

CHAPTER V CONCLUSION AND RECOMMENDATION

A. Conclusion

The earthquake that happened in Padang on September 30th 2009 gave impacts to water utilization in Pasir Nan Tigo. The water utilization changed because of the earthquake. Water source, quality of water and access to water changed after the earthquake. Wells become muddy and people changed wells into pump wells to get fresh water. Children and elderly people even had limited access to sea after the earthquake. Women had more jobs to do because women handle reproductive and productive works that need water. Men did not go to sea to catch fish because they were worried that there will be a tsunami or another earthquake. The income of households were lower than before the earthquake.

Contrary to the situation in Pasir Nan Tigo, in Sungai Lareh, there were no impacts to water utilization. There is no change in water source quality and access to water. The earthquake even gave advantages to people in Sungai Lareh. Their income increases because many of their land and houses were bought by people that lived around the beach. In Sungai Lareh, men have responsibility in managing water. Water utilization in farming is men's responsibility while reproductive work is women's duty, but distributing water to house or bringing water to house is men's job.

Based on the study, the earthquake gave different impacts to sea fishery household in Pasir Nan Tigo and farming household in Sungai Lareh. Sea fishery household is more vulnerable to face the earthquake on September 30th 2009 than farming household in Sungai Lareh. Women are the most vulnerable in the family because they have to take care of the family.

The ability of sea fishery household in adaptation to change in water utilization was good. They could survive and consumed the same amount of fresh water, but for daily need in reproductive work, people used muddy water from broken wells. Wells were broken after the earthquake and the water was muddy because the structure of ground is not good anymore. There was a change in the quality of wells. It made people in risk of getting disease. Elderly people and

children were the marginal family members who had poor ability in adaptation to water utilization.

B. Recommendation

Based on the result, it is really necessary to anticipate and prevent the impacts of earthquake on water utilization. Resources in water utilization have to be used to supply and cover people's need in emergency time. Government has to help people to build pumping wells. Until now there are many houses and families who still used broken wells. More attention to women, children and elderly people are needed to supply fresh water.

Physical resource in water utilization is very poor. Farming households in Sungai Lareh and sea fishery household in Pasir Nan Tigo did not get the facilities from PDAM yet. Condition in Sungai Lareh was better than Pasir Nan Tigo. The river basin, source of water in Sungai Lareh could cover household's need for many activities (reproductive work, productive work and drinking), but the distribution of water from the river basin to each house is still not optimal yet. The next earthquake cannot be predicted in details. The impacts of earthquake in each area and community are not the same. The sustainable livelihoods and the cooperation of the stakeholders in every level are needed, because water is a the right of everyone.

