dharma wanita	0	2	0	2
	Community	0	4	9	13
	TNI	0	1	0	1
	7	0	1	0	1
	8	0	2	0	2
	Don't know	10	0	1	11
Total		10	10	10	30

Evacuation infrastructure at the site are met * Respondents code Crosstabulation

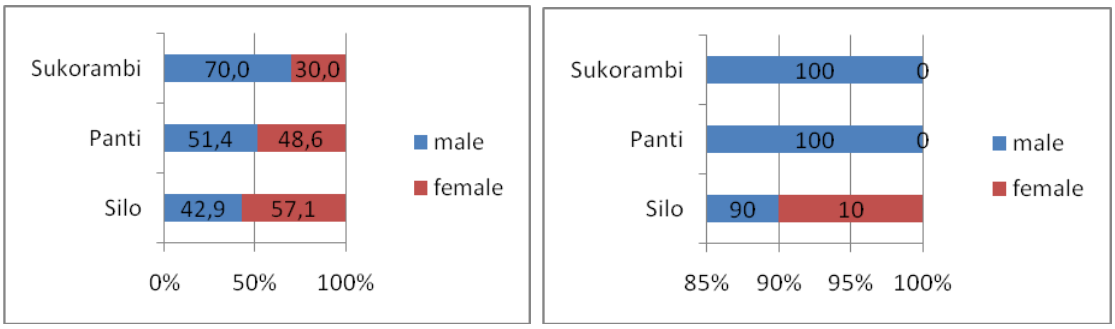
Count

		Respondents code			
		Silo	Panti	Sukorambi	Total
Evacuation infrastructure at the site are met	Yes	0	7	2	9
	No	10	3	8	21
Total		10	10	10	30

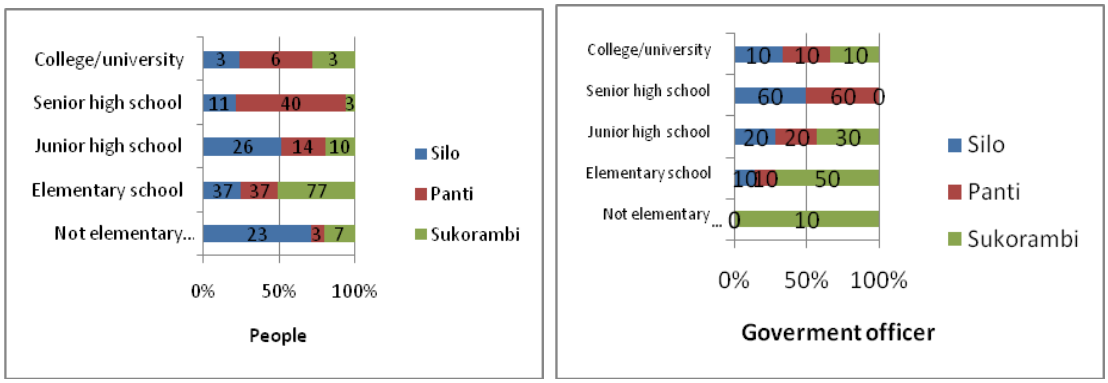
GRAPHS



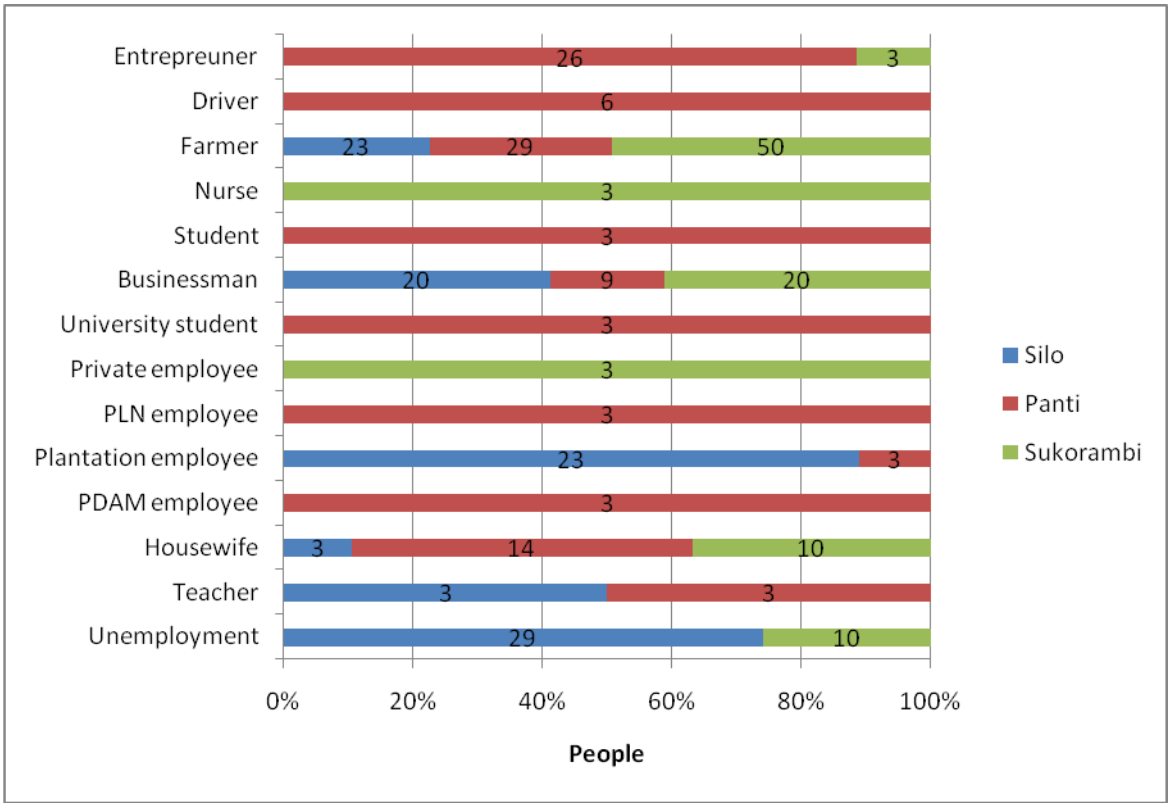
Graph 1. Distribution of respondents by age group



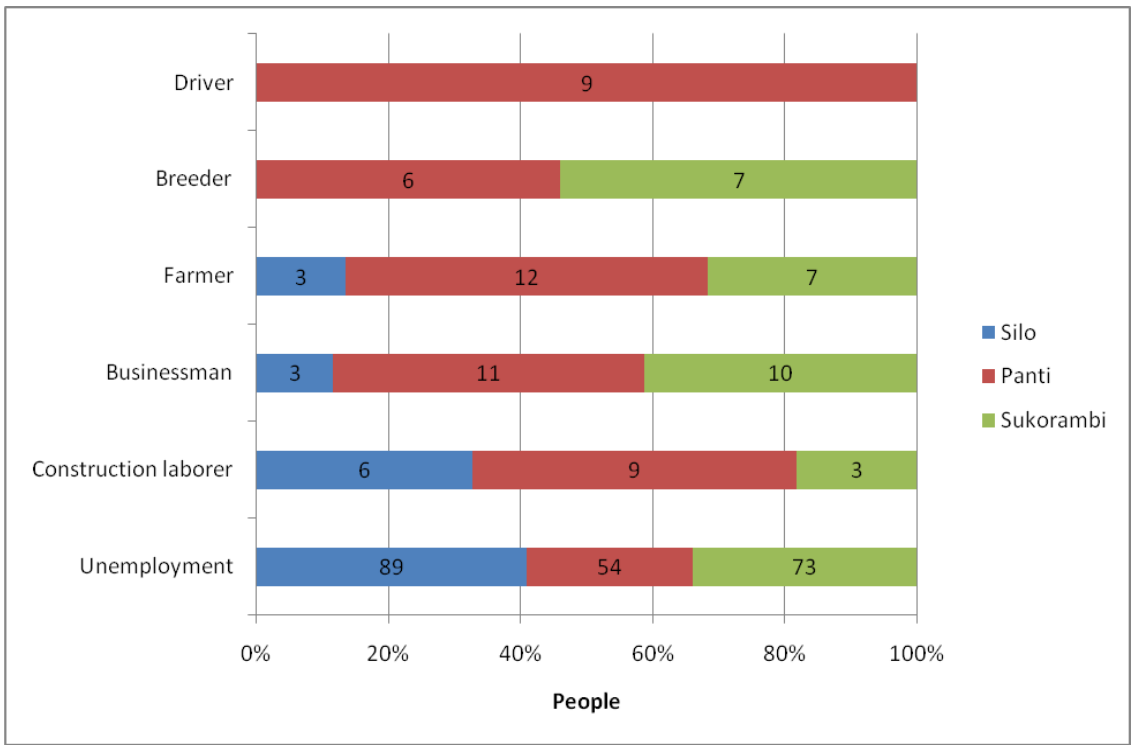
Graph 2. Respondent gender



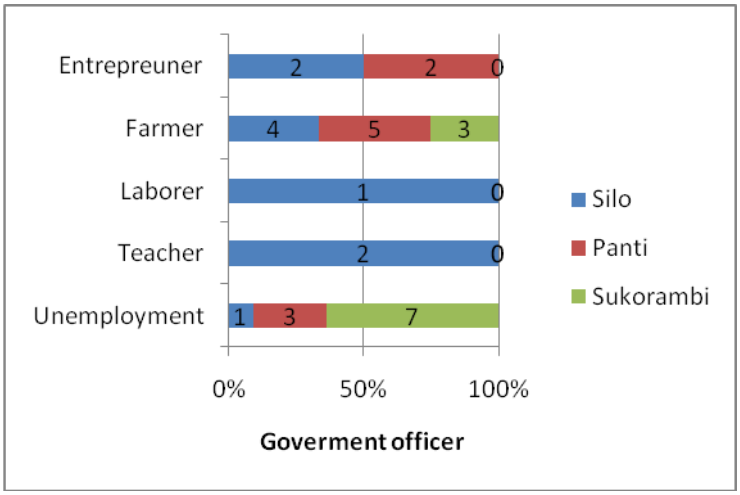
Graph 3. Education level of respondents



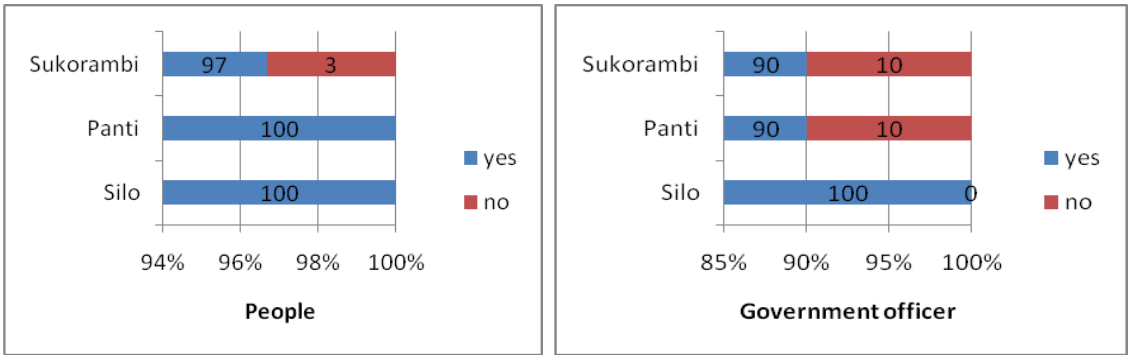
Graph 4. The main livelihood the people respondents



