Good Governance in Water Management in the Lower Songkram River Basin, Nakhon Phanom Province, Northeastern Region, Thailand

● *Pathumthip Mankhoksoong*

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Mrs. Pathumthip Mankhoksoong [1]

Abstract

The purposes of this study were 1) to investigate the process of water management for off-season rice fields in the lower Songkhram river basin and 2) to develop a water management model for off-season rice fields under the good governance system in the lower Songkhram river basin, Nakhon Phanom province, Thailand.The populations were the stakeholders who are directly involved with water consumption and water management for off-season rice fields in the villages where water management for off-season rice fields has been going on for over 40 years.

The samples for quantitative research were 338 subjects, including 300 off-season rice farmers, 27 Tambon administration organization personnel, and 11 state organization officers. There were also 40 subjects purposively selected for qualitative research method. Research instruments included: 1) questionnaire for state and private organization personnel; 2) questionnaire for off-season rice farmers and other stakeholders in the area; 3) semi-structured questionnaire for the executives of state and private organizations; 4) focus group interview; 5) community workshop note; and 6) observation form. The statistical methods used for quantitative data analysis included percentage, mean, and standard deviation. The qualitative data were analyzed by descriptive analysis.

The results were as follows: 1) In the past, the water management system for off-season rice fields in the lower Songkram river basin was under the control of the Irrigation Department, Ministry of Agriculture and Cooperatives. Because of water management by state organizations, the off-season rice farmers were allocated insufficient water. The key mechanics administering the water allocation for the farmers in the area were Irrigation Department bodies. These bodies failed to understand the contexts of the areas of water shortage where the allocation had to be properly done. At present, local administration organizations are

[1] Faculty of Humanities and Social Sciences, Sakon Nakhon Rajabhat University

responsible for water distribution, water allocation, and water conservation, the responsibilities from the Irrigation Department. However, these local organizations encountered a lot of problems because they were unprepared for the responsibility, lacked understanding and awareness in the water management for off-season rice fields, spent the budget for other purposes rather than dealing with the problems arisen from water distribution and allocation, and lacked proper communication to make the farmers better understand water management, and 2) The water management model for off-season rice fields under the good governance system included legitimacy, fairness, transparency, accountability, co-ordination, effectiveness and efficiency in water management, and responsibility for the consequences as a result of water management for the off-season rice fields. The structure of water management system included law, behavior, power hierarchy, power relationship, community rights, individual rights, and information.

Introduction

Water is the most important natural resource for human existence. With rapid economic and population growth, Thailand is in greater need of water for daily consumption and agricultural, industrial and service purposes. In Thailand, the government has focused its attention on water provision rather than water management. Problems have kept occurring when the government agencies which were responsible for water provision had a new role of water management, but they lacked necessary rules and mechanisms to do their job (Khaosa-ard, 2004). In order to prevent or alleviate possible water-related problems which might develop into a social and economic detriment that in turns could affect the whole world, countries and international organizations have kept a closer watch at water management problems. However, Thailand is still faced with problems concerning water resource management system. One is that the government has emphasized constructing water storing facilities, but discarded water consumption management. This results in the country's ineffective water resource management. In fact, water resource management is an issue that needs coordination and cooperation from various agencies at both national and local levels. Another problem is that the country has just started an integrated plan of water resource management at both holistically national and basin levels. The planning is viewed by agencies concerned as lacking a clear and practical means because it does not take into consideration the economic and social dimensions, not prioritize projects based on the very nature of the problem and the readiness of the projects in terms of area potential, public acceptance, and negative impacts on the communities and other surrounding areas (Office of National Economic and Social Development Board, 2004).

A branch of the Mekong River Basin Area 3, the Songkhram River Basin has its main part the Songkhram River, and runs through Udon Thani, Nong Khai, Sakon Nakhon, Nakhon Phanom provinces.

