The book describes the “Syndrome Pre-Synthesis Project,” which aimed to develop a conceptual and methodological framework for the NCCR North–South, from March 2001 to June 2002. It is founded on two principles: transdisciplinary research and the concept of syndromes of global change. The latter are defined as “clusters of ecological, social, economic, etc problems or symptoms that form typical patterns, are based on similar processes and emerge in different regions of the world, thereby actually or potentially resulting in adverse impacts at the global level” (p 14). Thus, rather than focusing on the particular characteristics of change in any specific region, the concept aims to elucidate the causes of common interacting processes. Recognizing the critique that the concept is analytical, focusing on negative aspects of change, rather than solution-oriented, the further aim of this program is to develop mitigating solutions. The research program chose to focus on 3 major “syndrome contexts”: urban and peri-urban; semi-arid; and highland–lowland. This review will concentrate particularly on the latter.

The book begins with 3 chapters which introduce the NCCR North–South and transdisciplinary research. These chapters contain some repetition, and could have been condensed into two, or even one. In Chapter 2, Hurni and Wiesmann make the points that transdisciplinarity means that phenomena are regarded from perspectives from multiple disciplines and is based on broad participation among stakeholders, and importantly, that a transdisciplinary research project or program is cyclic, containing phases that are primarily inter-, multi- or just disciplinary, feeding back into succeeding phases, as illustrated in an enlightening diagram on p 40.

Near the outset of the project, working from a list of 18 potential core problems of non-sustainable development in the program proposal, the (mainly Swiss) participants in a conceptual workshop in Switzerland developed a list of 24. These were then discussed in a sequence of regional pre-synthesis workshops in the 9 regions defined as “Joint Areas of Case Studies” (JACS): West Africa, East Africa, Horn of Africa, Central Asia, South Asia, South East Asia, Central America and the Caribbean, South America, and the Alps. All but the first of these contain significant mountain areas. These workshops were “think-tanks,” including representatives of research and development institutions from the region, as well as representatives of the SARPI institutions. Outcomes from these workshops are presented in a series of 9 regional chapters, each starting with an introduction, with a table of key indicators. Following sections in each chapter—with certain differences in some cases, especially for the brief chapter on the Alps—consider the selection and explanation of core problems; the status and dynamics of core problems; synopsis and syndrome contexts; and research status and focus. Each chapter ends with a useful list of references. Together, these provide a good overview of key issues and research in each of the JACS.

The participants in each workshop were expected to work according to a structured qualitative methodology, including consolidating and ranking the list of core problems. However, there were substantial differences in both the interests of participants and the methodologies used; and “in most of the workshops the basic assumptions of the ‘syndrome concept’ underwent critical clarification and modification” (p 56). One major outcome of this “creative diversity” is that the original high-
and lowland syndrome context was divided into two "sub-contexts": "highland–lowland interactions" (5 of 8 JACS); and "highland and mountain," emphasizing marginality, indigenous people, and fragility in relation to lowlands (6 of 8 JACS). An initial reclassification of the core problems deriving from all of the workshops increased the original list of 24 to 30. These were then weighted, based on the conclusions of the workshops; however, differences in methodology meant that only some of the workshops produced weighted values for the core problems: East Africa, Horn of Africa, and South East Asia for the highland–lowland interactions; and the same 3, as well as South America, for the highland and mountain sub-context.

Chapter 13 describes the process of ranking the core problems. This highlighted very different perceptions of the acuteness of problems between regions, deriving from factors such as the composition of the think-tanks, the thematic focus of the workshops, and the criteria for weighting. However, 5 core problems of global change were eventually considered most acute, independent of the syndrome context: 1) governance failures, insufficient empowerment and decentralization; 2) incompatible and fragile economic systems with limited market and employment opportunities; 3) lack of adequate infrastructure and management; 4) poverty and livelihood insecurity; and 5) contradictory and inadequate policies. For highland–lowland interactions, the first, fourth, and fifth of these, together with "social and cultural tensions and insecurity," were considered most acute; and for the highland and mountain sub-context, the third and fourth. Overall, the 3 core problems considered least acute were: inadequate legal framework and regulations, lack of enforcement and corresponding means; restrictions on human rights and individual development potential; and discrimination in information and communication flows and technologies.

This process was central in designing the NCCR North–South projects which will now run for a number of years, and are briefly introduced in Chapter 14. This introduces the concept of Individual Projects (IPs), each of which is coordinated by one of the 8 SARPI institutions involved in the program, though this is not clear from the text; more information is available on the website: www.nccr-north-south.unibe.ch.

In conclusion, this book is a very interesting and detailed consideration of a phase of a research program which is rarely described in any detail, providing valuable insights on transdisciplinary research as well as useful information about critical problems of (non-)sustainable development in many of the world’s regions with significant mountain areas. It is well produced, though I am not convinced that boxes (especially in Chapters 1 and 14) are the best way to present the information they contain. In addition, the book would have greatly benefited from an index. It should also be mentioned that all of the book’s chapters are available in pdf format on the NCCR North–South website. I look forward to future publications as this innovative program evolves.

REFERENCES


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This socioeconomic atlas is the outstanding result of a bilateral capacity-building project in GIS application and spatial representation of census data, jointly implemented by the Governments of Vietnam and Switzerland. The Atlas was generated and compiled by the General Statistics Office (GSO) and the Informatics Centre for Agriculture and Rural Development (ICARD) of the Ministry of Agriculture and Rural Development (MARD) of Vietnam. Two Swiss researchers of the National Centre for Competence in Research (NCCR) North–South provided training and arranged GIS and mapping seminars for Vietnamese staff.