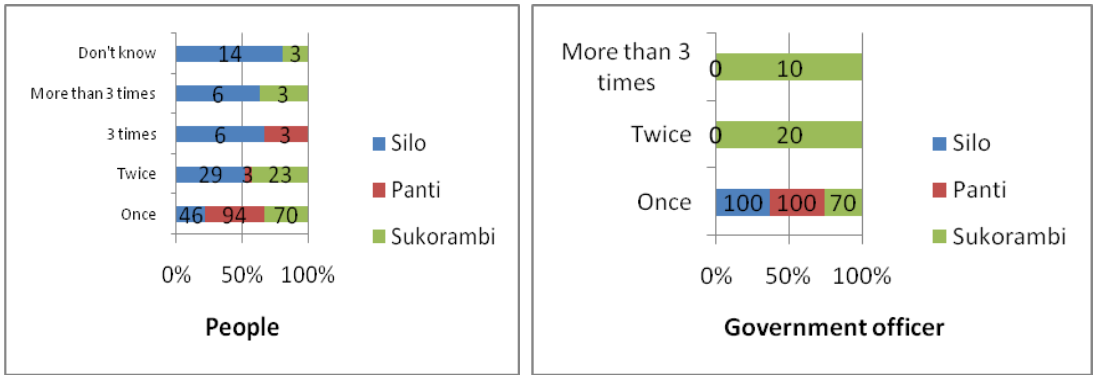
Graph 5. People respondents' side job



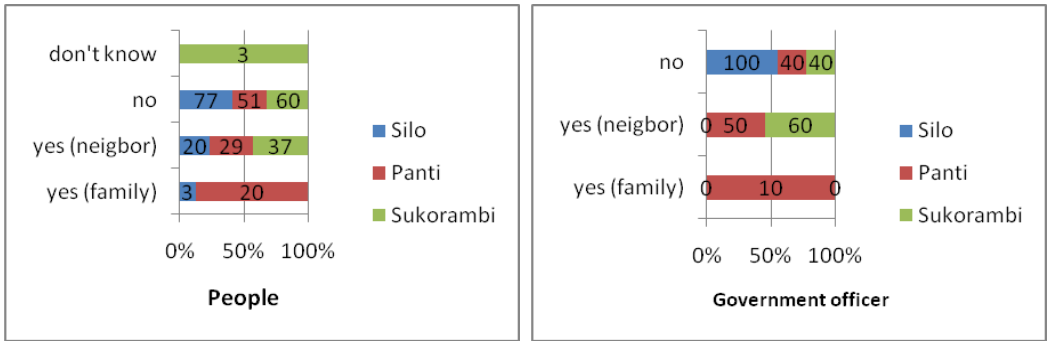
Graph 6. Government officer respondents' side job



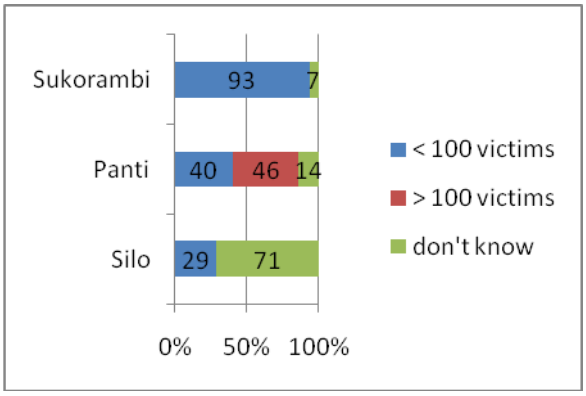
Graph 7. Respondents who knows banjir bandang



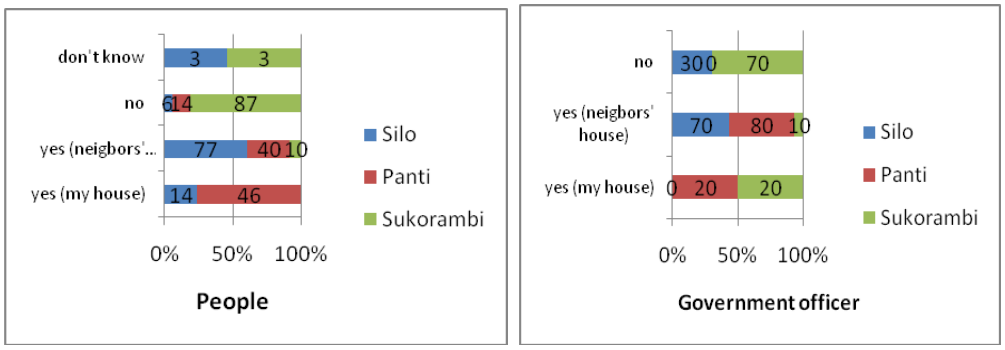
Graph 8. The occurrence of banjir bandang in the last 10 years



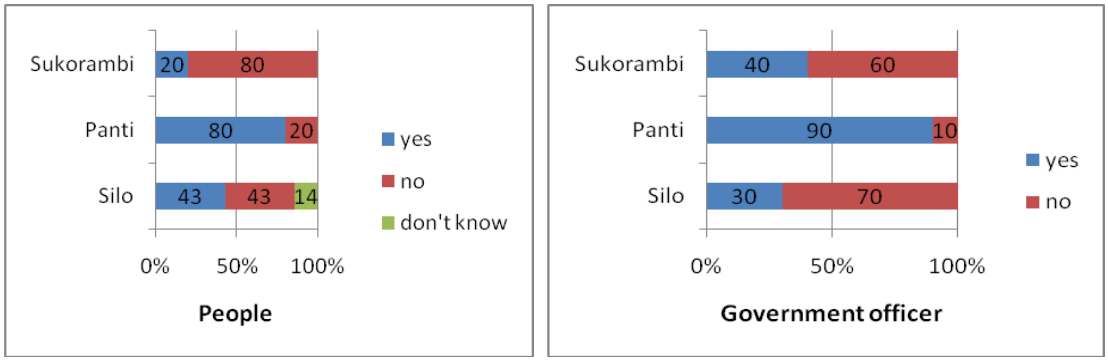
Graph 9. Respondents who experienced victims due to banjir bandang



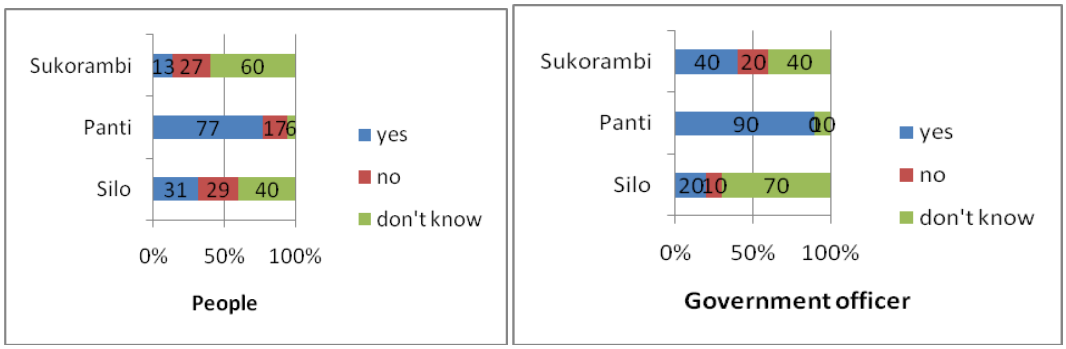
Graph 10. The number of victims due to banjir bandang



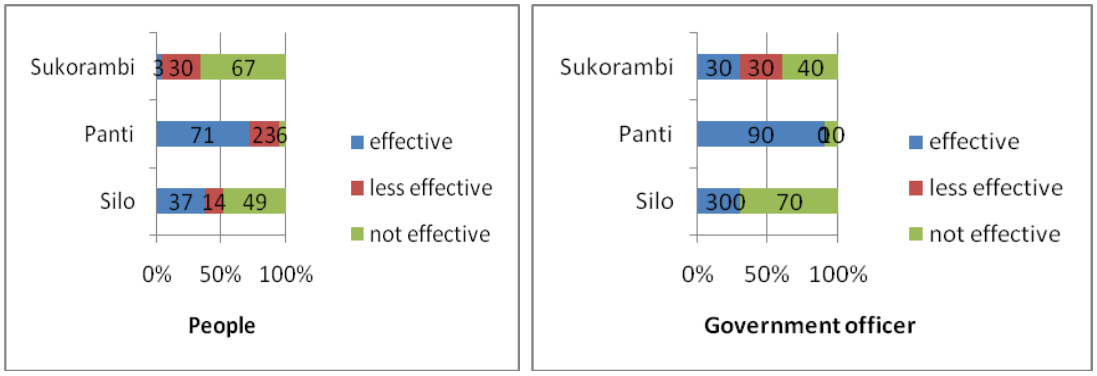
Graph 11. Respondents' house damaged by banjir bandang



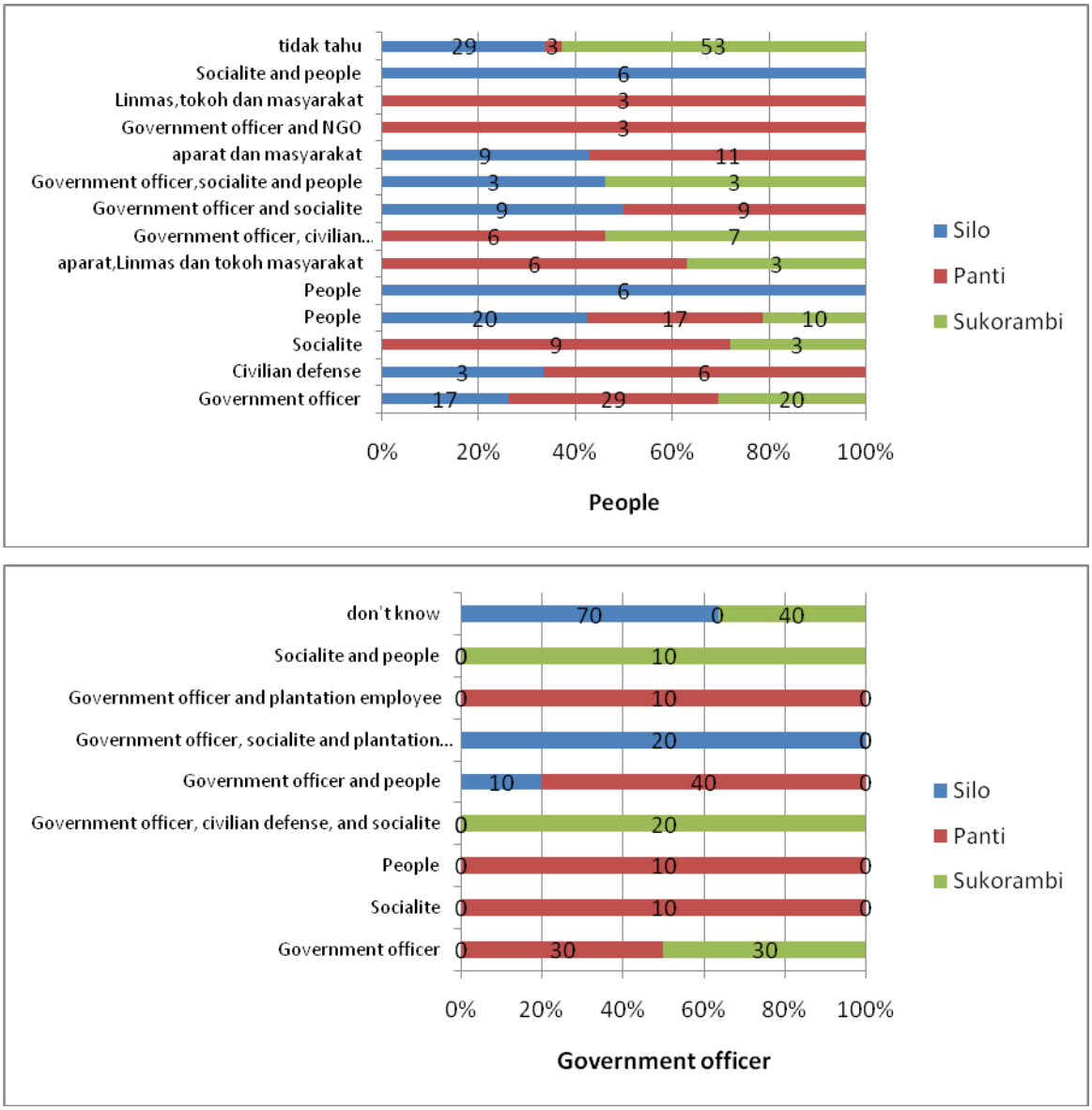
Graph 12. How respondents to anticipate the banjir bandang



