International Year of MOUNTAINS

Concept paper

Food and Agriculture Organization of the United Nations
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Preface

In November 1998, the UN General Assembly declared 2002 the International Year of Mountains (IYM). This decision offers a good opportunity and exciting challenge in the follow-up to Chapter 13 (Sustainable Mountain Development) of Agenda 21. It provides a unique platform to reinforce the long-term process started at the United Nations Conference on Environment and Development (UNCED) in Rio de Janeiro, Brazil of raising public awareness and ensuring adequate political, institutional and financial commitment to concrete action for sustainable mountain development, hopefully well beyond 2002.

The Food and Agriculture Organization of the United Nations (FAO) was invited to act as the lead agency for the IYM, a role approved by the FAO Council in November 1998. In the UN Resolution, the United Nations Educational, Scientific and Cultural Organization (UNESCO), the United Nations Environment Programme (UNEP), the United Nations Development Programme (UNDP) and other organizations were requested to support FAO.

This paper serves as a guideline for IYM preparation and implementation, providing general guidelines and a framework for all institutions and individuals involved in mountain-related issues and in IYM preparations. The document includes an introduction to Chapter 13 and the IYM; the introduction of key players and networks involved in mountain-related issues; description of possible and proposed activities and a vision of projected IYM outputs. Funding issues essential for success are also considered.

Following this first concept paper on the IYM, more detailed and targeted information and awareness-raising material will be provided through a variety of media to facilitate preparing for the year during the period leading up to 2002.

This paper was prepared by Thomas Hofer, Douglas McGuire and El Hadji Sène of the FAO mountain programme team. Considerable input from within FAO was provided by members of the Interdepartmental Working Group on Sustainable Mountain Development. Invaluable contributions for ideas, orientation and guidance were received from the Inter-Agency Group on Mountains, which is composed of UN agencies, bilateral donors, non-governmental organizations (NGOs) and research institutions worldwide. Greatly appreciated and acknowledged, this important contribution demonstrates that the mountain agenda is led through a proactive and participatory process.

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Mission statement

The International Year of Mountains promotes the conservation and sustainable development of mountain regions, thereby ensuring the well-being of mountain and lowland communities.
Mountains are fragile ecosystems and are globally important as water towers of the earth, repositories of rich biological diversity, target areas for recreation, and as a hub of cultural integrity and heritage. Occupying about one-fifth of the world’s land surface area, mountains provide a direct life-support base for about one-tenth of humankind as well as goods and services to more than half the world’s population.

Chapter 13 of UNCED Agenda 21 focuses on sustainable mountain development, highlighting the urgency of action and outlining two programme areas:
- generating and strengthening knowledge on the ecology and sustainable development of mountain ecosystems;
- promoting integrated watershed development and alternative livelihood opportunities (United Nations, 1992). The Food and Agriculture Organization of the United Nations (FAO) was appointed Task Manager of Chapter 13.

In the light of rapidly growing awareness of the importance of mountain areas and based on an initiative from Kyrgyzstan, the United Nations General Assembly (UNGA) declared 2002 the International Year of Mountains (IYM) in November 1998. FAO was assigned the lead agency role, in collaboration with governments, non-governmental organizations (NGOs) and other UN organizations, in particular the United Nations Environment Programme (UNEP), the United Nations Development Programme (UNDP) and the United Nations Educational, Scientific and Cultural Organization (UNESCO).

Holding the IYM presents both a big challenge and a great opportunity. It should not be considered merely a period of isolated events, but rather as an important step within the long-term process begun at the Earth Summit (UNCED) in Rio de Janeiro in 1992 of raising public awareness and ensuring adequate political, institutional and financial commitment for concrete action towards implementing sustainable mountain development. The process should thus reach well beyond 2002. It should be aimed primarily at helping poor and marginalized people living in mountain areas, drawing attention to their cultural heritage. It should also help to conserve or foster the sustainable use of natural resources found in mountain areas.

To ensure IYM success, action on a number of fronts will be required: information generation and exchange; awareness raising and sensitiza-
tion; promoting conservation and development of mountain resources for the well-being of mountain communities; planned, coordinated and effective action; commitment and dedication. IYM success will require national government action to support the mountain agenda through appropriate policies.

The year 2002 has also been declared the International Year of Ecotourism. Since a large portion of tourist activities occurs in mountain areas, this coincidence provides an important opportunity to create and benefit from synergies in the observance of both events.

This concept paper aims to provide general guidelines and a framework for all institutions and individuals involved in work concerning mountain-related issues to prepare for the IYM.

Resolution text for the International Year of Mountains
(United Nations General Assembly, A/RES/53/24)

The General Assembly,
Recalling Economic and Social Council resolution 1998/30 of 29 July 1998,
Recalling also the relevant provisions of Agenda 21 on sustainable mountain development,
Noting the work already undertaken to achieve sustainable mountain development by the Food and Agriculture Organization of the United Nations, including its role as Task Manager for Chapter 13 of Agenda 21,
1. Proclaims the year 2002 as the International Year of Mountains;
2. Invites the Food and Agriculture Organization of the United Nations to serve as the lead agency for the year, in collaboration with governments, the United Nations Environment Programme, the United Nations Development Programme, the United Nations Educational, Scientific and Cultural Organization and other relevant organizations of the United Nations system and non-governmental organizations;
3. Calls upon governments, national and international organizations, non-governmental organizations and the private sector to make voluntary contributions in accordance with the guidelines of the Economic and Social Council for international years and anniversaries and to lend other forms of support to the International Year of Mountains;
4. Encourages all governments, the United Nations system and all other actors to take advantage of the International Year of Mountains to increase awareness of the importance of sustainable mountain development;
5. Requests the Secretary-General to submit to the General Assembly at its fifty-fifth session a report on the state of the preparations for the International Year of Mountains.
Mountains

To date, mountain complexity has made it impossible to provide a thorough definition of mountains with universal application and acceptance. The following is a list of elements that help describe mountains and highlands:

- **Elevation zones:** Cartographic compilation showed that 48 percent of the world’s total terrestrial surface lies above 500 m; 27 percent above 1 000 m; 11 percent above 2 000 m; 5 percent above 3 000 m; and 2 percent above 4 000 m. These statistics provide an approximation for describing mountain areas.

