Why Mountains Matter for Sustainable Development

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Why Mountains Matter for Sustainable Development

Switzerland's New Mountain Program in Development Cooperation

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Mountains are key contexts for sustainable development because of their provision of indispensable goods and services. Still, they are among the most disadvantaged regions in the world, with the highest poverty rates and some of the greatest vulnerability to global climatic, environmental, and socioeconomic change and related risks. The existing challenges of and increasing pressure on mountain people and resources enforce unsustainable land management practices and land abandonment, which in turn might imperil the provision of key mountain services. With its new international program Promoting Sustainable Mountain Development for Global Change, Switzerland continues its support for the sustainable mountain development agenda to increase the resilience of mountain populations.

Why mountains matter for global sustainable development

Mountain regions provide indispensable goods and services to a significant proportion of humankind. They supply half of the global population with fresh water for domestic use and lowland irrigation in support of global food security and play an important role in the production of hydropower as a form of green energy. Mountains are centers of cultural and biological diversity, sources of raw materials, and important tourist destinations. Despite providing these key goods and services, mountains still remain among the ecosystems least documented, offering services least accounted for.

At the same time, many mountain regions are confronted with multiple risks and hazards, including widespread land degradation, inequitable land rights, resource grabs, and dire poverty. Globally, approximately 40% of the mountain population in developing and transition countries is vulnerable to food insecurity, and half are chronically hungry.

Mountains are among the regions most sensitive to, and already affected by, climate change, which might exacerbate existing challenges. They are highly influenced by many complex and interactive factors of global change. Global economic and social change has been felt in the most remote places and has eroded traditional mountain livelihoods, leading to loss of crucial local knowledge. Many mountain inhabitants have chosen to migrate to lowland areas and urban centers in search of employment and income. This has led to land abandonment, which in turn increases the potential for hazards and leads to loss of cultural heritage such as terraced landscapes. It also leads to the feminization of mountain farming and to increased drudgery for those left behind. Altogether, in the long run, this can have tremendous consequences for the goods and services that mountains provide for mountain and lowland societies.

Thus, mountain regions appear to be key contexts for global sustainable development. Their vital role for upstream and downstream populations has increasingly been recognized at the international level. The need to preserve mountain environmental assets and to improve local livelihoods is clearly expressed in chapter 13 of the United Nations Conference on Environment and Development's *Agenda 21* (United Nations 1993) and in the Rio+20 outcome document (United Nations 2012). Mountains are mentioned in a special chapter in the UN *Convention on Biological Diversity* (United Nations 1992), and efforts are under way to include them in the UN Framework Convention on Climate Change. Mountains and highland–lowland interactions are also the subject of multiple international treaties and transboundary collaboration initiatives, as mountains often cover cross-border areas.

Despite their strategic importance for sustainable development, the perception of mountains as remote, inaccessible areas hard to govern, administer, and develop is widespread, not least because of the fact that most centers of political and economic decision-making are located far from mountain regions in lowland metropolitan areas. This has contributed to the marginalization of mountains, especially in national policies and development interventions. Government neglect, lack of investment, and the specific challenges of mountain environments have all contributed to the multiple vulnerabilities of mountain communities.

Many isolated development initiatives have attempted to safeguard mountain environments and to relieve poverty in mountains, and have to some extent been successful at local scales. However, efforts to develop the human, environmental, and economic potential and assets of mountains have remained scattered and thus insufficient. This is particularly worrying because global changes, including climate change, are increasing the pressure on mountain people and resources, thus leading to unsustainable practices of land management in many of the world's mountain areas.

Global change, including climate change, cannot be addressed by isolated local initiatives alone; these must be complemented by concerted action in the realm of policy at different levels. This requires advocacy and awareness creation