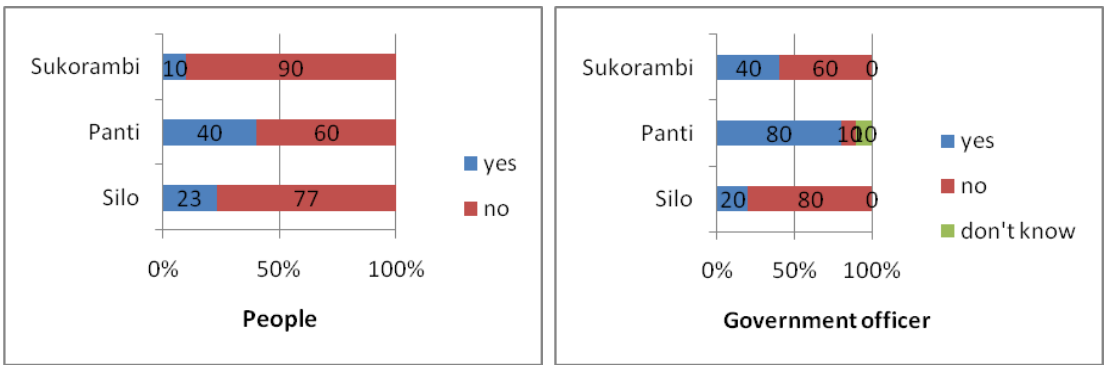
Graph 13. Application of banjir bandang anticipation



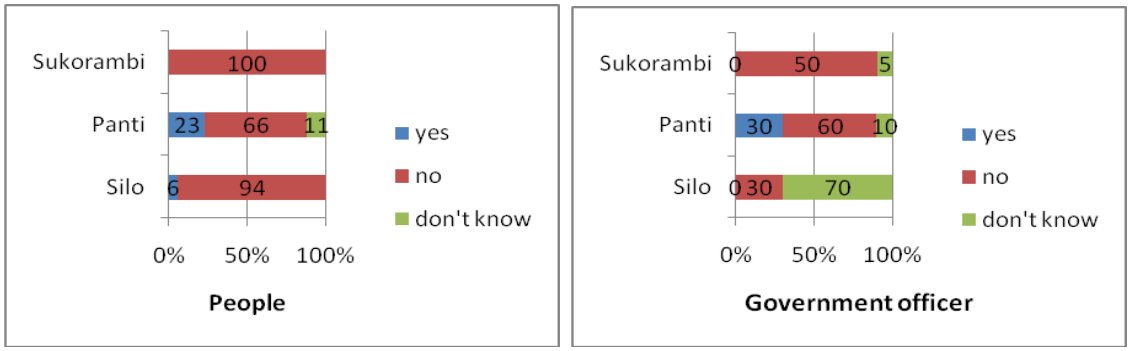
Graph 14. Effectiveness of banjir bandang anticipation



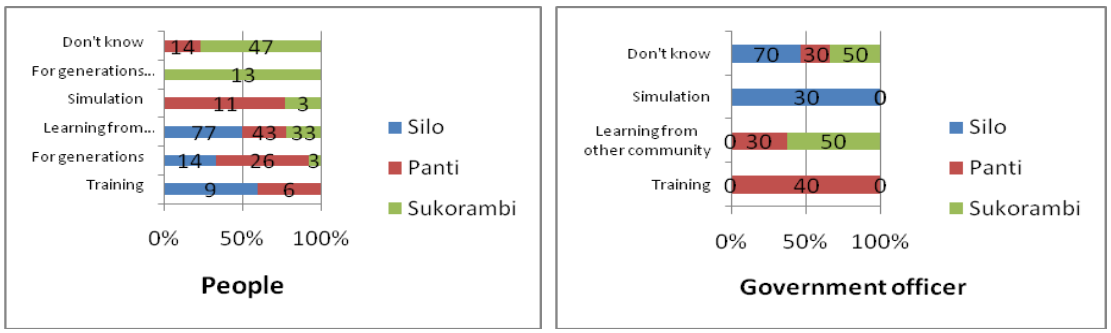
Graph 15. Who is taking role in anticipation of banjir bandang



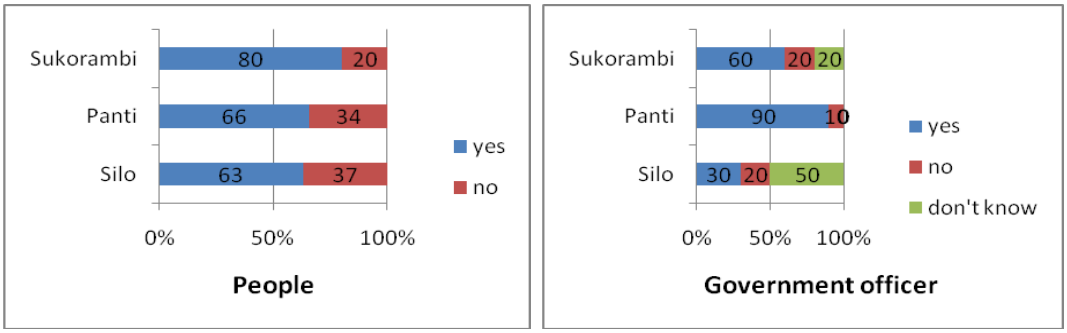
Graph 16. Early warning system of banjir bandang



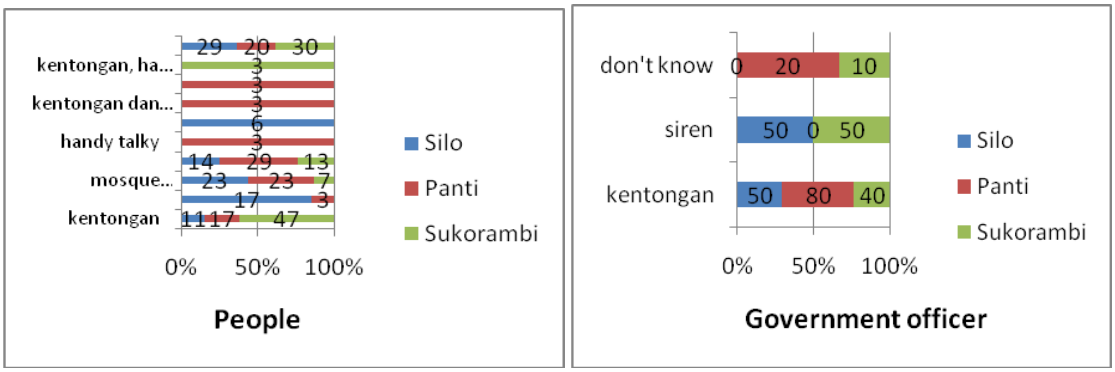
Graph 17. Creation of early warning system of banjir bandang



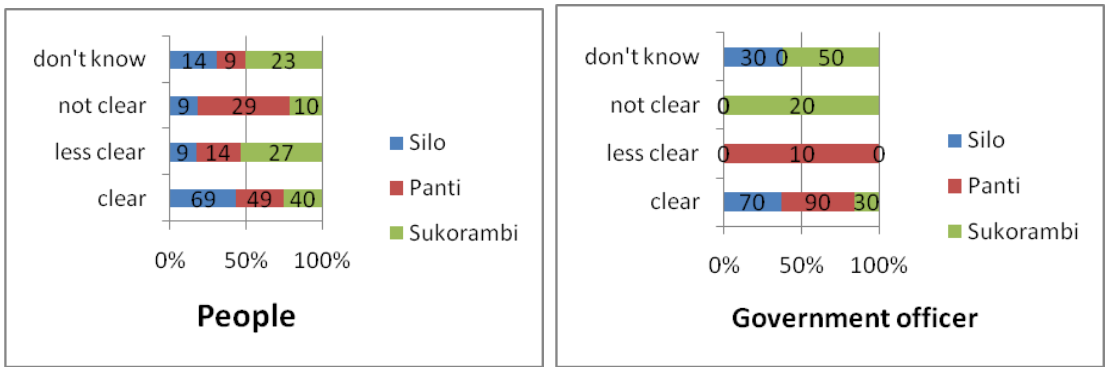
Graph 18. Adoption source of early warning systems



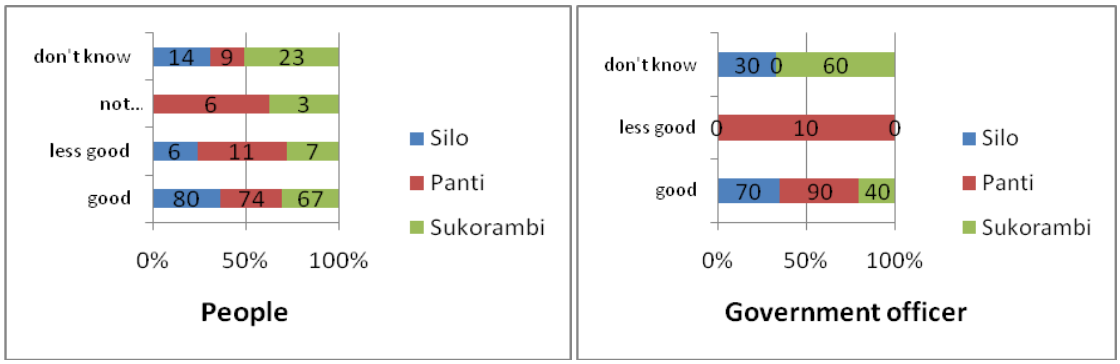
Graph 19. The officer that inform the warning must sounded



