

**Overview of mountain protected areas and mountain initiatives leading to
and furthering agenda 21: From regional action plan and proceedings, North
American regional meeting**

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The oceans and reefs of the world have the charismatic Jacques Cousteau to capture the imagination and the support of the public, and thus eventually the political process that works toward their conservation. Wild animal life had Walt Disney to popularize it and/or over-popularize it; then on a more professional level, -Aldo Leopold and Gerald Durrell. Lowland tropical rainforests have their well-known champions influencing popular opinion in persons such as Norman Myers, John Seed or perhaps David Attenborough. But who is the spokesperson for mountains that can move hearts and minds to action for their conservation and sustainable development? Mountains, though having grandeur, mystery, prominence and even sacredness have not captured public nor political attention as a focus for concern and action. Without an illustrious, persuasive spokesperson, mountains have languished as a discrete topic of major public concern.

The constraints to sustainable use of these dynamic, "fragile", three-dimensional earth features have not been recognized. Most mountain development, some of it quite ecologically, culturally and economically catastrophic, has been planned and initiated by "flatlanders" in government offices, corporate boardrooms and donor offices in major cities of the plains and seacoasts.

Within the last four or five years however, there are some indications that the public and the politicians are beginning to be concerned. Their attention has not been commanded by any one "mountain leader," nor by the voices of the many gods and ancestors that dwell in the holy mountains around the world. Rather it has been a gradual dawning of comprehension brought about by the combined efforts of a lot of hard-working scientists and managers. Mountain men and women scholars have almost by tradition and temperament been "loners", but through professional interchange at meetings such as this one, a community of scholars and interested persons has developed, and I strongly

believe we are on the verge of a breakthrough. Or at least, as Sherlock Homes would utter: Watson, the game's afoot."

Perhaps it had its beginning with Carl Troll, and a small but growing band of researchers who began to focus on the mountain as a physical unit for study. The history of the fledgling field of mountain science has been traced by Ives and Messerli (1990) and the collaborative attempts to meld science and application described by Ives (1989). Throughout the period since 1973, the UNESCO MAB programs, and later the UN University, were significant players. In the Himalayas-Hindu Kush, a major leap forward occurred in 1984 when the International Centre for Integrated Mountain Development began operations in Kathmandu, Nepal to work with eight countries of the region. This grew out of the UNESCO activity in mountains. A highlight occurred at Lake Mohonk Mountain, New York in 1986 in an amalgam of science, management and policy focused on the "Himalaya-Ganges Problem," to be followed by the landmark book "The Himalayan Dilemma" by Ives and Messerli (1989). A major breakthrough has come however, in June 1992, at the UN Conference on Environment and Development in Rio de Janeiro, with the adoption of Chapter 13 of Agenda 21, under the title "Managing Fragile Ecosystems: Sustainable Mountain Development." Some of the important events and actions leading to this landmark action and follow-up are briefly described in what follows. The role played by those dealing with mountain protected areas is highlighted. Let me treat these activities using some visual material showing recent publication on various aspects of mountain environments that seem to be moving the global community of NGOs, managers, general public, and politicians toward a significant leap in mountain awareness.

Colored overhead transparencies:

1. Mountain people have elicited much fascination on the part of mountain visitors and even lowlanders who have never experienced mountains. It is true that over many years there have been many books on particular ethnic groups designed for popular or semi-popular audiences, for example, on the Sherpa of Nepal or the mountain farmers of European Alps. But not long ago a book edited by Michael Tobias (1986) titled "Mountain People" brought together beautiful pictures and well-written text in a global context. Groups discussed in the book range from the "hillbilles" of the US Apalachian Mountains through the Kalash Kafirs of the Hindu Kush to the Ik (or Kwarikik) of Uganda. Strangely, Europe is not covered in this book. This book is helping to engender a realization that mountains worldwide have many "people problems" in common, requiring international efforts at solutions. In 1988 a book with the title "Human Impact on Mountains", edited by Nigel Allen, Gregory Knapp and Christoph Stadel, brought the people element clearly into the picture as major players in mountain management. This publication, consisting of scholarly articles, was aimed at increasing the awareness of mountain researchers, students and

teachers who had been largely dealing with the natural science aspects of mountains.

2. In 1990 a splendid book dealing with the sacred and metaphysical aspects of mountains appeared. Edwin Bernbaum's superbly illustrated volume on "Sacred Mountains of the World"(1990) takes readers to the most revered peaks on earth. It brings into the public arena along with scientific information on mountain use and degradation, a much needed element if we are to include cultural values along with economic and biophysical values. It is an important contribution in the struggle to influence the way seemingly heedless people treat the mountain environment. In the establishment of national parks or other protected areas, the taboo or reverence has often been the *raison d'être*, or at a minimum, has assisted greatly in securing official protection. P.H.C. "Bin" Lucas, Vice Chair of CNPPA/IUCN, has pointed out that the national park concept was first crystallized in New Zealand with the gift from the Maori people of the sacred Tongariro Mountain (Lucas 1993).

