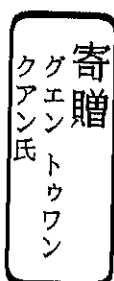


Farmers' Participation in Irrigation Management in Developing Countries: A Case Study of Vietnam

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Abstract

Irrigation enables Vietnam to sustain a large population, through the production of up to three crops per year. Most of irrigation systems in the country are publicly managed and are generally run down due mainly to ineffective system management. It is for this reason, the government of Vietnam has concentrated on issuing new policies that encourage the participation of farmers in management and utilization of irrigation systems. However, there arise certain important questions, particularly, what is actually mean by participation of farmers in irrigation management in the context of Vietnam, to what extend are farmers involved in decision making, and what approach should be applied in order to promote farmers' participation in irrigation management in the long run. Addressing these issues, (1) An overview of the irrigation management, focus on institutional and organizational arrangement, and a review of the literature on efficient and equitable water allocation in irrigation (2) An analysis of the impact of participatory irrigation management on irrigation performance; and (3) Policy implications to promote farmers' participation in irrigation management are drawn. The study employed a survey of 210 farm households in Gia Thuan and Lakhe Irrigation Systems, which are lied in the Red River Delta, the second largest agricultural production region of Vietnam.

Findings indicate that:

1. Vietnam institutional reforms for cooperatives and irrigation management companies to adjust to a market-oriented economy are still incomplete. Definitions of rules are either too vague or too rigid due to the top-down approach. They does not take into account informal institutional arrangements which take place at cooperative level.

2. The lack of coordination between irrigation management companies and cooperatives and the lack of cooperation among multiple cooperatives along canals result in uneven and untimely distribution of water throughout the systems. Cooperatives sharing access to the same secondary canals have generally operated independently of one another, in respect of water ordering and in resolving issues of common concern, such as identification of canal maintenance needs and conflict over water use. Case study in Gia Thuan irrigation system has showed that there is clearly inequity regarding irrigation water use among farmers in the irrigation system, creating a large disparities in crop productivity and a large difference in cropping intensity among different stream areas. The factor share of land in spring rice in upstream, midstream and downstream is 0.57, 0.39, and 0.20 while the factor share of labor is 0.40, 0.58, and 0.77, respectively.

3. Case study in Lakhe irrigation system shows that farmers' participation in the operation and maintenance of irrigation systems ensured the efficient and equal allocation of irrigation water among cooperatives. The benefit-cost ratio to farmers who participate in irrigation management is about 5 times, and the benefit-cost ratio to society is about 2.5 times. Such results imply that the present strategy of Vietnamese Government to transfer operation and maintenance responsibilities to farmers can increase both private economic benefit of farmers and social economic welfare, if it is

accompanied by appropriate public investment in the development of water user association.

Implications for participatory approach in irrigation management in Vietnam are as follows:

1. Building support from policy makers and irrigation agency staffs as well as farmers is essential for successful participatory management.

2. Establishment of the water user associations should be done more democratically from canals covering multiple cooperatives to the system level by steps in the delegation system.

3. Concrete policies play a critical role in enhancing farmers' participation in irrigation management. These can only be designed through in-depth researches in specific norms and organizations of the rural communities.

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