

What future for mountain research?

Results of an e-survey (2006) among Members of the Mountain Partnership

Draft Report for comments by members of the Mountain Partnership

Background and overview

On the occasion of the Second Global Meeting of the Mountain Partnership in Cusco in October 2004, the leading members of the Research Initiative mandated the Centre for Development and Environment (CDE) at the University of Berne to prepare an overview of research activities being carried out by the members of the Research Initiative. This was done by means of two e-surveys. The first survey (Survey 1), conducted in 2005/06, attempted to provide an overview of existing mountain research programmes, researchers, and institutions. It addressed the following questions:

- Who is doing what in mountain research?
- Who is doing research where?
- What is the nature of involvement in research?

The results of the first survey are available on the Mountain Partnership website.

The second survey (Survey 2), which is the subject of this report, deals with the future of mountain research. As this was felt to be a question of broader interest, the second survey was sent to all members of the Mountain Partnership, with the aim of collecting information on personal perceptions relating to:

- core problems that should be addressed by research in future
- opportunities and potentials in mountain areas worthy of research
- institutional circumstances conducive for research work

By contrast with survey 1, responses to survey 2 were not given from an institutional but from a **personal point of view**. The survey included closed and structured questions as well as open-ended questions.

Out of the 120 members of the Partnership registered at the time of the survey, the electronic survey was answered by a total of 40 respondents, belonging to the following categories:

Table 1: respondents of Survey 2

Lead members of the <i>Research Initiative</i>	3
Members of the <i>Research Initiative</i>	26
Other members of the MP	9
Non-members of the MP	2
Total	40

Thus, only a few members outside of the Research Initiative took part in the survey. Nevertheless, valuable information was obtained.

In the following paragraphs, the results of Survey 2 are discussed in three sections. These are:

1. **A ranked list: core problems to be dealt with in future research**
2. **Open statements: core problems and potentials for future research**
3. **Conclusion: a pathway for future research**

1. A ranked list: core problems to be dealt with in future research

The survey presented a list with 30 core problems (for more information, see Questionnaire in Annex 1). Respondents were asked to rank the core problems for future research by allocating 0-3 points, depending on their rating: (3 = very high priority, 2 = high, 1 = medium, and 0 = no or low priority). A total of 30 points could be allocated. Table 1 presents the results.

Table 2: Core problems in mountain areas that need to be addressed by research in future