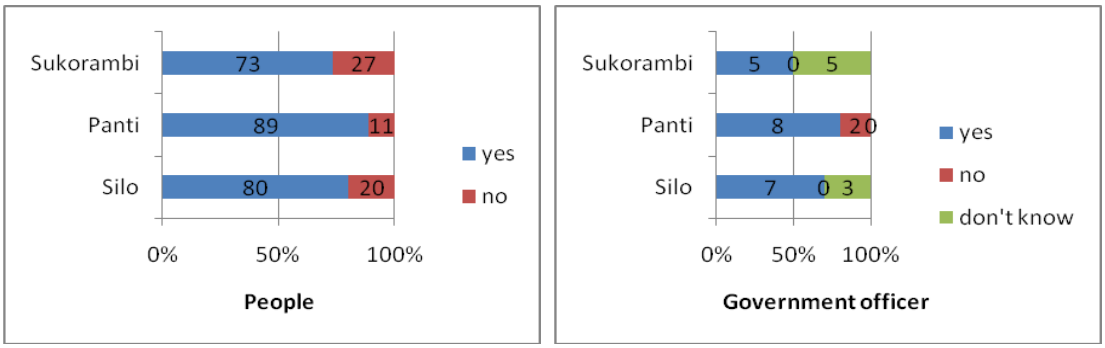
Graph 20. Communication tool for banjir bandang warning



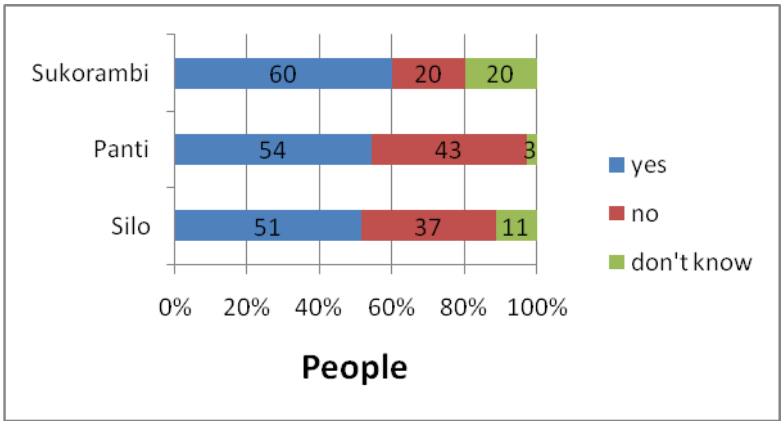
Graph 21. Clarity sound of banjir bandang warning signs



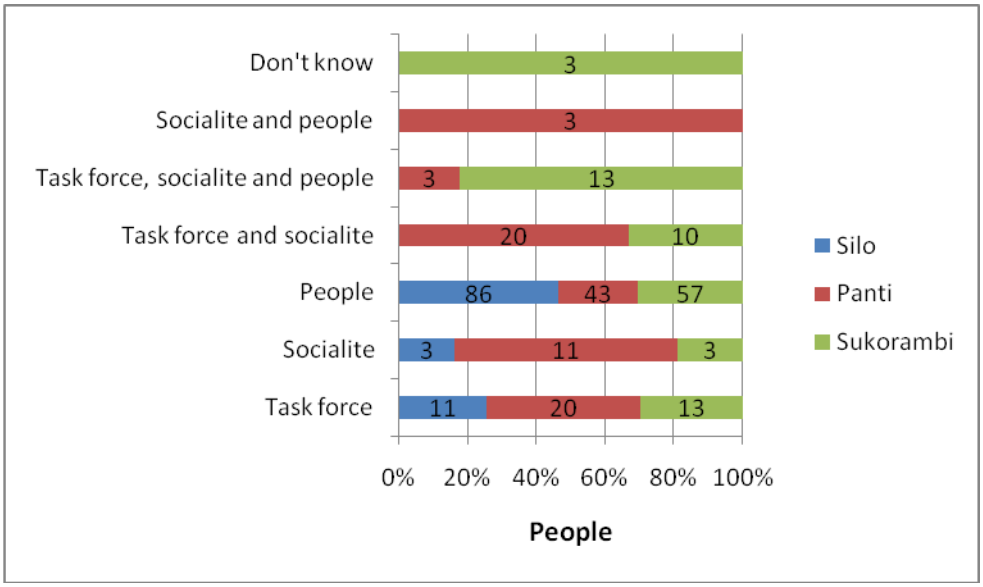
Graph 22. Condition and function of communication tools



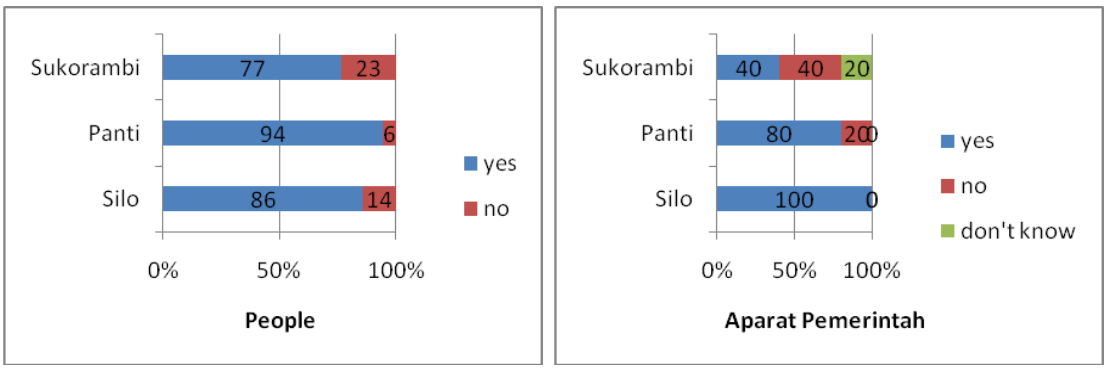
Graph 23. Understand with sound of communication tool of banjir bandang warning



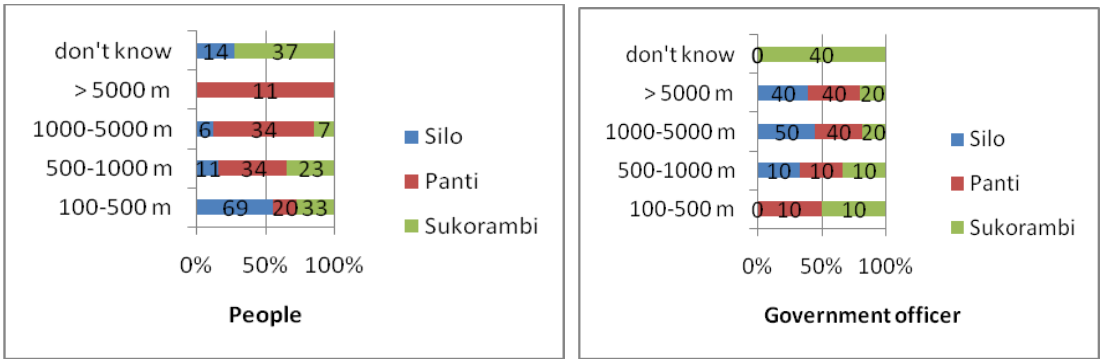
Graph 24. Assessment of the effectiveness of early warning systems



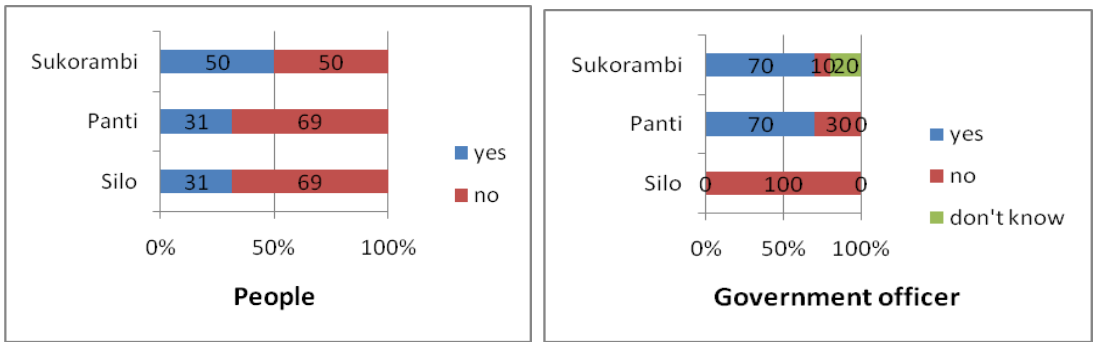
Graph 25. Who helped evacuate the people when banjir bandang



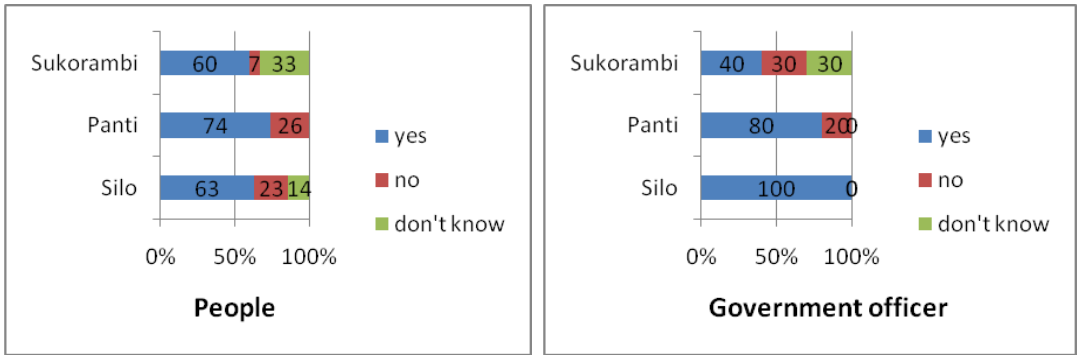
Graph 26. Knowledge of the location would evacuate during banjir bandang



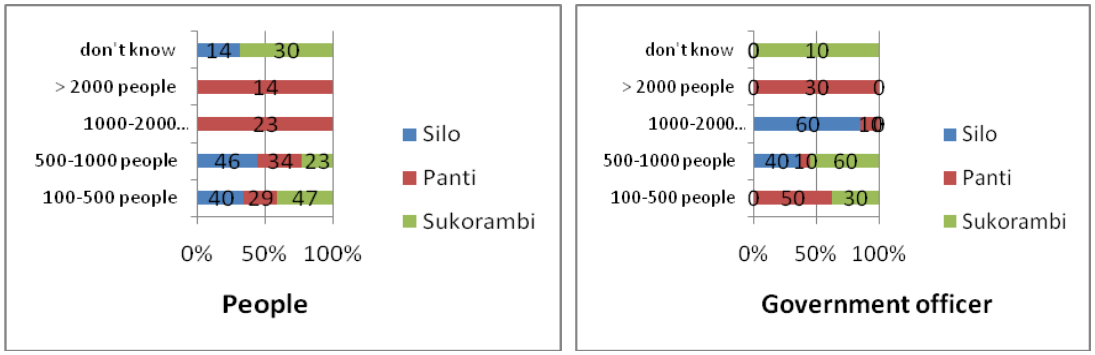
Graph 27. Evacuation distance with the flood-prone locations



