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Pani Panchayat in Orissa, India: The practice of participatory water management

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ABSTRACT *Basanta Kumar Sahu argues that new policy interventions such as Pani Panchayat in Orissa, India ignores local socioeconomic set up fails to ensure community participation. Dominance by upper caste and richer members, lack of group dynamics, exclusion of local needs and institutions, ill-defined property rights, constraints in input supply such as credit and extension services, etc. discourage participation. He suggests what is needed is the strengthening of existing local institutions, augmenting the resource base and ensuring equity in water access would allow for better management and development of water resources.*

KEYWORDS *institutions and water conflicts; elites; socioeconomic divisions; inequities*

Introduction

To govern the use of water resource has become a challenging task given the ever-increasing water scarcity and water conflicts. Although devolving responsibility of water conservation and management to water institutions has found a prominent place in the Indian national water policy priorities, it is the use of traditional technical knowledge and local institutions in acquiring, controlling and managing water resource that play a crucial role in the success of new policy interventions.

To carry out the operation and maintenance of the existing irrigation systems, users or farmers are asked to take up the responsibility through irrigation management transfer. The user groups also known as water user associations (WUAs) are often a response to the state failure. They are expected to perform key roles from service delivery to supervisory role of the public officials who run the system. It is important to understand how these new policy interventions in water resource management and development are functioning. The impact of new institutions in participatory water management such as *Pani Panchayat* (PP) in Orissa give a useful insight into equity and access to water, transfer of property rights and handling water conflicts.

Orissa is a relatively high water resource endowed[1] state in India that has experienced some recent policy changes that have shifted water management and irrigation system from government departments to farmer's organizations under WUA. During the 1990s, the state demonstrated massive interest in farmers' participation in water and

set up a participatory irrigation system, covering all the irrigation projects in the state.[2] Subsequently, *the Orissa* PP *Act*[3] was implemented in 2002 to facilitate participative water management and development in the state. The state has promulgated the Orissa PP Rules, 2003 to provide a legal framework for such participation. This was mainly a part of administrative reform undertaken elsewhere in the country with objective hand over part of the canal system/irrigation to the users for its operation and maintenance through PPs,[4] which are formal state institutions, almost like a limited form of local government. Key responsibilities of this newly set up institutions include operation, maintenance and repair of physical structures, water allocation among the members, collection of water rates, etc.

The following insights into institutional intervention and community participation in water management come from interviews and participatory research undertaken in the Navrangpur and Jagatsinghpur districts of Orissa. Interviews were held from total 115 households comprising marginal (29 percent), small (41 percent) and medium and large (30 percent) categories from four villages, two each from each district.

Structure, power and functioning of PP

The structure of the PP is a multi-tiered system, with user-stakeholders representing at different levels. The government retains the right to nominate non-voting members from its departments, who can presumably provide capacity building support and supervision.[5] While the state can nominate non-voting members to every institution in the PP system, the powers of these non-voting government nominees have not been specified. However, state continues to retain the power to supervise the functioning of the entire system. Performance of PP, which is a part of the irrigation system, largely depends on the nature of their coordination with higher level institutions and state agencies.

The transfer of operation, maintenance and management responsibilities to PPs meant it is self-sustaining and to be supported by the payments from its beneficiaries and members. Thus the WUA regulate the use of water, which is otherwise the property of the state. However, the right to receive water in one's fields is conditional upon making payments of user fees (to the WUA) and water tax (for the state), so the association is in effect selling water to end-use consumers, both on its own behalf and on behalf of the state. Access to water depends on paying capacity of the users. Under this condition, distribution of water is mostly influenced by the general distribution of resources in the society. Since the new intervention in water resources management is market oriented, commoditization of water is evident. With regard to capital investment in irrigation infrastructure the state bears 80 percent of the capital cost, with a corresponding 20 percent contribution from the users. Since contribution of state is a government subsidy not to be recovered through project revenues only members of the user groups, particularly dominant members, would get benefits of public spending on irrigation.