- **Morphology and climate:** “Steep slopes” (characterized by geomorphologically high-energy environments with frequent mass transfers downslope) and “altitude” (characterized by low temperatures and, in certain cases, aridity) are aspects of mountain or highland landscapes which individually, or as a system, lead to marginality for human utilization and adaptation.

- **Latitude:** The climatic effects of higher latitudes mean significant areas in these regions have mountainous characteristics despite only moderate altitudes.

- **Biodiversity and food security:** Mountains contain high biological diversity, often of global relevance. Consequently, mountains are also important centres of crop diversity, a key factor in agriculture worldwide.

- **Land-use opportunities and constraints:** From the humid subtropical and temperate zones polewards, all land-use activities in mountain areas are disadvantaged compared with the subjacent, neighbouring, and more densely populated lowlands. But from the subtropical arid zones to the tropical humid zones, some higher altitudinal belts are more beneficial for human land use than lower altitudes because of better moisture and temperature conditions.

- **Conflicts and cooperation:** Mountains often constitute geopolitical borders and can be sites of potential/current tensions or even conflicts owing to their rich natural resources and strategic relevance. Within countries too, mountain areas can be places of tension and conflict: because of their inaccessibility and remoteness, mountain regions sometimes harbour opposition groups. However, mountains also offer opportunities for transborder cooperation and promoting peace.

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1 The argumentation is mainly taken from Messerli and Ives (1997)
Highland-lowland interactions: Highlands and lowlands are interconnected through often very complex linkages; therefore the interest in mountain areas should not stop at the contour lines. Looking beyond mountain areas into the ecological, economic, social and political dimensions of highland-lowland interactions is an issue of growing importance.

The world’s mountains clearly do not lend themselves to a simple definition. In each particular case, region-specific characterization is necessary. The elements listed above imply a broader perception of mountains and highlands, well beyond areas characterized by peaks, steep slopes and gorges.

Mountains as fragile ecosystems

Mountains are fragile environments subject to adverse and harsh climatic conditions (excessive rainfall, relatively low temperatures, aridity, high solar radiation), natural disasters (avalanches, earthquakes, volcanic eruptions), and poor and shallow soils prone to erosion because of steep slopes. Soil formation and vegetative growth are slow in colder temperatures. Once damage to mountain soil or vegetation occurs, it may be irreversible, or reversible only over a long period of time. Relative isolation is another feature of mountain areas: the morphology of mountains reduces accessibility and hampers exchange with the lowlands. Agricultural production is often marginal and labour intensive. Yet, coupled with limited access, these constraints have meant that many mountain regions have remained protected areas of cultural integrity and heritage, and of biological diversity with high degrees of endemism. However, the recent trend towards greater globalization has in some areas tended to erode the social and cultural integrity of mountain societies due to increased and accelerated contact with the outside world.

Sustainable development

Mountain area fragility represents a considerable challenge to sustainable development. In the report of the World Commission on Environment and Development, “Our Common Future” (WCED, 1987), sustainable development is defined as “development that meets the needs of the present without compromising the ability of future generations to meet their own needs”. Another commonly used definition of sustainable development, agreed on by three of the major international organizations working in the field, is “development which improves the quality of life, within the carrying capacity of the Earth’s life support system” (IUCN, UNEP, WWF, 1991).

In its broadest sense, sustainable development strategy aims at promoting harmony among human beings and between humanity and
nature. According to the WCED report (1987), the pursuit of sustainable development requires:

- “a political system that secures effective citizen participation in decision-making,
- an economic system that is able to generate surpluses and technical knowledge on a self-reliant and sustained basis,
- a social system that provides for solutions for the tensions arising from disharmonious development,
- a production system that respects the obligation to preserve the ecological base for development,
- a technological system that can search continuously for new solutions,
- an international system that fosters sustainable patterns of trade and finance,
- an administrative system that is flexible and has the capacity for self-correction.”

How does the concept of sustainable development apply to mountain areas? The fragility of mountain ecosystems means that the impacts of unsustainable development are more rapid, heavier and more difficult to correct than in other areas of the world; thus sustainable approaches to development deserve particular attention in mountain areas. The basic requirements for sustainable development have to be considered carefully and should involve equal attention to ecological, economical and social considerations, application of integrated approaches, and ensuring popular participation. “Given the very different characteristics of the world’s diverse mountain regions, even on one continent, it is probably best not to propose a precise definition of sustainable mountain development, but to recognize that it is a regionally specific process of sustainable development that concerns both, mountain regions and populations living downstream or otherwise dependent on these regions in various ways” (Price and Kim, 1999).
Chapter 13 and its implementation

In June 1992, the Earth Summit (UNCED) was held in Rio de Janeiro. Its most important output was Agenda 21, which was signed by 181 UN member countries and which is structured into 40 chapters. Agenda 21 highlights key problems, formulates approaches for solutions and proposes strategies for action for sustainable human development and environmental protection into the twenty-first century.

