CHAPTER 5 DESCRIPTION OF ALTERNATIVE PROGRAMS AND IDENTIFICATION OF PROJECTS

In effort to comprehend the awareness, and perception of community participation in flood mitigation, this chapter is devoted to describing the patterns of the alternative programs developed by each community. Patterns are identified based on technical or non-technical nature of the program, which solutions that are engineering-oriented or community activities, the substantive issue promoted by the program and the scope of the community involved in the program. As a result of several meetings with community members, we will identify the formulation process and the pattern of the projects that will become the first priority for implementation. Unfortunately, to this point, the proposals of the projects cannot be included in this report.

5.1 ALTERNATIVE PROGRAMS IN RW 14

There are only five programs developed through community participation in RW 14 (see table IV.12). Most of those programs oriented themselves to technical-engineering aspects (program I to IV). This is influenced by their knowledge on examples of prospective solution on flood mitigation that tend to be technical, which are already implemented in their area. For example, they know about concrete wall and large-scale river excavation in the upstream and downstream of the river, seem to produce positive impacts on flood in their location. This is the reason why concrete wall is popular on their alternative programs. This sequencing is influenced by the ability to think technically and rationally, knowledge of flood and its causes, and the movement of water in the observation area in RW 14. Based on interactions with the community, some of the members, mainly adult male, understand the flow of water around their residential areas. They can also provide answers as to why the water floods their houses. That is why technical solutions are considered the quickest solutions that will reduce the risk of flood, is easily implemented and does not need a wide support from the community.

Program No. IV is a non-technical orient itself to the improvement of community behavior. This program is less popular, especially among the male adults. In general, they do not consider non-technical programs to be quick enough in reducing the risk of floods, more difficult to implement because they need higher level of participation from the people, and have higher risk of failure should the participation of the people diminish. The results are also not materially evident.

In term of substantive issue, most of the programs are large-scale such as the expansion of the river and construction of concrete wall (on both of the river banks and next to the residential area). Technical programs are focused on their residential area alone. Such focus cannot still resolve overall flood problems for their area.

Non-technical programs, such as management of garbage disposal, require awareness of the community on the importance of appropriate way to dispose of garbage, maintain the clean environment and reduce the production of garbage, and establish an integrated garbage disposal procedures with other waste management parties, specifically those that dispose of waste into the river or their residential location.

The community members consider themselves capable of implementing all of the alternative programs, excluding Program IV. The members had already made technical-oriented projects regarding flood disaster mitigation, by using maps with technical/engineered calculations.

The non-technical programs are pioneered by the women. These women had started the construction of the Community Security Post, especially in order to satisfy the need of a meeting place for the people. They feel that no house owned by the people is large enough to accommodate such gatherings. Moreover, the women have developed a concentrated garbage containment pattern, expanding the network of garbage disposal locations to public places such as terminals. On the other hand, the men do not feel that solving problems of garbage disposal will immediately bring improvement, especially for floods forecasted to come at the beginning of the year 2001.

5.2 ALTERNATIVE PROGRAMS IN RW 09

Contrary to the number of alternative programs that emerged in RW 14, the community of RW 09 suggested as much as 16 programs (see Table IV.15). The relatively large number of programs suggested is related to the various problems that have not been resolved either by the community themselves, or with external aid. So far, there has not been many activities in the community that go toward mitigation of the risk of flood that can be executed collectively.

Out of the 16 programs that were suggested, ten are technical/engineering programs. Much like RW 14, their knowledge of concrete wall and river excavation to reduce sediment, influence the consideration of suggesting these programs, even though they know that such programs cannot be implemented by themselves without involving intervention from external parties that have certain technical competence. However, by observing the priority order of these programs, they seem to know that the programs with immediate effects in their area should have higher priorities. Various conditions that involve environmental hygiene, home sanitation, and the provision of fundamental needs are considered a top priority.

The remaining six programs are non-technical, four of which orient itself to the economic development, aimed at increasing the income of the people. The last two programs are related with community health. These two categories of non-technical programs may have top priority considering their current state of economy may hamper their efforts to reduce the risk of flood. Health matters become important considering the distance that they have to travel to get to the closest Health Clinic and there is no communication network, such as public phones, that can allow them to interact with outside parties.

Another difference between the people of RW 14 and RW 09 is that the people of RW 09 do not feel they have the capacity to implement those programs by themselves. Most of the programs suggested by the people of RW 09 require outside intervention both in the form of financial aid, and also social and technical knowledge. Some of the programs even require governmental involvement such as the construction of public health facilities and provision of communication network at the observation location.

5.3 IDENTIFICATION OF PROJECTS

The projects presented here are detailed formulation that is suggested. Projects are formulated and organized according to: 1) most probable to reduce flood risk; 2) most number of people affected by the risk mitigation; 3) can be implemented by the people themselves using available resources; 4) can be realized between April to June 2001; and 5)

have a long term vision, especially in relation to the sustainability of the benefits from the project and their capacity to manage the result of the project.

