

## **FAO's Work on Sustainable Mountain Development and Watershed Management**

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# FAO's Work on Sustainable Mountain Development and Watershed Management



With its mandate to work on natural resource management, food security, and livelihoods and its attention to the social, economic, and environmental dimensions of sustainable development, the Food and Agriculture Organization of the United Nations (FAO) has played a leading role in sustainable mountain development for many years. In 1992, FAO was appointed task manager for Chapter 13 of Agenda 21 entitled Managing Fragile Ecosystems: Sustainable Mountain Development (UNCED 1992) and acted as the lead agency for the International Year of Mountains in 2002. FAO is a member of the Mountain Partnership and hosts its Secretariat. From 2003 onward, FAO has also been mandated by the United Nations General Assembly to lead the annual observance of International Mountain Day on 11 December. Every two years, FAO prepares the Secretary General's Report to the United Nations General Assembly, in which it describes the status of sustainable mountain development at the national and international levels and provides suggestions for consideration by the Assembly. This statement reviews the latest actions in FAO's program on sustainable mountain development, watershed management, and forest hydrology, which includes normative work, a strong field program, and support for international processes. In addition, it summarizes the latest achievements of the Mountain Partnership.

## Normative work

In close collaboration with its member countries, the Food and Agriculture Organization of the United Nations' (FAO's) mountain program contributes to the advancement of concepts and approaches related to forest

### BOX 1 FAO's new strategic framework

A new strategic framework guides FAO's multidisciplinary work on forestry, agriculture, and fisheries, including technical cooperation projects at the national and regional levels.

FAO's work on mountains contributes to the achievement of all five of its strategic objectives: (1) contribute to the eradication of hunger, food insecurity, and malnutrition, (2) increase and improve provision of goods and services from agriculture, forestry, and fisheries in a sustainable manner, (3) reduce rural poverty, (4) enable more inclusive and efficient agricultural and food systems at local, national, and international levels, and (5) increase the resilience of livelihoods to threats and crises.

hydrology, watershed management, and sustainable mountain development. This work is guided by FAO's new strategic framework (Box 1). In particular, FAO acts as an international forum for different actors and sectors. Experiences, findings, and recommendations resulting from this consultative and analytical process are tested and validated at the national policy and field levels, thus promoting continuous sharing of information. The results are disseminated in the form of policy briefs, technical manuals for field practitioners, and papers presenting the state of the art on different issues. Training materials are made available to users ranging from policy-makers to local communities.

The publication *Forests and Water: International Momentum and Action* (FAO 2013) is an example of global analysis as it synthesizes the main forest- and water-related international events organized by FAO and other institutions between 2008 and 2011. It proposes a 20-point agenda for implementing the recommendations resulting from these meetings.

In addition, FAO conducted beneficiary impact assessments of recently concluded watershed management projects in Pakistan and Tajikistan in 2012 and 2013 to assess the strengths and weaknesses of the methodologies applied. The assessments analyzed the socioeconomic and environmental impacts as well as the improved capacity at local, provincial, and national levels. The findings will also serve as a basis for the formulation, implementation, and monitoring of future initiatives to develop watershed management capacity.

FAO is currently preparing a capacity development program in Central Asia and the Caucasus to collect successful watershed management experiences in the region and compare them with similar activities implemented elsewhere. This effort will lead to a critical review and harmonization of watershed management understanding and implementation, based on FAO's new approach to watershed management (Box 2).

## Field program

FAO's field program helps countries to tackle mountain issues through capacity development and institutional strengthening. Field projects are implemented within the framework of the FAO Technical

## BOX 2 FAO's new generation of watershed management approaches

*FAO's new programs and projects are guided by the following principles:*

- *Local actors are involved throughout a project—from negotiation to implementation, monitoring, and evaluation.*
- *Multistakeholder collaboration is encouraged to channel social, technical, and policy concerns into a pluralist learning and decision-making process.*
- *Relatively informal local institutions are responsible for implementation, while a more subsidiary, facilitating role is assigned to formal institutions.*
- *Both the duration and the geographical coverage of a program are considered crucial to its success. The minimum timespan is identified as 10 years, and the ideal area extends beyond the watershed itself to the downstream ecosystem to which it is linked.*
- *Monitoring and evaluation mechanisms focus more on ecosystem changes than on managerial performance, to better reflect the improvements in socioeconomic conditions resulting from better natural resource management.*

Cooperation Programme (TCP) or are funded through other financial mechanisms such as trust funds and the Global Environment Facility (GEF).