With a total length of approximately 465 kms. The ecosystem of the Songkhram River Basin is typical in two ways-the Seasonal Floodplain and Pha bung Pha Tham and Seasonal Floodplain Rice Field. The total area of the Songkhram watershed is about 12,700 km^2. It originates in Phoo Phahak, a moutain in Songdao district, Sakon Nakhon province, and Phoo Phalek, a mountain in Chaiwan district, Udon Thani province. The basin is a large flat and slope area in the middle of upper part of the Northeast and it extends to the estuary of the Mekong River basin at Paknam Chaibury, Tha Uthen district, Nakhon Phanom province. The area has the annual rain drop of 2000 millimeters and has six months of raining during the rainy seasons, especially in the wetland and the river mouth area. During the rainy season, the Mekong River bursts its banks and floods the surrounding areas including the Songkhram River basin itself. More than 1,000 kilometers or 660,000 rai plots of land, mostly agricultural areas, are inundated yearly. However, the local people are accustomed to this flooding situation, taking it as part of their natural occurrence. These local people make their livelihood by growing rice - both seasoned and off-seasoned, and catching water animals from the Songkhram River Basin.

Based on a field survey, it was found that the lower Songkhram River Basin is of various natural water sources, and that local villagers have their own ways of using the water. According to the survey, the stakeholders in the area included farmers, fishers, local villagers, and agro-business companies. Although water management is varied, person to person or theory to theory, the management of water for off-seasoned rice growing is the main purpose of this study. I researcher want to investigate whether the abundance of the lower Songkhram River Basin water sources has been for the effective use or not because one of the country's main policies is to expand agricultural areas for rice growing and developing more water sources to serve those purposes. In the meantime, local villagers and farmers depend on the government to help them in the development.

The researcher found in the preliminary survey that all the development projects in the lower Songkhram River Basin are aimed at constructing facilities for storing water. There is lack of project cooperation in terms of planning, budgeting both locally and nationally, sharing of information about the project, budgeting, and planning. Government agencies and local administrative agencies which are solely responsible for water and water resource management lack good governance due to improper policy and ineffective management system.

The current research, good governance for water management, was carried out for the following purposes: a) to investigate the water management processes in the lower Songkhram River Basin; b) to

develop a good governance model of water management for the lower Songkhram River Basin based on the notion of public participation, public access to state information, planning, and policies.

Fairly public participation could prevent and alleviate the bad effects from such development projects and would at the same time strengthen the people's organization. These would further lead to the proper making of a decision by government sector and private sector when initiating a new policy or construction project which could have negative effects on natural resources, water source ecosystem, and the people lifestyles in the lower Songkhram River Basin and the Mekong River Basin region as a whole.

Objectives

The purposes of this study were 1) to investigate the process of water management for off-season rice fields in the lower Songkhram river basin and 2) to develop a water management model for off-season rice fields under the good governance system in the lower Songkhram River Basin, Nakhon Phanom Province, Northeastern,Thailand.

Scope

The populations were the stakeholders who are directly involved with water consumption and water management for off-season rice fields in the villages where water management for off-season rice fields has been going on for over 40 years in Sri Songkhram District on the lower Songkhram River Basin, Nakhon Phanom province.

The personnel from the state sector included those from the Irrigation Department, the Water Resource Department, the Office of Water Resource Region 3, Mekong River Area 3, the Department of environment quality promotion, Region 9 Environment Office. The personnel from the private sector included those from Mekong Wetlands Biodiversity Conservation and Sustainable Use Programe (MWBP), International Union of Conservation Network, and Sun Tech Group Company. The participants from the target areas included the people from 12 villages - Ban Hat Paeng, Village No. 1, 2, and 9, Ban Na Jan, Village No.14; Ban Sam Phong; Ban Sri Ngern Chai; Ban Thai Charoen; Ban Pak Oon, Village No. 1 and 4; Ban Yang Ngoy, Village No. 3, and 10; and Ban Nong Bathao. The participants were also recruited from 4 local administration offices administering the 12 villages, and Sri Songkram Municipality Office.

