

IT for Community Water Resource Management: Successful Case from Ban Limthong Community

Royboon RASSAMEETHES

Hydro and Agro Informatics Institute (HAI), Thailand

royboon@haii.or.th

Water resource management has become one of the major concerns in the world today. There are currently 102 countries with 3.9 billion people where climate change and water-related crisis create a high risk of violent conflict. Problems continue to worsen and water resource management has become a significant part of many communities.

In Thailand, water is critical for Thailand's economic and social well-being. Thailand currently faces increasing problems from flooding and droughts, with damages from flooding averaging over a quarter billion US dollars a year. Agricultural areas are worst hit. These issues directly affect farmers who are already poor. Most Isan people are in the agricultural sector. For them, land without water is useless.

From the past until now, most Thai government projects have been concerned with large scale water resources engineering. Recently, many developed countries around the world have focused their attention on social learning to conduct sustainable water management at the community level.

The Northeast of Thailand is the area with the worst water scarcity. Ban Limthong once faced this persistent problem. The villagers had accumulated debts because of unsuccessful agriculture. Their main income came from rice farming which relied only on rainfall. However, the fact is that the rainfall data in the Northeast show sufficient of water supplies to do agriculture all year long. But, little was reserved. The solutions would be by adding water resources in the area.

The community has solved their problems by improving their community water system and water storage. The villagers have planned to improve watercourses in the area to forward water from reliable water resources to their farms. The impacts are not only for the villagers to have a better supply for agriculture, but also a sustainable network of water resource management. Moreover, the villagers have learned how to plan their agricultural activities to balance the activities with available water supplies in order to obtain successful results. Adaptation is a continuous process,

and villagers have to make efforts to analyze their situation in order to make appropriate decisions.

The success of Ban Limthong is influenced by local wisdom and social learning factors including IT for community water resource management which include preservation, adaptation, renewal, and innovation. Thus, each case has its own unique style of community water resource management. Ban Limthong can solve problems with drought since the people have learned how to manage agricultural water resources and water consumption, particularly their practical solutions and their social learning process for water resource management that affects the overall situation in terms of sustainable development.