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Development of Community Participation on Water Resource Conflict Management

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Abstract

Water conflict has been encountered frequently in various river basins including the Pong River Basin where land use along this river is occupied with agriculture, irrigation area, communities and industry. Meanwhile, the effluent discharge of water if treated improperly and inadequately may cause quality deterioration to the river. This study was an action research regarding community participation on water resource conflict management of the Pong Watershed. There were 170 households used as study samples coming from the three villages including Huai Jode, Nong Bua Noi, Non Kham Par located at Kud Namsi Sub-District, Pong District, Khon Kaen Province. This study consisted of three phases by studying current situation, problems and needs of community, analysing the factors affecting to community conflict on the use of water resources by focus group discussion, and developing community participation on conflict resolution of water resource by community dialogue. Collection of data comprised of survey, focus group discussion and community dialogue. The findings in the first phase indicated the insufficient data on water use provided by the governmental sector, and the villagers need an equity principle on its use in order to attain the users' purposes. The significant factor affecting the conflict was the one who took advantage of water use from the Pong river. In conclusion, a mutual agreement of tri-sectors should be made possible to accomplish water use management and solution to water conflict. Participatory action research is very significant to solve conflicts of water use and other problems. There are more hands-on techniques to be identified that contribute to the conflict thus on how to address it. Finally, there is a need to learn how to handle difficult participants in public meetings around conflict arising over watershed management planning.

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1. Introduction

Natural resources are fundamental capital for the global and national development of a nation. Rapid alteration of global and national situations have driven utilization of natural resources including forest, land, energy, and water resources. Without the wise use of such resources, human beings would have been significantly diminished and worsen. Thus, it leads to the ecosystem impact and environmental degradation to the critical level. As there are multi-users including governmental, private and people sectors who exploit those natural resources, it is possible to have conflict among those users. In accordance with the National Economic and Social Development Plan, the protection of natural resources and balance of ecosystem have been designed in order to recognize that natural resources are the mutual asset of our society. As such, all the users can receive mutual benefit and have co-responsibility for the use and management.

Empowerment and participation enhancement with knowledge, capability strengthening as well as awareness encouragement are the imperative means for decision on natural resource management, balancing on conservation and use, short term and long term beneficial use of stakeholders. In addition, it is necessary to establish the social network which is the collaboration of government sector, non-government organization, local community, and academia in order to be the actual social driving force.

Water resource is one of the major public assets which is a vital need for human well-being. Water utilization can be mainly categorized for agriculture, industry and domestic supply as well as ecosystem protection. These users and protection should be in equity in terms of quantity and quality. Without and/or insufficient water quantity and quality, it would cause a substantial impact to ecosystem services that is significantly related with human wellness.

2. Background of the study

Water use conflict has been encountered frequently in various river basins including the Pong river basin. The Pong River is the major stream in the Pong river basin, where the Ubonratana hydropower dam is located. This hydropower dam is a multi-purpose dam to serve not only for electricity generation but also distribution of water for communities, agriculture, industries and pollution protection. Land use along the Pong River is occupied with agriculture and irrigation area, communities and industry. There are large industries including pulp and paper mill, sugar mill and liquor mill located along the Pong River downstream of Ubonratana dam.

A large quantity of water is consumed by industry. In the meantime, the effluent discharge (after treatment) if it is not adequately treated might cause water quality deterioration to the river. Water use conflict has been occurred among water users along the Pong river basin, particularly the downstream section (from Ubonratana reservoir to Nong Wai irrigation weir) where the pulp and paper mill located.

Conflict on water use has been occurred at the downstream area, which strongly required conflict resolution for water resource management. Social approach through participatory process is a meaningful tool for conflict resolution on any natural resources use including water use. The participatory action research, therefore, has to carry out in order to develop the community participation on water resource conflict management using the Kud Nam Sai Tambon Municipality located along the Pong River in the Pong river basin as a case study.

3. Research Objectives

The specific objectives of this participatory action research were to study the current problems and needs of communities in water use management. This is followed by assessing the factors that influencing community conflict and mutual benefit use of water resource by focus group. Finally, researchers are going to develop conflict resolution through community dialogue.

4. Methodology

This study was a participatory action research undertaken for three villages of Kud Nam Sai Tambon Municipality, located along the Pong River downstream. It consisted of Ban, Huai Jode, Ban Nong Bua Noi, and

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