



Watershed Management in Action: Lessons Learned From FAO Field Projects

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Watershed Management in Action: Lessons Learned From FAO Field Projects

By Food and Agriculture

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This global review of watershed management projects for which the Forestry Department of the Food and Agriculture Organization of the United Nations (FAO) provided technical supervision follows on from a previous review of projects conducted between 1990 and 2000 (FAO 2006). Its overall aim is to identify not only good practices, but also lessons learned in watershed management projects, so that future efforts can build upon and avoid repeating the same mistakes.

FAO defines a watershed as “the geographical area drained by a watercourse” and watershed management as “any human action aimed at ensuring the sustainable use of watershed resources” (FAO 2006: ix). The particular relevance of the publication to mountain environments is highlighted, since mountains are globally significant for freshwater supply, yet they are highly susceptible to natural hazards and climate change. Watershed management is especially critical in the uplands, where land management decisions can impact significantly on downstream areas in terms of both the quantity and the quality of water resources and sediment delivery.

The publication emphasizes that watershed management should deliver multiple benefits for the watershed, not only relating to water resources, but also for increasing productivity and resource efficiency and for diversifying people’s livelihoods and incomes. Hence, while the target audience of the

publication is practitioners working on watershed programs, it is also relevant to managers and planners involved in other integrated landscape management and natural resource planning programs, and to technical experts and scientists.

The publication reviews 12 watershed management projects conducted in Ecuador, Gambia, Guatemala, Kyrgyzstan, Mauritania, Morocco, North Korea, Pakistan, Tajikistan, Turkey, Tanzania, and Zambia. The nature, focus, and scale of the projects were diverse, with the areas ranging from 1100 to 130,000 hectares, populations ranging from ~1600 to 65,000, durations ranging from 3 to 7 years, and budgets ranging from US\$ 130,000 to over US\$ 3 million. Some projects focused specifically on watershed management, such as in Tajikistan, Tanzania, and Zambia; in others, watershed management was part of a wider set of objectives, for example, the management of natural resources in Chimborazo, Ecuador, or restoring livelihoods in earthquake-affected areas of Pakistan.

The publication is professionally produced and authoritative, having been peer-reviewed by experts within and outside FAO. It is based on review of internal project documents, validated by discussions with key project staff and complemented by review of relevant watershed management literature. It starts with an executive summary and a comprehensive list of key recommendations. Since watershed management is highly context-specific, the review of the projects is structured around the 8 steps that watershed management projects should ideally follow. This allows common themes and lessons to be drawn out from the projects, rather than presenting a detailed account of each project. However, 2–3-page project factsheets summarizing the main aspects of each project are contained in an annex. Each thematic chapter is further divided into subthemes, within which the findings

from individual projects are presented, followed by lessons learned and recommendations. The total number of recommendations from the individual chapters exceeds the 71 key recommendations at the start of the publication.

The review of the projects is frank and does not attempt to hide aspects that were not successful. Documented challenges to the implementation of the projects ranged from lack of resources (eg lack of transport for extension officers, hindering their mobility; termination of funding; and lack of capacity of the project team—both organizations and individuals) to local power relations (eg project proposals designed by influential community leaders rather than the intended beneficiaries of the poorest households), legal issues (eg lack of legal land tenure documents, compatibility with nomadic lifestyles), and external factors (eg rural–urban migration, national elections). The Kyrgyzstan project was not able to spend all the funding available, since none of the implementation activities was realized due to the large number of small-scale tenders, each requiring individual handling, and the high staff turnover in the commissioning office.

In terms of project success, the main conclusion of the review is that projects were effective within a specific watershed, in particular in developing capacity, setting up participatory processes, and engaging stakeholders from different sectors of the population, including indigenous people and women. However, the projects had less impact at the national level, with regard to ensuring the incorporation of watershed management into regular policymaking and planning. Thus, one major recommendation is that future watershed management projects must be implemented over longer time frames, and they will require sustained and coordinated investment from both the public and the private sectors.

From the review, 5 main areas were identified to increase the effectiveness of future watershed management projects: institutional strengthening for improved watershed governance; watershed monitoring; capitalizing on increased data availability; knowledge sharing and learning; and strategic partnerships for joint action on the ground (eg interaction with the World Bank and regional development banks). As a catchment hydrologist, I was particularly pleased to see a continuing emphasis on monitoring for effective design and validation of project objectives, since technical aspects are increasingly

overlooked and lack long-term investment in watersheds.

While the focus of the publication is on watershed management in economically disadvantaged countries, the learning and key recommendations are globally relevant—in developed countries as well. Thus, the publication is a worthwhile read for all watershed management practitioners. Given that it targets practitioners rather than researchers, it is very unlikely that most readers will get beyond the list of key recommendations at the start of the document. Although this long list may be rather overwhelming, it should form a useful checklist for those setting up, implementing, and

evaluating watershed management projects, wherever they are.

REFERENCE

FAO. 2006. *The New Generation of Watershed Management Programmes and Projects*. FAO Forestry Paper 150. Rome, Italy: FAO.

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