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# The International Year of Sustainable Mountain Development 2022: an opportunity to promote action for mountains

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## KEYWORDS

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## Introduction

On 16 December 2021, the United Nations (UN) General Assembly proclaimed 2022 as the International Year of Sustainable Mountain Development (IYM2022) at the proposal of the Kyrgyz Government [[United Nations \(UN\), 2021](#)].

The UN General Assembly resolution on the IYM2022 was sponsored by 94 governments and invited the Mountain Partnership (MP), in collaboration with all relevant organizations, to facilitate the observance of the Year [[United Nations General Assembly \(UNGA\), 2021](#)].

Founded in 2002, the MP is the UN alliance dedicated to mountains and mountain people. Through the exchange of experience, knowledge and expertise among its members (counting 60 governments, 11 subnational authorities, 18 intergovernmental organizations, 362 major groups as of 26 April 2022), the MP addresses challenges facing mountain regions at the global level. Its main role is to facilitate dialogue on priority issues faced by mountain peoples and environments. The pillars of work of the alliance are advocacy, capacity development, communications and knowledge management as well as joint projects among members.

The MP is supported by a Secretariat that is hosted at the Food and Agriculture Organization of the United Nations (FAO) and supported by the Governments of Andorra, Italy and Switzerland.

The IYM2022 represents a unique chance to raise awareness on the role of mountains and mountain people for the planet and sustainable development as well as for achieving the Sustainable Development Goals (SDGs) [[United Nations General Assembly \(UNGA\), 2015](#)]. It is an opportunity to catalyse action and investments to build the resilience of vulnerable mountain communities and ecosystems in the spirit of the 2030 Agenda for Sustainable Development to leave no one behind [[United Nations General Assembly \(UNGA\), 2015](#)]. It also marks the twentieth anniversary since the first International Year of Mountains in 2002 [[United Nations General Assembly \(UNGA\), 1998](#)] as well as the twentieth anniversary of the MP.

The following opinion article outlines the major mountain milestones that have been achieved since mountains first became recognized for their global importance, highlights why mountains and sustainable mountain food systems are relevant today for all people and the planet, and provides a roadmap for how the IYM2022 can be an opportunity to promote action for mountains.

## Milestones in the global mountain agenda

The global mountain agenda dates back to the UN Conference on Environment and Development (or the “Earth Summit”), which was held in Rio de Janeiro, Brazil in 1992. At the Earth Summit, an entire chapter of the adopted plan of action “Agenda 21” was dedicated to mountains: “Chapter 13: Managing Fragile Ecosystems: Sustainable Mountain Development” (United Nations Conference on Environment and Development, 1992).

Agenda 21 represented the most comprehensive plan of action for governments, major groups and organizations of the UN to address the impacts of human activities on the environment developed until then. Chapter 13 included key objectives for sustainable mountain development, such as raising awareness of the importance of mountains at global, regional and local levels; protecting mountain natural resource; enhancing the livelihoods of local communities and indigenous people; and promoting international cooperation on mountains, among other [Makino et al., 2019b].

Another milestone for mountains was the proclamation of the International Year of Mountains 2002. Its main outcome was the launching of the International Partnership for Sustainable Development of Mountain Regions [United Nations General Assembly (UNGA), 2002], commonly referred to today as the Mountain Partnership. As the task manager for of Agenda 21’s chapter 13 and the lead UN agency to coordinate observance of the International Year of Mountains 2002, FAO was designated as the host organization for the Mountain Partnership Secretariat.

At the regional level, the Alpine Convention, an international treaty to address transboundary cooperation in the Alps, was signed in 1991 and entered into effect in 1995 (Alpine Convention). The Carpathian Convention was adopted and signed by the seven member countries (Czech Republic, Hungary, Poland, Romania, Serbia, Slovak Republic and Ukraine) in May 2003. It entered into force in January 2006. The Carpathian Convention is the only multi-level governance mechanism for the entire Carpathian area. It “provides a framework for cooperation and multi-sectoral policy coordination, a platform for joint strategies for sustainable development, and a forum for dialogue between all stakeholders involved,” (Climate-ADAPT, 2016).

Also during the 1990s, an agreement was signed between France and Spain to foster regional transborder cooperation [United Nations (UN), 2001]. The agreement provided the basis for the creation of the Community of Work of the Pyrenees, the mountain range that constitutes the natural border between France and Spain. Today, the Consortium for the Community of Work of the Pyrenees involves the bordering regions of France (Nouvelle Aquitaine and Occitanie), Spain (Aragon, Catalunya, Euskadi and Navarra) and the Principality of Andorra. Together they work for the sustainable development of the mountain territories of the Pyrenees, to promote exchanges between the territories and stakeholders, and to find solutions to their common problems and challenges, acting strategically and structurally for the development of the region.

