

Focus Issue: Green Economy and Livelihoods in Mountains

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Focus Issue: Green Economy and Livelihoods in Mountains

Dear Readers,

In June 2012, thousands of participants will gather at the Earth Summit in Rio de Janeiro for advancing sustainable development (<http://www.earthsummit2012.org/>). The summit will be the culmination of an extensive debate on the new concept of green economy proposed in 2008 by the United Nations Environment Programme (UNEP). According to UNEP's working definition, a green economy aims to result "...in improved human well-being and social equity, while significantly reducing environmental risks and ecological scarcities. In its simplest expression, a green economy can be thought of as one which is low carbon, resource efficient and socially inclusive" (UNEP 2011; 2). While the new concept is perceived by many as an "attractive orientation out of the crisis of neoliberalism" (Brand 2012; 28) and is thought to have the potential to correct failures of the prevailing economic paradigm, current discussions are revealing that skepticism is widespread: Is the green economy really conceived in a way comprehensive enough to lead to a fundamental transformation of our societies towards sustainable development? Major challenges lie ahead in conceptualizing and adapting the green economy concept to different contexts (eg to the specificities of mountain areas). Indeed, can a green economy really offer opportunities and greater equity to people in mountains?

The economy in mountains is dependent on sound ecosystems; at the same time, mountains provide ecosystem services for people living in both the mountains and the lowlands. In addition, mountains are still marginal areas—geographically and politically—and the incidence of poverty, vulnerability, and economic and social insecurity remains high (ICIMOD 2011; Maselli et al 2012). These specific characteristics of mountain areas require that measures designed within the framework of green economy need to pay special attention to reconciling resource-based economic development with improvement of mountain people's livelihoods. The present issue of MRD provides first insights into the ways in which the externally driven green economy concept is contributing—or not—to the transformation of mountain societies toward greater sustainability.

In her article on the Italian Alps, Natalia Magnani shows that green economy technologies such as biogas plants may be a good idea, but their implementation is unlikely to work if these technologies are not acceptable to local communities. Thomas Chandy and co-authors arrive at similar conclusions in their analysis of the impacts of a hydropower project in Sikkim: They conclude that employment through the project is not of sufficient benefit to the local population, and additional income-generating measures as well as capacity building and reviving of land-based economic activities are necessary. Although Golam Rasul et al do not explicitly refer to the new paradigm of green economy, their impact assessment of medicinal and aromatic plants (MAPs) projects implemented in 3 areas in India and Nepal shows that without adequate attention to the needs and priorities of the beneficiaries, and without finding synergies with other ventures, MAPs projects may fail to contribute to poverty alleviation. Mattias Borg Rasmussen's participant observation study in a poor peasant community in the Peruvian Andes shows that green economy concerns will only be integrated in household strategies if they are meaningful to the local people and supported by effective local governance.

These papers reveal that an externally driven green economy can lead to new external claims being made on mountain resources; these claims may easily override the needs of local and often marginalized communities. Hence, power and access rights to all types of resources become a crucial issue. Indeed, poverty needs to be understood as a multidimensional phenomenon (Talberth et al 2011) and cannot be addressed solely through technical and economic solutions. There will always be the question of who are the winners and who are the losers of a green economy. In order to achieve social equity, a green economy implies social transformation and effective pro-poor-oriented governance (WBGU 2011; Brand 2012).

The green economy is assumed to be a promising concept with regard to ecosystems services, in the sense of offering a further means of valuing these services and establishing mechanisms for offering compensation to those actors who make a genuine effort to manage ecosystems in a sustainable way (ICIMOD 2011). However, it is important to consider the multiple functions of ecosystems in their entirety, that is, from a systemic point of view; valuation should not focus just on selected services. The following papers in this issue focus on management of ecosystems in mountains and the conditions under which local people can benefit from sustainable practices. Anupam Anand and co-authors analyze an example of green tourism on the fragile Ladakh Plateau and highlight the factors that need to be taken into account to ensure that such a venture really benefits both the local population and the environment in the long term. In their study conducted on the Peruvian sierra, Matthew Raboin and Joshua L. Posner estimate the financial returns of livestock grazing and plantation forestry, and compare these values with estimated values for the environmental services of the native jalca grasslands.

An important prerequisite for sustainable management of ecosystems is for people to know the value of these ecosystems, and understand how they function and what services they provide to humans. Shivani Barthwal and Vinod Mathur explore Ladakh school teachers' knowledge of and attitude towards wildlife and conservation, and discuss what is needed to enhance teachers' capacity to provide school children with environmental education. However, even the best knowledge about ecosystems no longer helps if an essential function within an ecosystem has disappeared: Uma Partap and Tang Ya's research in southwestern China—where bees have disappeared due to excessive

use of pesticides—shows that hand pollination of apple trees by farmers in China is no longer considered a sustainable practice; as a result, apples are now being replaced by other crops that do not require hand pollination.

In addition to the aforementioned papers on green economy, the present issue features 6 papers on other mountain topics. Haoyan Zhao et al provide new insights relevant to the reforestation of protected forests in the Changbai Mountains, China, based on their analysis of the interaction between saplings and mature trees of different species in spruce–fir forests. In a different type of paper, David Rodríguez-Rodríguez and Bastian Bomhard assess the degree of human impact on the world's mountain ecosystems through the Human Influence Index (HII), testing the HII as a proxy to estimate the degree of threat to mountain biodiversity. Wang Xin and co-authors assess changes in glacial lakes in the Chinese Himalaya by using remote-sensing data from 1970 and 2000; they show that the expansion of glacial lakes has contributed most to the increase of the total lake area, whereas newly formed lakes account for about a third. A further paper has a strongly methodological focus: Zhang Zhiming et al compare surface and planimetric landscape metrics to quantify land cover patterns in the Lancang watershed, China.

In the MountainNotes section, Oliver Bender and Sigrun Kanitscheider explore the temporal development and extent of various forms of immigration to the European Alps and describe circulation patterns for the individual countries. Based on the identified knowledge gaps, they suggest measures for better addressing the new immigration trends. Sandeep Tambe and co-authors show that major investments in rural areas in the mountain state of Sikkim have led to significant development progress over the last decade. However, they propose further expansion of opportunities, as well as continued strengthening of democratic procedures to ensure more rapid and inclusive growth of the rural economy.

A group of committed mountain countries and actors (Mountain Partnership 2011) has succeeded in getting mountains defined as a priority area for action in the zero draft of the outcome document of the Earth Summit (United Nations 2012); with its thematic focus on “green economy and livelihoods in mountain areas,” MRD joins this effort to advance and enhance the new concept, and discuss its opportunities and challenges specifically for mountains and mountain people. MRD will continue to pursue this endeavor and invites you—as researchers and development specialists—to submit your research findings and lessons learnt on the many aspects of green economy relevant to sustainable mountain development.

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