The project team visited the communities of RW 14 and 09 after they analyze the alternative programs that were suggested/formulated. This visit is necessary to discuss the realization of those programs into projects. The community members, prioritizing those who have attended the previous meetings, are invited to formulate the type of projects that fulfilled the above criteria. During this course of interaction, the team revealed to the communities, a long time secret, that one of the results of this project is to provide financial supports in order to implement their projects that are the priority.

5.3.1 RW 14

The formulation of the projects for RW 14 was accomplished by the community themselves, especially those that understand the technical problems of flood hazards in their locale. The community members consider technical solutions are the best solutions for their present state eventhough they may require large financial support. The first step was to identify the rivercourse in RW 14, because the watercoure is quite complicated to map and not everyone know the course during the wet season. During this feat, they also identified existing conditions such as culverts that lie underneath the roads, water pouches, and the breaches in embankment to provide water for the rice fields.

Based on the consideration to reduce the risk of flood, and on the other hand the shift of the rivercourse will increase the flood in other locations, it can be determined that implementing such project will bring negative consequences in other areas. However they choose the projects for their RW. The projects involve the <u>elevation of river embankment walls</u> located in the eastern end of RW 14. By raising the walls, the rivercourse can be shifted to the direction of the rice fields and other locations. The people agree that this is a risk that others must share. The people of RW 14 claim that if other people wish to mitigate their own flood problems, they should devise flood mitigation programs of their own. They acknowledge the fact that the elevation of the river embankment walls shall affect other RT in RW 09, not only the worst suffering RT, which are RT 04, 05 and 06.

The next program is to continue the excavation of the river/water channel south of their location, near the terminal, and the construction of river embankment walls to increase the channel/river capacity. The people are still trying to determine whether these projects can be realized with the financial support.

Based on the discussion between themselves, the conflict that will most likely to arise is related to the participation level of the community members. Most of the people will only increase their participation if they are assured that such activity will be supported financially. This group of people will trouble those that have already been involved in the project since the beginning. This group of people can intervene with minimum level of comprehension of the activity.

5.3.2 RW 09

The formulation of the projects in RW 09 is simpler compared to RW 14. The projects that are chosen are related to the priorities of the community such as <u>provision of clean water for RW 09</u>. The people consider installation of clean water tank will be able to help improve their hygiene. Currently, those who can afford it, can purchase clean water from the market,

but the rest who are incapable can only use water with unsatisfactory quality. Unfortunately, these community members lack technical knowledge on how to implement the program.

The amount of financial support to RW 09 can be stretched toward two projects. The second project can also be implemented immediately. This project is related with opening opportunities for the women. Most of the women have no occupation and use their spare time for non-productive activities. Moreover, during the meeting, there were more women than men. These women wish for more productive ways to spend their time that will help the family income. From the various alternatives of programs, they prefer solution that they already know how to conduct, including how to manufacture them, and to market (even if they have to go door-to-door), with quite a large market. The activities chosen is duck breeding, which is considered expensive and unreachable by the locals. This second project can increase cooperation between members.

Not many people chose this alternative due to the high initial cost. Currently, this activity requires approximately Rp. 10 millions, or roughly equal to three years of the average salary. Breeding ducks will provide activities not only for the women by making salted duck-eggs, but also the men that will tend them. Other advantages include: the ducks may survive floods and are not vulnerable to diseases or easy to die due to a change in their diet or environment.

The conflict potential in this activity is the lack of trust from the members towards some of the RW officials. Based on previous experiences, the RW officials are not transparent enough in revealing the fund received. This causes losing interests to participate in this activity. This meeting also revealed another conflict potential that is the people of RT 01 considers the people of RT 02 do not interact enough with them. The people of RT 01 are more active to participate in this project. They have higher level of education with higher income. Most of the PRA activities implemented so far are located in RT 01. On the contrary, the people of RT 02 are more passive, pesimistic, and have lower income. This meeting also discussed the organization of those activities in order to unite the people of both RT.

5.4 CONCLUSION

Based on observations during the identification process of the two RWs, it seems that the projects proposed in RW 14 are more oriented to technical/engineering solutions, while in RW 09 there are more non-technical solutions. The proposal of technical solutions in RW 14 is related to their capacity to fulfill their basic needs and ease of access to public facilities in their area. However, technical projects are usually very expensive and may have a value up to Rp. 100 millions. This is most certainly out of their capability. They have proposed similar technical projects to related institutions and the developer of the region prior to this event but received no reply. Therefore, they take this opportunity to realize the technical projects.

On the other hand, the low-income level of the people of RW 09 (due to their occupations as construction workers with non-permanent contract) discourages their level of participation in voluntary activities. Economically speaking, they would like to make the most of their free time. That is why after this project, they prioritize to develop the public health facilities and to increase cooperation between community members. One way to increase the cooperation level of the people is to collectively promote economically oriented activities. They expect these accomplishments will help them to think more of flood mitigation.