3. Also in 1990, the first publication of a new Protected Area Program Series from IUCN appeared, dealing with the topic of transfrontier protected areas (Thorsell 1990). It was entitled "Parks on the Borderline". Border parks are not the exclusive domain of mountains, since rivers also form many national boundaries, but mountains are often national boundaries of some "tension" because of their more remote, less controlled frontier. They often therefore lend themselves to transboundary peace parks. The publication lists 70 transfrontier parks involving 65 countries, and a subsequent inventory of mountain border parks by Thorsell and Harrison (1993) gave 24 pairs of parks, with a minimum relative relief of 1,500m and a minimum size of 10,000 ha. (If these constraints were relaxed, there would be many more which people generally consider mountain transfrontier reserves.) Interest in this topic seems high, and places as far apart as Nepal/China and the mountains of the Czech and Slovak Republics are featured in "local" publications. Here is shown a recent one entitled "Frontier Parks in Czechoslovakia" by Cerovsky, Povolny and Urban (1991). A mountain transboundary protected area workshop will be held in the Australian Alps in November 1995, bringing together 28 pairs of park managers from 21 countries, co-sponsored by the Mountain Theme of CNPPA and the Australian Alps Liaison Committee.

4. In October of 1991, 41 protected area managers, administrators and scientists with experience in over 30 countries around the world came together in Hawaii Volcanoes National Park under the aegis of the East-West Center to share their expertise and to develop a set of Guidelines for Mountain Protected Areas. These were developed by a set of 10 working groups, and synthesized into a publication which is No. 2 in the IUCN Protected Area Programme Series(Poore 1992). The 161 terse guidelines have been well received, and the publication has been translated into Russian by Yuri Badenkov and Olga Galtseva. Translation into Spanish occurred in 1994 (Fundación Peruana para la

Conservación de la Naturaleza), and it has just last month been published in Japanese (Nature Conservation Society of Japan). Jim Thorsell of IUCN has produced a slide program illustrating many of the guidelines, and has presented this, as I have also, to many audiences around the world. Most recently, this was shown last month at a conference in Japan to discuss how to arrest the deterioration of Mount Fuji, the symbol of that country.

5. Another product from this East-West Center meeting was the publication *Parks, Peaks and People* (Hamilton, Bauer, and Takeuchi 1993). This work contains 22 papers that were presented or tabled at the consultation including the landmark paper reporting on the present status of the world's mountain protected areas: some 442 areas embracing 243,159,476 ha (Thorsell and Harrison 1993).

6. Meanwhile a small, international team within the International Mountain Society was working to establish a global network of mountain researchers and managers. IMS publishes *Mountain Research and Development*, a fine journal, and occasionally a *World Mountain Network Newsletter* as funds permit.

A sub-group, calling itself "Mountain Agenda" became determined to put mountains on the political agenda of the UN Conference on Environment and Development in Rio de Janeiro. The individuals were from the following organizations: University of Berne, University of California at Davis, International Centre for Integrated Mountain Development in Kathmandu, Russian Academy of Sciences, Swiss Development Cooperation, East-West Center, and one individual in a private capacity who had previously worked with the 1972 Stockholm Conference on the Environment. This group planned and published in time for the Conference a short, popularly written and well-illustrated booklet entitled "An Appeal for the Mountains" (Mountain Agenda 1992) that was put into the hands of every delegate to UNCED. Concurrently, the group planned, commissioned reports, and produced a book on "The State of the World's Mountains" (Stone 1992). Although done hastily in the short time available to produce a book before the Rio meeting, it has a wealth of information, even if incomplete. It came off the press only two weeks before UNCED, and was made available to each of the delegations. Thanks to these documents and to the diligent and time-consuming efforts of three people in particular, Jack Ives, Bruno Messerli, and Jayanta Bandyopodhyay (who shepherded draft texts through several UNCED preparatory meetings, and then went to the Rio meeting with the books), an item on mountains was adopted without dissent in Agenda 21, and appears as Chapter 13.

It now behooves the mountain community to pick up the Earth Summit challenge. It does little good waiting around for the politicians and donors to come up with the US\$330 million per year (\$50 million from international sources) mentioned in the document. Those of us who love or work in mountains must seek every opportunity to improve our knowledge base, to

establish networks or collaborative working relationships with other mountain men and women, and to place before the public at every opportunity the appeal for a more science-based, ecologically gentler, and culturally sensitive approach to using, developing, and protecting mountain environments.