Research methodology

The samples for quantitative research were 338 subjects, including 300 off-season rice farmers, 27 Tambon administration organization personnel, and 11 state organization officers. There were also 40

subjects purposively selected for qualitative research method. Research instruments included: 1) questionnaire for state and private organization personnel; 2) questionnaire for off-season rice farmers and other stakeholders in the area; 3) semi-structured questionnaire for the executives of state and private organizations; 4) focus group interview; 5) community workshop note; and 6) observation form. The statistical methods used for quantitative data analysis included percentage, mean, and standard deviation. The qualitative data were analyzed by descriptive analysis.

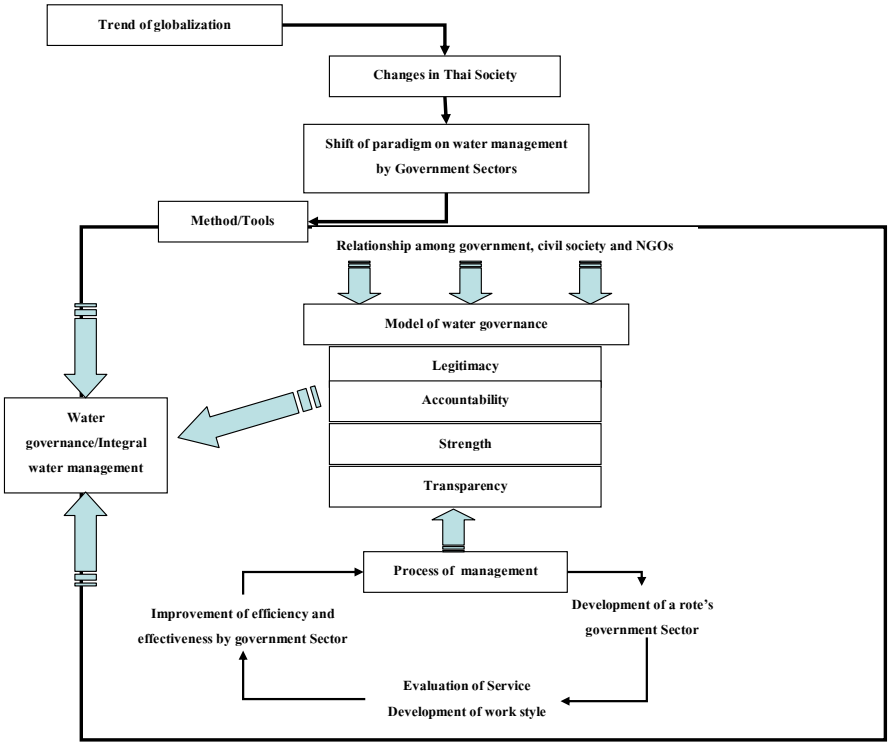
Result

The findings from the present study were presented as follows:

1. It was found that there were two forms of water management systems on the off-seasoned rice growing in the lower Songkhram River Basin, Nakhon Phanom province:

1.1 The water management by the government sector.

By this form, the government, the Irrigation Department, provides water for the local farmers who are water users. It was found that when small-and medium-scale irrigation projects such as reservoirs and dams were launched by the government, government agencies such as the Irrigation Department and the Department of Energy Promotion were responsible for the water management. Farmers, however, were just water users. It was also found that attempts have been under way by the Irrigation Department to transfer all its personnel, properties and assets to local administrations. These made the villagers worried, knowing that local administrations were severely inefficient in water management. Local administrations lack cooperation and knowledge necessary for water management for agricultural purposes. They did not understand perfectly how to operate a giant diesel water pump, hence several pumps in the possession of local administrations are being left uncared for.



Model 1

This study aimed to examine the role of local administrations (LAs), municipality, and the Committee on the sub-basins, department of water resource, in their work, policy making, and law making. It was found that the policy was formerly made by the government agencies which did not take into account the social and environmental impacts. Stakeholders did not have opportunities to participate in the process of policy making. Most of the development projects focused on constructing engineering structures for storing water. This affected the local environment and ecosystem. In this case, LAs which are in direct position to supervise and manage the natural resources, are involved in dealing with problems concerning institutional laws made by local communities such as the community law on water use established by the committee in Samphong sub-district and Hadpheang sub-district. These community laws were not supported by any existing laws of the country, thus causing division and disharmony among water users in the communities. There were unfair distribution of water and water pumps as well as petrol. The villagers were split up and angry. It was found that personal connection between leaders of LAs and some community leaders was one of the causes of the problem. Cronyism was cited as a major cause that split up the water users. Leaders of the communities and LAs tried to mediate to alleviate the problems, still the problems were kept unsolved.