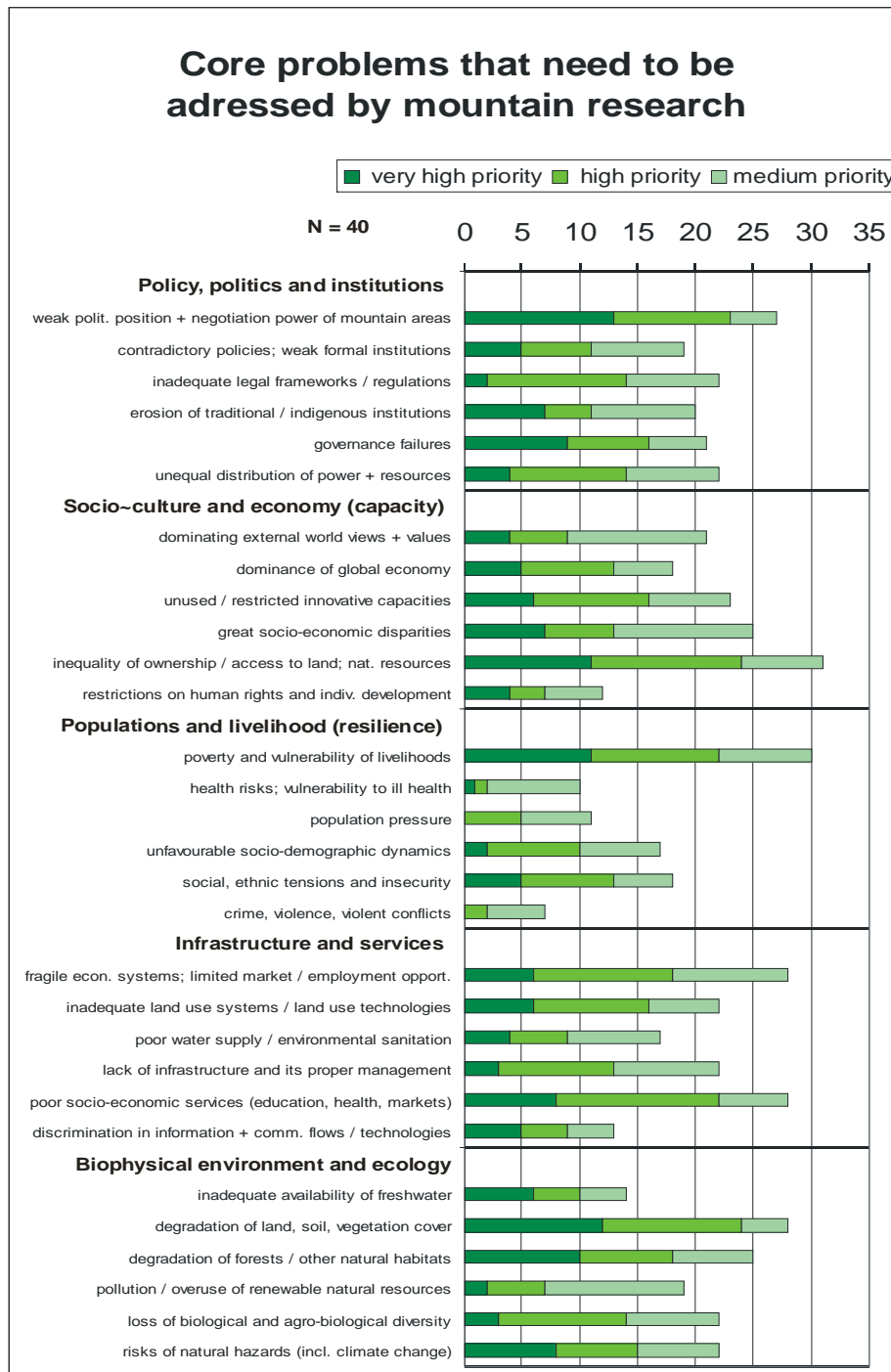


Table 2 shows that respondents saw a need for future research in all major research domains. Allocations of importance were balanced, although *population and livelihood* (resilience) and *socio-*

culture and economy were mentioned less often than the other domains. This may be indicative of respondents' perceptions that framework conditions such as policy, institutions, infrastructure, and the biophysical setting should receive more attention in future.

A closer look at the individual problems in Table 2 shows that highest rankings were assigned to:

- (1) *weak political position and negotiation power,*
- (2) *inequality of ownership/access to land and natural resources,*
- (3) *poverty and vulnerability, and*
- (4) *degradation of land, soil, vegetation cover.*

This response highlights the importance assigned to the linkages between populations and their natural resource base in mountains, and their dependency on this resource base. Use of natural resources is of central interest. High rankings for other core problems in related spheres support this conclusion (see the high rankings for: *degradation of forests, poor economic services and fragile economic systems/weak markets, great socioeconomic disparities and governance failures*). Altogether, the rankings indicate that mountain societies are seen as subject to inequality, that resources are deteriorating, and that local capacities and strategies are not capable of coping quickly enough with rapid change.

Social and demographic core problems such as *unfavourable socio-demographic dynamics, population pressure, crime, violence and conflicts* seem to be less dominant in the eyes of the respondents. This could be interpreted to mean that mountain societies still have a high potential for recreating themselves if support is adequate. Consequently, institutional aspects and aspects of individual development and freedom also emerged as less prominent (for example, *restrictions on human rights or health risks*). But this does not mean that they should be ignored, as respondents did mention them in their comments on the core problem list.

2. Open statements: core problems and potentials for future work

In order to overcome the limitations associated with a closed list of core problems, the e-survey provided space for open statements. Respondents were thus given a chance to add information and personal perceptions of core problems or key issues that should be prioritised in future research. Also, they were asked to give information on where they saw specific potential and opportunities for mountain development that should be a focus of research in future.

Interestingly, the results show that the number of open statements on potentials outnumbers the number of core problems. Whereas respondents mentioned 45 core problems in addition to the list that already includes 30 core problems, nearly 80 statements were made on potentials for mountain development!

A second look shows that core problems and potentials have to be analysed in a synoptic manner. Addressing core problems is itself a potential for development work. Core problems or potentials mentioned are thus often one and the same. Therefore, respondents' statements on core problems and on potentials for future work are discussed together in the following section.

