

## EXECUTIVE SUMMARY

Village tank systems are man-made ecological constructions, which served the rural peasant community to produce their own food and look after their social welfare with little outside interference since ancient times. Therefore, tank rehabilitation and restoration projects were implemented in the past through different approaches and strategies to ensure continuous sustenance of these systems. However, most of the past interventions were mostly limited to hardware aspects such as repair of tank structures and development of community infrastructure and developing individual tanks without paying attention to cascade connections and to the surrounding ecosystem.

The major objective of this study is to draw lessons from the selected rehabilitation interventions made in the recent past with alternative approaches which had a substantial component of both software and hardware aspects in their development. The selected project for this study were “Cascade Systems Development Project” implemented by the Plan Sri Lanka (An NGO intervention); Small tank rehabilitation programme under the “Pro-poor Economic Advancement and Community Empowerment Project (PEACE)” implemented by the Department of Agrarian Development (Intervention by a state agency) and Small scale irrigation rehabilitation component under the “Dry Zone Livelihood Support and Partnership Programme (DZLiSPP)” (Intervention by a special project office/project staff operated independently under the Ministry of Agriculture). Secondary and primary data were collected mainly through qualitative techniques.

The study findings indicate that, investment made on small scale irrigation rehabilitation had made positive impacts on enhancing farm level income and household food security. Adoption of holistic and cascade based integrated development approaches was key in addressing various issues affecting sustainability. It is important to consider the small scale farming system in minor irrigation settlements and the role of upland farming and *chena* cultivation as the major sources of household income in order to ensure future sustainability of the system. Integration of aquaculture in the feasible small tanks and livestock activities has high potential of enhancing income of the beneficiaries. Tank selection for rehabilitation should be done with the participation of line agency and approval of Divisional Agricultural Committee.

Cascade connections, re-establishment of *Kattakaduwa*, *Kururulu paluwa* and other environmental components and promotion of soil and watershed management ideas in addition to ordinary physical rehabilitation could play a prominent role in this regard. The re-establishment of environmental components should begin with a land survey for the scheme and making reservations for the given component with the consent of the beneficiaries.

A participatory development approach is vital to address the real needs of the rural people and make the beneficiaries and line agencies strong partners in the project implementation and to create a sense of responsibility, ownership and accountability

and ensure involvement in the post project sustainable operation and maintenance (O&M). The project experiences indicate the necessity of integration of software and hardware aspects from the beginning as parallel activities, starting from tank selection and planning of activities.

The selection of tanks for rehabilitation should be based on the felt need of the beneficiaries. Beneficiaries of the selected schemes should be willing to participate actively and contribute their maximum in whatever possible form and should be ready to take as much responsibility as possible during all stages of the project implementation. Therefore it is important to have a strong component for community mobilization from initial stages of the project through appointment of specialist catalyst agents. Capacity building of all stakeholders from early stages of the project on their roles and responsibilities, emerging issues, available rich traditional knowledge and wisdom that were useful for the development had contributed positively to the project with more cooperation and collaboration. The experiences show that, formation of different rehabilitation committees viz; Procurement, construction and supervision and assigning the tasks have provided the opportunity to involved by most beneficiaries in the rehabilitation activities with some sort of responsibility and ownership.

The rehabilitation projects should carry out early orientation of the project approach to be adopted and a systematic training and assigning appropriate roles and responsibilities for the line agency officers during the project as well as post project to mobilize them and developing sense of ownership among them about the project by changing their traditional attitudes and mindset. Past experiences show that absence of clear roles and responsibilities for the line agency during the rehabilitation process has hindered in mobilizing officers towards post project scheme related activities and establishing sufficient links between farmers and the line agency officers. The experiences of selected funded projects showed that the total dependency on the line agency for project implementation had caused delays in achieving targets within the specified time period. Therefore, it is recommended that the services of technical staff on contract/hired basis should be obtained. But there should be a room for the line agency officials in the rehabilitation process in order to keep them intact with the scheme.

There should also be proper institutional arrangement to implement and monitor the rehabilitation works and carry out post project O&M. Beneficiary organization must be based on hydrological boundaries, focussing on individual tank, but there should be legal or official recognition for the institutions. Establishment of cascade management committee and apex level project steering committee under the chairmanship of Divisional or District Secretary with the participation of line agency officers and farmer representatives has contributed to positive results in achieving targets and mobilizing duty bearers into the process.

It is appropriate to award the construction contract to local FO in all feasible locations after providing basic construction and contract management training which facilitates

mobilizing more resources from beneficiaries, improving the quality standards of construction.

Actions to establish separate O&M fund for post project sustainable maintenance of schemes with necessary institutional arrangement and procedures for fund utilization is a very important aspect to be considered in the rehabilitation process. Appointment of dedicated care taker and payment of an honorarium for his services would boost the sustainable O&M. It is also important to formulate procedures for routine collection of direct O&M fee from beneficiaries. Traditional systems and practices of land and water management should be institutionalized as appropriately. Dividing the tank bund in proportion to size of land holdings of each farmer by installing tags permanently for routine maintenance has been very effective compared to common *Shramdana*.