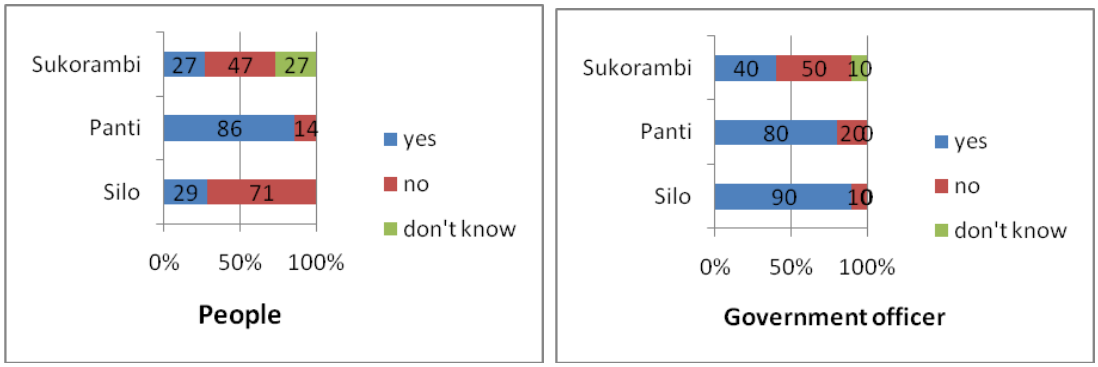
Graph 28. Maps or direction signs for evacuation



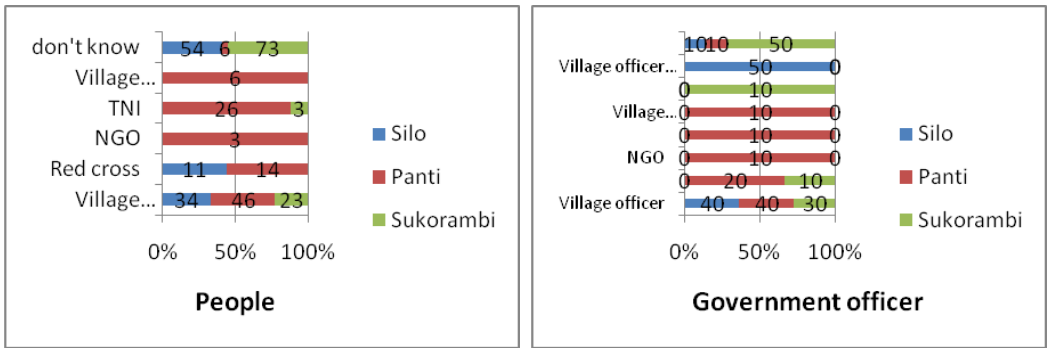
Graph 29. Capacity of evacuation location for banjir bandang refugees



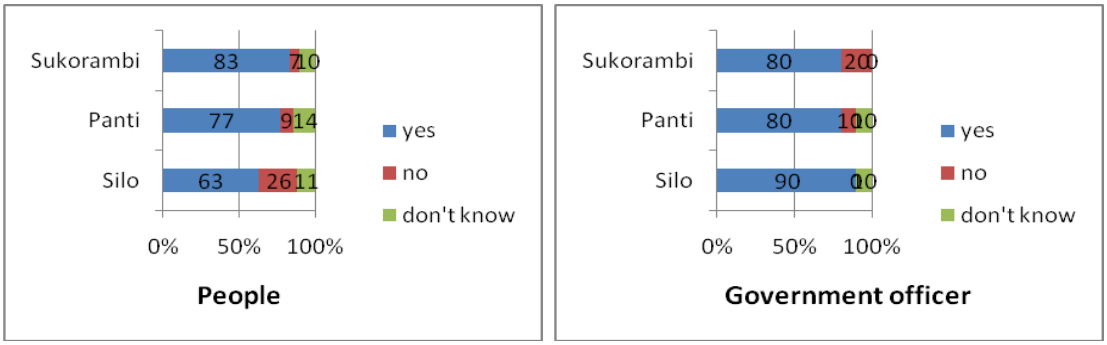
Graph 30. The average capacity of evacuation sites



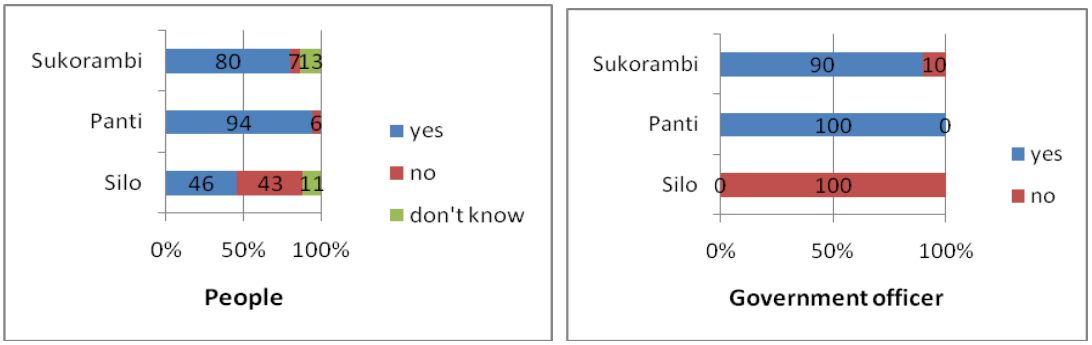
Graph 31. Recording of refugees the evacuation location



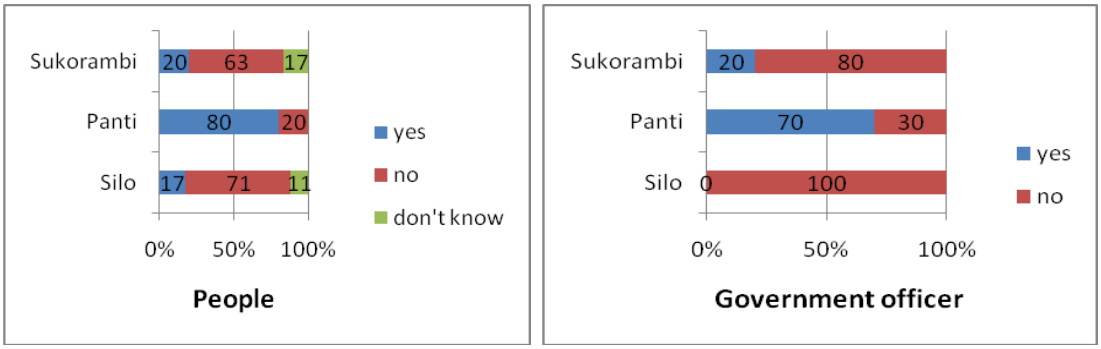
Graph 32. The recording apparatus of refugees in evacuation sites



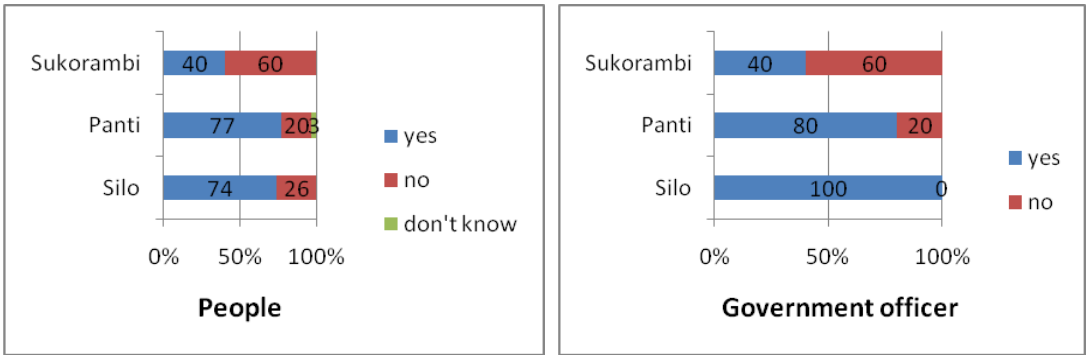
Graph 33. Victim assistance activities in the evacuation site



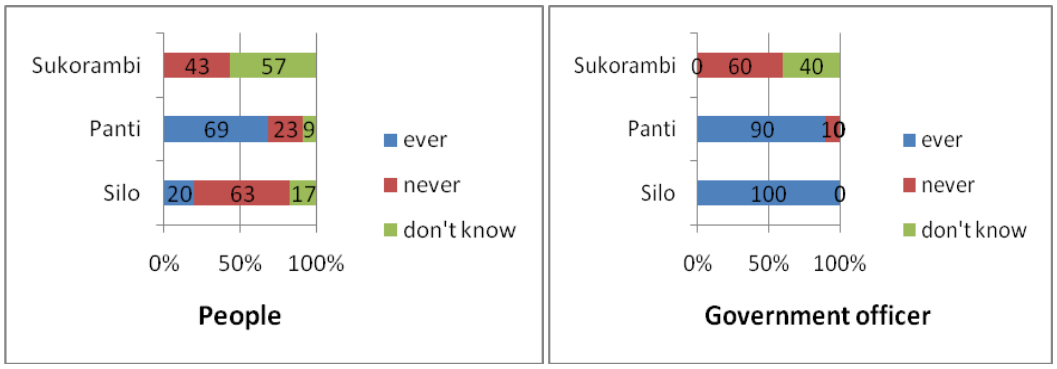
Graph 34. Soup kitchen at the evacuation site



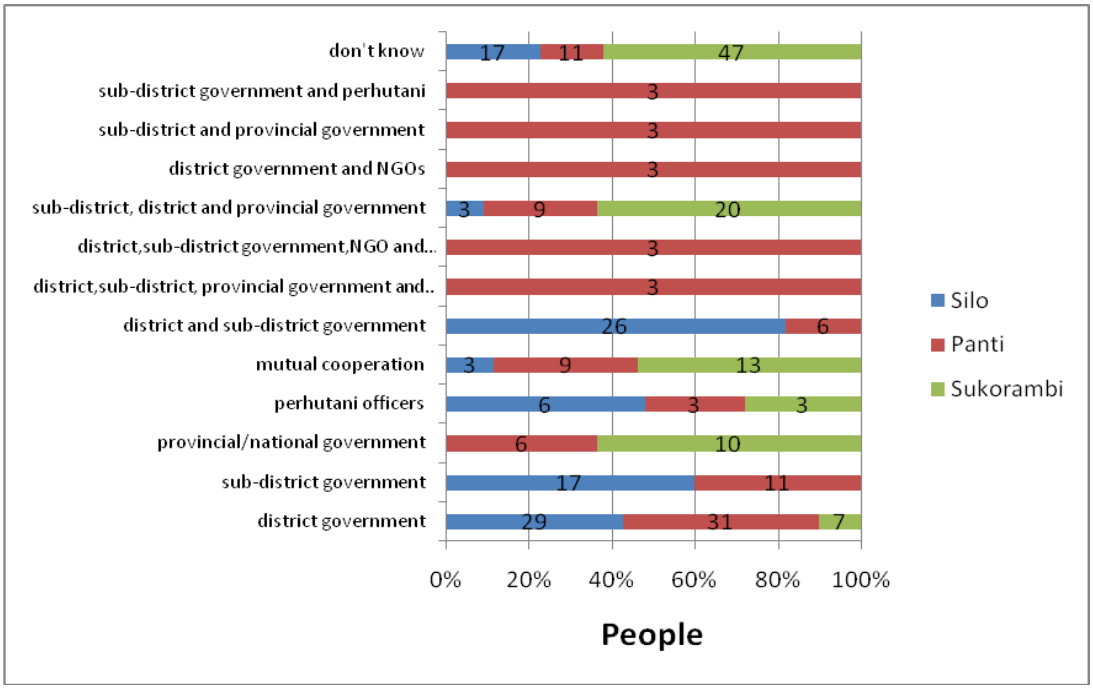
Graph 35. Infrastructure facilities in evacuation sites