The FAO/GEF project Sustainable Management of Mountain Forests and Land Resources of the Kyrgyz Republic under Climate Change Conditions, launched in March 2013, introduces innovative practices and strengthens coordination and capacities for the rehabilitation and sustainable management of forests and agricultural lands in mountain ecosystems.

In the Andes, six governments—Argentina, Bolivia, Chile, Colombia, Ecuador, and Peru—are working together on a TCP, funded by FAO and implemented with support from the Mountain Partnership Secretariat (MPS), which seeks to improve the participatory management of natural resources by strengthening national institutions and increasing political attention, training, and knowledge about mountain ecosystems. The TCP supports existing National Mountain Committees (comprising government bodies and nongovernmental organizations working on sustainable mountain development in each country) and promotes their establishment in countries where they do not yet exist.

In the Cordillera Occidental range of the Andes, the GEF-funded Chimborazo Natural Resources Management Project is now being fully implemented by the Chimborazo Provincial Council, FAO, and other national partners. The project aims to reestablish and sustainably use agro-biodiversity in the *páramo* ecosystems and to improve food security for the local indigenous population by applying new watershed management approaches. Among the project achievements so far are the formulation of watershed management plans in three of the five subwatersheds, the establishment of a visitor center at 4350 masl in the Chimborazo Fauna Reserve, and capacity development of project partners.

In Guatemala, the United Nations Development Programme, FAO, Pan-American Health Organization, and national ministerial counterparts have since 2010 jointly implemented the project Vulnerability Reduction to Contribute to Rural Development in the Municipalities of Coatán and Upper Suchiate Watersheds in the Department of San Marcos. The project is funded by the Swedish Embassy in Guatemala and focuses on microwatershed planning.

In West Africa, FAO and the United Nations Environment Programme (UNEP) are jointly implementing the GEF-funded Fouta Djallon Highlands Integrated Natural Resources Management Project in The Gambia, Guinea (Figure 1), Guinea-Bissau, Mali, Mauritania, Niger, Senegal, and Sierra Leone. The project is experiencing a critical moment in the transition from the first to second phase, which is expected to start in 2014 and focus on consolidating achievements as well as fostering country ownership and investment.

In Mauritania, Morocco, and Ecuador from June 2010 to May 2013, FAO implemented a Spanish-funded project for alleviating poverty and combating desertification through collaborative watershed management. Field implementation, capacity building, and institutional development were the main components of this successful interregional initiative. In close collaboration with all project partners, FAO is currently preparing for a second project phase, which aims to start in mid-2014.

## International processes

The international processes supported by FAO to address forest and water linkages and their implications for watershed management, sustainable mountain development, mitigation and adaptation to climate change, and disaster risk management have gained momentum over the past few years. In particular, the 2012 United Nations Conference on Sustainable Development (Rio+20) was an important opportunity for sustainable mountain development to feature prominently on the global agenda. Three paragraphs on mountains were included in the outcome document of the conference, *The Future We Want* (United Nations General Assembly 2012: paragraphs 210–212). FAO, together with the UNEP and

**FIGURE 1** Group discussion during the Fouta Djallon project in Guinea. (Photo by Thomas Hofer)



UNESCO (the United Nations Educational, Scientific and Cultural Organization), is mandated to support implementation of paragraph 211, which invites states to strengthen cooperative action with effective involvement and sharing of experience by all relevant stakeholders, by strengthening existing arrangements, agreements, and centers of excellence for sustainable mountain development, as well as by exploring new arrangements and agreements as appropriate.

FAO also enhances cooperation on mountain development by contributing to global mechanisms, conventions, processes, and initiatives that increase knowledge and conserve mountain ecosystems, such as the Mountain Research Initiative, the International

Consortium on Landslides, and the Global Mountain Biodiversity Assessment Programme.

FAO hosts the Secretariat for the Working Party on the Management of Mountain Watersheds of the European Forestry Commission. In its biannual meeting, this working party brings together member countries to exchange knowledge on water policies and watershed and risk management practices and to follow up on progress made. Forest hydrology and disaster risk management in mountains will be important work priorities of this technical body in the coming years.

### **The Mountain Partnership**

The Mountain Partnership (MP) is a voluntary global alliance of countries and organizations committed to

improving the lives of mountain people and protecting mountain environments. Launched at the World Summit for Sustainable Development in 2002, the MP taps the resources, knowledge, and expertise of its members to support positive change in mountain areas. As of November 2013, the MP membership comprised 53 governments, 13 intergovernmental agencies, and 156 major groups. Its Secretariat is financed by the Italian Ministry of Foreign Affairs, the Swiss Agency for Development and Cooperation, and FAO, which also hosts the Secretariat. The World Bank funds activities related to mountains and climate change.