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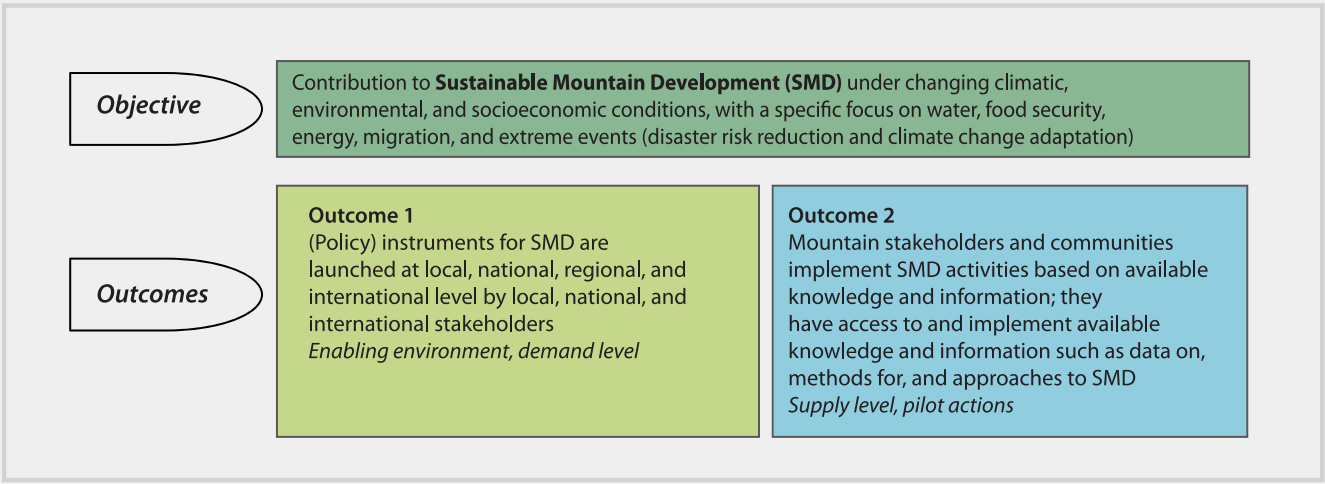
FIGURE 1 Objective and key outcomes of the SMD4GC program.



based on sound and regionally specific knowledge on mountains, and collection and dissemination of good practices in mountain development. These are the domains in which the new mountain program initiated by the Swiss Agency for Development and Cooperation (SDC) will be active.

Promoting Sustainable Mountain Development for Global Change: Switzerland's new international cooperation program for sustainable mountain development

As a mountain country, Switzerland has an intrinsic interest and a proven track record in sustainable mountain development (SMD). Many Swiss stakeholders, including the federal and cantonal administrations, universities, and nongovernmental organizations, actively contribute to SMD at several levels, including the global policy level. SDC's operational activities have thereby been most instrumental, starting with its earliest interventions in mountainous countries such as Peru or Nepal more than 50 years ago. Bilateral and regional cooperation in mountainous countries is still an important feature of SDC's strategy, and many innovative projects and programs are currently implemented in mountain regions like Central Asia, the Hindu Kush–Himalaya, and the Andes. Meanwhile, with issues such as transboundary water management, climate change, and natural hazards becoming more relevant, mountain regions are also within the scope of SDC's global cooperation.

SDC has promoted policy dialogue and knowledge management among different actors to support SMD on various levels, which is reflected in its support for Agenda 21, adopted at the United Nations Conference on Environment and Development (UNCED) 1992 Conference in Rio de Janeiro. Following up on its policy commitment, SDC support was instrumental in the creation of the Mountain Forum in 1995 and support for the Mountain Partnership, established in 2002. During the last few years, these structures have undergone a reform process leading to strengthened regional centers of excellence in SMD ("mountain hubs"). The latter were instrumental in the successful Rio+20 campaign, where 3 mountain-related paragraphs were included in the outcome document (United Nations 2012: paragraphs 210–212). To keep the momentum created during this process, the new mountain program Promoting Sustainable Mountain Development for Global Change (SMD4GC) will focus on securing the cooperation of a number of key SMD partners while addressing global changes and challenges in mountain contexts such as climate change and disaster risk reduction.

The SMD4GC program's objective is to contribute to sustainable development in mountain regions under uncertain and changing climatic, environmental, and socioeconomic conditions, focusing on poverty and risk reduction. By this, the resilience and livelihood options of mountain populations, which are highly vulnerable to ongoing global changes, will ultimately be increased.

SMD4GC is intended to increasingly link aspects of SMD to global issues such as water, food security, energy, migration, and extreme events (disaster risk reduction and climate change adaptation). This should result in improved access to and availability of water, food, and (sustainable) energy in mountain and adjacent lowland areas. The program further provides tools and concepts tailored to mountain communities, which serve to avoid or reduce adverse impacts of changing environments, including extreme events and disasters. SMD4GC seeks to provide the anticipated improvement and to

