INDIAN INSTITUTE OF TECHNOLOGY GUWAHATI
SHORT ABSTRACT OF THESIS

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SHORT ABSTRACT

This research aims to create a community-centred metric to evaluate and enhance stakeholder participation in watershed projects. This analytical tool will establish a scientific connection between the watershed project's success and community participation efforts, examining the alignment between the perspectives of project planners and users.

Governments and institutions worldwide are implementing watershed programs through the Integrated Watershed Management Programme (IWMP) and Integrated Watershed Management (IWM), focusing on a collaborative approach through multi-stakeholder networks and partnerships involving various actors like international agencies, regulatory bodies, NGOs, municipal governments, and community-based organisations. Regular evaluations and feedback from the participant community's perspectives are crucial for programme effectiveness and sustainable resource utilisation.

Practically, it is difficult to informatively examine the issues involving community participation (CP) in watershed programmes for two principal reasons: First, there is no primary data available, as most policymakers often do not include proper CP assessment procedures in their protocols; Second, there is a shortage of well-defined indicators or indexes at the project level against which community perceptions could be determined, though the community members are the best assessor regarding the effectiveness of a watershed project. Policymakers typically measure watershed success with indicators based on built assets by top-down sectoral assessments, which might not align with stakeholders' observations. Instead, the effectiveness of a watershed project is directly correlated with the degree of unity in stakeholders' perceptions and their willingness to continue rather than with policy priorities. So, a question arises: Can watershed project effectiveness be evaluated from the stakeholders' perspective, which will provide vital community information for sustainable participation?

This research hypothesises that a community-centred metric may evaluate watershed project effectiveness by integrating indices constructed on stakeholders' desirability, degree of participation, organisational efficacy, and participatory performance.

Three IWMP projects were selected as research laboratories for empirical study based on the protocol similarity, regional and socio-economic features analogy, and representing both rivers of the River Brahmaputra, Assam (India). Before applying a qualitative and participatory research method, watershed effectiveness variables were identified to understand better the nonalignment between community perceptions and planners' actions in watershed planning, implementation, and organisational management. Incorporating the relevant variables, four unique participation evaluation frameworks are developed to measure four community-related watershed stressors: project desirability, performance, effectiveness of the community participation mechanism and managerial effectiveness of the project.

The data collection process involves a series of field visits across the watershed project areas, supplemented with expert interviews, focus group discussion, and opinion surveys amongst the stakeholders' groups, with a classified random sampling method using structured questionnaires to capture complex and challenging-to-quantify issues related to participation procedures, institutions, gender relations, and inclusion.

Incorporating appropriate statistical analyses, four evaluation frameworks were constructed to reflect the heterogeneity of insights prevailing in watershed participant groups about four community-related watershed project phases: Planning, Organising, Implementing and Managing. The main outputs from the field data collection provided findings on the nature of community perceptions in project areas, compared against a backdrop of standard features of targeted community participation. Then, the phase-wise indices are aggregated to obtain a single integrated watershed index that can be a powerful metric to reflect directly the state of affairs of the community participation mechanism adopted by the watershed managers and, indirectly, the project effectiveness.

The developed methodology on effectiveness indexing might help eliminate the challenging participation bottlenecks in watershed management and design specific operational phase-wise interventions for process reengineering from stakeholders' perspectives.

The metric and methodology might be transformed to a comparing scale supplementing with further field studies for generalising over a broader region. Further, a similar analysis might be adopted to improve the alignment of stakeholders' perceptions in other multi-stakeholder developmental programmes where incongruencies commonly exist.