Vietnam is one out of 9 of the NCCR’s Joint Areas of Case Studies on 4 continents. Objectives of Swiss international cooperation are to promote the detection and understanding of global change, to identify potentials for mitigation, and to support innovative solutions through training and capacity building. In this particular case, a special objective was to transform tabular census data into visualized knowledge to support improved and accelerated political decision-making.
The Atlas contains 7 chapters with 57 colored area maps as outlined below: Introduction; Geographical Overview, 5 maps; General Demographic Characteristics, 14 maps; Literacy and Education, 10 maps; Economic Activities, 12 maps; Ethnicity and Religion, 5 maps; Living Conditions, 8 maps; Poverty and Accessibility, 3 maps.

The introductory chapter presents brief information on the scope of the Atlas, its advantages, mapping details, and potential applications and users. In Chapter 1, “Geographical Overview,” a composite satellite image map with color enhancement provides an impression of the location and extension of Vietnam, as well as land cover types. It is based on a color mosaic assembled from Landsat TM 4 and 5 imagery, showing the long shape and “narrow waistline” of Vietnam. Another 4 maps depict the country’s provinces and their allocation to 8 agroecological regions, the transportation network with roads, railway lines and airports, the relief, and forest cover.

Chapters 2 to 7 provide the reader with information on the essential elements of the social and cultural fabric of the people of Vietnam. Along with this, they convey a disquieting view of the still rather low standard of living and the harsh realities of maintaining livelihoods in rural Vietnam. The maps in Chapter 2, “General Demographic Characteristics,” deal with population structure, sex ratios, civic status (married, widowed, divorced, separated), and household size. Results reflect the fact that some of the human imbalances caused by the long years of war between 1956 and 1989 still prevail.

Chapter 3, “Literacy and Education,” informs about the general level of education as a measure of the potential for improving quality of life. Data mapped include literacy and school attendance at primary and lower secondary levels. There are marked differences between highlands and lowlands, as well as
between female and male primary and lower secondary school attendance. The chapter ends with maps depicting the relative share of people completing primary school (less than 45%) and lower secondary school (less than 16%). Ninety-two percent of the population aged 15 years and older have not received any technical or professional education.

Reading Chapter 4, “Economic Activities,” we realize that Vietnam remains one of the world’s least developed countries. Out of the total population aged 15 and older, 65% of the female and 76% of the male citizens are economically active. The spatial distribution indicates high rates of economic activity in urban centers, but also in the poor mountain regions. According to the census, unemployment is high around urban centers such as Hanoi and Ho Chi Minh City, as well as in cities along the coast and in the highlands.

Chapter 5 on “Ethnicity and Religion” lets us have a look at religious traditions and orientations. Although religious holidays and related festivities have a firm place in the social life of the people, only 20% of the people have been assessed as practicing one of the 6 main religions. The predominant religion is Buddhism, followed by Christianity (Catholicism), and Islam.

Chapters 6 and 7 on “Living Conditions” and “Poverty and Accessibility” demonstrate, once again, the disparities existing between rural and urban populations. Variables examined are use of tap water (13%), use of rain water (10%), use of water from hygienic sources or filtered water (55%), sanitation, access to electricity (20–80%), and use of radios (45%) and TV sets (54%). At the end, in Chapter 7, the Atlas presents results of a poverty assessment based on the 1998 Living Standards Survey. In Vietnam there remain extended areas where over 50% of the population live below the poverty line. The GSO defined the poverty line as the amount of money necessary to purchase daily food containing 2100 calories (what kind of food?) plus a non-food allowance of unknown magnitude. In some countries, the UNDP set the poverty line at US$1 per day.

In sum, the project goal was to increase understanding of census data and enhance decision-makers’ knowledge of the socioeconomic status of Vietnam using visual presentation by mapping. This goal has been achieved in an excellent manner; hopefully this success will encourage other MRC countries (Laos, Cambodia) and national agencies to adopt the approach.

The presentation of the Atlas in terms of map design, color rendition, paper quality, and binding corresponds to the high standards of Swiss watch-making. Despite this excellent appearance, the price of US$50 is low and certainly affordable to foreign scientists. Vietnamese institutions, but also students, may obtain a free copy on request. Nevertheless, it might be worthwhile to consider producing a loose-leaf version allowing to add maps or transparencies of other attributes or layers, such as river systems or transportation lines into neighboring countries.

Nothing is so perfect as not to deserve some improvement. My suggestions are the following: 1) In order to encourage imitation it would be useful to add a page summarizing the requirements in terms of technical equipment (eg hardware and software) and manpower (including GIS application capabilities) necessary for a visualization of statistical data in an atlas. 2) In many maps, eg in Chapter 2, class intervals are unequal and class limits inconsistent. This calls for adjustment and should be corrected in the next edition.

The Atlas with its colored maps and comments provokes curiosity and immediately creates an understanding of the meaning of statistics in the overall socioeconomic context. It facilitates the location of hotspots and identification of disparities requiring change, improvement, or political decisions. Consequently, this atlas is not only fun and intellectually enriching reading; far beyond, it is a highly effective tool for analyses and conceptual policy design at the national level, but also a means to encourage local dialogue and improved participatory planning.
had little to do with the final political decision (p 175).

