



Public Participation on Water Resources Management in Lao PDR: Case Study Banhome Village, Hadsayfong District

KHAMBAL PHUNTHAVONGSA

Faculty of Agriculture, Khon Kaen University, Khon Kaen, Thailand

CHULEEMAS BOONTHAI IWAI

Faculty of Agriculture, Khon Kaen University, Khon Kaen, Thailand

NARUEMOL KAEWJAMPA*

Faculty of Agriculture, Khon Kaen University, Khon Kaen, Thailand

Email: narue77@gmail.com

Received 30 January 2014 Accepted 11 August 2014 (*Corresponding Author)

Abstract The public participation on resources management in Lao PDR: case study Banhome village, Hadsayfong district, Vientiane. This area is very important for promoting sustainable agricultural production, and tends to accelerate human health such as the activation of financial securities, water supplies and how to avoid flood and droughts in the future by introducing environment friendly policies close to the conservation area. The purpose of this study was to determine the level of public participation and factors affecting participation of farmers in water resource management in Vientiane, Lao PDR. The participation of villagers was very useful. This survey research was carried out by using randomized model practices in relation to voluntary participation and the Government to the water resource management and cooperative in rural development. Data were collected by questionnaires and descriptive statistics were used to analyze the data. The results found that the level of public participation involved in water resource management was low. Recommendations from this research are that the Government and community should cooperate together to manage water resources and allow farmers to join all processes of water management and solving problems. Information and activities were promoted directly to people via well-selected media in order to create a positive point of view in water resource management participations. Moreover, in this area, the point of view for water resource management should be improved starting with changing the ways that farmers make decisions.

Keywords public participation, water resources management, Lao PDR

INTRODUCTION

The water resources are an important sector in Lao People's Democratic Republic (Lao PDR). Lao PDR government planned to develop, modernize and industrialize in order to achieve a high quality of life. The water resource management, one of which policy issue at the society-natural interface, pose governance challenge of Lao PDR and throughout the world. The estimated inland water resources area totals approximately 723,500 ha, which 200,000 ha are from Mekong River region; 54,000 ha from other main rivers; 57,000 ha from reservoirs, 1,500 ha from swamps; 406,000 ha from rice fields; and 5,000 ha from fish ponds. The rivers outside the Mekong River basin; the Nam Ma, Nam Sam and Nam Neune flow through Vietnam into the South China Sea.

Public participation in integrated water resource management (IWRM) is needed to reach decisions involving socio-economic and ecological groups, IWRM users, stakeholders and the general public. The public participation is necessary because it decreases political tensions,

promotes decision making by consensus and assists in finding reasonable and acceptable solutions. The comprehensive management of the river basin is a new concept of WRM.

This study was designed to examine the public participation in the rural water resource management project and to determine the problems and obstacles including flood, droughts, water quality and other emergencies. But the biggest water management trend observed is the development of all Lao PDR's rivers for social-economic development and a reduction in poverty. The Country's status should rise to developed country status by 2020. However, the lack of time and knowledges of community is a big problem which related to low government supporting towards public participation for WRM in this focus area. Therefore, this study was to determine the level of public participation and factor affecting participation of farmers on WRM in Lao PDR.

METHODOLOGY

Study area: The study was conducted case study Banhome villages, Hadsysong district, Vientiane city, Lao PDR. (Fig.1). It is a plain region area of Vientiane capital. The total area of Hadsayfong district is 25.8 ha, of which approximately 17.2% is covered by forest, 57.61% is covered by semi natural and agricultural ecosystems (arable land, orchards, rice production, cassava, organic agriculture and another land) and 24% is covered by settlements and surface-covering infrastructures. As for the location of surveys to determine the zoning of agricultural and forestry “SDZAF and NAFRI” reference points, 31% is found in cultivated lands, 14.56% is water resource, while 31% in other agricultural areas by annual cropping. Whereas water resource management has historically used the river or lake basin as its unit of management, the growth in population and urbanization has placed increasing pressure on water resources across multiple basins a 495 ha and total 2,752 ha of the areas (Lao government, 2012).

Sample determinations and research methods: Local residents in the study (2,531 households) and local water resources 495 ha in areas are regarded as the core interest groups. Banhome village was the focus area used to conduct the survey. Data was collected during August and September 2013 using a structured questionnaire and interview process. SPSS software was used to analyze the results of the personal factors including gender, age, educational background, income and main occupation. Membership of government organization is related directly with people participating in water resource management in this questionnaire.

