

**Developing participatory and integrated watershed management:
A case study of the FAO/Italy Inter-regional Project for Participatory Upland
Conservation and Development**

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Executive Summary

Integrating activities for conservation and development through people's participation and collaboration among different institutional and social actors

is being increasingly recognized as the most promising approach to sustainable natural resource management. This document describes and discusses the experience in this area of the Inter-regional Project for Participatory Upland Conservation and Development (PUCD project), promoted in the framework of the FAO/Italy Programme.

The PUCD project originated from the increasing interest in sustainable development of upland and mountain areas that resulted from the discussions and actions related to Chapter 13 of UNCED's Agenda 21 and its subsequent follow-up (the "Mountain Agenda" forum). The project started in 1992 and, until 1997, was implemented in selected areas of Bolivia, Burundi, Nepal, Pakistan and Tunisia. A two-year follow-up phase (1998-2000) is currently being conducted in Bolivia, Nepal and Tunisia, with the aim of facilitating the institutionalization of project experience at the national level.

Throughout its course, the PUCD project's main objective was, and still is, to identify and field-test methods and techniques for promoting and consolidating people's participation in the sustainable management of upland watersheds. Its immediate objectives were to:

- start-up and consolidate a pilot scheme for participatory and integrated watershed management in each of the selected countries;
- incorporate the participatory and integrated watershed management approach into national policies for rural development and natural resource conservation, and into decentralized planning systems; and
- disseminate information on the methods, techniques and tools validated by field projects and to replicate them in other areas, through communication and training initiatives.

The project was conceived as a pilot process-oriented initiative aimed at using practical experiences to develop methodological lessons on integrated and participatory watershed management. At the national level, project management was, to the greatest possible extent, based on the principles of action-learning.

Within the framework of a flexible Project Document (ProDoc), yearly work-plans were prepared by each National Field Team (NFT) through participatory assessment, planning, implementation, evaluation and replanning exercises, which involved a variety of local stakeholders such as communities, grassroots organizations, the private sector, government line agencies, local authorities, non-governmental organizations (NGOs) and other development institutions. The role of each NFT was essentially that of facilitating this process and ensuring that the lessons learned could be applied both within and outside the project areas. The small budget available to directly support field operations (ranging from US\$ 50 000 to US\$ 80 000 annually for each field component, not including staff remuneration) was used to catalyze the mobilization of

additional local resources, including materials and labour from the local communities, and additional funding from local line agencies, NGOs or other international projects.

Especially at the beginning of the project, there were many unknowns and uncertainties concerning the specific environmental and socio-economic situation of each project area. Therefore, information gathering was deemed to be necessary before launching the participatory process. Specifically, information gathering included the following activities: reviewing available information (complemented, when necessary, by the rapid assessments of specific environmental or social issues); tentatively selecting the communities and sites within each project area most suitable for implementing the participatory and integrated watershed management process; and, to validate the selection of communities, conducting a preliminary visit.

Following this information gathering, an initial participatory appraisal was launched in the selected sites. The main objective of this appraisal was to support community members in better assessing their situation and identifying the most important and urgent goals to be pursued through collaborative action. Most of the information collected was generated by the interaction among small groups of participants and members of the NFT. Task-sharing was based on the participants' individual interests, competence and preferences.

Participatory appraisals ended with a one- or two-day participatory planning workshop (or a series of shorter meetings) during which participants were given feedback on the information gathered during the exercise. Other activities carried out during these workshops included: identification, analysis and prioritization of problems; identification of possible solutions; and drafting a tentative community action plan.

Ideas for action developed during the participatory planning workshop were subsequently reviewed by project management and field staff and interest groups through a participatory feasibility analysis, aimed at assessing the extent to which these ideas were technically, economically and socially viable and sound. This assessment included: priority-setting exercises, technical studies, on-site investigations and conflict management initiatives. Following the feasibility study, detailed terms of reference for joint implementation were negotiated among local actors, leading to the definition of collaborative implementation agreements.

In all PUCD field projects, the responsibility for implementing the agreed-upon activities was largely entrusted to interested community members. They provided most of the labour and the local resources needed for the initiative and were in charge of day-to-day management. The role of the project and other institutional partners was almost always limited to providing selected services or inputs, such as capacity-building, technical assistance, micro-credit,

selected materials and transportation. This approach was instrumental in achieving two basic objectives regarding the process of participatory implementation: empowering communities and ensuring social sustainability. To achieve these objectives, all PUCD field projects adopted a strategy that included strengthening grassroots organizations, meeting basic needs, and promoting environmental awareness and building natural resource management capacity.

In all countries, significant efforts were made to facilitate the formation and development of grassroots organizations, including small, informal interest groups. Activities carried out by PUCD project to strengthen the structure and operational capacities of these organizations included: assistance in internal operations, managerial capacity-building, micro-capitalization, the facilitation of linkages among groups and organizations, assistance in legal and tenure issues, and communication activities.

The PUCD project was also committed to supporting activities for meeting basic needs not directly related to natural resource management. These included income generating activities, improving local infrastructure, and strengthening health, sanitation and education services. The project paid special to initiatives promoting the economic independence of women, decreasing their workload and improving their living conditions.

However, natural resource management was the core component of the PUCD project's implementation strategy. This included two main areas of activity: improving farming systems and managing common property resources (CPRs). Most project-supported initiatives for improving farming systems developed out of negotiations between participants, who wanted to have better yields, earn a higher income and save time, and the project's staff, who were concerned about the conservation of water, soil and vegetation cover. Therefore, these initiatives were 'conservation by use' activities that sought to reach a healthy balance between environmental and economic needs. In most cases, obtaining a balance between these sometimes contrasting needs entailed a long-term action-learning process. Four main types of actions and inputs facilitated this process: training, incentives, on-farm trials and extension activities.