Extracts from the original text of Chapter 13

CHAPTER 13: PROGRAMME AREAS

A. Generating and strengthening knowledge about the ecology and sustainable development of mountain ecosystems

Basis for action

13.4. Mountains are highly vulnerable to human and natural ecological imbalance. Mountains are the areas most sensitive to all climatic changes in the atmosphere. Specific information on ecology, natural resource potential and socio-economic activities is essential. Mountain and hillside areas hold a rich variety of ecological systems. Because of their vertical dimensions, mountains create gradients of temperature, precipitation and insolation. A given mountain slope may include several climatic systems - such as tropical, subtropical, temperate and alpine - each of which represents a microcosm of a larger habitat diversity. There is, however, a lack of knowledge of mountain ecosystems. The creation of a global mountain database is therefore vital for launching programmes that contribute to the sustainable development of mountain ecosystems.

Objectives

13.5. The objectives of this programme area are:
• to undertake a survey of the different forms of soils, forest, water use, crop, plant and animal resources of mountain ecosystems, taking into account the work of existing international and regional organizations;
• to maintain and generate database and information systems to facilitate the integrated management and environmental assessment of mountain ecosystems, taking into account the work of existing international and regional organizations;
• to improve and build the existing land/water ecological knowledge base regarding technologies and agricultural and conservation practices in the mountain regions of the world, with the participation of local communities;
• to create and strengthen the communications network and information clearing-house for existing organizations concerned with mountain issues;
• to improve coordination of regional efforts to protect fragile mountain ecosystems through the consideration of appropriate mechanisms, including regional legal and other instruments;
• to generate information to establish databases and information systems to facilitate an evaluation of environmental risks and natural disasters in mountain ecosystems.
Thanks to a number of institutions and individuals involved, mountain areas received special attention in Agenda 21. The rationale for Chapter 13, entitled: “Managing Fragile Ecosystems – Sustainable Mountain Development”, is formulated as follows: “Mountains are an important source of water, energy and biological diversity. Furthermore they are a source of such key resources as minerals, forest products and agricultural products and of recreation. As a major ecosystem representing the complex and interrelated ecology of our planet, mountain environments are essential to the survival of the global ecosystem. Mountain ecosystems are, however, rapidly changing. They are susceptible to accelerated soil erosion, landslides and rapid loss of habitat and genetic resources. On the human side, there is

B. Promoting integrated watershed development and alternative livelihood opportunities

Basis for action

13.13. Nearly half of the world’s population is affected in various ways by mountain ecology and the degradation of watershed areas. About 10 percent of the Earth’s population lives in mountain areas with higher slopes, while about 40 percent occupies the adjacent medium- and lower-watershed areas. There are serious problems of ecological deterioration in these watershed areas. For example, in the hillside areas of the Andean countries of South America a large portion of the farming population is now faced with a rapid deterioration of land resources. Similarly, the mountain and upland areas of the Himalayas, Southeast Asia and East and Central Africa, which make vital contributions to agricultural production, are threatened by cultivation of marginal lands due to expanding population. In many areas this is accompanied by excessive livestock grazing, deforestation and loss of biomass cover.

13.14. Soil erosion can have a devastating impact on the vast numbers of rural people who depend on rainfed agriculture in the mountain and hillside areas. Poverty, unemployment, poor health and bad sanitation are widespread. Promoting integrated watershed development programmes through effective participation of local people is a key to preventing further ecological imbalance. An integrated approach is needed for conserving, upgrading and using the natural resource base of land, water, plant, animal and human resources. In addition, promoting alternative livelihood opportunities, particularly through development of employment schemes that increase the productive base, will have a significant role in improving the standard of living among the large rural population living in mountain ecosystems.

Objectives

13.15. The objectives of this programme area are:

• by the year 2000, to develop appropriate land-use planning and management for both arable and non-arable land in mountain-fed watershed areas to prevent soil erosion, increase biomass production and maintain the ecological balance;
• to promote income-generating activities, such as sustainable tourism, fisheries and environmentally sound mining, and to improve infrastructure and social services, in particular to protect the livelihoods of local communities and indigenous people;
• to develop technical and institutional arrangements for affected countries to mitigate the effects of natural disasters through hazard-prevention measures, risk zoning, early-warning systems, evacuation plans and emergency supplies.

(Source: United Nations, 1992)
widespread poverty among mountain inhabitants and loss of indigenous knowledge. As a result, most global mountain areas are experiencing environmental degradation. Hence, the proper management of mountain resources and socio-economic development of the people deserves immediate action” (United Nations, 1992). Extracts from the original text of Chapter 13 are available in Box 2. FAO was given the Task Manager role for Chapter 13 implementation.

Chapter 13 has initiated a number of dynamic processes and activities on mountain issues, including in particular the following:2

- In most regions, intergovernmental consultations were held to draw the attention of political authorities to the importance of mountain areas and move towards more concerted action.
- A number of inter-agency meetings and NGO consultations have been organized.
- The global Mountain Forum network was founded in 1995. The forum’s regional nodes are already active in Asia, Latin America and the Caribbean, Europe, Africa and North America, and have begun facilitating the exchange of information and mutual support across continents.
- Through worldwide research initiatives, many projects and larger programmes have been initiated with significant components for regional collaboration in mountain areas.
- A number of key publications have been issued (see last chapter).
- For many of these initiatives and activities, the Swiss Agency for Development and Cooperation has been a spearheading institution, providing funding, support and guidance at technical, institutional and policy level.

The years following UNCED have been critical in successfully transmitting the message on the global importance of mountain area resources, e.g. in terms of freshwater resources, biological diversity, importance for recreational activities and sensitivity to climate change. However, it is recognized that initiatives to date have been positive but inadequate: there is still the challenge of promoting appropriate policy formulation, and of creating and implementing effective new programmes for the conservation, management and development of mountain areas. The mountain chapter has shifted into a new and decisive phase with the launching of the IYM.
The international conference “Mountain Research – Challenges for the 21st Century”, organized and supported *inter alia* by the American Association for the Advancement of Science and UNESCO in Bishkek, Kyrgyzstan in 1996, was the catalyst in the initiative to propose sustainable mountain development as a theme for an international year. In November 1998, the UN process thus set in motion led to UNGA declaring the year 2002 as the International Year of Mountains.