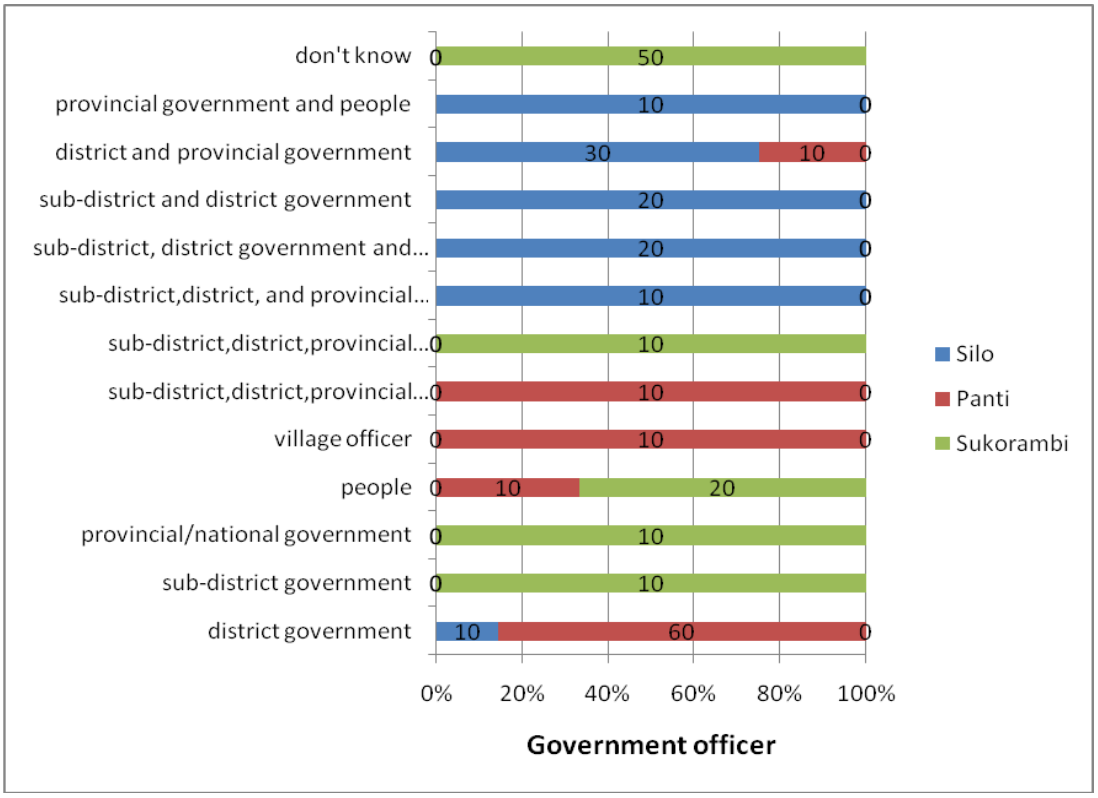


Graph 36. Problems that still need to be solved



Graph 37. Ever tried to solve the problem





Graph 38. Who helps solve problems

COMMUNITY DISCUSSION AND FOCUS GROUP DISCUSSION ABOUT EARLY WARNING SYSTEM AND EARLY EVACUATION IN JEMBER

Community discussion in Panti was held in:
Day / Date: Tuesday, February 23, 2010
At: 09.00-13.00
Location: Town Hall Kemiri
Number of Participants: 20 people
Discussions focused on the material history of banjir bandang problems, banjir bandang early warning systems appeals, evacuation systems and various other problems associated with banjir bandang.

The process of banjir bandang.

There is no citizen who knows that on January 1, 2006 the banjir bandang will come with great force.Candlenut Villagers who traveled the river banjir bandangs expected to come when it is ordinary banjir bandangs.However, residents thought that this incident is the impact of forest destruction in the Panti Subdistrict, Jember Regency, which is located at the foot of Mount Argopuro, in the north of Jember Regency. This landslide of soil is followed by wood materials. The wood is actually transported timber stolen by wild parties are not responsible, but because it is difficult to transport so transport is not done, so the wood is left for granted. The bare forest land, due to illegal logging makes the forest can not absorb water, as a result of landslides occurred. These logs come transported with water and soil erosion. Until contained disebuah DAM didesa it is expected logs blocking the river flow. This blockage is suspected by the people who are under a form that was one of the banjir bandang tides, which occurred just a banjir bandang reached a height of a coconut tree or up to 7 meters. This makes a lot of casualties are falling, because when the flow of the river receding many people who saw dipinggiran river. Citizens who do not have time to escape eventually become the victim of this event.

Natural signs of banjir bandanging are already felt by residents in this area. This he knew from the signs of nature that happens, the rain which fell three days in a row, where each colored water cloudy day, more turbid than when the heavy rains. In addition, the smell of mud that once clung so stung by the people around, who lived near the main

river. However, even so many of them do not think that the banjir bandang will come and devastating -village. Only after several minutes before banjit came thundering sound of rocks that collided with the electricity went out and then make people panic scrambled to escape. From the signs of this banjir bandang to the banjir bandang of settlement only takes 5-10 minutes.

Early warning systems and evacuation

One of the residents, there are no early warning by village officials before the banjir bandang occurs, such as sirens or rafters. Warning of banjir bandang occurrence conducted solely by local residents with a direct view of the river conditions. The condition of the river is only a marker to alert the other residents. Heavy rains for days causing the river water flow increases. The river water is more turbid and smelly mud that smelled very stinging makes people around began to alert, although not think if the future is banjir bandangs. Alerting the community themselves to get ready to evacuate. Several hours before the banjir bandang came and then came to the village task force and some military around asking people for escape from river, at that moment there was no siren or gong, the sound is only used to warn of disaster from the citizens of another citizenship. Mother was evacuated along with other citizens a safe place approximately 5000m from the scene of banjir bandang flows. In normal conditions after the banjir bandang, there is no tool for early warning systems that inform the citizens to be cautious. When the banjir bandangs came, village officials began to back and forth to see the condition of rivers. If the river water flow increases and the water began to muddy the river village officials began to inform the local residents to beware. This is done without tools, just like a patrol around the course by relying on sound.

Similarly, other residents presented living near the bridge that is now disconnected. How to anticipate banjir bandang learned from the experience gained banjir bandangs that never happened. Watershed located in front of his house was always monitored when rain occurs. Flow of water during banjir bandangs would occur 4 years ago with the river water flow when the usual rains banjir bandang season is different. This continued as monitored by the citizens for their families early warning in case of banjir bandangs. According to Mr Citizens, in this village has no early warning system of banjir bandang.Information from the plantation areas submitted to the security post at the village office, and then delivered

from the village office at the head of the hamlet and the RT. However, according to Citizens pack, this information is slow, so he had to call their own village officials with cellular phone technology to determine weather conditions in plantation. This effort on his own initiative, because he thought after the bridge cut off access to its territory to be dead and rafters which warning information is no longer able to hear him clearly. The sound of water pouring over the river is clear from the rafters that still use this didesa. The differences of early warning systems in the same village showed that an early warning system that there is not didesa well.Early warning systems that can be perceived both the benefits to all parties without distinction, whether they are location around the river and that was a dead end street.

This didusun society confessed to evacuate the system after hearing the roar of the banjir bandang areas is higher. From the village of Kemiri, where the village is still lower, so they think the noise impact of the stones to make them panic. If described his voice as the voice of rice penyelep tool, so chaotic. The stones that collide with each other so there was clearly combined into one with a swift stream. Nothing helps the process of evacuation of people in this village. Aid is only done by people around the course. Average people who do not have a vehicle running into the location of evacuation. Evacuation location chosen by the people in the village is Gaplek Sukorambi District. According to the same people, in this village there are no maps or signposts that indicate where the location of evacuation. Information about a more secure place and not exposed to high banjir bandang flows from the mouth known kemulut citizens. To Sukorambi own area of penggungsian locations who were there already may be affected include residents banjir bandang disaster, that can be said to deserve. The number of residents who fled there in 1500 to reach the soul. Recording of the refugees was also carried out by NGOs that help provide relief to victims of disaster. While medically, to help victims of injuries and health of residents during dipenggungsian PMI is also provided by the District Nursing and Health Center. Likewise, the common kitchen, common kitchen activities are carried out by people who took refuge there.For facilities and infrastructure already feels fulfilled because the help and solidarity from residents to help Sukorambi also very high.

Small Group Activities in FGD Kemiri Village

FGD small group activities conducted on the day of Saturday, February 20, 2010, at around 18.30-20.30, located at the residence of Mrs. vivin Noviah, with the number of participants of about 10 people, The discussion focused on the history of banjir bandang problems, banjir bandang early warning systems appeals, evacuation systems and various Other problems associated with banjir bandangs

Banjir bandang disaster that swept the village of Kemiri and Suci Village community according caused by continuous rain occurs and the closing of land or forest vegetation has been shaved. According to residents who had reviewed the location of the plantation area to the north state that forest conditions are Argopuro dilereng the mountains with almost no trees which means, if any amount can be counted on the fingers, the rest is just the bush that covered the surface.Argopuro mountains known to the public as protected forest which is a water catchment areas.It later turned into cocoa and coffee plantations (estates of the people, private, and government), a production forest that for the purposes of logging production often resulting in deforestation.Automatic with this condition do not have the ability of forest environmental resources are adequate. Soil pores become wide because no, the water absorption dropped because there were no trees that can absorb rainwater. This is a long run making a forest should be a natural absorber of water could no longer hold the water flow rate from top to banjir bandang phenomenon occurs which claimed many lives it. Timbers of the dominant banjir bandang tide of Teak Tree, Pine, Mahogany, which is characteristic of the production forest denudation has done.

Besides other causes is that most land in the mountainous regions ditanamai by corn plants, see the absorption of the corn crop and this resistance is caused landslides inevitable, since most of the time so many people who grow corn compared with an annual taanaman absorptive capacity and resilience. After the disaster, the community began to realize that because of the corn planted avalanche occurs, one possible cause is lonsor was planted corn. And now they began to plant coffee tanaaman to menghndari landslide occurrence in the area again.

Location penggungsian biggest anteater found in Hamlet. The place became the location of the field and penggungsian are schools that have these didusun. However, the evacuation

here, felt less feasible for some people. Damaged road conditions and lack of facilities and infrastructure to be one reason. The tents are not enough to accommodate displaced residents, so residents have a ride home-home residents. This is not comparable to the actual extent of the field can still be used, but in the absence of a refugee camp must be willing to crowded and some people ride around the house. Likewise, the toilet, no toilet facilities in the evacuation. So people have to walk the river is quite far. Only after 1 month of running semi-permanent latrines built for the benefit of refugees.