1.2 Water management by the local households

Local farmers set up their own groups in order to manage their water sources, allocate the water for proper agricultural use and for daily consumption. In collective attempts, they raised funding among themselves and constructed basic water storing systems such as an earth dam, without wasting time waiting for help from the central government. The village headmen took the leading role in finding a solution to the water problem in the community. On the whole, the household water management was an individual level. Each household had its own means of making use of water. For example, a mini-engine-powered pump was used to pump water into their own fields, and most of the water was drained from nearby private sources such as dam, wells, streams, and ponds, which were abundant across the LSRB area.

According to a monk from a village in Pak Num Oon sub-district, in the former time, being aware of limited water supply, villagers used water economically from lots of natural water sources available throughout the area. The main purpose of using water centered around agricultural activities.

1.3 The water management policy for the LSRB was driven by the government sector which emphasized the effectiveness and efficiency of government agencies. Local government agencies were responsible for ensuring the implementation of the policy. This involved the first level mechanism which was concerned with making the holistic policy. The constitution was a concrete example of such mechanism (Ostrom, c.f. Suthawal Sathirathai, 2008).

The second level mechanism was concerned with setting rules and regulations. The third level mechanism was concerned with practicality in the form of the committee and subcommittee on water management in the LSRB. In reality, the third mechanism was not consistent with the first two ones, causing the lack of good governance in water management.

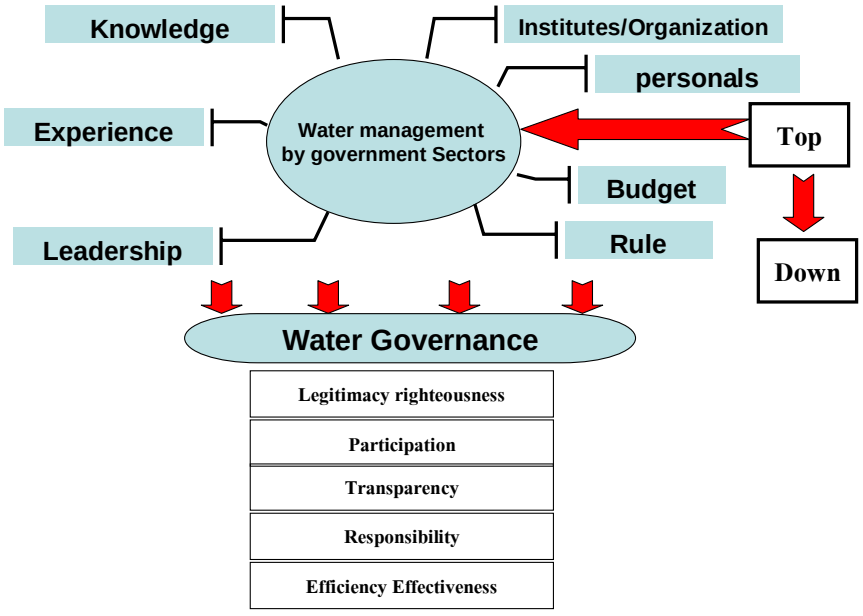
2. Developing a good governance model for water management. Based on the SWOT analysis carried out among all the stakeholders in the target area, it was found that there were many state-mechanism-related factors that led to water management problems in the area. These included 1) government personnel, at both central and local levels; 2) state budget, which caused a inter-dependent system between state authority and money; 3) materials including water pumps, fuel, and natural sources of water in the basin; 4) community culture, which refers to disharmony and unfairness in the community caused by a close kinship related to the state authority structure.

