

## Alpine Water Resources: A Report on the Sixth National Conference on Alpine Research, 7 September 2001, University of Lucerne, Switzerland

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## Alpine Water Resources: A Report on the Sixth National Conference on Alpine Research, 7 September 2001, University of Lucerne, Switzerland

Approximately 100 participants attended the 1-day conference on "Use of Water Resources in the Alps: Conflicts and Solutions" organized by the Swiss Interacademic Commission for Alpine Studies (ICAS) and the Swiss Committee of the International Human Dimensions Program on Global Environmental Change (IHDP). The aim of the conference was to

- Show the state of the art of Swiss research on social science aspects of water use.
- Promote cooperation and coordination between social scientists and natural scientists.
- Demonstrate how the social sciences can be integrated more efficiently in current and future research on water resources.

These objectives required the presence of participants from many different areas of specialization: government and legal officials; aca-

TABLE :	1
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Switzerland: A Hydrological Paradise	Eritrea: No Hydrological Paradise	Water Worldwide: A Limited Resource
Per capita amount of water available annually in Switzerland: 5,840,000 L (16,000 L per day per person)	Average amount of water used in rural areas in Eritrea: often less than 10 L per day per household	Approximately 1 billion people do not have access to safe drinking water
97% of available water leaves Switzerland unused		Approximately $\frac{1}{2}$ billion people do not have enough drinking water
Ratio of runoff to precipitation in the Swiss Alps: 0.8	Ratio of runoff to precipitation in semiarid areas: 0.2	It is anticipated that water shortages will affect 3 billion people by 2025
Source: Paper by Rolf Weingartner given in Lucerne.	Source: Data collected in Eritrea by author.	Source: Neue Zürcher Zeitung, 2 January and 22 March 2001.

demics with a background in the social sciences, economics, and psychology; experts in development cooperation; and environmental scientists. Obviously, with such a variety of fields of experience and interests, a 1-day conference could not lead to substantial new thematic insights. Nevertheless, in my view, the meeting was extremely important: Even if much remained unsaid, the need for new interdisciplinary approaches was clearly formulated. Participants agreed that it was far more important to use existing research networks and results more efficiently and make them accessible to a wider audience of experts than to look for new research topics.

Thus, no new scientific insights were presented at the meeting. Instead, the papers presented showed in an impressive way that hydrological research has undergone a paradigm change in the past few years: Mountain hydrology in Switzerland is moving away from pursuit of strictly disciplinary questions relying on the natural sciences and collection of physical data toward integrative approaches that include social and economic aspects or even promote such aspects.

The 2 keynote papers focused on the state of the art in research on the one hand and underlined the need for inter- and transdisciplinary approaches on the other. It was repeatedly mentioned that, in the light of global change, researchers should be more attentive to the responsibility they have with regard to political and policy issues. Conflicts over the use of water resources are increasing worldwide. Accumulating scientific knowledge about one country's water resources does not suffice in a world in which the distribution of water resources and the improvement of water quality are such fundamental, cross-disciplinary, and cross-boundary problems. The hydrological data presented in the paper entitled "Switzerland as a Water Tower: A Hydrological Paradise?" are particularly striking when set against world statistics and data collected in a country as dry as Eritrea, for example (see Table 1). What is therefore needed is highquality and understandable information that can be used to support decision making at the local, regional, national, and international levels.

Following presentation of the keynote papers, participants worked in 4 groups on the following topics: (1) perception and evaluation of water; (2) legal framework, ownership, and public policy; (3) economy and consumption; (4) decision-making processes. There was little time for questions after the presentations, which did, however, offer a great deal of important information. The step from disciplinary activities conducted in parallel to truly interdisciplinary work has yet to be taken. Only one of the papers presented in the workshop session I attended convincingly showed what it means to use an interdisciplinary approach. The paper focused on legal aspects.

Despite the presence of speakers from a variety of disciplines, the podium debate in the afternoon was not very stimulating. Though the speakers' individual statements would have offered enough material for debate, the discussion eventually got bogged down in issues related only to financial and procedural problems. As a result, there was no time for a discussion of visions and questions about the orientation of future research approaches to alpine water resources. This last aspect—mentioned explicitly in the program—was considered briefly only at the very end of the day.

To conclude, in the words of one speaker: In the Alps—especially in Switzerland—we have a very dense monitoring network and a longstanding research tradition that has yielded high-quality results. Instead of trying to define new research themes or disciplinary approaches, we should now aim to assume our responsibility to international research. We need to work together to process hydrological knowledge and data from the Swiss Alps, applying an inter- and transdisciplinary approach. Our goal should now be to develop an exemplary comprehension of the "Swiss Alps Model" and make it available to regions with similar hydrological conditions worldwide.

The next event organized by ICAS will be a workshop entitled "The Alps from the Perspective of Young Scientists." It is scheduled to take place in Chur, Switzerland, on 14–15 March 2002, and will be open to the public. Additional information and registration forms are available at www.alpinestudies. unibe.ch/philalp.html.

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