Small Group Activities in FGD Village Hall Suci

Implementation of FGDs on Friday, February 19, 2010, at around 18.30-20.30, located at the residence of Mrs. Yatik, participants numbered 10 people, discussion focused on the history of banjir bandanging, banjir bandang warning systems appeals, evacuation systems and various other issues related to banjir bandang appeal

The existence of the conversion plant to plant roots in short-rooted plants, reduced impact on plant absorption can not end the flow of rainwater menahanan. So will menanmbah river water volume and automatically increase the power flow. Gending village residents also realize that the area is now a disaster-prone residence. Society in general Suci Village area, assess the banjir bandanging as the river water naikknya events and increased speed of water flow. That is, after every rain, it will inevitably banjir bandang. That is the reality that happens, that perception during banjir bandangs which are by most people believed to be the bearer of the banjir bandang disaster, by the villagers themselves diartian by ordinary banjir bandangs marked with increasing water volume.

Discussions are going pretty well, it can be seen from the enthusiasm of the FGD participants disaster. Village Communities in the Suci wilayahj also already know the dangers of disaster that has occurred in several districts in Jember. However, public confusion and anticipate how prevent disasters in the future. They argue that such disasters can be anticipated if there is cooperation and proper coordination between the public and Government officials.

The level of public awareness in areas categorized Village Sacred very low bias, because they are very confident that the area will never be affected. FGD participants argued that warning system needs to be done to prevent anticipate and disaster, is to use simple tools, a

wide band of ordinary citizens in use for patrolling. Mark gong sound was a lot of understanding by the citizens, because the blow wide band for each event including banjir bandang appeal. Tools rafters is considered to be effective citizens, because almost every home has a such a tool, so that when disaster strikes any AAU events around the neighborhood residents, the residents would be very easy to use.
When the appeal came bajir, very difficult for citizens to evacuate due to heavy flow of water from large and small rivers. Effect of banjir bandang is not only from economic aspects (loss of livelihoods as a majority society of farmers and planters, lost their homes and yards akbat silted up), but from the social aspects of the psychic. The threat of banjir bandangs appeal causes fear and trauma severe enough to be felt by every citizen, especially the victims of the banjir bandang appeal.

Government aid, private and observer of natural disasters, including universities strongly felt by residents have positive impact. Forms of assistance include: temporary tents to accommodate the banjir bandang victims, food for consumption needs, the handling of the health aspects, both the Hospital and the Faculty of Medicine, University of Jember. However, public expectations in the future, there is need for government efforts to facilitate a meeting of relevant parties concerned to prevent any banjir bandanging delayed appeal in the future. Related parties are not only able exploitive natural resources in the area of nursing, but helped preserve the resources come and establish a more sensible relationship with the local community.

FGD through the stages of preparation: a visit to the village chief's house Karang Tengah to convey the purpose and objectives of the FGD, asking for input on Kasun data about citizens who understand the problems of banjir bandanging, both as victims and not the victim, established a schedule of activities selajutnya FGD, FGD location, number of participants and Other requirements relating to the FGD

FGD activities carried out in small groups on Day Sunday, February 21, 2010 with the allocation of time of about 3 hours (09.00-11.00 GMT). Location FGD in House Village Head Desa Karang Tengah District Pace Silo.

FGD activities attended by about 10 residents in the vicinity of Village Karang Tengah. The focus of discussion is more directed at the problems faced by the community related to potential banjir bandanging and the readiness to evacuate in the event of a banjir bandang appeal, as happened in the year 2009.

Notes

Suspected many parties, banjir bandang in the village of Silo district pace due to environmental damage in this forest surrounding the mountain slopes bare condition. High rainfall resulted in the forest can not absorb the water until then occurs flash banjir bandangs and landslides. Forest destruction is happening since many years ago, it has made the environment carrying capacity becomes very fragile. And flash banjir bandang disaster after another landslide occurred in many places in the village in the hamlet pace curahwungkal especially, even in areas previously thought safe from the disaster though. Residents in some areas are now part of anxiety and worry, a similar disaster in the village of pace, especially in the hamlet district curahwungkal silo can override local residence.

Banjir bandang swept the first Curahwungkal, Village Pace, Silo District at around 20.00 pm, the 9th month of January 2009. The banjir bandangs came after heavy rains flushed the region since the end of the day occurred at the same time landslide disasters. At around 21:00 pm, not just the crashing water, mud, also participated. Heavy flow of water to make approximately 15 houses in the village was severely damaged and was. Because the houses were located on the outskirts of river. In addition to the house, the mud also closed roads connecting villages and MULYOREJO Pace village behind the mountains. As a result of road covered with mud 1 mile 50 centimeters tall. Mud was estimated by the residents come from the forest area near the garden Baban Silosanen PTPN XII. Protected forests in the area bare. Flash banjir bandang at the time it happened very quickly due to the strong no longer carrying capacity of forest watersheds in the garden PTPN XII Baban Silosanen to hold the water so the water is released with great energy and a sudden. Power pengrusak

water main is followed by blocks of stone and mud. The wood is also a banjir bandang of additional energy to destroy what is standing in front of residents' houses as stables or cow owned by local residents. Due to the huge power breakdown was able to flash banjir bandangs washed away some of the houses, musholla, agricultural land is usually made to get people's income to meet their needs.

At the time a flash banjir bandang occurs, the entire village officials are making a pilgrimage to the Guardians 5. Community village officials expect it would not interested in people rather than affairs of his office or his job. And flash banjir bandangs that occurred only about 3 hours after departure, village officials to get to the Guardians 5. Public agitation was beginning to look as none of the village officials who remained in the village in order to anticipate citizens bersia-ready for the banjir bandang. 3 hours after departure, the village bus information fortunately got Lumajang area. But the ranks of the village officials from all kesil only part that is not continued on his way to visit his Guardians 5. One by one the village down and back to the Silo. There are also village officials who fell after the bus they were traveling had reached the Pasuruan area. The village secretary who now serves as the village chief continued his journey. Until Pace returned to the village officials are already too late to deal with people because the river water flowing fast growing and growing. One of the village mayor also Suha wungkal rainfall late to deal with family who live near the river where the occurrence of flash banjir bandangs. They had fled to his brother.

There are some people who think that flash banjir bandangs and landslides that occurred before there was a roar. From the experience of citizens takes about 30-60 minutes from banjir bandangs roar reached the settlement. According to the story before the banjir bandang in the upper reaches of the sky was looking very dark and raining heavily. Also rivers muddy water containing dirt and mud, twigs occasionally drifting on the river water. Then when the banjir bandang will come will follow first roar.

The signs before the banjir bandang could have been well observed by communities in banjir bandang prone areas, only coordination and communication systems have not developed well. Lack of coordination and communication is finally led to vulnerability at the community level hamlet curahwungkal, such as coordination and communication

between villages during the rainy season does not exist. Through this communication may be muted because of the risk of inter-village community can monitor the signs before the banjir bandangs came, and then immediately inform the public in order to ready mode. This system will increase the capacity of communities in facing the threat of banjir bandanging. In addition other vulnerability is that the lack of public understanding of the threat and risks in their area.

This is not simply because the education level and low public indifference, but did before the incident the previous banjir bandang of socialization, training and information on banjir bandang risks and has never given to communities in banjir bandang prone areas. Government itself did not have programs for disaster risk reduction in the region. New government made an example of the simulation after flash banjir bandangs in the village berlaulu Pace. This is also a weakness in the government level but still receive the effects increase the vulnerability of communities at the bottom who live in banjir bandang prone areas. Learning from the experience over the course, we all do not want to experience the same thing does not do anything. There are many things that can be done to reduce the risk of banjir bandangs in this area.

The existence of banjir bandang and landslide appeal against the village government Pace yourself then there are plans to house residents who were areas of potential areas for the occurrence of banjir bandangs and landslides to move to safer places. The victims / community where he lived in the area prone to banjir bandangs and landslides awakened new housing that must be safer from the danger of banjir bandangs and landslides. It is known to the public to bolster the system of exchange, but it is unfortunate to date exchange rate system is still unfulfilled roll. According to village officials, especially Pace wungkal hamlet bulk rates bolster system is a useful solution, but only the rules that do not have the right to cause the people who agree and disagree with the solution.Residents there who agree and disagree with the system bolsters rate offered by the government, because the land offered by the government with land cheaper citizens, while citizens also require greater cost more to build a new residence. The existence of these problems caused the system can not be done and it can be said that until now the government was still unable to overcome the problems faced by village communities especially wungkal bulk and general villagers Pace.

Jember regency government efforts to cope with banjir bandang disasters that might happen is to relocate residents. According to Mr. Mr. Siswanto, Jember Local Government proposes to relocate the residents to safer places. Relocation of the selected locations are owned by PTPN XII. However, efforts to relocate these residents were denied their own citizens. They argued that if relocated to a new place does not provide funds to help build their homes again. Whereas in the previous residence was in the form of a permanent building. They argued that if they move to a designated place so at least they should have funds of approximately 50 million to build a house. That is the point of their objection so far, because the district government offered only able to provide assistance for 2 million individuals.

Flash banjir bandangs that occurred in 2009 caused the village government officials to appeal to the entire RT and RW banjir bandang-prone areas and landslide alert to take one step during the rainy season. The call contains a call to immediately evacuate to safer places if the signs of banjir bandanging and landslides already visible. In addition residents are also encouraged to always watch the coming disaster aftershocks. Usually if you have signs of banjir bandanging and to immediately evacuate residents mengerakkan with enough shouting.

Small Group Activity FGD in Curah Wungkal

Introduction

FGD small group activities conducted on the day of Monday, February 22, 2010, about 2.5 hours (18.30-20.15). Location in House Chief of Curah Wungkal Silo Village. FGD activities each attended by about 10 residents in the vicinity of Village Curah Wungkal.FGD activities, village chief was unable to attend because the task of the Government District.The focus of discussion is more directed at the problems faced by the community related to potential banjir bandanging and the readiness to evacuate in the event of a banjir bandang appeal, as happened in the year 2009.

Discussions in FGD Results

Pace Silo Village District have 4 (four) villages namely, Krajan subVillage, Karang Tengah sub village, Sukmoilang, and Curah Wungkal. Some of these areas are prone areas prone to landslides and banjir bandangs. According income residents, an area that is prone

to enter the category Curah Wungkal Hamlet. This hamlet is a village landslide prone and vulnerable to banjir bandanging. In the village maps are also maps of disaster-prone areas where there is a point inside a safe that can be used as a post for evacuation. There was also a point of evacuation to a safe point (post). In the last year is the year 2009 the Village Pace banjir bandang affected most severely in the past 10 years. Because in previous years banjir bandang happened only a few there is a surge of water from the river course. But in 2009 it was the biggest banjir bandang since to destroy houses, bridges and fields surrounding the river, the impact is felt not only bajir communities in Curah Wungkal, but also in Karang Tengah village.