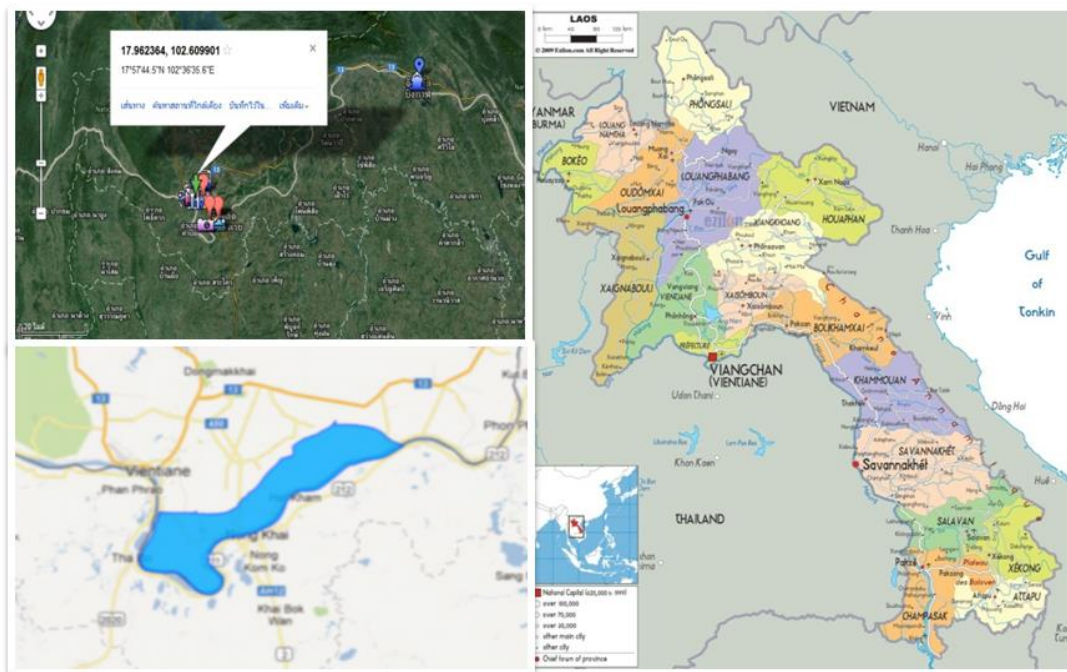


Fig. 1 Study area of Hadsayfong district, Vientiane city, Lao PDR

RESULTS AND DISCUSSION

Descriptive Statistic

The characteristics of the samples showed that the heads of the households were mainly male. The age of samples ranged from 29 to 69 years with a mean of 44 years and the range of family size was from 3 to 6 persons with a mean of 4.3 persons. The most education background was elementary school and diploma. 80% of respondents in this study are farmer while, 13.3% and 6.7% are government employer and business. The range of income was from lower than 150 to more than 400 US dollars per month. There were randomized 15 samplings of households, for details see Table 1.

Table 1 Basic characteristic of the samples

Sampling number	Gender		Education level				
	Male	Female	Elementary school	Junior high school	High school	diploma	degree
15	14.0	1.0	5.0	2.0	2.0	5.0	1.0
Percentage (%)	93.3	6.7	33.3	13.3	13.3	33.3	6.7

Sampling number	Income					Occupation		
	<150	151-200	201-300	301-400	>400	Government employer	Farmer	Business
15	2.0	2.0	6.0	2.0	3.0	2.0	12.0	1.0
Percentage (%)	13.3	13.3	40.0	13.3	20.0	13.3	80.0	6.7

Public Participation in Water Resource Management

Public participation is known as the most effective way in promoting and achieving sustainability of rural development projects, particularly in developing countries (Livingstone and McPherson, 1993). In this study area, it has been recognized that the water resource management project users or beneficiaries do not appreciate the projects since the projects are provided by the government for free of charge that related to lack of sense of ownership and sharing responsibility to the projects. Furthermore, the participation rate of water resource management in this area also was low. In all stage of a project development such as project decision making process, project construction, operation and maintenance, monitoring and evaluation, the local stakeholder participation was low which lead to water resource management project failure (Table 2).

Table 2 Stakeholder participation in water resource management

Statement	High (%)	Average (%)	Low (%)
Stakeholder's participation in water resource situation, cause and water demand of village	20.0	40.0	40.0
Stakeholder's participation share the opinion in decision making about water problem and resolve water problem	13.3	26.7	60.0
Stakeholder's participation in water resource management lead to effective decision plan/project	13.3	26.7	60.0
Stakeholder's participation in monitoring and evaluation of water resource management project	0.0	33.3	66.7

Note: N = 15

Therefore, for success project, government should be increase the rate of stakeholder participatory approach have been evidence through a series of consultative and discuss among project related stakeholders (Uraiwong and Watanabe, 2012). The promoting of water resource management knowledge and information is also important which the result found that the level of channel obtaining water resource management project information was low (Fig.2). All television, radio and newspaper media, which average's to higher than 66.7 percent and government work

reports, were not able to gain more stakeholders understanding and participation. The education function of the media in rural areas may be the cause for the lack of opportunity to obtain water resource information (Liu et al., 2010).