Under the overall goal of ensuring the well-being of mountain populations by promoting sustainable development of mountain regions, IYM objectives are to:

- ensure present and future well-being of mountain communities by promoting conservation and sustainable development in mountain areas;
- increase awareness of, and knowledge on, mountain ecosystems, their dynamics and functioning, and their overriding importance in providing a number of strategic goods and services essential to the well-being of both rural and urban, highland and lowland people, particularly water supply and food security;

### Guidelines for International Years: extracts from ECOSOC Resolution 1980/67

**Selected criteria for the proclamation of international years:**

- The subject should be of priority concern in the political, social, economic, cultural, humanitarian or human rights fields.
- The subject should be of concern to all or the majority of countries, regardless of their economic and social systems, and should contribute to the development of international cooperation in solving global problems, with special attention to problems affecting developing countries.
- The desirability of proclaiming international years and the selection of their themes should in general be determined from the point of view of their possible contribution to solving existing international problems, thus contributing to the strengthening of universal peace.
- The subject should be one involving action at the international and national levels.
- The subject should be one for which there is a reasonable expectation that an international year would generate significant follow-up at both the national and the international level in the form of new activities or strengthening of existing ones.

**Selected procedures for organizing the celebration of international years:**

- Years having economic or social themes should be primarily directed towards promoting international development efforts in practical ways.
- Measures and activities to be carried out at the international level should complement and support measures and activities at the national level.
- There should ordinarily be national committees or other mechanisms for preparing for, conducting and following up the international year at the national level.
- There should be effective coordination of the activities of the United Nations organizations and bodies concerned, so as to avoid any duplication of activities.

(Source: United Nations, 1980)
• promote and defend cultural heritage of mountain communities/
societies;
• pay attention to frequent conflicts in mountain areas and to promote
peace-making in those regions.

Objectives are to be achieved through: information generation and
exchange; awareness raising and sensitization; education, training and
extension; documentation of best practices and formulation of recom-
mendations based on successful field case studies; and promotion of
mountain-specific policy formulation and legislation.

In order to fulfil the general guidelines for international years (see
Box 3), IYM observance should be action-oriented through the promo-
tion and initiation of events, income-generating activities for poverty
reduction, activities supporting indigenous people or other vulnerable
groups (e.g. low-income groups and women), sustainable use of natural
resources (water, land, forests), and preservation of biological diversity
and ecological systems. Both national and international efforts should be
made. The IYM will be successful if there is considerable follow-up at
the different levels, translated to effective action at field level.
Main actors/networks and their roles

Many institutions and individuals worldwide have already been operational for several years in promoting sustainable mountain development. This provides an invaluable opportunity to involve a broad variety of stakeholders in IYM preparation and to adopt a strong cooperative and interactive approach, sharing the tasks within a common framework. The institutional set-up provides an overview of the main players involved in mountain-related issues and in IYM preparations.

The existing organizational structure has been active for several years in Chapter 13 implementation. This structure will continue to operate and play a key role in IYM preparations and observance. It consists of:

- **FAO** as Task Manager for Chapter 13 and lead agency for the IYM.
- **Other key UN agencies**, such as UNESCO, UNEP, UNDP and the United Nations University (UNU), which collaborate with and support FAO in these roles.
- **The Inter-Agency Group on Mountains**, a mix of UN agencies, bilateral donors, NGOs and research institutions, which provides conceptual guidance and advice.
- The **Mountain Forum** network, which provides mutual support, information sharing, and advocacy for mountain peoples and environments.

Other actors and organizational structures will also play important roles.

The idea to establish an **International Patrons Committee** was endorsed by the Inter-Agency Group on Mountains in March 1999 and is being implemented.

**National governments and decentralized authorities** are the major players in implementing sustainable mountain development. They have an important responsibility in ensuring that strategies and best practices for the management of the fragile resources and sustainable human development in mountain areas are promoted and facilitated through appropriate programmes, policies and legislation. FAO, UNESCO, UNEP, UNDP and UNU will be responsible for maintaining contact with their respective national constituencies to raise awareness and readiness to support focused national activities in the context of
INTERNATIONAL YEAR OF MOUNTAINS: INSTITUTIONAL SET-UP

UN organizations

- FAO (lead agency)
- UNESCO, UNDP, UNEP, UNU (collaborating agencies)
- Other UN organizations

National governments and decentralized authorities

Mountain Forum

Major NGOs

Mountain people and communities

Inter-Agency Group on Mountains

Private sector

International Patrons Committee

Donor organizations

Research institutions

Other individuals and institutions from civil society
the IYM. A reporting mechanism will be set up to monitor progress and promote dialogue.

A real challenge to all actors involved will be to find innovative funding mechanisms for activities designed for the IYM. Each player should certainly endeavour to fund own activities. However, donor agencies are essential in supporting common core activities, most importantly the development and conservation programmes anticipated from IYM observance. The UNGA resolution proclaiming the IYM suggests strong partnerships in funding the overall package of IYM implementation.

The UN resolution specifically calls for collaboration from non-governmental organizations. NGOs generally enjoy strong ties with local communities through grassroots projects and participatory approaches in mountain areas; they could be instrumental in promoting implementation and translation of local sustainable development strategies. In addition to development-oriented NGOs, many other NGOs have various interests in mountain areas (e.g. the World Mountaineering and Climbing Federation and others for recreation, the World Wide Fund for Nature [WWF], etc. for conservation). With its unique dual governmental and non-governmental constituency, the International Union for the Conservation of Nature has a particularly important role to play.

