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MountainPlatform

FAO Assists in Enhancing the Resilience of Mountain Communities and Environments

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The Food and Agriculture Organization of the United Nations (FAO) has played a leading role in sustainable mountain development within the United Nations system. It was appointed task manager for Chapter 13 of Agenda 21 in 1992 and acted as the lead agency for the International Year of Mountains in 2002. Since 2003, FAO has been mandated by the United Nations General Assembly to lead the annual observance of the International Mountain Day on 11 December.

Both the Secretariats of the Mountain Partnership and the European Forestry Commission Working Party on the Management of Mountain Watersheds are hosted by FAO in Rome, Italy, by the Water and Mountains Team in the Forestry Department. The aim of the Water and Mountains Team in FAO's Forestry Department is to assist in enhancing the resilience of mountain communities and environments. Its expertise lies in resilient watershed management, sustainable mountain development, and forest and water. The team advocates support for mountain environments by calling for targeted investments and mountain-related policies, and by collaborating with local communities to develop their capacity for sustainable development.

Advocacy and outreach for mountain communities and environments

The Mountain Partnership

The Mountain Partnership (MP) is a United Nations voluntary alliance of partners dedicated to improving the lives of mountain peoples and protecting mountain environments. The team promotes sustainable mountain development through advocacy, capacity development, communication, and facilitating collaboration among members. Since it was founded in 2002, the MP has steadily grown; in February 2020, it had 391 members, including governments, intergovernmental organizations, and civil society. The MP Secretariat (MPS) is financially supported by Italy, Switzerland, Andorra, and FAO.

The MPS promotes the prioritization of mountains on member countries' national agendas. During the MP Global Meeting 2017, members committed to the Framework for Action for implementing the 2030 Agenda for Mountains to review and update their policies, aiming to include strategies for sustainable mountain development and raise awareness of its importance. The MPS is taking regional actions to support this decision in Asia and Latin America. At the same meeting, the MP and the Global Island Partnership launched the Coalition for Fragile Ecosystems in an effort to increase visibility, political attention, and resources for islands and mountains. In May 2019, FAO and the MP prepared the United Nations Secretary General Report on Sustainable Mountain Development. The MP is reinforcing efforts to reach beyond MP members.

The European Forestry Commission Working Party

The European Forestry Commission Working Party on the Management of Mountain Watersheds (WPMMW) is a technical body that aims to translate science into policy. It tackles challenges faced in mountain watersheds related to issues of soil and biodiversity conservation, water resource management, protective forest management, torrent control, flood mitigation, avalanche and landslide management, disaster risk management, and restoration of degraded lands. The last Working Party Session, held in Innsbruck, Austria, in September 2019, looked at the Protective Functions of Forests in a Changing Climate.

Increasing resilience and improving livelihoods in mountains

Resilient watershed management is an integrated landscape approach encompassing people's livelihoods and their interactions with their environment. FAO has been implementing several projects that aim to integrate risk management into integrated watershed management.

The Switzerland–FAO–Morocco cooperation project entitled "Participatory and Integrated Watershed Management", which started in 2015 and was completed in September 2019, applied integrated land management approaches in a mountainous region of Morocco and built effective institutional collaboration across numerous sectors. At the provincial level, it established an agreement on joint

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FIGURE 1 Medicinal plants: part of the Morocco Participatory and Integrated Watershed Management project's alternative livelihoods initiative. (Photo by Yuka Makino)



management plans; at the community level, it linked local cooperatives to services, suppliers, and other agents to support their income generation (Figure 1). The project has also mainstreamed risk management into integrated watershed management from risk assessment, planning, design, and implementation.

The project "Management of Chimborazo's Natural Resources" in Ecuador, ran from October 2011 to May 2018 and was co-funded by the Global Environment Facility, project partners, and their national counterparts. The aim of the project was to sustainably manage the resources of the mountain ecosystems and improve local livelihoods. Through information sharing, workshops on livelihoods improvement, and the installation of a monitoring system for conservation targets involving participatory management, the project raised awareness about the conservation of water resources. The project also adopted a new management plan for the Chimborazo Fauna Production Reserve and achieved the approval of regulations and resolutions dedicated to the conservation of *páramo* and biodiversity (Figure 2).

Developed in collaboration with Slow Food International, the Mountain Partnership Products (MPP) initiative promotes sustainable food systems, agrobiodiversity conservation and strengthening of value chains in mountain regions. Some 10,000 farmers in 7 countries, of whom 6000 are women, have so far benefited from the MPP initiative. The initiative, which is promoting 17 products, has in some cases led to a 40 percent increase in the production of mountain products and a 25 percent increase in the selling price. The MPP initiative is expanding to include ecotourism services, and partnering with EcorNaturaSì to boost marketing and distribution channels and with IFOAM-Organics International to develop a global network for Mountain Participatory Guarantee Systems.

Data collection and capacity development for advancing the 2030 Agenda

The Mountain Green Cover Index

Sustainable Development Goal 15 Target 4 is the only target dedicated entirely to mountains. FAO/MPS is the custodian agency of SDG indicator 15.4.2—the Mountain Green Cover Index (MGCI). The MGCI monitors how mountain ecosystems evolve and assesses their health and state of conservation. A global baseline was built in 2017 and the next data collection is planned for 2020. So far, 2 workshops have been organized by FAO for national statistical offices, and direct assistance to countries is also regularly provided.

IPROMO

The International Programme on Research and Training on Sustainable Management of Mountain Areas (IPROMO), organized by the MPS, has trained over 350 midlevel government officials and employees of nongovernmental organizations from all over the world on the key challenges and opportunities for sustainable mountain development

FIGURE 2 Local stakeholders involved in sustainable management of mountain ecosystems in Ecuador. (Photo by Johanna Flores)



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FIGURE 3 A group of IPROMO trainees. (Photo by Sunder Subramanian)



(Figure 3). The 2019 course was dedicated to the landscape approach for enhancing mountain resilience.

Resilient Watershed Management Handbook

Developing a resilient watershed management plan entails addressing the complex and interrelated problems that mountain communities face in managing their resource base in the context of unforeseen changes like natural hazards and climate change. The *Resilient Watershed Management Handbook*, which will be available by the end of 2020, is an online tool designed to provide guidance for developing and implementing a resilient watershed management plan. The handbook will offer policy and technical implementation guidance based on the principles of landscape and risk-based natural resource management. These approaches are more robust compared to traditional methods, as they take into account a wide variety of stakeholders, possible hazards, and different temporal and spatial scales.

The Forest & Landscape Water-based Ecosystem Services Tool

Forests can contribute to solutions when addressing water security by strategically managing them within the landscape for water resources (FAO 2018). The Forest & Landscape Water-based Ecosystem Services (FL-WES) Tool enables monitoring for forest–water relationships, including environmental, economic, and social indicators. FL-WES is designed so that it may be applied at different management scales anywhere in the world. The framework upon which the tool is based was tested in Ethiopia and India with indicators adopted by forest and landscape restoration projects. This tool will increase knowledge of forest–water interactions and promote and improve science-based decision making in forest and water resource management.

Outlook

The FAO Water and Mountains Team will continue to support sustainable development in mountain regions through advocacy for mountain issues, development of tools, mountain-specific knowledge products, and promotion of country-specific activities and investments. The MPS will continue fostering members' engagement, strengthening knowledge and skills, expanding its resource base, and promoting campaigns for a wide engagement about why mountains matter.

FURTHER READING

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