



Project to Assist ERRA and its Partners to Restore Livelihoods in the Earthquake Affected Areas of Pakistan

Field Experience – Case Studies



Project Title

Integrated watershed management and livelihoods

Project objectives

Develop model sites where rehabilitation and development of natural resources integrating livelihoods is carried out focusing on people, soil and water in 5 to 8 square kilometre watershed catchments. These models enhance awareness within beneficiary community, increase social, technical and managerial capacities of the Watershed Management Committees comprising of beneficiaries and Forest Departments of the North West Frontier Province and Pakistan Administered Kashmir.

Context

Batora and Shual Mazullah are the two sub-watershed sites situated in close proximity to the fault line where the earthquake killed 50 and damaged some 1000 houses and most of the agriculture infrastructure.

Local farmers lost more than 60% of their livestock while 30% to 35 % villagers sold out their ruminants. Farmlands, livestock and forests remained the lesser of the rehabilitation priorities where landslides had damaged tree cover and agriculture land suffered as perennial streams dried up.

The watershed areas are rich in biodiversity, but economically backward and prone to various forms of degradation. It was argued that watershed management technologies can bring food stability, economic development, and employment opportunities to the area while reducing climatic hazards.

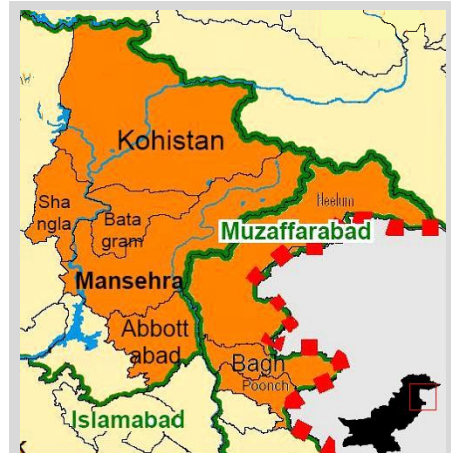
Population groups targeted

Government and partner organizations have recognized that full community participation is essential for sustainable watershed development. With growing local participation, indigenous knowledge is now significantly influencing the planning, design, and implementation of watershed development programmes. Long-term changes and development are more likely to be adopted if communities have a say in the decision-making process. Sustainability also increases if local resources are more efficiently utilized and the use of or need for external inputs is minimized.

The project

The small scale community-level watershed development focuses on the people's perspectives of development and their roles and options in this process. Very different interventions for typical smallholder mountain farming and forest-user communities are undertaken that overcomes their socio-economic and biophysical issues. The interventions include: field terracing; land slip stabilization and soil conservation; fruit orchard establishment; kitchen gardens; forest tube nurseries; roof water harvesting; wheat demonstration plot; fodder tree and grasses plantation; poultry farming; and vaccination and de-worming in livestock.

The project covers the institutional, socio-economic, and biophysical aspects of watershed management. The people-centred and people-initiated integrated development demonstrates that resource exploitation and the well being of the people are intrinsically linked. The



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project also shows that sustainable development of livelihoods is not possible without the conservation of natural resources.

This case study is a part of a series of studies to document the experience gained implementing the *Livelihoods Rehabilitation Strategy* developed by the Earthquake Reconstruction and Reconstruction Authority (ERRA) of Pakistan as part of its response to the October 8, 2005 earthquake which hit the north of the country and killed over 78,000 people. The Strategy is implemented by ERRA, Government line-departments and Non-Governmental Organizations, with technical assistance provided through FAO using Sida funding.

Building capacities

The institutional arrangement for coordinating use and management of natural resources is the Watershed Management Committee comprising of community people, Forest Department officials and project staff. Effective collective action for watershed management has provided multiple economic and environmental benefits – tangible and non-tangible – to the affected rural communities. This has allowed smallholder farmers to invest in profitable activities such as tube nurseries, fruit orchards, vegetable farming etc. Institutionalised community-based watershed management has provided technical guidance on resource management practices and has helped to create a positive environment for cooperation for a long lasting institutional solution. Watershed Management Committee has also facilitated in developing linkages with the market enterprises and relevant agencies working in the orchard sector for the farmers.

Challenges

- ✓ Project activities are dependent on labour all through the year
- ✓ Need to adopt livelihoods models such as nursery growing and fruit orchard development as genuine investments within the watershed management framework.
- ✓ Maintain sustainable market linkages for resource productivity
- ✓ Strong liaison with government line agencies for technical backstopping and guidance available beyond project life.

Opportunities

- ✓ Increasing activities focussing on natural resources with emphasis on community-based experiences
- ✓ National NRM campaign has been linked to WMC so as to enhance communal harmony, cohesion, and cooperation with agents of change to speed up the development process.
- ✓ Best practices in financial transparency developed when WMC and the Forest Department jointly worked with the community.

Considerations for replication

One of the significant initiatives of the community-based watershed management is institutional restructuring through the Watershed Management Committees for coordinated approach towards integrated natural resource management. Restructuring institutions under a unified committee at project level is a significant effort by the Government to break the barrier of fragmented and sectoral functioning of various



government line departments. This is supplemented by coordinated planning and technical backstopping by experts from International Centre for Integrated Mountain Development (ICIMOD). Coordination at micro level has involved pooling knowledge (technical and managerial) base of the communities in designing and enforcing rules and sanction mechanisms to make estimates of the future events and take consensual decision. Coordination between institutions has built trust, enabled transfer of specialised knowledge systems and has promoted a learning organization approach. While watershed management contributes to resource productivity and sustainability, increased commercialization and market access open opportunities to diversify into high-value crops, creating incentives for agricultural intensification.

Evaluating the multi-faceted impacts of integrated watershed management interventions is complicated by problems of measurement, valuation and attribution. However, integrated watershed management focuses on activities based on the sustainable use of natural resources and its effects on the livelihoods of local communities. It also demonstrates that resource exploitation and the well being of the people are intrinsically linked. Sustainable development is not possible without the conservation of the natural resources. And an over-riding concern of integrated watershed development is the improvement of the livelihoods of local communities. This requires balancing their economic needs and expectations with environmental concerns so as to avert degradation of the natural resource base, in particular soil and water components.

Government and development institutions are increasingly recognizing that full community participation is essential for sustainable watershed development. With growing local participation, indigenous knowledge is now significantly influencing the planning, design, and implementation of watershed development component. Long term changes and development are more likely to be adopted if communities have a say in the decision-making process. Sustainability also increases if local resources are more efficiently utilized and the use of or need for external inputs is minimized.

This case study received input from _____ and Piet Vochten.

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