Strong collaboration from research institutions in the IYM is also crucial. Strategies and guidelines for sustainable mountain development will only be efficient and effective with a solid scientific foundation. Research institutions have made major contributions to awareness raising on the global importance of mountain resources through recent scientific results on freshwater, biodiversity, climate change, land degradation and rehabilitation, and tourism development in mountain areas. The IYM also represents an opportunity to promote scientific cooperation that will lead to the development of innovative research programmes.

Mountains are an important source of minerals, forest products, water, recreation, etc. Given its crucial impact in mountain areas, private sector participation in IYM implementation is highly desirable for both awareness raising and sustainable mountain development.

Mountain people and communities are the primary target groups of all activities carried out under Chapter 13 and the IYM. They are repositories of indigenous knowledge and experiences regarding the ecology, fragility and opportunity potential of their environment. Mountain community contribution and cooperation to the IYM are essential in basing the development of best practices and policy formulation for sustainable mountain development on consummate knowledge, and practical experience. The voice of mountain communities is also important in ensuring they obtain optimal benefits from efforts to improve their livelihood systems in the IYM and beyond.

Individuals and institutions from civil society in mountain as well as lowland areas, which do not belong to one of the above groups of partners but which have a strong interest in mountain-related issues, will be encouraged to contribute to the extent possible in the successful implementation of the IYM and its sustained follow-up. Indeed everyone can contribute through action, proper behaviour in mountain environments, sharing of experiences and proactive support.

As far as possible, links and cooperation with institutions involved in preparations for the International Year of Ecotourism should be established to make optimum use of synergies and achieve maximum success for both events.

Thematic concept

Sustainable mountain development includes a wide range of topics, calling for interdisciplinary, integrated approaches. Priorities cannot be the same in different mountain regions of the world. The concept for IYM preparation and implementation should reflect this diversity, and be flexible and adaptive.

The diagram opposite represents a first step towards developing and structuring activities for the IYM. The concept is articulated in three main clusters:

- The thematic clusters list the variety of mountain-related issues which might be considered high priority and addressed in one way or the other in IYM implementation (details in Annex 1).
- The clusters of methods and means for implementation indicate the ways in which the selected thematic elements might be designed and implemented. These clusters were defined at a brainstorming session during the fifth meeting of the Inter-Agency Group on Mountains in March 1999 (details in Annex 2).
- The geographical clusters address the level (global, regional, national and local) at which initiatives will be carried out.

The diagram provides a catalogue of ideas that can be used as a rough guideline for action. It should help partners to identify ways in which they can join IYM efforts: a specific partner may be designated to take the lead in a priority topic from the thematic clusters. Subsequently the partner will identify the method or means for implementing the activity and, finally, the geographical scale for addressing the issues is specified.
INTERNATIONAL YEAR OF MOUNTAINS: THEMATIC SETTING

Players and partners

Examples of thematic clusters (details in Annex 1)

- Natural resources:
  - climate
  - water
  - soil
- Resource use:
  - agriculture
  - forestry
  - water
- Socio-economic themes:
  - tourism and recreation
  - micro-enterprise and markets
  - people and culture
- Integrated themes:
  - watershed management
  - highland-lowland interactions
  - mountain protected areas

Clusters of methods and means for implementation (details in Annex 2)

- Awareness raising, communication, publication
- Training, education, capacity building
- Research
- Policy issues
- Implementing programmes
- Events

Geographical clusters

- Global dimension
- Regional dimension
- Subregional dimension
- National dimension
- Local dimension

Funding institutions

Projects

Stakeholders

Expected results

Clusters of methods and means for implementation (details in Annex 2)
Given the large number of themes already identified and in view of the magnitude and diversity of possible activities and undertakings, it is clearly necessary to prioritize in order to achieve tangible and realistic results. To some extent, priorities can be set on geographical scales since elements in the thematic clusters might lend themselves to be tackled in specific geographical settings. The following suggestions are made to this end:

- **Global level priorities:** climate change, biodiversity conservation, freshwater resources, ecotourism, cultural heritage;
- **Regional level priorities:** trade, highland-lowland linkages, watershed management, migration and other perceived needs in specific regions;
- **National level priorities:** policies, legislation, national strategies and planning and programme formulation for conservation and development;
- **Local level priorities:** people, gender, communities, local economy and interaction with the outside world, livelihoods, culture, conservation and development of natural resources.

However, the priority issues and implementation strategies may vary from mountain system to mountain system, from continent to continent. It would therefore be unwise to set more rigorous IYM priorities in this paper; this would narrow the scope of action and prevent agencies from taking regional or local priorities into consideration. This paper thus confines itself to defining the IYM framework and proposing ideas. Partners are called upon to set priorities according to needs in specific regions, formulate appropriate initiatives and inform the IYM lead agency of their intentions, activities and progress.

**Management considerations and reporting**

According to the guidelines for international years (see Box 3), national level initiatives and activities play a central role and represent the key to success and implementation. Countries are requested to form National Committees or other mechanisms for IYM preparation, celebration and follow-up. Italy, Kyrgyzstan, Peru and Switzerland are already well advanced in setting up these committees. In order to assist countries to take the necessary steps, the example of the Italian Committee and its setting-up process are specified in Box 4.

