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Communicating aspects of global change in mountain watersheds by means of environmental education

Abstract:

Creating awareness, understanding and responsibility for issues of global change is fundamental for a sustainable future of the Alps, especially as mountain watersheds experience global change and its effects at first hand. Due to a significantly increasing human impact and climate change processes, the Alps are at higher risk of, *inter alia*, being affected by natural hazards than many lowland areas and are to be considered a risk habitat. Therefore, risk communication is to be made a top priority in Alpine societies. Reconfirming Agenda 21 and the Johannesburg Plan of Implementation, the 'United Nations Decade of Education for Sustainable Development 2005-2014' calls explicitly for improving the knowledge base on disaster prevention and mitigation as one of the keys to sustainable development. In addition, the Hyogo Framework for Action 2005-2015 by the UN/ISDR (2005) states that efficient disaster risk reduction can only be achieved with regard to sustainable development and addresses risk communication as one of its future challenges associated with 'knowledge management'.

Education for sustainable development is an ideal tool for communicating risks in mountain watersheds effectively due to its integrative and interdisciplinary character. The environmental education concept for the community of Galtür, Tyrol, acknowledges the importance of risk communication and concentrates therefore on this issue of highest concern for the population of the Alps. Hence, the main goal of the concept is to empower people and create a sense of stewardship by developing action- and decision-making competences.

The approach, which incorporates geographical, sociological as well as pedagogic and didactic methods, is split into three integral parts. These comprise analysing the educational potential of the Alpine environment, recording the educational interest in the Alpine environment, and, finally, developing implementation strategies for environmental education programmes. This presentation will give insight into the approach of the concept and will discuss the results obtained by the studies with regard to headwater-related risks. Furthermore, possibilities of transferring the concept to other mountain regions will be given.

This project aims to make a contribution to the international initiatives mentioned above and follows the request of the IPCC policymaker report (2007) for disaster risk reduction strategies and behavioural adaptive response to climate change. Besides, it is hoped to advance the goals of the UN International Year of the Planet Earth, the key purposes of which being the reduction of risk for society and outreach through education for sustainable development.