Heggelund adopts an extended version of the fragmented authoritarianism approach of Lieberthal and Oksenberg (1988) to look at the agenda of leadership (p 238). This involves the analysis of organizational concepts such as center versus local, different vertical and horizontal systems, bureaucratic rank, individual rank and structure, inter-agency leadership and professional business relations, the control of information, skills and resources, and scientific knowledge. Unfortunately, the roles of informal politics (p 219) and guanxi (p 54) are only briefly addressed. The author also applies the 8 points of the Impoverishment Risks and Reconstruction (IRR) model produced by Cernea (1997) to the project (Chapter 5) and adds the loss of education and corruption to this model (p 228).

Much of this book takes up an exploration of the reasons for the major policy shift on resettlement that took place in May 1999 and the alternative explanations offered (pp 216, 203). Heggelund suggests that this shift in policy reflects the close relationship between environment and resettlement, demonstrating that they are mutually dependent (p 167). Early resettlement plans included the relocation of people to nearby hills and onto more marginal lands with limited environmental capacity (p 76). These plans were rejected and resettlement to other provinces was encouraged (Chapter 5). The policy shift reflected wider changes in Chinese society (p 4) such as changes in leadership, media, and knowledge-based decision-making in an increasingly pluralistic society (Chapter 8), and represented a reactionary response to major flooding on the Yangtze River (p 109).

Heggelund employs a discourse-based analysis of the conflict between the state-run media and the independent academic community, largely using text sources supported by interview data obtained in the 1990s. Unfortunately, the reader is not told who and how many people were interviewed, and so these findings are veiled with the same methodological secrecy often associated with Chinese official sources. Why also does Heggelund focus on natural science journals without giving equal weight to social science journals, which she acknowledges are just as relevant to the resettlement question (see p 206)? The names of text sources, useful to new students of the subject, are provided, and there are also good reviews of environmental newspapers and media services (pp 157–158), environmental and criminal law, and key actors in the law-making arena (p 144).

Heggelund highlights the fact that the concern for environment and resettlement appear to be at different levels. Positive environmental developments in the catchment have led to rural outmigration (p 240), and there are uncertainties with regard to livelihood and social inclusion in the host areas. The side effects of moving into new environments, such as potential environmental problems (p 85) and the issue of social reconstruction, are not emphasized. Likewise, policy ignores the social aspects and social trauma of broken networks (p 229). This reflects the lack of a social and cultural emphasis to the project (p 131) and the fact that social and cultural costs are given less status than economic benefits. Problems also arise as a result of official corruption and embezzlement: a problem amplified by static funding levels.

Heggelund skillfully shows that the environment, like economy, is an area for bargaining (p 236), and often resettled mountain peoples are excluded from these decision-making processes. Moreover, the heightened expectations of mountain peoples are not easily met, and government propaganda has been ameliorated as a result (p 107). As the author indicates, many social questions (pp 242–243) are left unanswered by this book, such as investigating the breakdown and fixing of social networks, the experiences of different cohorts (e.g., children), formal and informal channels of communication between host and receiving areas, the position of official authority with regard to responsibility for relocated peoples, and public accountability.

The book is mercifully free of major typos and editorial errors, although there are two tables with the same title (pp 94 and 95), some tables listed as figures (pp 92, 94–95), incorrect tenses (p 79), and a number of key references not fully cited in the text (p 52). The small font size may strain your eyes and hides the fact that this thin volume contains a lot of information. An eclectic glossary helps with a large number of acronyms. The headings in Chapter 5 seem a little inapt, and some sections sit rather uncomfortably and seem to break up the text, rather than contributing towards the narrative. One further small criticism is that the first part of the summary in the final chapter is little more than a reiteration of the preceding chapter summaries, offering little new in terms of insight (p 225); there is also a general feeling of reiteration in Chapter 7.

Scholars interviewed by the author believe that—had the resettlement and environmental problems the dam has faced been foreseen—it would never have been approved by the National People’s Congress today (p 244). So why the secretive moves to dam the Jinsha River—the Tiger will no longer need to leap!!!

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It was perhaps my third or fourth visit to Gorno Badakhshan Autonomous Oblast (GBAO) when a colleague and I drove up the Panj River Valley towards Khorog, the capital of the Oblast: that was 1999 when it normally took 12 to 16 hours in a 4-wheel drive vehicle to cover the distance from Dushanbe, the capital of Tajikistan, to Khorog. About an hour before reaching Khorog, and very close to midnight, the road was cut in front of us by an enormous land slide—oozing mud carrying rocks and huge boulders, some as big as our vehicle. We watched it pass in front of us. In previous visits, I had come to appreciate the barren beauty of the Pamirs, its geographical isolation and purity, and its resilient yet hospitable people. But not until then did I also understand its power, the force that a relatively young mountain system unleashes, when triggered by nature—in this case an uncontrolled mass of earth ignoring anything and everything in its path—and, thus, highlighting in a most persuasive way for me the difficulty of planning and executing economic development programs in its valleys.

This was but one of the images evoked when reading Breu and Hurni’s “The Tajik Pamirs”, for this is a book of multiple purposes: 1) a tourist guide, highly recommended for anyone who plans to visit there; 2) an overview of recent developments in a specific geographical area from social, economic, and ecological perspectives; 3) a presentation of an approach to understanding and strategizing area development efforts, which the authors call a “Sustainable Development Appraisal”; 4) a summary of a workshop where a planning process, the “Pamir Strategy Project,” led by the Centre for Development and Environment of the University of Berne, Switzerland, is discussed; and, not least, 5) a pleasantly presented collection of photographs, maps, and graphs on the Pamirs that would allow the book to adorn a coffee table and still serve as a ready reference to this geographical corner of the world. I doubt that the authors set out to achieve such diversity in one book, and I trust that they will not feel that their intellectual efforts are slighted by the impress of this reader: the scope of information presented, its clarity, and its thoroughness speak well for themselves.