In terms of opportunity and obstacles, it was found that state policy on water management has changed to some extent. Although people participation in the making of state policies and laws was endorsed by the 2540 and 2550 constitutions, it was in practice another thing because it was found that only the chosen

few in the villages had the chance to voice their views and participated in a decision making process. Average villagers did not have such chances.

Two drafts of the good governance model for water management were proposed based on several community platforms and group discussions. These are a good governance model for water management by the state sector, and the one by community.

2.1 A good governance model for water management by the government sectors consisted of the following components: fairness, integrity, participation, transparency, accountability, and effectiveness. These qualities had to be materialized by all the parties concerned (institute leaders, sub-basin water management organization, state regulations, state personnel knowledge and skills, budget, and materials which would have to be fairly distributed according to the project planning.)

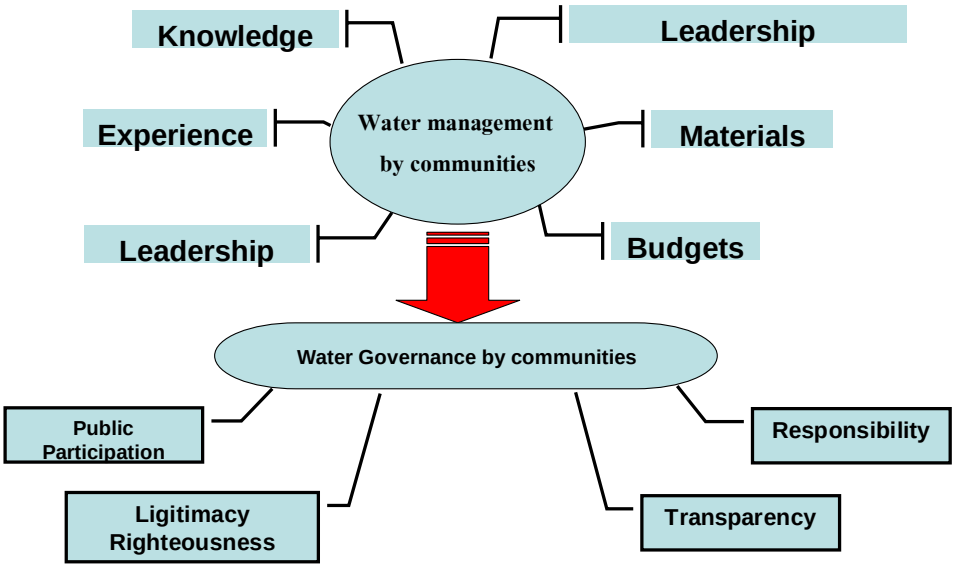


Model 2

2.2 The good governance model for water management by community. This model comprised participation, fairness, integrity, transparency, accountability. In this model, the third level mechanism played a significant role which had to include the farmers' wisdom, knowledge, and experiences in procuring water sources. The second level model was also included in this model. This involved

community law establishment, network operation of kinship, cronyism, leadership, and manifest communication opened to all stakeholders.

The public hearing on a good governance model of water management resulted in the integrated model of good governance for water management by the state and community sectors. With all the mechanisms really put into practice and public participation as endorsed by the constitution really made materialized, all the communities would be able stand on their feet in that they used their own wisdom and experiences in managing water without sole being dependent on the state authority. The proposed integrated model of good governance for water management was of the following levels of priorities: 1)public participation; 2) integrity, fairness at all levels on the part of the state authority; 3) accountability of all parties; 4)transparency on the part of the central government agencies and local administration ones. (Model 3)



Model 3

In conclusion, the public hearing on the proposed model generated the following suggestions: It was very important to integrate the model. All mechanisms of the institutes had to be practical. Leaders of farmers and state personnel had to really fair in their participation to make the practical mechanism really work.

Discussion

The discussion of the major findings are as follows:

1. Water management for off-seasoned rice growing , Institute mechanisms, network relationship, kinship, and mediation process in the lower Songkhram River Basin.