Curah Wungkal has a majority of people in their everyday use Madurese language. In addition people also have high levels of education is relatively low. In addition, too many people who work in the field of agriculture. However, many of the people who have agricultural land from forest land. They have cut down their own forests to agricultural land used, but some are buying from people who were already cutting down forests. Agricultural land is common land they call the "fatty". This land is usually planted with coffee or corn. Of their actions they actually realize that their actions are harmful to the environment, but they see other people who cut down forests and farmland make a profit so they went along with that action.

Banjir bandangs in the village of Silo Pace District Rainfall occurred at the Village Wungkal, the location of the worst damage occurred in the RT 01/RW 03 and downstream of the river flow. At RT 03 incident 01/RW destroyed one house residents who live near the river flow downstream while area more damaging bridges and fields and fields along the existing stream. The incident occurred on January 9, 2009 at about 20.00-22.00 WIB, which at the time accompanied by extinguished electricity company PLN. In the dark and this sudden banjir bandang occurs, the story of their citizens can not see the signs of the coming banjir bandang. Because at that time so to kodisinya dark mementau river water flow was so difficult.

Banjir bandang damage to bridges and after the bridge collapsed, many displaced residents, especially children and women. Merekamenyiapkan some clothes and securities. They ran to the boarding school, due to the higher daeraha. Distance boarding school with a bridge about 900 meters.

Chunks of the rest of the bridge by some very concerned citizens, because can cause trees to stop drifting. And if the banjir bandangs, the water can exceed the old bridge up to the new bridge. The distance remaining chunks of the old bridge with a bridge about half a meter Beru. This settlement has been tried by the people, in add to the contractor who built the new bridge, but according to him there are no funds to dismantle the bridge that night. So residents are asked to report first to the village or subdistrict heads. After the report, said that citizens can try to dismantle itself and will be replaced by money. But residents are not only news bernai because their origins are unclear.

Flash banjir bandang that hit the village on wungkal bulk flow carrying wood and mud and stones. At that time the river water that flows in accordance umumya flow, at the moment out of the flow so that entered and hit one home residents. When it was only one house destroyed dragged the water, beside the house while two survived the flash banjir bandang when the location of adjacent homes. They assume that when a flash banjir bandang that happened back then may turn to their homes will be destroyed next. Not only was the feeling of anxiety will come banjir bandanging also hit most of the Wungkal Curah Hamlet. For example people who are south of the river are concerned as well as the rainy season. Because according to them than the threat of the river, they also received threats from the top of the hill, because when the flash banjir bandangs that occurred in 2009 from the top of the hill is also flowing water and stones that covered the road. They assumed that the river could banjir bandang and the banjir bandang of the hill also feared they would run anywhere, while the evacuation was appointed diutara river.

Bajir victim's story appeals: Mother suyana is one half of the landslide victims of his house (the kitchen) falls / sliding, so that the underneath of the house. Suyana own mother did not notice signs of landslides. Suyana mother and the family only learned that there is a fairly wide crack in the kitchen to the living room. Cracked soil cracked wide with a depth of 30 cm 2 m, it is known setealah measured by the village officials. Only a few minutes ago suyana mothers kitchen and landslides that hit the house is under. Mother suyana biased only brother fled to the house and for several months living in the woods where the husband's mother suyana farming.Almost 6 months suyana mothers living near the farm digubuk (forest). Suyana and kelurga mother could only run to and stay small digubuk,

while suyana mother has 4 children are still small. Actions that can be mothers and families do suyana soil erosion is stacked with soil taken and wrapped in rice sacks to hold the land around the house that has not been a landslide. Suyana own mother wanted to move home, but do not have the cost to build a new house, it is because the income mothers and families suyana just enough for their daily needs.Since the landslide occurred suyana mothers and their families can not sleep when it rains, even if it rains and heavy winds accompanied the mother and family suyana ran fled to a relative's house not too far from their homes suyana mother.

Dusun Village Society Annual Wungkal many living around the river, which during the rainy season comes they are always haunted by fear of the coming banjir bandang back. They constantly monitor the water flow of rivers and rain, when the flow of the river water they consider vulnerable and potentially banjir bandanging rain and large enough, they made preparations for menggungsi. Usually they do the packing clothes and items easy to carry into the refugee camps to higher ground or relatives house they consider safe. when they deem the situation safe, then usually they will return to their homes. It's like a routine thing they do when the rainy season.

Curah Wungkal communities in general already know that the banjir bandang occurred because the man's own deeds that make deforestation. They also know that the anticipation that they can do is to replant the forests bare. But apparently they do penggudulan remain, citing economic problems. Forest has been felled forests Meru Betiri national park.

Hamlet Village Annual Pace has wungkal evacuation or refuge. Camps for displaced people in the village of Wungkal Rainfall Mosque, Madrasah, and the warehouse PTPN. Evacuation point was considered the most secure because their location is higher than where they reside. There was also the reason for respondents who said that choosing the mosque as a place to evacuate because they saw on TV when there is a disaster then the place was safe from disaster is a mosque, so they assume that if the refuge in the mosque it will be safe from banjir bandanging and landslides. Fortunately, the public assumption is supported by the location of the mosque which is a higher place and away from the hill, so majid is a safe location for refugees. These refugee camps are used by residents when the

residents feel about their situation was not safe. The evacuation was already well known by citizens, and they usually go directly to this place if the situation is not safe.

Small Group Activities in FGD Sukorambi

FGD is a data collection technique is generally performed to explore information that is qualitative in order to find the meaning of a theme according to the understanding of a group.This technique is used to reveal the meaning of a group discussion based on the results of which centered on a particular issue. FGD also intended to avoid the wrong interpretation of the focus of the researchers studied the problem. Implementation of FGDs small groups in Sukorambi Sub set on Day Sunday, February 21, 2010 at about 13.30-15.30, at the residence of the Head of Dusun Village gending Sukorambi Klungkung District, which was attended by 10 people.

For his own history of flash floods in the area around the river path because kalijompo diverse flood of understanding the diverse communities as well. Some FGD participants differ in interpreting flood is the flood that has the potential to damage the same speed deangan vehicles carrying stone, wood and mud. But other FGD participants said that flash floods are a sign of flood waters in the river channels kalijompo.

Communication of flood informed by the plantation with sounds kentengan (metal gong).Differences with Kenteng Kenteng danger is that if a planter Kenteng vote for plantation workers sounded the code at 07.30-08.00, 12.00-13.00 and 16.00-16.30, but citizens must be vigilant if kentengan sounded outside these hours and blown with irregular blows. Citizens in general already know the warning signs. Although these signs less clear sounds by residents but the spread of information can be quickly transmitted to the other residents. Because residents watched lagsung natural signs that are happening terjasi whether or not flood.

The process of a flash flood situation after several days of rain and river water to shrink it even means going upstream pembendungan. This Pembendungan great potential to be banjr flash if the dam burst. When the dam broke the water with great force will be able to revoke menagalir and served until the tree and bring keakarnya stone stone along the river kalijompo. Materials such as wood and stones carried by flash floods could become a new

dam when it comes to an instance where the bridge and when the place was not strong not to stem the flood will continue with greater force because of the pembendungan. The dam can happen several times and could become greater every dam burst.
To krajan own village area is located ± 400 to 450 m above sea level. With their geographical conditions that berpendat flooding and landslides on the village would not directly Krajan. They also do not have the preparation if one day a disaster, if disaster occurred the population already has a place that lies around the houses residents who think they are safe to a higher position.The level of public awareness can be said didusun Krajan low, this is due to a lack of concern for the disaster. In the event of flooding the village people will actually watch krajan these events or choose to stay in the house
In the village there gending a river, where the river is a place of meeting of two streams of potential disasters. Disungai if the rain water will be higher ± 3 to 5 meters and there are disungai stones large enough so that endanger people around. The distance of the river is quite close to houses, which is only about 200 meters. Village community awareness gending less good, but people already know about the floods and landslides. If a disaster when it occurs, the community has a solution to solve it by way of evacuating the families and relatives and provide information through the existing speakers dimasjid. That was deemed effective enough to overcome the disaster either flooding or landslides.
Power of this great flood caused by konveri plants from rooted plants in the short-rooted plants, resulting in reduced absorption plant can not end the flow of rainwater menahanan. So will increase the volume of river water, and automatically adds the power flow. Gending village residents also realize that the area is now a disaster-prone residence. Gending community in particular, and Klungkung general, as the incident rate rising flood waters and increasing speed of water flow. That is, after every rain, it will inevitably flood. That is the reality that happens, that perception during flash floods which are by most people believed to be the bearer of the flood disaster, the community itself dea diartian by floods bisaa marked by rising water levels, regardless of height.

EARLY WARNING SYSTEM AND EARLY EVACUATION

Early warning systems and early evacuation of some things done right before the flood disaster came.

a. Panti

Early warning system means the things that need to be prepared if the banjir bandang disaster will occur. Early warning systems are carried out both in normal conditions and in the condition just before it happened bencana. Several things done by the residents is as follows.

Toward Flood moment conditions. Furthermore, some of the things done in communities is as follows.

1. Disseminate information through the media pickup (sounds a gong (kentongan), broadcast through the small mosque and the mosque)
2. Collect and gather the family members, important papers and enough clothes.
3. Observations indicate there is need for banjir bandang
4. Preparing enough clothes
5. Archive and store documents in a safe place.

Then the system of early evacuation of people in Kemiri has done by:

1. Evacuated to a safe place
2. Following the instructions on the conditions of the disaster the authorities

b. Sukorambi

For Sukorambi villagers, the form of early warning is performed at normal conditions and alert. In normal conditions, some of the things done are:

• Socialization by local government to their citizens not to take a rock at careless

• The Plantation company prepare kentongan (made of wood), and Kenteng (made of iron) as a sign of danger and sounded the plantation outside working hours.

• Purchase sirens on non-governmental organizations conducted in 1999, despite initial purchase of sirens intended to address "the issue of Ninja". This siren has a coverage area of about 2 km.

• Using a kentongan sound (5-5), the authority is there on the head Satkorlak (Mr. Agus – plantations Adm). Gong was sounded when the sound of water rumbling

• Use the speakers at the Masjid Al Munawar (instigation District)

• Using Handy talky (HT) and Hand Phone (HP)

• It has been created by the disaster-prone map Koramil when Danramilnya Mr. Asto (year 2006 until early 2010), which is usually disseminated at the meetings in Klungkung Village Hall.
• It has made the warning signs will be disaster-prone areas with the words "Be careful landslide-prone".
• Engaging Satkorlak elements (usually from the elements Well) to participate in training organized by Tagana or PMI.
• Ready for medicines in health centers, although there are no drugs specifically provided for victims of banjir bandang disaster.

Shortly Before the Banjir Bandang

Residents in the plantation residential area will run to the west, while residing in the east of the river will run to the east. Residents outside the plantation will be running toward a higher (Durjo field) with bring them child. Options where evacuation is a safe and protected from the sun and rain, are in Pondok Pesantren; in the mosque and at school. Principle when evacuation: "life is more precious than property '.

Furthermore, some facilities be prepared include carpets, medicines and tents have been prepared by the government and communities.

Community with his indigenous knowledge had memorized places high and safe to be a refuge with the philosophy "life is more precious than wealth" (cars, motorcycles, and livestock)