The book is divided into 3 parts: I. History and environment, II. Development trends in the Tajik Pamirs, and III. Towards a strategy for sustainable development. Although Breu and Hurni wrote the lion’s share of the contents to the book, they are actually editors, given that another 15 persons also contributed various sections. The first part is a brief introduction to the natural resources of GBAO, a description of the culture of its peoples, and a succinct history lesson on the region. Clearly, the impact of the implosion of the Soviet Union in 1991 was as severe here as anywhere, and in this section, the socioeconomic issues balance the importance given to the physical characteristics of the region in what the authors describe as “extreme environmental conditions in a breathtaking landscape.”

Part II is a series of short essays on the region’s economy, natural environment, society, and culture. Several of these contributions revolve around the difficulties local inhabitants have been forced to confront during the transition from a highly subsidized Soviet period to a still minuscule, market-oriented economy. The Mountain Societies Development Support Programme, a Tajik development NGO, estimates that in 1993, the Oblast produced only 20% of its wheat and potato requirements. Imagine waking up one morning, which they did, to find that the supplier of 80% of your basic food sources has disappeared. Many things seem extreme in the high Pamirs and, during the 1990s, the locals went through a rough patch indeed.

As Part II moves to tackle the development agenda, the reader senses a certain pessimism setting in towards the end of that section. Constraints to sustainability tend to overshadow assets, particularly in the economic sphere. The region is certainly not in a sustainable equilibrium at the present time.

Part III attempts to address this with its “strategy”—seeking participation by local peoples, attempting to turn problems into opportunities, identifying gaping holes in the delivery system, such as the energy shortage, and underlining the importance of addressing these; thus, putting on a brave face in view of a bleak situation. One wonders if some of the mentioned

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**The Tajik Pamirs. Challenges of Sustainable Development in an Isolated Mountain Region**


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**Таджикский Памир. Проблемы устойчивого развития изолированного горного региона.**

opportunities will not serve as a trigger for the general development of the region. The Aga Khan Development Network, for example, has recently set up the University of Central Asia as an institution of higher learning focusing primarily on mountain development. The intended creation of a physical campus in Khorog may be the kind of spark that jump-starts the engine of economic growth in the Oblast. Building the university itself, developing faculty housing, supporting the students and visitors that the university will draw into GBAO could create some economic momentum that with a multiplier should be felt throughout the area. Other initiatives such as this are needed.

The book concludes with “Recommendations for a sustainable development strategy in GBAO.” In this final section, Breu and Hurni make reasonable and sensible suggestions as to what needs to, or should be, done. For example, they recommend that “The status and dynamics of natural resources, their spatial distribution, and their use […] must be continuously monitored, and processes must be assessed through scientific research and studies.” Few would disagree with that. Unfortunately, after listing these recommendations, they fail to go one step further and address the critical questions that will inevitably follow: How much will these investments cost and where will the funding come from? Their strategy may fail as a result.

Well, maybe failure is too strong a word; how about delayed success? It certainly will take time to implement such recommendations, while the fragile mountain systems are damaged, in some ways irreversibly so, in the interim. Yet, the contributors to this book should not be singled out for criticism. The rest of us have not found the answers to these questions either, and we are happy to have their help in the search.

Finally, let us not forget that nature may have its own answers to some of the questions, yet again demonstrating its power in the Pamirs.

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**Gebirge der Erde:**
**Landschaft, Klima, Pflanzenwelt**
Edited by Conradin A. Burga, Frank Klötzi, and Georg Grabherr.

**Welt der Alpen—Gebirge der Welt, Ressourcen, Akteure, Perspektiven.**
Edited by François Jeanneret, Doris Wasti-Walter, Urs Wiesmann, and Markus Schwyz.

These two books with similar main titles both recognize in their early pages the increasing global attention given to mountains, particularly since 1992. However, while the subject of both books is the mountains of the world, they generally cover very different ground.

_Gebirge der Erde_ is a remarkable and extremely well illustrated introduction to the landscapes, climate and flora of a significant number of the world’s mountain regions. It is principally written by the 3 editors, with additional contributions from other international specialists. Its first part comprises 6 chapters which, referring to key references, very briefly introduce types of mountains, the geological characteristics of high mountains, mountain climates, the importance of mountains for the evolution of flora, and global comparisons of altitudinal vegetation belts and treelines around the world.

Part 2—a presentation of mountain regions from all of the Earth’s climatic zones—makes up the majority of the book. The chapters are divided into 3 groups: temperate, subarctic, arctic and antarctic regions (21 chapters); warm to temperate and subtropical regions (12 chapters); and tropical regions (11 chapters). The size of these sections varies greatly, probably reflecting both the knowledge and experience of the authors and the extent of research. For instance, there are 4 chapters (49 pages) on different parts of the Alps, and 1 on Mount Etna (10 pages), but also only 1 each on the Himalayas (24 pages), the Rocky Mountains (15 pages), and the mountains of Alaska (6 pages). The map inside the front cover shows that, despite the global coverage of the book, there are a number of mountain regions for which no information is provided, including all of the mountains of Australia, Madagascar, the Middle East, and West and North Africa (except the Atlas), and most of the mountains of southeast Asia. The foreword notes that these and other regions were left out to limit the size of the book.