From the interaction among UN agencies, governments, NGOs and research institutions, the members of the Inter-Agency Group on Mountains combine unique and broad expertise on mountain-related issues from a variety of perspectives. At its fifth meeting in March 1999 in Rome, the group decided to assume the role of an international coordinating body for the IYM. The meeting also concluded that each actor
The Italian Committee for the International Year of Mountains

THE ESTABLISHMENT OF THE ITALIAN COMMITTEE FOR THE IYM

1998: initiatives at various levels (Parliament, Ministries of Foreign Affairs and of Research, Regional Administrations, etc.) for promoting Italian support of the IYM; definition of a tentative programme of activities;

Early 1999: participation in the Inter-Agency Meeting in Rome (Agenda 21, Chapter 13); establishment of the Italian Committee for “2002 - IYM” as a working group;

April 1999: accreditation of the Italian Committee by the Ministry of Foreign Affairs and the Permanent Italian Representative to the UN;

Late 1999: participation in the Mountain Forum Council meeting and the Inter-Agency Meeting in Peru; finalization of the Italian programme for “2002 - IYM” (final draft);

January 2000: official founding of the Italian Committee with legal (private) status through the signing of an articles of partnership document, subsequently registered with the state; establishment of an association fee and authorization of logo;

2000 and beyond: promotion of scheduled Italian events leading up to and during the International Year of Mountains celebration, in accordance with the values and objectives stated by the United Nations; and definition and promotion of a global strategy (communication, events, fund raising) involving national/local government and the private sector in a bilateral cofinancing system.

THE CHARACTERISTICS OF THE ITALIAN COMMITTEE FOR THE IYM

Legal status: Committee (private deed of partnership signed on 17 January 2000). The Italian Committee is made up of: Assembly of Founding Organizations, Honorary Committee, President, Executive Board and Executive Director, Treasurer, Scientific Consultants;

Assembly of Founding Organizations (and relative fields of activity):
• “The Friends of the Mountains” Parliamentary Group - Governmental aspects;
• The National Union of Mountain Communities, Municipalities and Institutions - Aspects regarding the development of mountain regions;
• The Courmayeur Foundation - Judicial and legal aspects;
• The Ev-K2-CNR Committee - Scientific and environmental aspects;
• The Giovanni Angelini Foundation Centre for Mountain Studies - Cultural and sociological aspects;
• The “Duca degli Abruzzi” National Mountain Museum - Aspects regarding the conservation of cultural heritage;
• The Trent Film Festival - Aspects of communication and cultural propagation.

Duration: until 31 December 2003.

Objective: to support projects and events that respect the objectives outlined by the United Nations.

The Ev-K2-CNR Committee has been elected as the Italian Committee Executive Secretariat and all activity coordination will be carried out by them through their offices in Bergamo, Via Martiri di Cefalonia, 4 (Tel. +39/035/247411 - Fax +39/035/240697) and Rome, Via di Pietra, 70 (Tel. +39/06/69925182-69783178).

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interested in taking responsibility for a specific initiative should define the initiative, its thematic focus, implementation strategy, different activities, timing, budget and sources of funding. This process should be carried out in close contact with the lead agency in order to make use of synergies and to avoid duplication and overlap.

The Mountain Forum has a particular niche in IYM preparations and observance by establishing and facilitating links to individuals, NGOs and other organizations in the regions, and by translating overall strategies into the specific conditions of different mountain areas. The decentralized structure pursued by the European Node of the Mountain Forum in particular is a useful model to consider in carrying out these tasks.

As IYM lead agency, FAO is responsible for overall coordination of the IYM process, providing conceptual guidance, facilitating activities and initiatives, and assisting in establishing links with the International Year of Ecotourism. FAO intends to fulfil its responsibilities through an open and collaborative approach, fully utilizing the depth and breadth of the Organization’s own expertise and experience as well as the support and guidance of the Inter-Agency Group on Mountains.

Financial considerations

It is clear that funding from international agencies will be inadequate for successful preparation and celebration of the IYM and that additional financial resources are needed. In fact, the UNGA resolution on the IYM calls upon the various actors involved to make voluntary contributions and provide other forms of support. There are different ways to tackle this: in addition to the establishment of “traditional” donor relationships with international, bilateral and multilateral agencies, it is essential to develop diversified, alternative and innovative approaches to fund raising:

- Contributions from the private sector, philanthropic personalities and foundations represent an avenue worthy of serious consideration.
- Another area to explore further is to identify well-known personalities to act as “Goodwill Ambassadors” in promoting the IYM idea and possibly to play a role in mobilizing funding.

According to the deliberations of the fifth meeting of the Inter-Agency Group on Mountains in March 1999, individual organizations should be responsible for mobilizing funding for the initiatives they are going to undertake; however, overall efforts should be carefully documented. A global, comprehensive, coherent fund-raising strategy is important for the successful mobilization and efficient use of funds.
The IYM objective is to promote the conservation and sustainable development of mountain regions and to ensure the well-being of mountain and lowland communities. The IYM should provide an opportunity to initiate processes that eventually advance the development of mountain communities, and act as a “springboard” or catalyst for long-term, sustained and concrete action. Activities should enhance all aspects of mountain development and apply participatory approaches involving various stakeholders. Accordingly, the projected results of a successful IYM will be manifold, appearing at various levels.

Expected global outputs:
- Information on mountains, mountain resources and sustainable management practices for their conservation and development will improve and concrete action will be initiated.
- Awareness of the importance of mountains, the fragility of their resources and the necessity of sustainable approaches to mountain development will increase through broad public dialogue (competitions, media products, publications, training material).
- A number of long-term research and/or development projects will be initiated, addressing critical issues in mountain areas: sustainable use of resources (water, soils, forests, minerals), impacts of climate change, biodiversity conservation, protected area management, ecotourism, cultural heritage, sustainable mountain economy.
- Signs of improved livelihood systems in mountain areas will be apparent and identified.
- Principles, instruments or any other type of agreement on sustainable mountain development and conservation will be formulated and agreed.

Expected regional outputs:
- Regional mountain conferences and/or consultations before or during 2002 with broad participation will further heighten awareness of the importance of mountain areas and the fragility of mountain ecosystems.
- Progress will be made in discussions regarding interactions between upland and lowland communities and related issues such as recognition and compensation.