Major functions of PPs includes:

- prepare plan for the maintenance of irrigation system in the operated and carry out the maintenance works with the funds of the PP,
- crop planning matching to local soil and agroclimatic condition with focus on crop diversification,
- regulate the use of water in the operated areas and prepare water demand and collection of water rates and
- resolve disputes between the members and water users.

The impact of PP in different regions

Dry and backward area (Region-1)

The situation in this region represents a backward agriculture followed by a condition of general economic backwardness. Agricultural backwardness due to the absence of controlled water supply resulted in slow adoption of modern variety, subsistence farming, high instability in crop production and productivity, and declined farm employment and income. Marginal and small landholders who fail to overcome water constraints under existing

irrigation system were initially attracted towards PP failed to continue due to inherent local conditions do not match with the new system. Agrarian constraints such as extremely uneven distribution of land, dominance of exploitative economic agents, tenancy, usurious rural credit system, etc. keep their participation low. Landless cultivators and people from lower strata were grossly excluded. Since assurance and availability of water considerably determines crop pattern and cropping intensity, marginal and weaker sections are in a state of forced deprivation and participated in distressed-induced nonfarm activities.

Developed canal irrigated areas (Region-2)

This is a relatively developed and canal irrigated region with high cropping intensity, commercialization of agriculture and high adoption of modern farm technology. Available water is not adequate to meet the local demand that induced farmers to participate in the PP system to make maximum farm production possible with higher rate of return on investment. On the development scale, this region has potential to provide variety of productive nonfarm employment as well.

Increasing demand for water in this area led to an exploration of all possible sources of water and full utilization of generated irrigation potential. Demand for water is also induced by better input supply system but increases the incidence of water conflicts. PP failed both in meeting current water demand and resolving water disputes largely not because of lack of irrigation potential but due to malfunctioning of new institutions, dominance of elite caste and classes, local politics, collapse of traditional institutions and increasing plight of farmers indebtedness. Institutional and technical factors such as diverse user group members, wrong technical design, heterogeneous and scattered command areas and losses of water in transit, etc. outweigh the natural factors such as rainfall and irrigation potential.

An increased nonfarm employment, irrespective of its nature and quality, has resulted in a decrease in self-participation and contribution in local irrigation maintenance works. It may be noted that nonfarm employment in the backward dry region is mostly distress induced in nature and emerged in the absence of productive agricultural employment. So many members of users groups have shown disinterest in PP that fail to meet their basic needs as well as equity in water access. The contribution of upper class farmers for maintenance also progressively declined though they use more water. This has had an adverse impact on overall participation and productivity and led to rise in water conflicts. Lack of community participation, motivation and accountability in water management at village level is very much in both backward and developed areas.

Disputes settlement

Nature and dimension of water-related disputes vary from region to region depending on the dispute managing capability of local institutions as well as irrigation potential and strength of new institutions. Under PP system the power of dispute resolution has been delegated to the user groups themselves. The executive committees of PPs/distributary/project/apex committee are the authorities for the settlement of disputes and the concerned committee shall be decided by the managing committees of immediate higher-level organizations. The state normally does not interfere with 'internal' disputes of the user groups but monitor their activities. The mechanism hardly works under heterogeneous class/caste distinctions and different social composition of user group and their water needs. In spite of high irrigation potential in the state increasing water disputes across region shows the inefficiency of existing institutions.

We found that maintenance and development of traditionally used and managed local water bodies in the villages are no more in practice. Village elders who used to intervene to resolve water-related conflicts found still preferred in the areas where acceptance of PP in terms of community participation is very low. In developed irrigated areas nature and spread of water conflicts seems complex and beyond the traditional institutions like village elders and arbitrators. Dominance of caste, class and power surpass the role of these

institutions and affect community participation and group's dynamics. This has increased the authority of the local elite and a decline in the authority of traditional informal institutions.