The respondents' statements can be grouped into five themes:

- ***Sector Economy and Sustainable Land Management***
- ***Infrastructure***
- ***Governance and Multi-stakeholder Processes***
- ***Globalisation and Local Erosion Processes***
- ***Core Issues for Research Institutions***

Table 3: Open statements on core problems and potentials relating to mountain development

	Key words	Core problem	Potential for development	Total
Sector Economy and Sustainable Land Management				
	Tourism	3	8	11
	Markets/Products	5	18	23
	Global Markets		3	3
SLM	Knowledge/Technology	3	6	9
	Environmental Services	5	5	10
	Development Plans		7	7
	Management		7	7
		16	54	70
Infrastructure				
	Energy	1	3	4
	Cross-cutting	1		1
	Infrastructure/ITC	2		2
	Education	2	1	3
	Health		1	1
		6	4	11
Governance and Multi-stakeholder Processes				
		8	8	16
		8	8	16
Globalisation and Cultural Erosion Processes				
	Climate Change	2		2
	Economic Transformation	2		2
	Migration	1		1
	Conflicts	2		2
	Culture/Identity	2	5	7
	Alliances		2	2
		9	7	16
Core Issues of Research Institutions				
	Funding	1		1
	Research Strategy	4		4
	Tools	1	5	6
		6	5	11
Total		45	79	124

- **Sector Economy and Sustainable Land Management**

Core problems that should be investigated by research:

Out of the 45 priorities for future research summarised in Table 3, at least 18 are related to local socio-economic and sustainable land management issues. Respondents underlined the need to analyse local transformation processes and the interaction of local and global processes. They also said that research should go beyond analysis of how globalisation threatens local culture; in their view, research should increasingly focus on how local potential can be employed for sustainable development.

As to specific problem areas, markets and **access to markets** were emphasised. Not surprisingly, **tourism** – often seen as a panacea for eradicating mountain poverty – was mentioned several times. Statements were careful to confirm that the role of tourism must be put into a broader context of sustainability.

Respondents also saw potential in **local knowledge**, especially in the realm of technology development, and in **local natural resources**, especially with regard to their sustainable management. Only a few sectoral issues were mentioned as core problems, for example, degradation or lack of micro-finance. Thus the integral view predominated.

Potentials for development that should be investigated by research:

Most of the statements (54 out of 79!) referred to the economic sector, with half of them relating to sustainable land management. This clearly reflects the relevance generally assigned to natural resources for economic development in mountain areas.

High biodiversity was seen as a basic asset for local product development. Respondents assigned the highest potential to development of local **niche production and access to markets** (17 responses), with only little reference to the global market. Nevertheless, statements underlined the necessity of carefully considering markets, also at regional and national levels, in order to identify and promote sustainable livelihood alternatives.

Not surprisingly, the potential for the development of tourism was emphasised. While the need for sustainable forms was not explicitly stated, the understanding prevailed that all kinds of economic development must take account of local capacities and potentials as well as local benefits. Thus, a sustainability approach based on local potential was strongly supported.

In relation to sustainable land management, respondents emphasised the need for **development plans** that take the ecosystem into account in a holistic approach, and that combine protection and management issues. A challenge was identified in terms of how to use protected areas as a driver for development – an often expressed dilemma in mountain development. Respondents favoured an ecosystem approach and capitalisation on local sustainable strategies to ensure that development plans become sustainable and predominantly benefit local communities.

Respondents also mentioned the multi-functionality of mountain ecosystems as an important potential, and saw **environmental services** as an important contribution to development beyond the local level (5 statements). Payments for such services were thus seen as an important instrument in mountain development.

Respondents also saw a high potential in increased knowledge and **know-how transfer**, if carefully combined with local knowledge and models for sustainable development (6 statements). This is a specific challenge for future research.

- ***Infrastructure***

Core problems for future research:

Surprisingly, respondents identified few core problems to be addressed in future in this field (6 statements on education and knowledge management, infrastructure/ITC or energy). One statement directly stressed the interrelationship of infrastructural services. Access to basic services is often not guaranteed in mountain areas and this was reflected in all statements.

Potentials for development for future research:

Most statements referred to a sector approach. The **energy** sector – closely related to the economic sector and to sustainable use of natural resources – was mentioned most often. Investments in the energy sector were seen as a potential, as in the absence of national supply systems, local small-scale renewable energy generation and distribution become a prerequisite for mountain development. Individual statements relating to health and education emphasised the need for embedding them in the entire social and ecological system. Here too, it can be stated that sector approaches seem to be less promising for experts, and solutions were proposed with a view to the service system.