Expected national outputs:
- Guidelines and appropriate policies for sustainable mountain
development and conservation will be developed and successfully implemented in a number of countries.

- Training material and curricula on mountain-related issues will be developed, widely used and integrated into the educational programmes of schools, universities, alpine clubs, sport clubs, tourism organizations, agricultural schools, etc.
- Mechanisms will be set up to monitor the implementation of sustainable mountain development at national level. As one option, this role could be taken up by the national committees that were established for IYM preparations.
- Disaggregated data (including by gender) on mountain areas at the national level will be collected.

Expected local outputs:

- There will be more local initiatives and operational activities effectively targeting sustainable mountain development, reasonable use of resources, and income-generating activities and improvement of livelihood opportunities.
- Supporting activities will be initiated particularly targeting indigenous people or other vulnerable groups (low-income groups and women).
- Successful mechanisms will be set up to ensure local empowerment and participatory approaches in the use of mountain resources.

In order to learn from the experiences of a previous international year, some key outputs achieved during the International Year of Oceans 1998 are listed in Box 5.

Experiences from the International Year of Oceans 1998

- Over 200 conferences and workshops were held.
- A number of cruises for research teams were organized.
- Seventeen publications related to oceans were issued.
- An Ocean Charter, signed by 30 countries, was developed.
- Educational kits for oceans were produced.
- Promotion material (stamps, stickers) was launched.
- A Web site on the International Year of Oceans was established, which had considerable success.
- Oceans were the overriding theme at the EXPO 1998 in Lisbon.
- Press hits and releases, films and videos were produced.
- Cultural and sporting events were organized.
- Ocean Awards were given to people who carried out specific projects related to oceans on national level.
- Voluntary efforts were initiated: clean up of beaches.

(provided by Thomas Schaaf, UNESCO)
A core set of elements constitutes the hub of IYM activities; these elements are defined and designed to serve common goals and overall sensitization among partners.

**Information management:** Given the many stakeholders involved in IYM activities and the interdisciplinary nature of the issues, transparent communications and well-organized information exchange constitute key factors for effective IYM coordination and preparation as well as its successful observance. The main actors involved in IYM-related activities must have access to regularly updated information on mountain-related field activities, planned meetings, recent publications, interesting experiences, etc. It is critically important to collect and analyse relevant and disaggregated data on mountain areas at regional, national and even subnational levels. A number of institutions such as the Mountain Forum are already successfully operating databases on mountain-related issues. All actors involved in IYM observance will be encouraged to report systematically on progress made, new initiatives, planned events, etc. FAO’s task is to facilitate exchange and partnership among institutions having common interests and goals, thereby helping to build synergies and avoid overlap. Details on the reporting mechanisms will be made available in the near future.

**Internet site:** The official IYM Internet site being developed will be linked to many other Internet sites worldwide dealing with Chapter 13 and mountain-related issues. In addition, it is expected that each institution involved in mountain-related issues and IYM preparations will develop an attractive, interactive and dynamic Internet site. Common elements from the official Internet site regarding Chapter 13 and the IYM – introduction to the IYM, history, mission statement, objectives, etc. – could be usefully incorporated into many specific Web pages on IYM issues.

**Logo:** A logo has been created for activities carried out in the IYM framework. The selected logo can easily be adapted (different languages, different sizes, etc.) and can be used for various uses (Web pages, letterhead, T-shirts, medals, stamps, etc). The rules and regulations for logo use are set out in the relevant section of the IYM Internet site.

As lead agency, FAO is instrumental in creating and servicing overall building blocks for the IYM. Specifically, in close collaboration with
other partners and within its overall mandate, FAO will produce:

- **information packages** and promotional material for the IYM;
- **issue papers** for the IYM;
- **country guidelines** outlining options for IYM preparation and observance;
- **documentation** of overall the IYM observance and celebration.
Mountains clearly represent more than just areas of high peaks, tourist attractions or natural hazards; mountains are the water towers of the world, and areas of great biological diversity hosting rich forests and unique land-use systems. Due to their remoteness, people living in mountain areas have developed rich cultural heritage but often suffer from economic constraints and poverty. All these characteristics make mountain areas extremely sensitive to mismanagement of their natural resources and external influences on local economies and cultural heritage, as well as to the effects of global change. But despite their fragility and harsh environments, mountain ecosystems can also be resilient and offer considerable opportunities in support of sustainable development.

UNGA’s decision to observe an IYM in 2002 constitutes a milestone in the process of raising awareness concerning mountain areas, their global importance and the fragility of their resources. It offers an outstanding opportunity to improve livelihood opportunities for mountain inhabitants, to promote sustainable use and conservation of resources, and to increase knowledge on mountain ecosystems. It is important not to squander this opportunity, but to ensure that all the events and activities organized in IYM observance lay the foundation for ongoing action towards the conservation, sound management and sustainable development of mountain resources for the benefit of mountain communities and indeed the whole of humanity.
Key publications
(with integrated focus and global/continental coverage)


Mountain Institute, 1998: *Sacred mountains and environmental conservation*. A practitioner’s workshop. 15 pp. Franklin, West Virginia, USA.