In 2004, more than ten years following the adoption of Agenda 21, the UN Convention on Biological Diversity (CBD) adopted a Programme of Work on Mountain Biological Diversity with the overall purpose to significantly reduce the loss of mountain biological diversity loss by 2010 at global, regional and national levels. The CBD decision emphasized the importance of mountain biodiversity for livelihoods, and recognized “the value of traditional and sustainable land use practices of indigenous and local communities in preserving mountain biodiversity,” [Convention on Biological Diversity (CBD), 2004].

Largely as a result of MP members’ active collaboration and engagement in the run-up to, and during negotiations for the third International Conference on Sustainable Development (Rio+20), three paragraphs on mountains were included in the outcome document “The Future We Want” (United Nations Conference on Sustainable Development, 2012).

The 2030 Agenda for Sustainable Development adopted in 2015 also included three mountain-related targets under two of the 17 SDGs, thus recognizing the importance of pursuing sustainable mountain development for a more sustainable future [United Nations General Assembly (UNGA), 2015].

In 2017, members of the MP launched a Framework for Action [Mountain Partnership Secretariat (MPS), 2017a] to ensure that sustainable mountain development would be accounted for in the implementation of the 2030 Agenda for Sustainable Development and the Paris Agreement. The Framework for Action calls upon governments and major groups “to support concrete actions, put in place long-lasting processes, and establish policies to strengthen the resilience of mountain peoples and environments,” [Mountain Partnership Secretariat (MPS), 2017b].

Most recently, at the end of 2021, the UN General Assembly declared 2022 as the International Year of Sustainable Mountain Development. The resolution notes that “despite the progress made in promoting the sustainable development of mountain regions and the conservation of mountain ecosystems, including their biodiversity, the prevalence of poverty, food insecurity, social exclusion, environmental degradation and exposure to

the risk of disasters is still increasing, particularly in developing countries, and access to safe and affordable drinking water and basic sanitation as well as to sustainable modern energy services continues to be limited,” [United Nations General Assembly (UNGA), 2021].

## Why mountains matter

Mountains are home to 1.1 billion people or 15 percent of the global population (Romeo et al., 2020), but more than half of humanity relies on mountain freshwater for everyday life (FAO, 2019), hence mountains are often referred to as the “water towers of the world.”

While the relevance of mountains for the sustainable development agenda is being increasingly recognized, efforts are still needed to eradicate the chronic poverty and hunger of mountain peoples and to protect fragile mountain ecosystems and, in particular, their water-related functions.

A 2020 study by FAO, the Mountain Partnership Secretariat and the UN Convention to Combat Desertification found that in rural mountain regions of developing countries, food insecurity is still prevalent. The study demonstrates that between 2000 and 2017, the share of rural mountain people vulnerable to food insecurity in developing countries constantly increased (Romeo et al., 2020).

The COVID-19 pandemic has further compounded the vulnerabilities of mountain people, who were already affected by conflicts, climate and other global changes.

Building more sustainable food systems in mountains is key to increase mountain people’s food security and resilience to climate change as well as to protect vital ecosystem services.

Mountain communities’ livelihoods are rooted in mountain agriculture. In mountain regions, where largely harsh weather and limiting topographical conditions prevail, small-scale farmers and pastoralists are predominant [Mountain Partnership Secretariat (MPS), 2021b]. Many mountain producers are conserving mountain agrobiodiversity through the cultivation and production of high quality mountain products (coffee, teas, spices, pulses and ancient grains) and sustainable pastoral systems, but they need training and support in making their value chains more efficient and equitable to improve livelihoods.

According to the information sheet developed by the Mountain Partnership Secretariat, together with the Centre for Development and Environment for the 2021 UN Food Systems Summit, there is a need to improve the situation of small-scale mountain farmers worldwide to achieve progress toward sustainable food systems:

“Over centuries, mountain people have developed agricultural techniques to cultivate the land for food production and have designed mechanisms to govern

their commons while preserving the natural resources surrounding them. As a result, inhabited mountain areas are often characterized by agricultural terraces or alpine pastures [that are] rich in biodiversity, agrobiodiversity and biocultural diversity, owing to the fast-changing terrain and climate conditions,” [Mountain Partnership Secretariat (MPS), 2021b].

“The diversity of agricultural varieties and wild crop relatives and animal breeds in mountain farming systems are the basis for ensuring diversified and affordable healthy diets for mountain people. In addition, mountains represent an important repository of agrobiodiversity that might be key to the future of world food security in the face of climate change by providing a gene pool of resilient crops,” [Mountain Partnership Secretariat (MPS), 2021b].

“Mountain agricultural systems provide important ecosystem functions” [Mountain Partnership Secretariat (MPS), 2021b] such as the protection and retention of slopes, which also contribute to the provision of freshwater for downstream populations. Such global benefits are often not fully understood and valued.

Participants of the independent dialogue organized by the MP within the framework of the Food Systems Summit furthermore identified ways to make food systems in mountain areas globally safer, stronger and more equitable. Their suggestions included to protect traditional and indigenous food systems, include the impacts of climate change on mountains in policy, address land rights and tenure issues through policy and advocacy by bringing everyone to the table, and promote specialized mountain products to build resilience [Mountain Partnership Secretariat (MPS), 2021a].