7. Several recent developments to this end are significant. The African Mountain Association which was founded in 1986 in Addis Ababa, has shown increasing vigor, and in March 1993 organized a meeting with UNU/IMS/IUCN/Swiss Development Cooperation. Coming out of this is a commitment to a six-year "Mount Kenya Ecology Project" and a resolution putting forward this mountain as a World Heritage Site. In May 1994 an East Asia Pacific Mountain Association was launched with a secretariat at Lincoln University in New Zealand. The University also established simultaneously a new Regional Center for Research, Education and Training for Mountains and Steep lands. An Andean Mountain Association was launched in April 1995 at a meeting held at Lake Titicaca in Bolivia.

8. The European scene is also animated, and only a few of the many activities will be mentioned. There is, of course, the Alps Convention, which attempts a more holistic international approach to a mountain range. An Alp Action program has been put in motion by Prince Sadruddin Aga Khan's Bellerive Foundation. ICALPE, the International Centre for Alpine Environments was initiated six years ago, and together with the Centre of Alpine Ecology (Italy) has formed a European Economic Interest Grouping under the European Union. In September 1992, a conference on Biodiversity Conservation in Mountain Ecosystems of the Balkans was held at Ticino Park Milan, organized by the International National Park Documentation Center (CEDIP) and the IUCN East European Program. An Association of Carpathian National Parks and Protected Areas have been formed as a regional NGO with its secretariat in the administration of the Tatra National Park (Slovakia). Two years ago I helped to sponsor a meeting in the Czech Krokonosce National Park on National Park and Biosphere Reserve Monitoring and Management where a proposal for an International Center for Research and Information on the Hercynian Mountains was developed.

9. Again, on a global level in 1994, along with two colleagues from the University of Hawaii and the International Institute of Tropical Forestry, I produced a state-of-knowledge assessment about tropical montane cloud forests. This contains a synthesis, location maps, research needs, management responses to threats, and 24 technical papers on these important mountain ecosystems with their fog water capture function and high biotic endemism. This was published in January 1995 by Springer-Verlag (Hamilton, Juvik and Scatena, 1995). It calls for a major international to protect the remaining cloud forest fragments throughout the world, in parks and reserves. And IUCN has just published a booklet in the Focus Series calling for assistance in mountain cloud forest conservation (Hamilton, 1995). The World Conservation Monitoring

Centre has just received support from IUCN Netherlands to initiate in November 1995a status study and cloud forest atlas. The Mountain Theme will cooperate.

10. And finally there is the formal follow-up to Agenda 21, called Mountain Agenda. An Interagency UN Task Force was established with FAO as lead agency and FAO's Tage Michaelson as Focal Point. IUCN is represented on this by Jim Thorsell and myself. This Task Force has stimulated 1) an International Mountain NGO meeting (Lima, Peru, February 1995) to bring this needed non-government input; and 2) a series of regional intergovernmental meetings to develop regional strategies and promote national sustainable development plans for mountains. Two of these have been held so far, one for Asia in Kathmandu and one in Lima for South America. An African meeting is planned for April 1996 in Ethiopia and two meetings are on the docket for Europe in 1996, one in May in Scotland and one in September in Italy. North America has not yet begun to stir, and attempts to find a sponsor/organizer so far have not borne fruit. Are there suggestions? The NGO meeting resulted in the establishment of an International NGO Mountain Forum, and the planning meeting for this organization has just occurred the last week of September at The Mountain Institute in West Virginia, USA.

It is essential therefore, more than ever, to knit together through communication, all of the individual pieces of action that are taking place, so that we can draw encouragement by seeing a larger picture, --one that is not unsubstantial. Hence this long paper is inflicted on you. I personally am encouraged by what I see being undertaken by men and women, singly or in collaboration, to advance the understanding of mountain environments, and the need to treat mountains in a more holistic manner than we have in the past. Protected areas in the uplands are a key element in this, and it is the role of the Mountain Theme of CNPPA to assure that this element is kept in the circuit, on the planning table. Mountain Protected Area Network members are encouraged to get involved. Write articles, initiate workshops, seminars and conferences, influence the political process, and in general help to make mountain environmental needs more visible and tangible to lay persons, to other professionals and to decision makers. We need spokespersons for the mountains.

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Agenda 21 is a non-binding action plan of the United Nations with regard to sustainable development. It is a product of the Earth Summit (UN Conference on Environment and Development) held in Rio de Janeiro, Brazil, in 1992. It is an action agenda for the UN, other multilateral organizations, and individual governments around the world that can be executed at local, national, and global levels.