



LINELT 2013

## Conflict Management on Use of Watershed Resources

Apipalakul Chanya<sup>a \*</sup>, Bouphan Prachaak<sup>b</sup>, Tang Keow Ngang<sup>c</sup>

<sup>a</sup>Department of Public Health Administration, Faculty of Public Health, Khon Kaen University, Khon Kaen and 40002, Thailand

<sup>b</sup>Department of Public Health Administration, Faculty of Public Health, Khon Kaen University and 40002, Thailand

<sup>c</sup>School of Educational Studies, Universiti Sains Malaysia, Minden and 11800, Malaysia

---

### Abstract

This study was an action research of conflict management on use of watershed resources. There are five provinces were involved as study location, namely Loei, Chaiyapoom, Hnongbualampoo, Khon Kaen and Kalasin. The research action was conducted in three phases consisting of studying current situation, problems and needs of community, then followed by analyzing stakeholders of the Pong watershed and the factors affecting to community conflict on the use of water resources by focus group discussions, and finally developing community participation on conflict resolution of water resources by community dialogue. The samples were representatives of 335 households. Data collection was accomplished through questionnaire, focus group discussion and community dialogue. Data was analyzed as percentage and descriptive conclusion. The findings from the first phase indicated that the conflict of water use had been existed due to the increasing of water demand while there is a shortage of water supply. The community need an equity principle on water use for both agriculture and consumption. Consequently, the finding of the second phase revealed that the significant factor affecting to conflict was the one who took advantage of water use from the Pong river. The indirect stakeholders were factory owners and the direct stakeholders were the community who stay along the Pong river. The result from the third phase showed that the conflict management of utilizing watershed resource could be accomplished through the recognition to the senior people, relatives and religious institutes. The most important factor was to provide the platform for meeting, advising, training, knowledge sharing, to discuss about the problems and planning for conflict resolution including network for cooperation on the use of watershed resources.

© 2014 Published by Elsevier Ltd. This is an open access article under the CC BY-NC-ND license (<http://creativecommons.org/licenses/by-nc-nd/3.0/>).

Selection and peer-review under responsibility of the Organizing Committee of LINELT 2013.

*Keywords:* Conflict Management, watershed resources, participation, dialogue;

---

---

\*Corresponding Author: Chanya Apipalakul. Tel.: +66-818738857  
E-mail address: [achanya@kku.ac.th](mailto:achanya@kku.ac.th)

## **1. Introduction**

Water resource is one of the major public assets which is a critical need for human wellness. Water use can be mainly divided for agriculture, industry and domestic supply as well as maintaining ecosystem, of which these usage and maintaining should be in equity in terms of quantity and quality. Without and/or insufficient water would cause a massive impact to ecosystem services that linking to quality of life.

In accordance to the Development Plan, the protection of natural resources and balance of ecosystem has been designed in order to recognize that the natural resource is the mutual asset of the society. As such, all the people can receive mutual benefit and have co-responsibility for use and management. Empowerment and participation enhancement with knowledge, capability strengthening as well as awareness encouraging are the important means for decision on natural resource management, balancing of conservation and use, short term and long term beneficial use of the stakeholders. In addition, it is necessary to establish a 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. Conflict resolution is strongly required for water resource management. Social approach through participatory process is a meaningful tool for conflict resolution on any natural resource usage which including water use.

## **2. Problem statement**

Rapid alteration of global and national conditions have driven the modification of resource utilization. The national resources including land, forest, water have been consumed particularly as the capital for production. Despite using wisely, these resources would be significantly decreased and deteriorated, leading to the impact of ecosystem and degradation of the environment to the critical level. Consequently, it has caused conflict of natural resource use of the relevant governmental, private and people sectors.

However, water use conflict is frequently found in various watersheds, including the Pong watershed. The Pong river is the major stream in the Pong watershed which supply water to the agriculture and industrial communities. There are several large industries such as pulp and water mill, sugar mill and liquor mill located along the Pong river. Therefore, a large quantity of water is consumed by industry. Meanwhile, 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 in the Pong watershed, particularly at the downstream section (from Ubonratana reservoir to Nong Wai irrigation weir).

## **3. Research objectives**

The specific objectives of this action research were to:

- study the existing problems and needs of communities in water management of the five provinces.
- study and analyze the stakeholders for watershed management.
- study the factors influencing the community conflict and benefit use of water resource by focus group as well as to develop the community participatory process to conflict resolution by community dialogue.

## **4. Methodology**

A participatory action research was conducted in order to develop the community participation on the water resource conflict management using the Kud Nam Sai Tambon (Sub-district) Municipality located along the Pong river in the Pong Watershed as a case study. The five provinces located along the Pong river downstream, consisting of Loei, Chaiyapoom, Hnongbualampoo, Khon Kaen and Kalasin. The villagers occupation are mainly fish pen aquaculture raising, rice field and upland crop cultivation. This research employed three methods and conclusively divided into three phases.

Researchers interviewed and analyzed the stakeholders for watershed management in order to study the existing conditions and problems of the communities in watershed management. Focus group approach was employed to

متن کامل مقاله

دریافت فوری ←

**ISI**Articles

مرجع مقالات تخصصی ایران

- ✓ امکان دانلود نسخه تمام متن مقالات انگلیسی
- ✓ امکان دانلود نسخه ترجمه شده مقالات
- ✓ پذیرش سفارش ترجمه تخصصی
- ✓ امکان جستجو در آرشیو جامعی از صدها موضوع و هزاران مقاله
- ✓ امکان دانلود رایگان ۲ صفحه اول هر مقاله
- ✓ امکان پرداخت اینترنتی با کلیه کارت های عضو شتاب
- ✓ دانلود فوری مقاله پس از پرداخت آنلاین
- ✓ پشتیبانی کامل خرید با بهره مندی از سیستم هوشمند رهگیری سفارشات