

Traditional Wisdom and Resource Management: Some Reflection from India



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Introduction

- The importance of water resource development was recognized by many ancient civilizations, which emphasized on various mechanisms of water conservation, collection and its distribution.
- Social and cultural diversity coupled with the environmental complexity have generated diverse approaches and technologies in the management and use of different natural resources.
- The maintenance of water quality and the means of regenerating the water resources have become crucial factors for sustainability, especially in the dry areas.
- The developmental interventions have raised several questions on the sustainability of those traditional wisdoms, for which the sustainable livelihood has become so critical for poor tribal and rural people.



Problem of the Study

- No comprehensive study.
- No attention has been paid on - How arrangements for co-ordination and concerned action amongst irrigators might be established and sustained.
- Missing links between tribal tradition and modern means of water management.



Objectives of the Study

- Try to understand the traditional system of water management among the *Sauras*.
- To critically assess the impact of institutional interventions on tribal tradition of water management

Methodology



Purposive sampling

- Criteria taken for selecting study area:
- A Village numerically dominated by Saura tribal from a tribal dominated district.
- WUA already formed in that village and handed over to the villagers.

Study Area:

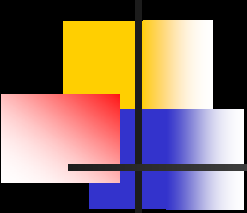
- Saura Singh pur village in Padmapur block of Rayagada district, Orissa
- It falls under Jaya Maa Durga Pani Panchayat under Badanalla Irrigation Project of Padmapur block.

Source of Data collection:

- Primary-Observation, interview, case study, key informant interview, PRA techniques like focused group discussions, resource maps.
- Secondary- policy documents, published reports of similar projects, journals and literature form social science discipline.

Map of Orissa, India

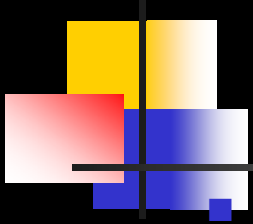




Traditional System of Water Management

- Subsistence agriculture based on rain fed .
- The farmers who lived and enjoyed the agrarian life were fascinated by the myths, legends, rituals, customs and beliefs, which helped them in forecasting the time of rain.
- In order to enhance the moisture at roots level, avoid soil erosion, water wastage and to protect them from drought they used to go for mixed crops in the hilly terrain and plant small trees in the end of the land.
- Water flowing in small streams was traditionally tapped for irrigation through construction of nallah (drain) .
- By stone packed contour bunding, they used to lay small terraced fields on the hill slopes and grew paddy.

Tank Management



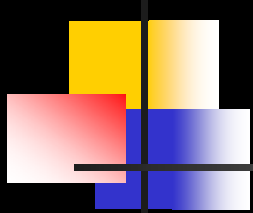
Tanks, the best source of rainwater conservation used to be worshiped and carefully maintained by the community.

- The farmers in the respective tank used to form a group under the leadership of *Gomang* to manage tank.
- The principle of decentralization and equitable distribution was quite significant in this system.



Modernisation and Traditional System of Irrigation

- All the traditional system of water harvesting and distribution are in a state of disrepair & mismanagement.
- Agricultural modernisations have reduced the farmers' faith on traditional beliefs and ritual practices at the time of drought.
- Along with green revolution, fragmentation of landholding, selling of land to non-tribals, land sealing, consolidation of land holding, stone cutting by contactors have disturbed the terrace system.



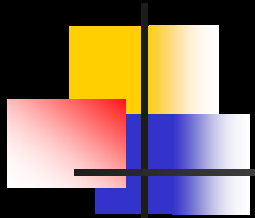
Change in Traditional Tank Irrigation

- Abolition of Zamindari system and handing over of tanks to Minor Irrigation Dept. during 1960.
- Handing over the maintenance right to G.P. by M.I. but not the property right & revenue.
- The M.I. Dept. left the place, when Medium Irrigation enters into the area during 1980s.
- Consolidation of land holding.
- Loss of community authority & Farmers' interest, alteration of tank committees, decline of compulsory labour contribution in maintenance work, inadequate operation & maintenance budget from the Govt.
- Orissa PESA Act (1997) creates confusion over tank management.
- Development of canal irrigation.



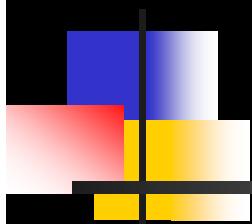
Conclusion

- The traditional system of irrigation management of Saura was more culture specific in nature.
- Their environmental knowledge relating to water management helped them in planning their agriculture and other livelihood activities.
- The age-old water harvesting and storage systems, such as tanks and ponds, are becoming the things of past due to the absence of maintenance by the local community or State.
- The traditional systems of water management have degenerated over time due to State interventions and also due to socio-cultural, political and economic changes that have taken place at the village level as a result of development initiatives by the State and other agencies.
- The ignorance of farmers' knowledge, skills and socio-cultural factors at the time of implementation of Water Users' Association is failed to revive the traditional ethos of farmers' participation.



Suggestions

- Culture specific endogamous approach should be the prime need to manage irrigation. It is necessary to take into account the perceptions, ideas, values, attitude of beneficiaries towards the irrigation water.
- Before the introduction of new institutions the compatibility of cultural values with that of development values should be taken.
- Farmers knowledge on irrigation vis-à-vis cropping pattern be up-to-date through frequent extension encounters. Such an exercise will eliminate both shortage and wastage of water and thereby crops can be maintained in healthy conditions.
- Extensive research and project works should be done to preserve the *sauras* terracing system, their ecological knowledge and irrigation practices.



Thank You