Initiatives for managing CPRs were more or less directly associated with farming systems improvement. However, three main types of activities specifically focusing on CPRs can be identified: the regeneration of public forests and rangelands, including the devolution of management responsibility to local communities; the control of the effects of erosion, such as landslides and gullies, which were causing major agricultural and property damage; and the management of streams through small-scale, community-based civil works. Participatory implementation also involved the progressive testing and validation of organizational and technical solutions to problems identified through participatory planning. This problem-solving process would not have

been possible without a steady flow of information allowing stakeholders to monitor implementation, evaluate its progress and outcomes, and plan a new implementation cycle based on evaluation findings. To this end, all NFTs developed some form of participatory monitoring, evaluation and replanning (PME) at the community level.

Towards the end of its second phase, the PUCD project increasingly focused its efforts on institutionalizing the experience gained at the local and the national level. To this end, the promotion of ownership by local communities and institutions, and the creation of an enabling policy environment, became the main goal of the project's implementation strategy. This process, which is still in progress, included: building local stakeholders' capacity to autonomously conduct the cycle of iterative planning, implementation, monitoring, evaluation and replanning at the community level; creating among local institutions a group of professionals and field workers sensitized to the participatory and integrated watershed management approach; establishing or strengthening forums for negotiation and decision-making involving all watershed stakeholders (grassroots organizations, local governments, line agencies, NGOs, international projects, the private sector, etc.); and promoting the incorporation of methodological elements validated by the project into national or regional (sub-national) policies on natural resource management and sustainable development.

The review of the methodological itinerary above described allowed a number of lessons learned to be extracted from the project's experience. (A comprehensive list of lessons learned by the PUCD project is presented in the Appendix.) It also led to a new perspective on the practices of participation, integration and watershed management (on which project implementation was based).

- The PUCD experience showed that participatory processes for sustainable development and natural resource management should not exclusively focus on rural communities and grassroots organizations; rather, all local social actors and institutions (including, the local government, line agencies, NGOs, the private sector, etc.) should be involved in a power-sharing scheme, based on negotiations and conflict management. Given the complexity of these processes, no single approach or method can be said to be the most appropriate one. Rather, a variety of approaches and methods are to be pragmatically used and adjusted according to specific circumstances.
- Integrated development usually means collaboration among different sectors (agriculture, natural resource conservation, health, education, etc.). Though intersectoral collaboration has not been neglected, in the PUCD project, integration has entailed an attempt to incorporate development and conservation goals into a comprehensive sustainable development strategy. This approach has led the project to promote an

open-ended search for a socially acceptable and environmentally sound trade-off between short-term actions (aimed at improving people's livelihoods and social welfare) and long-term actions (aimed at protecting the resource base from overexploitation). This has involved abandoning both the vision of social development as a process independent from environmental concerns and the concept of conservation as a goal abstracted from people's economic, social and political conditions. In fact, the project addressed natural resources as a social capital, which should be used to produce immediate benefits for the people and, at the same time, kept as whole and diversified as possible to allow future generations to enjoy the same, or even increased, benefits.

- Finally, field experience has led the project to address watersheds more as geopolitical territories (defined on the basis of their governance and social dimensions) than as hydrological units (as in conventional watershed management initiatives). This shift from an 'hydraulic' to a 'territorial' approach required that the scope of watershed management be redefined. In fact, project experience suggested that watershed systems cannot be analyzed or managed only through the methods and tools of natural sciences, which in the past have inspired engineering-led watershed conservation policies). Rather, a political ecology approach is needed to holistically tackle the environmental and social dimensions of sustainable development.

BOX 1: The current situation of upland areas and the Mountain Agenda

Throughout the world, mountains and uplands are an important source of water, energy and biological diversity. They are a source of key resources such as minerals, timber and fuelwood and contribute to food security by providing important agricultural products. Furthermore, they host approximately 10 percent of the world's rural population and have an economic, recreational or religious significance for millions of people living in lowland regions.

In spite of their environmental, economic and socio-cultural importance, most mountain and upland areas have been excluded from the mainstream of development over the last 50 years. At the same time, their natural resource base has been depleted. Poverty and environmental degradation are now widespread in upland rural communities, especially in developing countries.

Some of the most important factors contributing to this situation include:

- the fragility of upland ecosystems
- population growth
- a shortage of arable land and low agricultural yields
- disadvantaged market conditions
- limited job opportunities

- a lack of infrastructure and services
- a lack of political influence
- top-down conservation policies

These factors highlight the vicious cycle in which mountain communities are currently trapped: the lack of opportunities for social development leads to the unsustainable exploitation of natural resources, which leads to top-down interventions, which in turn lead to the further misuse of resources (resources that could be instrumental in promoting environmentally sound development initiatives).

Based on these considerations, most experts currently believe that the sustainable improvement of the situation in upland areas can only result from a participatory and integrated approach to watershed management, combining actions that enhance living conditions and protect the environment. In 1992, Chapter 13 of UNCED's Agenda 21, which addresses the issue of sustainable mountain development, advocated the implementation of programmes based on such an approach (United Nations, 1992). Since then, FAD, other United Nations agencies and several international NGOs participating in the initiative known as the "Mountain Agenda" have also promoted participatory and integrated watershed management.

Notes to readers

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