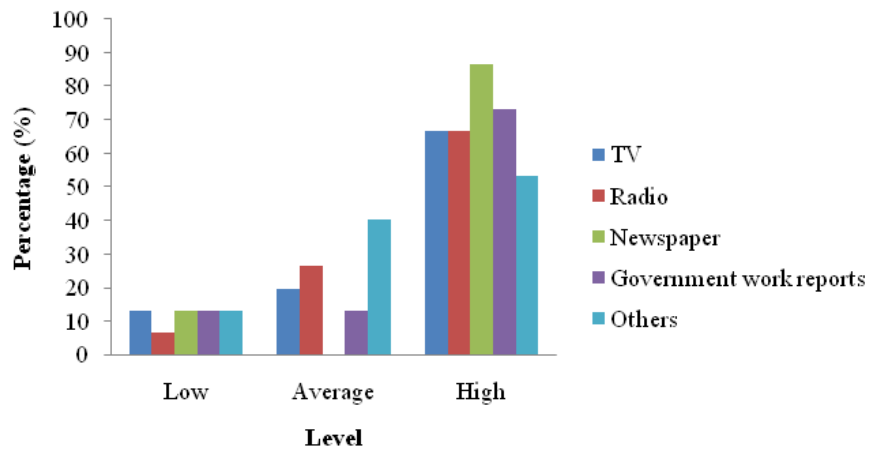


Fig. 2 Source of media and level of obtaining the information on water resource management

Problems and Obstacles in Water Resource Management by Public Participation in Lao

As shown in Table 3, the respondent rated eight items as problems or obstacles of their village. The stakeholders do not know the goal of participation in water resource management project leads to lack of understanding in the project. Therefore, the water resource management project development should be considered as demand driven and identified by the local stakeholder who involved in all stages of a project development (Uraiwong and Watanabe, 2012).

Table 3 Problems and obstacles for publics’ participation in water resource management

Problems and obstacles	No (%)	Yes (%)
Ignorance on the goal of projects	20.0	80.0
Incompatible with others	40.0	60.0
Contrary to the community culture and traditional	100	0
Afraid of the self-troublesome	100	0
Lack of time	93.7	6.3
Lack of chance to public participation attending	86.7	13.3
Lack of knowledge	73.3	26.7
Lack of government support	60.0	40.0

Note: N=15

CONCLUSION

The overall objective of this study was to explore the areas where people’s awareness and general knowledge on the scheme were low due to lack of ownership and responsibility on the water resource management program. Also as an income source it is still limited. Thus, lower income households are unaware of the program. The result from group analysis shows the statement of stakeholder’s participation in the water resources situation, cause and water demand of the villagers are low, sharing in the opinion that decision making and water problem issues is low, due to the low rate of attention, acceptance and feedback of water resource management information. Therefore, publicity on water management knowledge should be strengthened and the government activities should be given the chance to expand in rural participation from the start.

ACKNOWLEDGEMENTS

We would like to thank IDRC-SEARCA scholar and the participants of the Hadsayfong district for their kind collaboration and openness. Special thanks to Integrated Water Resource Management Research and Development Center in Northeast Thailand, Khon Kaen University and Thailand for supporting the scholarship in this research.

REFERENCES

- Liu, J., Luan, Y., Su, L., Cao, Z., and Zeng, B. 2010. Public participation in water resources management of Haihe river basin, China: The analysis and evaluation of status quo. *Proc. Environ. Sci.*, 2, 1750-1758.
- Livingstone, A., and McPherson, H.J. 1993. Community management of rural water supplies: Lesson for developing countries from a western Canadian experience. *Water International*, 18, 225-232.
- Lao Government. 2012. Providing of land resources and local used in Hadsayfong district, Vientiane capital, Lao PDR.
- Uraiwong, P., and Watanabe, T. 2012. Small-scaled water resources project in Thailand: Failure analysis and improvement of stakeholder involvement. (Available from; http://management.kochitech.ac.jp/ssms_papers/sms12-6080_c59b4be872a44fbf2139d47492a9d037.pdf. Search date: 6 January 2014).