ANNEXES

Annex 1: Details for the thematic clusters

**Natural resources**
- Climate: basic facts, rainfall (total and intensity), snowfall (total and intensity), temperature, aridity/humidity, climate change
- Water: basic facts, discharge characteristics, water quantity, water quality, water balance
- Soil: basic facts, geological underground, soil types, soil erosion
- Biodiversity: basic facts, geographical patterns, plant species, animal species, endangered species, endemic species, environmental conservation
- Forests: basic facts, tree species, tree cover, forest resources assessment, forest quality, canopy layers
- Earth resources, minerals

**Resource use**
- Agriculture: basic facts, crop species, land-use systems, livestock, marketing, crop yields, cash crops, off-season crops, indigenous strategies, pest management, soil conservation
- Forestry: basic facts, fuelwood, agroforestry, plantations, harvesting, supply, trees outside forests, non-wood forest products, ecological roles of forests, biodiversity conservation
- Water: basic facts, irrigation, domestic use, pollution, hydropower production, industrial use
- Mining

**Socio-economic themes**
- Tourism and recreation: basic facts, ecotourism, close links to the International Year of Ecotourism, identifying tourist attractions, dangers, constraints and opportunities, ecological and socio-cultural impacts
- Trade and transportation: basic facts, roads, rail, air, construction, instability, transit, conflicts
- Financial strategies and mechanisms: microenterprise and markets
- People and culture: basic facts, gender, education, cultural diversity, poetry/songs, traditional knowledge on resource use
- Sacredness: basic facts, religion, ecological and conservation benefits

**Integrated themes**
- Watershed management: basic facts, main issues, integrated approaches, people’s participation
- Gender issues
- Highland-lowland interactions: basic facts, ecological interactions, social interactions, economic interactions, cost-benefit
- Risks, hazards: basic facts, floods, landslides, avalanches, earthquakes, volcanoes, pollution, degradation
- Mountain protected areas: UN list, gaps in coverage, maps of mountain protected areas, corridors along ranges and altitudes, parks and reserves
- Conflicts: basic facts, development and protection, international river systems, ethnic conflicts, economic conflicts
- Comparison of facts, methods, approaches over continents
- Integrated mountain development
- Environmental education on mountains
- Health and well-being
- Policies
Annex 2: Ideas for the clusters of methods and means for implementation

**Awareness raising/communication/publication**
- Definitions: mountains, sustainable mountain development
- Popularized brochures: key issues in mountain areas
- Audiovisual production: films, news items, TV, radio emissions
- Circulation of UN resolutions among governments
- IYM promotion pack
- Strengthening existing networks and regional cooperation, improved channels of communication
- Promotion: essay competitions on mountains; promoting personalities
- Planning game on sustainable mountain development with different scenarios
- National Geographic and other publications (Royal Canadian Geographical Society, etc.)
- Goodwill ambassadors (celebrities)
- Slogans, catchwords, logo
- Rio +10 World Bank Environment/Development Report with focus on mountains
- Pilgrimages to sacred mountain areas
- Music (folk music, classical, traditional instruments)
- Mountain art
- Promote traditional mountain products
- Preservation and development of cultural heritage (CD on mountain monasteries/buildings, indigenous materials, surrounding environments, houses, cultural traditions, oral histories, etc.)
- With a special agenda increase awareness about mountain populations: expedition base camp clean-up week, sustainable mountain tourism month

**Training, education and capacity building**
- Development of guidelines, holding of seminars on best practices in sustainable mountain development
- Guidance to the formulation of appropriate mountain policy and legislation
- Guidelines for the mapping out of the institutional landscape
- Conservation guides
- Indicative mountain development programme: operational review of Agenda 21, Chapter 13
- Academic strengthening of university training course in montology (sponsoring new faculty modules on mountains)
- Curricula, events and activities for schools
- Promote people-to-people information exchange meetings (transfer of traditional technology): e.g. Latin America (Cotocachi, Cherokee) to Appalachia (2001)
- Initiatives on mountain and biological diversity

**Research**
- Comparison of mountain areas of the world: key processes, key problems and driving forces
- Establish a global mountain database (images, glaciers, problems, etc.)
- Replicate photography environmental change in mountain areas/landscape change
- Quantifying costs of migration from mountains
- Promotion of montane cloud forest network (production of an atlas)
• Recognition and strategies for new health hazards in mountains
• Excavations of high mountain ancient settlements on the Great Silk Road (Kyrgyzstan, planned 1999-2002). To be suggested for other areas

Policy issues
• Coordinated efforts of UN, governmental and non-governmental organizations. Avoid duplication/conflict of efforts and activities
• Coordination of government actions
• Influence the global and regional world organizations (WTO, WTTC, etc.) to take mountain issues into consideration
• Tie mountain issues to CCD, CBD, IFF, SIDS and other conventions
• Involve the private sector
• Promotion of transborder peace-making process (conventions, agreements)
• Conflict resolution in mountain areas
• Culture-based environmental conservation (sacred mountains)

Implementing programmes and activities for conservation and development
• Network of mountain projects worldwide linked, common ideas coordinated, exchange and cooperation
• Focused projects, specific themes, case studies
• Pilot project on highland-lowland interactions established and in operation
• Coordination of activities
• Transfer of local experience on policy decisions and vice versa. Horizontal and vertical interactions
• Continuing awareness raising process (political, institutional, scientific, cultural)
• Develop integrated concepts for mountain landscapes (linking biological and cultural diversity, political and economic impact)
• Web page IYM (FAO), IYM Web site connections, linkages
• Bring the mountain issues into the Ecosystems Conservation Group (UNEP)
• Gender-balanced mountain development
• New national park and protected area initiatives, e.g. Iceland (by 2002), Mont Blanc (by 2002), Aletsch (by 2002)
• Work in the villages
• Mountain villages, Kyrgyzstan, 1999-2002
• Demonstration sites
• Operationalizing Chapter 13

Ideas for events (possible categories, not specific events)
• International Conference “Mountain Ecosystems Conservation and Development: Mountain Heights 2002”
• Meetings of specific networks
• Regional mountain meetings
• National mountain meetings
• Technical workshops
• University and research institutions symposia
• Indigenous representatives’ meeting for mountains
• Mountaineering gatherings
• Food security in the mountains of the world (topic for World Food Day 2002)
• Briefing workshops for journalists