The practice of agroecology in mountains and the conservation of agrobiodiversity can also result in more resilient agricultural and food systems. In 2021, the Mountain Partnership Secretariat launched the report *Mountain farming systems—Seeds for the futures*. The publication highlights experiences of agroecological mountain farming systems, aiming to showcase their potential for driving progress toward reducing rural poverty, contributing to zero hunger and ensuring the resilience of mountain communities while maintaining the provision of global ecosystem services, especially those related to water (Romeo et al., 2021).

## How to build on the International Year of Sustainable Mountain Development

With 8 years to go to the expiration of the 2030 Agenda for Sustainable Development, there is an urgency to overcome the challenges faced by mountains by joining

forces with all stakeholders, fostering partnerships and spurring sustainable growth.

The marginalization of mountain people—from political processes, from decent access to employment, training, education and infrastructure including digitalization—hinders their full participation and empowerment.

There is a need to amplify both indigenous knowledge and the findings of scientific research. For example, the recently published Intergovernmental Panel on Climate Change's Cross-Chapter Paper on Mountains builds evidence of the plight of mountain people that can be used to inform policy-making and investments (Adler et al., 2022). To improve the science-policy dialogue, within the framework of the IYM2022, the Mountain Partnership Secretariat launched an Open-ended Scientific Committee that will produce scientifically sound messages to mobilize attention and resources through the development of a series of policy briefs [Mountain Partnership Secretariat (MPS), 2022a].

Multilateral cooperation needs to be strengthened, including through the implementation of commitments under multilateral environmental agreements and other intergovernmentally agreed commitments and goals. These should include the UN Framework Convention on Climate Change, the Post-2020 Global Biodiversity Framework, the UN Convention to Combat Desertification, the High-level Political Forum on Sustainable Development and the UN Food Systems Summit processes.

At regional and local level, capacity development and training are crucial for building expertise and sharing knowledge about mountain regions in different areas across the world. Since 2008, the Mountain Partnership Secretariat has organized the annual summer training programme "IPROMO." The two-week course provides an opportunity to learn and discuss the key challenges and opportunities for mountain sustainable development. Topics range from the management of watersheds, natural resources and soils, to disaster risk reduction, economic development, climate change, forestry, governance and communication. The main partners of the course are the University of Turin and the University of Tuscia, Italy, with the high patronage of the Italian Ministry of Foreign Affairs.

The summer school "GROW—Agrobiodiversity in a changing climate," also organized by the Mountain Partnership Secretariat in collaboration with the Sapienza University of Rome and Bioversity International, focuses on the importance of biodiversity in agriculture. It aims to give participants the knowledge and tools necessary to improve the resilience and adaptability of cropping and farming systems—particularly in fragile ecosystems such as mountains—to climate change, while enhancing productivity and marketing strategies.

Traditional and Indigenous agricultural knowledge and practices, including knowledge on local breeds and plant

varieties, are essential sources for a sustainable management of mountain commons [Mountain Partnership Secretariat (MPS), 2022b].

Furthermore, diversifying livelihoods and investments in sectors such as education, energy production and security for households or touristic and other infrastructure can strengthen the resilience of mountain food systems and help strengthen food security [Mountain Partnership Secretariat (MPS), 2021b].

Finally, including relevant mountain actors and encouraging their active participation in decision-making processes is key. Women and youth in particular should be considered and encouraged, as they tend to be disadvantaged in mountains and face inherent inequalities in terms of higher agricultural workloads, fewer land rights and less participation in decision-making [Mountain Partnership Secretariat (MPS), 2021b]. Yet women are vital to environmental action in mountain ecosystems as they contribute to resource management, biodiversity conservation, water and food security (Aijazi et al., 2021).

## Conclusion

This International Year marks the 20th anniversary since the proclamation by the United Nations General Assembly of the International Year of Mountains 2002 as well as the 20th anniversary of the Mountain Partnership. It is an opportunity to build on the multistakeholder network of the Mountain Partnership, on global and regional collaboration, research, and sharing of information and experiences to raise awareness of mountain ecosystems' relevance to our everyday lives and the risks they face.

Building this awareness is essential to ensuring that investments and policies are directed toward increasing the resilience of mountain people and protecting mountain ecosystems (Makino et al., 2019a).

The issue of mountain people and ecosystems being left behind and not receiving the adequate attention and investments needed to respond to their most pressing challenges affects the entire world—from those living on the highest peaks to the deepest valleys—because mountains matter for us all.

## Further reading:

Mountain Partnership.

International Year of Sustainable Mountain Development.  
IPROMO.

GROW—Agrobiodiversity in a changing climate.

## Author contributions

RR is the lead author of this article. Mountain Partnership Secretariat Advocacy and Outreach Officer SM, and Communication and Outreach Expert SA, supported the drafting and editing of this article. All authors contributed to the article and approved the submitted version.

## Conflict of interest

The authors declare that the research was conducted in the absence of any commercial or financial relationships that could be construed as a potential conflict of interest.

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