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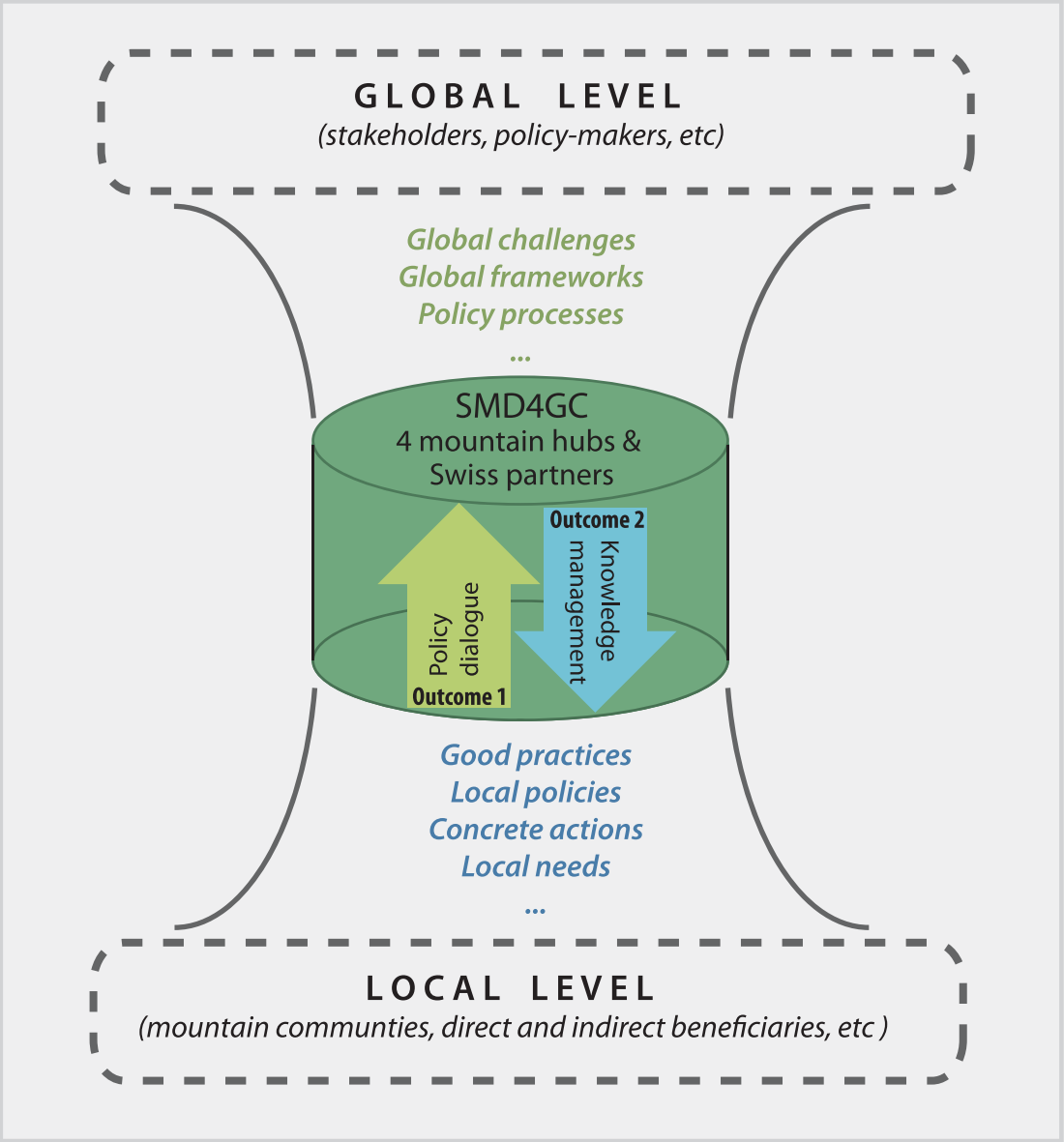
FIGURE 2 Levels of intervention of the SMD4GC program.



meet the needs of mountain and adjacent lowland areas by focusing on 2 key outcomes (Figure 1).

SMD4GC targets 4 major mountain regions in the world and relies on cooperation with experienced SMD partners, which act as mountain hubs in these regions: the Albertine Rift Conservation Society (ARCOS) in Africa, the Consortium for the Sustainable Development of the Andean Ecoregion (CONDESAN) in Latin America, the International Centre for Integrated Mountain Development (ICIMOD) in the Hindu Kush–Himalaya and Asia Pacific regions, and the University of Central Asia (UCA) in Central Asia. These 4 institutions provide the backbone of SMD4GC and ensure that the program's global perspective and regional experiences and activities mutually reinforce each other. Through this, SMD4GC will act as a connector between the different levels (Figure 2).

SMD4GC's contributions are expected to help strengthen these 4 regional partners and enhance (North)–South–South exchange and cooperation between mountain regions. It thus directly responds to key recommendations of the Rio+20 outcome document (United Nations 2012: paragraphs 210–212) and contributes to the inclusion of the mountain context in global policy

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TABLE 1 Sustainable mountain development events with planned contributions from SMD4GC during its first phase (main activities only).[a)]