At the beginning of each chapter in Part 2 is a table, with key bibliographic references, which summarizes most or all of the following characteristics of the particular mountain region: geographical location; key altitudes (eg main peaks, valleys, settlements); human population; hydrography; protected areas; tourism facilities and options; and species diversity. The text and illustrations are then organized into 3 sections: landscape (including geology) and climate; flora and vegetation; and land uses, including issues such as tourism and nature...
conservation. The color photographs of landscapes and flora, as well as maps, graphs, and other figures are of very high quality. The only other book that is remotely comparable to this is the volume edited by Wielgolaski (1997). However, the present book is available at a small fraction of the price, is illustrated in color, and includes all altitudinal belts. I would strongly recommend it to anyone who wants a good overview of the world’s mountain regions, with a good bibliography of key references. Even for those who do not read German, it provides much easily-accessible information. I hope that it will be translated into many languages; perhaps with the addition of some of the mountain regions that are presently not included. It would also lend itself well to publication as a web site.

Welt der Alpen—Gebirge der Welt also covers diverse aspects of many of the world’s mountains and is well illustrated in color. It is the proceedings of the 2003 Deutscher Geographentag, held in Berne: the 54th of these annual events which bring together many geographers from the German-speaking world. The book starts with an introduction by Bruno Messerli and Thomas Hofer on the development of mountain initiatives at the global level up to the International Year of Mountains 2002, concluding with a forward look. The remainder of the book is divided into 4 parts, each with 5 chapters: 1) Mountains in change: Current dynamics and long-term signals; 2) Risk and potential: Risk management and sustainability; 3) Indigenous views: Myths and everyday life; 4) Autonomy and external decisions. Each part begins with an introductory chapter providing a reasonably global overview. These vary considerably. The first, by Burga et al, addresses the current state and future perspectives of abiotic and biotic dynamics. The second, by Hurni et al, considers sustainable development and risk management, structured around 4 hypotheses relating to the mountain development programs of the Swiss Agency for Development and Cooperation, and including reference to the following 4 chapters of Part 2. The third, by Rist and Wiesmann, reviews myths, everyday life and science, with discussions of transdisciplinarity and geosophy. The fourth, by Elsasser and Schmid, provides a summary of the following 4 chapters of Part 4.

The remaining chapters are regional case studies. The greatest number consider the Alps, on the following themes: changes in landscapes and their valuation (compared to the Karakorum; Winiger and Börst), in temperature and precipitation (Wanner et al), and in glaciers (Haeberli and Zumbühl); linkages between forests and flooding (Germann and Weingartner); integrated risk management (Anmann); agricultural land uses (Bächlin and Schweizer); the IYM in Switzerland (Wachter and Gigon); “Alpine culture” in relation to the Alpine Convention (Bättler); and geopolitical and geocological views of the Alps as a bridge, boundary, and island (Egli and Messerli). The remaining chapters describe: paleosols and lakes in the central Andes (Veit and Grosjean); changes in landscapes in the Karakorum and their valuation (compared to the Alps; Winiger and Börst); land uses and development in the Bolivian Andes (Gerold) and Lesotho (Nüsser); society and state in Nepal and Pakistan (Geiser and Müller-Böker); settlement and household strategies on Mount Kenya (Kohler and Wiesmann); the mountains of Georgia in the context of global geopolitics (Wastl-Walter and Kikodze); and the development of New Zealand (Jeanneret).

While there is much of interest in this volume, this is yet another proceedings consisting of a series of papers whose key findings could have been usefully integrated in a concluding chapter. One point this could have made is that over half of the papers are written by authors who are, or who have been, based at the Geographical Institute of the University of Berne. Yet, although the introductory chapter is titled “From the world of the Bernese Alps to the mountains of the world,” no attempt is made to bring together these diverse contributions to show the continuing major contribution of Bernese mountain geography to our understanding of the world’s mountains.

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Translating Development: The Case of Nepal


This book covers a wide range of development related topics and projects in Nepal, and stems from a conference on “Sustainable Management of Natural and Human Resources for a Better Quality of Life in South Asia,” held in Kathmandu in October 2000. It is organized in 3 sections: sustainable management of water and land resources; social sustainability and resource management; and sustainability of incomes and livelihood. The chapters are variable in their organization. Some are case-based with little by way of conclusion. Some are more dedicated to outlining policy ideas and approaches with little reference to empirical
material. Some are simply descriptive reports. Given this mish-mash of style and purpose, it is hard to define the overall contribution of the book, other than as a variegated picture of the sorts of work (most characterized by a state of “in progress”) undertaken in the name of “development.” The editor argues that the current need is for more case studies at a regional level.

The editor’s introduction presents a summary of interpretations of sustainable development. It deals with the disparate agendas of combining environmental with social issues, and lays out an analysis of the reasons for Nepal’s fragmented experience of planned change. The usual suspects of mountain geography, inaccessibility, population growth, poverty, rural–urban disparities, and infrastructure are mentioned. Domroes makes a welcome comment that definitions of poverty should include, beyond basic needs, aspects of “participation in social and political life” (p 8). Different dimensions of social conflict are identified as providing the major obstacles to development.

The desire to bring together socio-cultural and ecological dimensions of development—as if these could be straightforwardly laid on top of each other—sometimes results in contorted conceptual combinations. The “preservation of traditional ways of resource use” (p 18) runs counter to most use prescriptions generated by conservation and development projects, and the expression “obligatory participation” (p 18) comes over as inherently contradictory. The emphasis on “values and norms” as contributing to “social sustainability” presumes levels of cultural coherence and stability that sit awkwardly beside the concurrent emphasis on promoting a dynamic and plural (in terms of ethnicity, class, and gender) civil society.