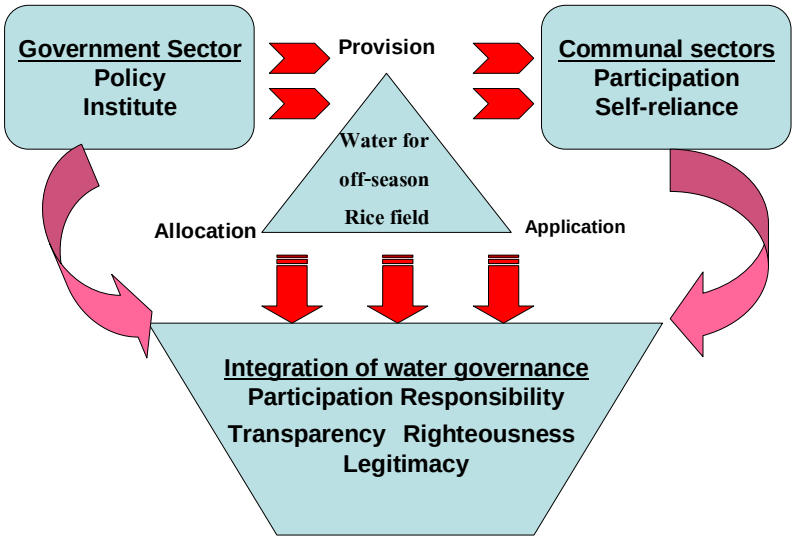
The important institute mechanism for water management was the water users committee, Samphong sub-district and Sri Songkhram sub-district. There was no clear formal regulation about water usage and no written document on the matter. The water management in the community was based on the community tradition and norms. Village farmers just shared the water and pumped the water into their own fields upon its availability and neighbors' generosity. The following suggestions were made in response to the major findings in this study:

Have effective rules and regulations that can be enforced to all. It should be every party concerned should be made to follow these rules and regulations. In the past, the community laws could be used with those who were in power or authority, and the relative systems made the water management a cause of community division because of unfair and illegitimate distribution of water and materials such as fuel and water pumps. When there was a row, it was the duty of a mediator to intervene and this put him in the uneasy state. With formal and effective rules and regulations, the water management problems could be solved or at least alleviated.

Institute : This refers to management, rules and regulations, processes, customs, or organizations. These must be continuous and predictive in order that the mediator as the leader would not be negatively affected and his decision would not have a negative effects on the water users in dispute (Wanchai Wattanasap, 2004). When the mediator, while at the same time being a politician, made any proposals at the disadvantages of those who were not on his/her side because of their different relative systems and authority base, a row could occur among the two parties. Hence, the mediating practice in which all parties concerned felt they had equal share in what they want would be the best solution.

2. Network system, relative system and authority structure relationship The upper and lower state authority agencies were still solely responsible for the work of allocating water and planning construction projects for more water storing facilities. The relative system and cronyism in the community was made to be closely connected the state authority, resulting in unfair and non-transparent management of the water for off-seasoned rice farming in the area. Average local farmers did not have the real participation in institute mechanism for water management.

3. The model of good governance for water management in the LSRB was a research and development project intended to seek the best model of water management for the off-seasoned rice farming in the LSRB where there were typical biodiversity and ecosystem. The first two model drafts were drawn up and put for public hearing before finally the complete one was obtained with integration of the three sectors: public participation, integrity, state fairness, accountability of all parties concerned, and transparency on the part of state and local administration agencies. (Model 4)



Model 4

Suggestions

Policy suggestions

1. The state sector should initiate the policy that encourages growing short-lived plants such as watermelon, chilly, and tomato. Such a policy will benefit people of all walks of life, and will have a positive effect on the environment in the long run.

2. The good governance model of water management is a tool which can be used and further applied by various organizations for effectively and concretely managing water. If widely promoted among users, leaders, community leaders, households, this model would be conducive to sustainable development of the river basin.

Suggestions for further research

1. There should be more research on the development of people organization networks to boost the management of local natural resources.

2. Subsequent evaluation of the application of the model should be conducted.

3. Research should be done on conflict management to develop good governance for water management in other river basins.

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