Assessment of PP

Despite the government's repeated assertions on the need for a decentralized, people-oriented and demand-driven water management, these have not been converted into implementable solutions. For acceptance and sustenance of new policy initiatives in water management and development satisfactory working relationships between existing local institutions and newly created WAUs is crucial that is largely missing. It appears that the state does outsource responsibility of operations and maintenance to user groups, who act as agents of the state and expected to finance their activities through user's fees. It not only affects the spirit of volunteerism and social action in resource management but also discourages community participation and functioning of institutions. Loosely defined rights and accountability of both department and user groups and make these institutions weak from the perspective of property rights. In the framework of WUA, the distinction between 'management transfer' and transfer of property rights need to be made clear. The transfer of property rights is not seen as much as management transfers for private investment, better management and better participation and coordination among beneficiaries.

Though PP system is designed with legal framework, democratic process, but flaws in functioning failed to realize objectives of equity in access and distribution of water supply, better utilization of public funds and rational water pricing. Issues like low water supply, low recovery rates, paucity of fund for operation and maintenance, fragmented community action are not properly looked into. As regard to tariff guidelines there are few safeguards in the PP system to protect interests of the weaker sections. Marginal farmers or landless cultivators who cannot afford to make a contribution towards operating expenses would not get any of the benefits and hence get excluded from part of the state's capital spending on irrigation infrastructure. On the other hand few elites in the agrarian structure who can make their share of financial and managerial effort, can get appropriate disproportionate benefit from this new system. Now it is easy for them to acquire more direct management control over irrigation infrastructure than they would have had under conventional irrigation systems run by the state. Under this situation PP excludes marginal groups. Low participation of land-poor farmers is a problem of social organization and inherent social inequalities. Since crop production and other water-intensive, land-based activities are progressively becoming unattractive, farming household show less interest in participatory water management that may not be rewarding in the present conditions.

A progressive decline in public investment in irrigation and agriculture sectors over a period is a major concern for financial support to new interventions in the state. The years when the WUA were introduced and then mainstreamed, the state was under steady pressure to reduce its fiscal deficit by curtailing its expenditure. Any further measures to reduce size of irrigation department's staffs, mainly field staffs, reduction of expenditure on operation and maintenance, etc. would affect functioning of the new system.

Conclusion

PP as a new policy intervention in participatory water management and development in Orissa does not show any improvement over the conventional system of water management and irrigation infrastructure. Poor community participation under new policy initiatives and institutions, especially among marginal groups and lower caste people has halted meeting the objective of participatory water management and development. Dominance of few elite members, lack of group dynamics, exclusion of local practices and institutions, absence of defined property right, constraints in supply of inputs such as credit and extension services, etc. discouraged their active participation. While water disputes found high where new institutions such as PP failed to find wider acceptance some informal institutions such

as village elders and arbitrators became instrumental in water conflict resolution.

Implementation of new participatory water management in a diverse social and economic setting like Orissa, without addressing local socio-economic,cultural and institutional issues and problems of accountability and transparency of existing would led to sub-optimum community participation and collective action in water management and development.

Notes

1 The population of Orissa is 4 percent of all India population as per 2001 census. The State has 11 percent of the water resources of the country.
2 PIM was introduced in the State during 1995 on pilot basis in four projects with the assistance of World Bank under the banner Farmers' organization and Turn over component of OWRCP.
3 The objectives of PP act are to promote and secure distribution of water among its users, adequate maintenance of the irrigation system, efficient and economical utilization of water to optimize agricultural production, to protect the environment and to ensure ecological balance by involving the farmers, inculcating a sense of ownership of the irrigation system in accordance with the water budget and the operational plan.
4 A PP/WSA is an association of all persons owning land within a hydraulic delineated portion of the command area ranging in size approximately from 300 to 600 ha in case of major/medium irrigation project. In respect of the minor irrigation (flow) projects the area may be less than 300 ha as per ground condition but it shall not be less than 40 ha. In respect to major and medium irrigation projects, it may be a minor or sub-minor or direct outlet from the main or branch distributary of the project. Incase of minor flow or lift irrigation the area is limited to project command area where the project command area is less than 300 ha.
5 Line departments have longer experience with managing the irrigation system.