Chapters 2 to 6 deal with watershed management at a variety of scales, from understanding processes common across the Hindu Kush–Himalaya, to the micro-level of water storage systems to capture monsoon rains and assist crop production. Chapter 4 by Tirtha Adhikari et al concerning interactions of small farmers and their engagement with soil and plant research in Jhikhu khola offers an especially promising example of sustainability potential. Chapter 7 by Dietrich Schmidt-Vogt provides a valuable comparison of shifting cultivation practices and systems between Nepal, where it is a much misunderstood supplementary subsistence strategy, and Thailand, where it is more central to people’s agro-ecological interactions.

Moving to the “social sustainability” chapters, Keshav Maharjan in chapter 8 discusses the “biologically balanced” farming complex of rural Nepal. He identifies the need for participatory projects to allow aspects of spontaneity and mutual aid in the response of community groups for projects to be successful. However, his proposed systematization of community participation for greater effectiveness in achieving wider scale objectives may presume cohesion where conflict can be an equally spontaneous outcome. In chapter 9, Dieter Rachbauer describes Eco-Himal’s work in the Arun Valley of East Nepal, and offers some highly perceptive conclusions on participatory development practice, including “[n]ot every participatory process fits into a project management system determined by an output oriented log-frame matrix” (p 140). Chapter 10 by Rita Soliva, Michael Kollmair and Ulrike Müller-Böker is a fascinating discussion of challenging issues for the achievement of sustainable development, which combines environmental protection and inequalities of power and entitlement. Their political ecology approach to looking at the effects of protected areas on local populations’ livelihoods generates many valuable questions and insights, especially concerning the way buffer zones have extended state power rather than empower the poor, but the chapter unfortunately has no concluding section. Khadga Basnet describes, in Chapter 11, the movements of scale being developed for “ecoregional” conservation, beyond the limits of protected areas. This approach appears to have least consideration for the human aspects of sustainability, and views even trail paths as “disturbance.”

Martin Raithelhuber’s chapter on the interdependence of rural and urban actors is perhaps the most original and well argued of the whole book. It starts from a position that is genuinely vital to apprehend for anyone interested in dynamics of change and inequality in Nepal: what does urbanization mean to villagers, and how do they experience different kinds of small-scale, “real market” exchanges, and uneven risk distribution? Kurt Luger in Chapter 13 engagingly ponders the commentaries made by Sherpa youth on cultural change. Elvira Graner addresses the critical issues of the rural population’s increasing dependence on non-agricultural income in terms of labor migration within and outside Nepal, giving a focus on the fate of the declining carpet industry workforce, and evaluates the counter-sustainability consequences of external labor markets. This is a theme continued by Ganesh Gurung in Chapter 17, who explains the supportive networks migrants tend to operate in, but concludes the remittance economy serves little more than providing food security back home. The final chapter on southern Mustang is essentially descriptive of cultural and economic patterns faced with tourism, and has an elegant land use map of Marpha village.

A stronger editorial direction could have made the chapters communicate more with each other, but this perhaps reflects the fragmented state of development in the country.
Copy editing is not a strong point of the collection. Nevertheless, this book does present a range of case studies covering aspects of sustainability, some of which certainly merit “translation.”

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The EU Agricultural Policy and the Environment: Evaluation of the Alpine Region  

This book is the outcome of the SUSTALP project funded by the European Commission, with the following central question: “How do the various instruments of the CAP [Common Agricultural Policy] influence the environmental situation in general, and more specifically, how do they influence some of the most important environmental indicators?” (p. 13). The book considers not only the Alpine parts of Member States of the current European Union (EU; including Slovenia), but also Switzerland.

The brief introductory section recognizes that agriculture is important in the EU in terms of not only production—the original primary aim of the CAP—but also the maintenance of rural diversity and stability and environmental quality, and involves substantial financial transfers, which will increase as the EU expands. The project recognized this context, and also that agriculture—environment interactions are influenced not only by policies explicitly directed to the agricultural sector, but by many others. A list of 45 such instruments is presented at the beginning of section 2, which presents a typology of such instruments for both the EU and Switzerland, and compares these. Overall, Swiss instruments place greater emphasis on environmental and social objectives, and less emphasis on economic objectives; and Switzerland spends about twice as much. One result is that the area of agricultural land has decreased little, in contrast to the Alpine parts of the EU. Section 3 presents a comparison of policy objectives and instruments.

A major element of the SUSTALP project was the development of a database of demographic, environmental, and agricultural indicators at the municipality level. As was also found in a recent major study of the mountains of almost all European states (European Commission 2004), there were considerable problems of data comparability and availability at this level of data compilation. A considerable proportion of section 4 is devoted to a discussion of the data and a comparison of methodologies for grouping the nearly 5600 Alpine municipalities to derive a classification of 8 “agrarian structure regions” which is presented at the end of the section.

Section 5 explores these 8 types of region in more detail, particularly through detailed descriptions of characteristic “model regions” in terms of natural and economic conditions, agriculture, and landscape structure, based on both quantitative data and expert opinion. At the end of the section is a summary of the main operational strategies used in the various model regions, and how these strategies are affected by policy instruments. Key results are that part-time farming, which is widespread in the Alps, as in other European mountain regions, is not clearly affected by agricultural policies; whereas modernization and specialization are. EU policies also have important effects in terms of food processing, direct marketing, organic production, and increases in farm size. Interestingly, it is concluded that quantity control and quality requirements increase the abandonment of farms.