- **Governance and Multi-stakeholder Processes**

Core problems for future research:

A wider set of core problems (8 statements) address governments and policy-makers in their interaction with society, especially in regard to multi-stakeholder processes (MSP). Here, respondents' statements confirmed that the widespread lack of an adequate institutional set-up, the complexity of power and processes, and the challenge of up-scaling contextualised experience provide an important field of activity for research.

Potentials for development for future research research:

The role of governance and thus of national governments in creating a framework that supports balanced multi-stakeholder processes received prominent consideration (8 statements). The Mountain Partnership, local participation, and good governance constitute a triangle that supports multi-stakeholder processes of informed decision-making on issues of sustainability and sustainable development. In order to make multi-stakeholder processes more equitable and balanced, respondents proposed empowerment as an appropriate approach. Tackling gender issues, enhancing capacity development for NGOs, and investigating corruption as a major challenge for Good Governance approaches offered specific potentials.

- **Globalisation and Local Erosion Processes**

Core problems for future research :

Another important cluster of core problems to be addressed by future research is connected to local-global interaction (9 statements). Globalisation propels transformation processes at the local level that often exceed the capacity of local cultures to adapt. Like ecological erosion and degradation, social erosion processes further undermine this capacity. Statements made by the respondents strongly emphasised the need to know more about aspects of such destructive effects. This is more urgent when they turn into social or resource conflicts, loss of identity, enforced migration, or economic transformation dominated by outside economic forces. In the same way, respondents advocated research on climate change specifically in terms of its effects on localities. In all these statements, respondents touched on issues of vulnerability and resilience without actually mentioning them.

Potentials for development for future research:

7 statements referred to local culture and identity as important means to mitigate the impacts of globalisation processes on localities. This topic is closely related to issues of governance and multi-stakeholder processes, and underlines the prevalent role of empowerment. Respondents emphasised that acknowledgement and empowerment of local culture and communities create a source of inspiration and innovation for mountain development. Networks, partnerships and alliances can provide the organisational basis for lobbying. Of course, preservation and integration of local knowledge systems – already mentioned in the sector economy and SLM – is another crucial element in strengthening local resilience.

- **Core problems and potentials for research institutions**

Core problems for future research:

6 statements referred directly to core problems that research institutions are struggling with. Besides the persistent problem of funding, the exclusivity of the research community and the lack of visibility of mountain research within the wider development community were mentioned as core problems. Research should also focus on further capitalisation on experience in the form of tools that allow informed decision-making in sustainability approaches. Therefore, development and implementation of coherent research strategies, such as the GLOCHAMORE research strategy, are important.

Potentials for development for future research:

Specifically, the potential of research was seen in its capacity to provide tools. Generation and elaboration of information, either for decision support systems or for the design of multi-stakeholder

processes, were mentioned as examples. Research institutions can also advocate mountain issues to reach a wider public.

3. Conclusion: A pathway for future research

The survey results show that in the eyes of the respondents, research has an important role to play in mountain development by providing a better understanding of economic issues and land management potentials.

Research is expected to produce knowledge about impacts at higher organisational and spatial levels, especially with regard to identifying local potentials to mitigate such impacts. Specifically, research can contribute to mountain development by investigating:

- the potential of mountain biodiversity and natural resources, options for regional and international markets, and the design of sustainable local tourism;
- ways, means and institutions conducive to the integration of local people as actors in development, and of local knowledge in technology development;
- options that assure local benefit in development activities and that establish payment for ecosystem services on a sound base.

Mountain research and research partnerships could also contribute substantially to the promotion of good governance through their capacity to

- enhance processes of institutional development and capacity building at all levels of society;
- identify adequate institutional frameworks and multi-stakeholder processes focusing on specific development issues;
- up-scale contextualised experience while strengthening local capacity and power;
- create and capitalise on alliances within and among mountain areas;
- provide tools for informed decision-making.

Less consideration was given to classical sectoral issues, but they should not be forgotten. In mountain areas, sectoral approaches have specific importance, as infrastructure and supply of services are generally low and poverty is often widespread. The respondents attributed a certain potential to the energy sector – yet the priority given to energy on the global agenda was not reflected. Energy – as well as other sectoral issues – might, however, have been included in connection with socioeconomic and ecological research issues.

In general, the open statements in response to the e-survey supported the hypothesis provided by the list of core problems, i.e.: experts within the Mountain Partnership community are turning to a more integrative view by emphasising the need to place greater weight on the socio-political and economic framework.