Timeline	Event	Outreach area	SMD4GC's lead partner
Oct 2014	Africa Mountains Regional Forum	Regional (Africa)	ARCOS
Dec 2014	COP 20, Lima: Mountain and Water Pavilion (including IMD)	Global	CONDESAN
May 2015	Central Asian Mountain Partnership Annual Forum (on ecotourism and climate change/ climate change adaptation)	Regional (Central Asia)	UCA
Sep 2015	Perth III: Mountains of Our Future Earth; conference in Perth, Scotland	Global	CDE and MRI
Oct 2015	Central Asian Mountain Forum	Regional (Central Asia)	UCA
Dec 2015	International conference on regional data sharing	Regional and global	ICIMOD
Dec 2015	International conference on river basin management	Regional and global	ICIMOD
Dec 2015	COP 21 Paris, IMD[b)]	Global	FDDM
Feb 2016	3rd World Mountain Forum, Uganda[b)]	Global	ARCOS
Aug 2016	Regional Mountain Forum	Regional (Hindu Kush–Himalaya[c)])	ICIMOD
Dec 2016	International conference on transboundary landscape management	Regional and global	ICIMOD
Dec 2016	IMD		FDDM
Aug 2017	Central Asian Mountain Forum	Regional (Central Asia)	UCA
May 2017	Latin American Regional Mountain Forum	Regional (Andes)	CONDESAN
Dec 2017	IMD		FDDM

[a)]COP, Conference of the Parties; IMD, International Mountain Day; MRI, Mountain Research Initiative.
[b)]To be confirmed.
[c)]To be decided.

frames for sustainable development and poverty eradication. It further provides a platform for enhanced South–South and South–North exchange and collaboration, inclusive of Swiss competence.

SMD4GC's strategy features 2 main fields of activity, each leading to specific outcomes (Figure 2):

1. An enabling environment will be created by putting in place SMD policy instruments at different levels, aiming to increase demand. This will be achieved by raising awareness of SMD among decision-makers, multilateral agents, and other relevant stakeholders at all levels. Once aware and properly informed, this audience is likely to be persuaded to promote and support SMD in development policies, strategies, and action plans.
2. Efforts will be made to improve knowledge management; this will be done at the supply level and using pilot actions, so that mountain stakeholders and communities will be enabled to implement knowledge-based SMD activities. This will be achieved through the combination of knowledge generation, knowledge sharing, capacity development, and the launch of pilot studies with high up-scaling potential.

Outcomes in these 2 fields of activities will be reached by ensuring the continuity of existing SMD initiatives and launching new ones (eg promotion and facilitation of multilevel, multistakeholder policy dialogue, knowledge generation and sharing, fund-raising, and targeted project implementation) in key mountain regions. They will include a focus on "left-behind" groups (women, children, and the elderly).

Another important tool of the SMD4GC is its support for a series of SMD events to enhance policy dialogue at different levels as well as knowledge sharing between communities (Table 1). At the global level, the series of World Mountain Forums (starting with the second forum in Cusco in May 2014) provides the backbone of this

component. The forum framework allows for thematic discussions related to different aspects of SMD (eg climate change adaptation, food security, and mountain cities). The planned events will be organized jointly with other institutions including the United Nations Environment Programme (UNEP), the United Nations Educational, Scientific, and Cultural Organization (UNESCO), and the Food and Agriculture Organization (FAO), showing the high significance and outreach of these events, including the anticipation of an important long-term effect. SMD4GC will also contribute to SMD-related events in regional contexts with the main program partners as well as side events and the launch of publications tailored to specific audiences and related to SMD conferences.

Structure and outlook

SMD4GC's structure is based on a consortium of international and Swiss partners (Centre for Development and Environment [CDE], Fondation pour le développement durable des régions de montagne [FDDM], and Glaciology and Geomorphodynamics Group, University of Zurich [UZH]), enabling it to reach a breadth of different beneficiaries. The well-established mountain hubs situated in 4 major mountain regions as well as the Swiss SMD4GC partners have their own networks, some very far-reaching. Hence, important multiplier effects allow SMD4GC to achieve a major outreach with a small number of core partners and a moderate financial contribution.

SMD4GC is expected to have both direct and indirect beneficiaries. Direct beneficiaries include local, national, and international policy-makers and other actors in the field of policy development related to SMD. These actors will be enabled to design and implement sustainable policies in mountainous areas. Indirect beneficiaries, including mountain stakeholders and communities, will be empowered through knowledge sharing and capacity building. Thus, a substantial part of the mountain dwellers in the focus regions (>350 million people living in the mountains and hundreds of millions of people in downstream regions depending on mountain ecosystem services) should be enabled to increase their livelihood options, alleviate their poverty, and reduce the risks from global climatic, environmental, and socioeconomic changes.

SMD4GC's first phase started in May 2014 and will be completed by the end of 2017. A potential second phase lasting until 2022 is envisaged, depending on the experiences and performance of the first phase. Although based on the consortium mentioned above, SMD4GC looks forward to cooperating with other partners to promote SMD under global changes in a constructive way.

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