The MP's activities at the international level include raising awareness of sustainable mountain development at high-level events and

**FIGURE 2** Group photo from the Fourth Global Meeting of the Mountain Partnership in Erzurum, Turkey. (Photo courtesy of the Mountain Partnership)



working toward the inclusion of mountain issues in the main international processes, negotiated texts, declarations, and outcome documents. MP members organize side events at major United Nations events and conventions and contribute to the preparation of the United Nations Secretary-General's biennial report to the General Assembly on mountains. They also promote advocacy and awareness-raising activities at the regional and national levels, for example, by supporting the work of National Mountain Committees.

Among the initiatives promoted to benefit the members of the MP is the International Programme on Research and Training on Sustainable Management of Mountain Areas, designed in 2008 by the MPS and the University of Turin, Italy. The target audience includes technicians, planners, and decision-makers from mountain regions worldwide, in particular developing countries. Every year, a two-week

course is organized on issues related to mountain development. These have included mountain biodiversity in 2010, disaster risk management in 2011, climate change in 2012, and watershed management in 2013.

Communication activities include producing publications and multimedia content on sustainable mountain development, taking an active role in the celebration of International Mountain Day, and sharing mountain news and events via the MP website, Facebook page, and monthly newsletter *Peak to Peak*. In particular, as a contribution to the 2014 International Year of Family Farming, the MPS—in collaboration with the FAO, Austrian Development Cooperation, International Centre for Integrated Mountain Development, Swiss Agency for Development and Cooperation, Centre for Development and Environment of the University of Bern, and Centre for Development Research of the University of Natural Resources and Life Sciences in

Austria—has issued the publication *Mountain Farming Is Family Farming* (Wymann von Dach et al 2013) to shed light on the merits and challenges of family farming in mountain areas.

Since 2011 the MPS has received a grant from the Development Grant Facility of the World Bank to support the Strategic Initiative on Climate Change Impacts, Adaptation and Development in Mountain Regions. The objective of the initiative is to enhance awareness-raising about climate change impacts in mountain regions and strengthen cross-regional and cross-thematic cooperation in order to mobilize international support and resources to promote climate change adaptation in mountain ecosystems. Activities have included regional meetings in Central Asia, Latin America, Africa, and the MENA (Middle East and North Africa) region on climate change; Mountain Day 1 in 2011 and Mountain Day 2 in 2012 on the sidelines of the sessions of the Conference of the Parties to the

United Nations Framework Convention on Climate Change (UNFCCC); and a special session at the Global Landscapes Forum in 2013.

In September 2013, more than 100 members gathered in Erzurum, Turkey, for the MP's Fourth Global Meeting (Figure 2). Participants representing governments, intergovernmental organizations, civil society organizations, and academic institutions approved a four-year strategy and governance plan, developed a two-year work plan, and elected a 16-member steering committee. The strategy, which will be implemented from 2014 to 2017 by governments and civil society groups that belong to the MP, is expected to step up sustainable mountain development across the world.

The program of the Erzurum meeting included plenary sessions on topics such as inclusion of mountains in the Post-2015 Development Agenda, regional coordination mechanisms for sustainable mountain development, and a knowledge platform for sustainable mountain development. On the third day, governments and organizations were selected to serve on the steering committee, and the assembly agreed on the Erzurum Conclusions. The Conclusions affirmed members' commitment to the MP and their willingness to work together to fulfill its vision to conserve mountain environments and improve the livelihoods of mountain people while also empowering them. In an effort to maintain the Partnership's forward-looking, inclusive, participatory, and dynamic character, the participants expressed their intent to continue promoting sustainable mountain development.

## Outlook

FAO is experiencing an increase in the number of requests for technical assistance and policy advice related to sustainable mountain development, watershed management, and forest hydrology. This demonstrates the growing concern about mountain issues in both public and private sectors. Over the next few months, FAO and the MPS, in close collaboration with other MP members, will be actively engaged in promoting activities by mountain countries to raise political attention to mountains and advocate for their inclusion in the Sustainable Development Goals, which will take effect in 2015 when the Millennium Development Goals expire.

## Links

Further information on FAO's multidisciplinary focus on sustainable mountain development is available on the following websites: [www.mountainpartnership.org/about/en/](http://www.mountainpartnership.org/about/en/)  
[www.fao.org/forestry/internationalmountainday/en/](http://www.fao.org/forestry/internationalmountainday/en/)  
[www.fao.org/forestry/watershedmanagementandmountains/en/](http://www.fao.org/forestry/watershedmanagementandmountains/en/)

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