Section 6 is based on interviews with hundreds of farmers in the 10 model regions with the intention of obtaining more in-depth information with regard to farm management and decision-making, and economic outcomes. Overall, permanent grassland is the major land cover, increasingly at the expense of arable land. Incomes depend particularly on milk prices and agricultural subsidies, averaging €9500 per farm. There are, however, significant variations from average values in different regions; for instance, in the South Tyrol, there is almost no permanent grassland as 99% of the land is under permanent crops; and incomes from subsidies are far higher in Switzerland. The section concludes with a summary of the “operational strategies” used by Alpine farmers.

Sections 7 and 8 cover the influences of agricultural policy and the environment and then quantify these using logistic regressions. Three “complete transmission chains” are presented: the two principal ones (intensification, extensification), and one minor one (intensification of labor input). However, statistically significant effects of policy on environmental parameters were not identified, for a number of reasons which are explored. Nevertheless, it is concluded that agricultural policies have a wide range of environmental effects, both negative and positive. Intensification—which depends particularly on price support—has, overall, negative environmental outcomes. In contrast, extensification, which benefits only marginally from direct agricultural policy measures, generally has positive environmental outcomes. The conclusion is that regional development is the best approach to fostering such outcomes.
The final section presents a summary of results and makes recommendations for future policy. An important conclusion with regard to future research is that it takes a long time for structural changes in agriculture to result in significant environmental changes, which shows a major shortcoming of such a project, as agricultural policy is in continual change. The project considered policies in place in 1999, and since then major changes have taken place in both EU and Swiss policy, and will continue to do so, particularly as the EU expands. The recommendations for agricultural policy recognize that agriculture in the Alps takes place in a range of interacting spatial contexts—national, regional, and global—and is closely linked to other economic sectors. Consequently, future policies should take a holistic approach, and also be regionally specific. Thus, the book closes with a series of conclusions and recommendations for regional policies.

The accompanying CD, entitled Structural Atlas of the Alps, is well-structured and, apart from an explanatory preface and list of references, contains maps (GIS layers) of the Alps for a wide range of variables, grouped under the following categories: natural conditions, socio-economy, agricultural structure, and SUSTALP Agrarian Structure Region Types. On the screen below each map is a series of buttons which allow access to comments, explanations of the indicator (some of which are composite) and its calculation, sources, statistics, and graphs. There is also a keyword search. The CD is well-presented, although some of the legends could be more legible, and further detail on some of the data sources could have been provided.

Overall, this is a valuable study based on a diverse range of sources of data and information. The data, tables, and maps included in the CD show the value of presenting large amounts of complex data in this medium. It is probable that the Alps are the only mountain range for which such a comprehensive study could be undertaken. Yet, even in this region, there are significant challenges to bringing together data from different countries, and in showing linkages between two complex and interacting systems: agriculture and environment. The use of expert opinion and interviews with farmers were essential complements to the extensive data compilation. Finally, it should be said that much of this book is not easy to read and, in some place, to understand. While the authors and editors are to be applauded for preparing the book in English, its readability and value could have been greatly improved by more thorough English-language editing.

REFERENCE


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Himalayan Perceptions: Environmental Change and the Well-being of Mountain Peoples


Many readers of this journal will know that Jack Ives was one of the founders of Mountain Research and Development, and was its editor for many years. His influence on mountain studies, and particularly concerning research in the Himalayas, has been immense. His latest book therefore may be taken as an important publishing event because it seeks to summarize his experience, and set an agenda for future workers. Indeed, the book does not disappoint, and clearly will be a source and inspiration for years to come.

Readers will wish to know how far this new book adds to or repeats themes of The Himalayan Dilemma, co-authored by Ives and Bruno Messerli in 1989. This earlier book confronted the so-called “myth” (or narrative) of Himalayan Environmental Degradation that had characterized most discussion of environmental degradation in the Himalayas since the 1970s. According to the “myth,” the Middle Hills of Nepal and similar Himalayan environments were on the brink of crisis because uncontrolled population growth was exacerbating deforestation and agricultural expansion, which in turn were making slopes more unstable, forcing farmers onto ever-steeper slopes, and simultaneously enhancing lowland flooding and sedimentation as far east as Bangladesh. Ives and Messerli—summarizing various works—argued that this account of change was grossly simplistic in terms of the complex (and still only partially understood) underlying biophysical changes throughout the region, especially related to tectonic uplift and climate. Moreover, the narrative applies simplistic explanations for socioeconomic change in the Himalayas that fail to acknowledge local livelihood needs or the actual ways local people value or manage resources. Instead, Ives and Messerli argued that it was perhaps more important to ask why these flawed explanations could gain the perceived status of “truth,” and have such influence over the allocation of aid funds.

This new book, Himalayan Perceptions, summarizes this debate, and provides a full update on research relevant to it. It also expands the criticism of the “myth” as an example of a scientific and policy narrative, and seeks to criticize the impacts of the
myth concerning alternative—and new—concerns such as the impacts of tourism, oppression of mountain peoples, and increasing conflict in the region.

