

Watershed Management in Nepal

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In Tanahnun District, Nepal, watershed management integrates agriculture, forestry, pasture and water management measures

The institutional development of watershed management in Nepal commenced in 1974 with the inception of the Department of Soil Conservation and Watershed Management (DSCWM) as the principal authority for undertaking watershed management. DSCWM started by piloting a programme in four selected watersheds and river training activities at priority sites, and gradually expanded with the establishment of District Soil Conservation Offices (DSCOs).

At present, DSCWM operates watershed management programmes in 55 of the 75 districts of Nepal (see figure). Department and district-level offices have multi-disciplinary staff – mainly in forestry, agriculture, and engineering – to provide the services necessary to carry out integrated watershed management programme.

Watershed management programmes in Nepal

The scope of watershed management can be defined from a narrow site-specific focus dealing with a particular issue, such as high rates of soil erosion, to a broader rural development focus to fit the priorities of local organisations (p.33 box). In Nepal, the scope of

soil conservation and watershed management is broad and integrates forestry, agriculture, pasture, and water management measures applied for erosion control. It also includes income-generating activities related to proper use of soil and water resources.

The Forestry Sector Master Plan (MPFS 1988) recognised soil conservation and watershed management as one of the main forestry sector programmes related to land use and rehabilitation of degraded lands. The DSCWM implements a diversified programme of activities to mitigate land degradation and increase productivity (p.33 box). Bilateral and multilateral donors¹ were involved in providing support to the implementation of the SCWM programme in Nepal.

¹ Such as the United Nations Development Programme/Food and Agriculture Organization (UNDP/FAO), the Danish International Development Agency (DANIDA), the Japanese International Cooperation Agency (JICA), the German Agency for Technical Cooperation (GTZ), the Australian Agency for International Development (AusAID), CARE International in Nepal, SNV and the Swiss Development Cooperation (SDC), the European Union (EU), the United States Agency for International Development (USAID), and the Department of International Development (DFID-Nepal)



The Soil Conservation and Watershed Management Programme in Nepal

Scope of watershed management

The scope of watershed management can be broadly categorised into three points² as follows.

Narrow focus: such as management of upland wild-land associated with water resource development.

Broader focus: such as management of agriculture, forest, and grazing lands associated with water resource development.

Rural development focus: such as management of all lands associated with their potential for social and economic development including all components, e.g., agriculture, forests, grazing, health, education, markets, transportation, credit.

(Upadhyay 1985)

Programme activities of DSCWM

Land-use planning: watershed and sub-watershed management plans based upon scientifically assessed land capability and technical services for land-use development.

Land productivity conservation: on-farm conservation, grass plantation, fodder/fuel-wood/fruit tree plantation, agroforestry, and greenbelt/shelterbelt establishment.

Natural hazard prevention: gully treatment (Figure 2), landslide treatment, torrent control, stream-bank protection, and degraded land rehabilitation through bioengineering methods.

Infrastructure protection: road slope stabilisation, trail improvement, irrigation canal protection, and water source conservation.

Community soil conservation: extension education, demonstration, training, workshops, study tours, workshops, school conservation, and exhibition.

(DSCWM 1998)

The approach

The implementation of the soil conservation and watershed management programme was concentrated in selected watersheds. However, with the inception of Integrated Rural Development Projects in 1982, SCWM activities were also implemented through scattered projects, through which the wide range of SCWM activities were implemented in a whole district. The importance of people's participation and integrated approaches in watershed management are also emphasised by the Master Plan for the Forestry Sector (MPFS 1988) in the implementation of the SCWM Programme.

To promote local governance in development and implementation, the approaches of the DSCWM have changed with time and needs. Until 1980, the "*What can the project do to help people?*" motto outlined the implementation approach of the DSCWM (Sthapit 2000). Activities were planned and implemented without involving the communities, thinking that these activities would help the community raise their living standards. The approach turned out to be unsuccessful as most of the activities implemented were not priorities for the community and subsequently the community cared little to maintain the activities in the long run.

In the 1980s and 1990s, the development motto shifted to "*What can the project do with people's participation?*". With this approach, activities were still planned with no or only very little involvement of the target group. After the programme was approved, people's participation was sought for implementation.



Gully treatment in Jhikhu Khola, Kabhre District

However, due to inadequate people's participation in programme planning and formulation, people's involvement became somehow arduous. Officials had to manipulate the participatory inputs in order to achieve the physical target set by the government system. Therefore, in most cases, people's participation was not achieved in the real sense. In 1993, the DSCWM put forward a strategy to ensure the implementation of the SCWM programme in line with integrated watershed management and with people's participation. The implementation approach gradually shifted to making communities responsible for identification, planning, management, and implementation of activities on both their own land and community land. This is done in order to let communities control the development activities taking place within their area. In other words the current strategy is "What can the people do with project/programme participation?"

Issues and recommendations

Watershed management demands harmonised integration of relevant aspects for the holistic development of communities. The issue here is what is the extent of integration: neither the integration of a few aspects which do not produce an impact, nor integration of many aspects, thus hindering implementation is good. For practical reasons, integration must be sought to the extent possible which ensures the programme gains momentum to function. This depends on social, political, and bureaucratic systems. So this is the issue to be decided based on local conditions.



People's participation in planning

Decentralised development strategies are required to ensure that beneficiaries are involved in every step of development to make the results meaningful outcomes for the target group. But decentralised development needs to consider the administrative unit as its working unit, whereas, observing the impact of upstream activities on the downstream area, the watershed should be the ideal working unit. Whether or not a watershed or an administrative unit is the working unit for watershed management has become an issue. There are pros and cons with both working units; therefore, with an overall objective for water resource development a watershed is preferable, whereas with an overall objective of rural development, the administrative unit is preferable. However, taking all administrative units within the watershed could be a compromise strategy.

Conclusion

The increasing trend of involving people at every step of development builds an environment for better ownership, responsibility, and accountability. Decentralisation and governance increase the chances of implementing a community's needed activities on a sustained basis. The community begins to feel that development is their right rather than a mercy from development agencies. More effort should be made to emphasise a decentralised implementation approach that meets local needs.

References

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