The book starts by concentrating on the myth and the evidence for and against it. The first chapter summarizes the myth, and where it is said to exist. Further chapters then consider specific aspects of the myth: allegations of declining forest cover; the geomorphology of agricultural landscapes; and links to flooding in Bangladesh and mountain hazards (such as earthquakes and landslides). These chapters summarize research findings from both before and after the publication of The Himalayan Dilemma, and provide details of research that questions the myth in various locations related to the Himalayan chain including Pakistan, India, Nepal, Tajikistan, Bhutan, Sikkim, Bangladesh, China, and Thailand. These sections contain much useful, dense information, and are written in a very lucid matter-of-fact style without the use of academic jargon or unnecessary concepts.

The initial discussion of research findings then gives way to a later chapter entitled “What are the facts?: Misleading perceptions, misconceptions, and distortions,” which focuses on the origin of the myth as a policy and scientific narrative. Ives attributes this to a “lack of academic rigor in the early stages of the propagation of the myth... and the unsubstantiated basis for some of the policies of regional governments” (p 211). This chapter widens the discussion in the book to refer to wider academic questions of how narratives emerge, and why they remain unchallenged within certain arenas. Ives cites various policy statements made in publications and meetings during the 1970s and 1980s, including the now notoriously inaccurate World Bank prediction in 1979 that accessible forest cover in Nepal would be totally lost by 2000.

There are also other interesting and ironic insights. The role of media and sensationalist statements from aid agencies is illustrated by the complaint made in a 1974 meeting in Munich that the media “never mention deforestation as a cause of the flooding.” This statement shows the desire of some activists to allege environmental causality on the basis of belief rather than proof, and ironically, today, the media tend to over-assert this relationship, while academic research roundly questions this link (p 213). Still more revealing, Ives tells us that the speaker at this meeting wanted to make a ‘Club of Munich’ to imitate the eco-catastrophist ‘Club of Rome,’ whose 1972 Limits to Growth predictions were another example of exaggerated environmental concern (p 212). Other statements, such as by the World Resources Institute in 1985 that “a few million subsistence hill farmers are undermining the life support of several hundred million people in the plains” (p 216), now seem egregiously inaccurate and unfair, given the extent of research that provides alternative perspectives.

It is important to note that the book does not deny the existence of deforestation or soil degradation and landsliding, but questions the ability to simplify the meaning of these events or to make generalizations about the entire region. Instead, it is more important to ask how far these narratives that blame upland farmers or assume environmental crisis on a major scale may actually help the poor people in this region.

Some alternative ways of understanding crisis come in the chapters addressing tourism, political conflict, and the oppression of mountain peoples. Ives notes that there have also been immense socioeconomic and political changes within the Himalayas that provide a counterpoint to the notion of ecological crisis. The chapter on tourism provides a history and commentary on the travel trade in the Himalayas, and its impacts on land rights (eg through the establishment of national parks), local livelihoods, and the exploitation, rather than involvement, of mountain people. The chapter on political oppression argues that conflicts in the Himalayas are more widespread than commonly reported, and that the “myth” of degradation could also be a form of oppression by its insistence that upland agriculture is to blame. Various conflicts are discussed, notably the Nepal Maoist Insurrection, the Chittagong Hill Tracts, Nagaland, and Bhutan. Concerning Bhutan, Ives criticizes some western writers for portraying the kingdom as stereotypically peaceful, and instead describes the impacts of the 1985 Citizenship Act, that placed restrictions on people of Nepalese descent or Hindu religion, which led, in time, to refugee flows (p 180). Other examples are discussed, including the impacts of various dams in the region. These cases of political oppression are important to the book because they show alternative conceptions of crisis than those propagated by western media about “mythical” environmental problems.

So how can we change this situation, and reframe international attention from an inaccurate and unhelpful explanation of environmental crisis? Ives is optimistic that the “academic tide has been turned,” largely through the work published in Mountain Research and Development, and by related work from the United Nations University and similar projects since the 1980s. These counterviews were most memorably expressed at the workshop in 1986 at Mohonk, New York State, where various aid agencies and international organizations were told about the evidence against the “myth,” and which has since been seen as the start of the myth’s demise. Yet elements of the myth still remain. For example, a paper published by the New Scientist
in 2002 entitled “Meltdown!” linked flooding from melting glaciers to global warming, containing the warning that “the 21st century could see hundreds of millions dead and tens of billions of dollars in damage.” Ives agrees that glacial-related flooding is a hazard, but argues that such statements are dangerous overstatements which may lead to technocratic solutions with little benefit to the livelihoods of affected people or to the complex social and physical interactions underlying such hazards (p 221).

The book’s key argument is that we need to reconsider our ability to make generalizations about a region as complex as the Himalayas. We should reject the inaccurate macro-explanations of environmental problems such as the “myth” and instead adopt a more diversified, locally sensitive approach to integrating environmental management and development. Instead, we should ask: why did these clumsy generalizations such as the “myth” emerge? And whose benefit do they serve? How can we be more critical of this kind of narrative?

When The Himalayan Dilemma was published in 1989, some observers called it “fighting talk” for challenging some of the basic assumptions of environmental concern in mountainous environments. Fifteen years later, Himalayan Perceptions shows how this kind of crude environmentalism has been further criticized by yet more research. This new form of analysis does not deny the need for environmental concern in many locations, but is an excellent example of how more and more research in environment and development combines rigorous local empiricism with a critical awareness of how different actors frame and legitimize environmental knowledge. The book claims we still need to cleanse much environmental concern of poorly informed narratives about the cause and impact of environmental change, and instead to adopt more self-critical and participatory approaches to change. It will be interesting to see whether the organizations and actors associated with spreading the myth of Himalayan degradation are willing to engage with this criticism.

REFERENCE

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