Approaches to Sustainable Mountain Development: Documenting a wide variety of experiences.

A CONCEPT NOTE

1. Why focus on mountains?

Mountains are highly fragile ecosystems and are globally important as water towers, 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. Mountain ecosystems are essential to the survival of the global ecosystem. However they are rapidly changing and are susceptible to accelerated soil erosion, landslides and rapid loss of habitat and genetic diversity. There is widespread poverty among mountain inhabitants and loss of indigenous knowledge. As a result, most global mountain areas are experiencing environmental degradation.

During the 1990s mountains received increasing attention on global agendas. In the light of rapidly growing awareness of the importance of mountain areas Chapter 13 of UNCED Agenda 21 focuses on sustainable mountain development highlighting the urgency of action. In 1998, the UN General Assembly declared 2002 the International Year of Mountains (IYM) offering a good opportunity and exiting challenge in the follow-up to Chapter 13. The FAO was invited to act as the lead agency for the IYM.

The IYM

The IYM is an important step within the long-term process of raising public awareness and ensuring adequate political, institutional and financial commitment for concrete action towards implementing sustainable mountain development. The overarching goal of the IYM is to promote conservation and sustainable development of mountain regions, thereby ensuring the present and future well-being of mountain and lowland communities.

The main objectives of the IYM can be summarized as:
- to promote the conservation and sustainable development of mountain regions
- to ensure the well-being of mountain and lowland communities
- to be a catalyst for long-term, sustained and concrete action
- to enhance all aspects of mountain development and apply participatory approaches involving various stakeholders

Sustainable mountain development

The word sustainable defines the use of a resource without depleting or permanently damaging it. 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".

Mountains are highly vulnerable to unsustainable human action. Therefore the fragility of mountain ecosystems represent a considerable challenge to sustainable development due to the fact that the impacts of unsustainable development are more rapid, heavier and more difficult to correct than in other ecosystems. The recent trend towards greater globalization has in some mountain areas tended to erode social and cultural integrity of mountain societies due to increased and accelerated contact with the outside world. Unsustainable development can be observed in many areas of human activities including forest, rangeland and water management, landuse, socio-economic aspects, social services, tourism, etc. The consequences are serious and irreversible degradation of the environment as soil erosion, pollution of natural waters, disruption of water and energy balances, food deficit, malnutrition, poor standard of living, etc. The basic requirements for sustainable development in various fields have to be considered carefully and should involve equal attention to ecological, economical and social considerations, application of integrated approaches and ensuring people's participation.

2. Documentation of case studies

Objectives
An important focus of FAO’s IYM-related activities is to assist countries in the development and refinement of policies and strategies related to sustainable development and management of mountain regions and their fragile resources. For this purpose the IYM Coordination Unit plans to carry out an in-depth and critical analysis of sustainable mountain development approaches established and implemented since 1980 in different mountain regions of the world and to document case studies of such experiences. Case studies will be selected to demonstrate the wide variety of approaches to sustainable mountain development that have been undertaken in recent years. With this initiative it is intended to share the lessons learned and to promote an exchange of experiences among a broad variety of stakeholders. The main objectives of the proposed documentation of case studies can be summarized as follows:

- Raising awareness on the importance of sustainable mountain development
- Sharing and exchanging knowledge and lessons learned in sustainable mountain development approaches
- Motivate and initiate steps for appropriate future strategies for sustainable mountain development
- Contributing to the implementation of Chapter 13

Output
The discussion and documentation of the case studies will be presented in an Issues Paper to be published in the framework of the IYM 2002. The document will also be made available on the WEB and as a CD-version. Depending on the funds available this publication could be followed by a series of documents which would have a more specific thematic, geographical or institutional focus.
Target audience

The documentation of the case studies is designed for:
- a variety of stakeholders (local leaders, grassroot organisations, project managers, researchers,...) who are involved in sustainable mountain development activities at the local level;
- planners and decision makers involved in designing and planning sustainable mountain development initiatives;
- policy makers from a variety of sectors whose work impacts on mountain regions and mountain people.

3. Selection of case studies

Due to interdisciplinary nature of sustainable mountain development, the selection of appropriate case studies is a complex and difficult task. The intention is to represent a wide variety of topics and approaches, without necessarily attempting to assess or rank them in any comparative way. It is proposed that a case study should fulfill the following criteria in order to be included in the review:
- developed and implemented after 1980
- have a long-term orientation towards sustainable mountain development
- provide benefits for the local people and mountain communities.

Types of case studies

Mainly two types of case studies are envisaged:

Type A: case studies with a thematic focus - one main theme is approached by various stakeholders
**Example: water resources in the highland-lowland system of Mount Kenya**

- **Core theme:** water resources
- **Stakeholders:** pastoralist, agro-pastoral smallholders, large scale ranches, large scale horticulture, international tourism, wildlife park, intake of urban centers, etc..

**Facts:**
Mount Kenya is the second highest mountain in Africa and provides water to over 2 million people.

**Problem:**
The transformation of land use systems in the region is accompanied by very high population growth rates which affect the water resources. Increased water abstraction for irrigation in the highlands reduces the amount of water flowing downstream to the pastoralists, the ranchers and the wildlife parks of the semi-arid lowlands, whose survival depends on this mountain water. Conflicts around water resource are increasing and there is an urgent need for management solutions.

**Objectives:**
The study is monitoring the impact of land use changes in the highlands on the availability and quality of water in the lowlands. The main challenges are the search for efficient use of mountain water resources, for equitable distribution of scarce water, and for effective land and water management policies to secure a stable water supply for the downstream users. The complex ecological and socioeconomic dynamics in the highland-lowland system of Mount Kenya are analysed and an integrated strategy for mitigating the emerging conflicts over water resources is presented.

**Type B: case studies with a geographical focus - several themes and aspects are integrated in a geographical region**

\[\text{IN\textbf{DIAN}}\]
\[\text{HIMALAYAS}\]
\[\text{LADAKH}\]

- renewable energy
- health and healing
- agriculture
- handicrafts
- women's alliance
- cultural exchange
Example: protecting cultural and biological diversity on the Tibetan Plateau - The Ladakh project

Facts:
Ladakh is an extremely harsh environment and one of the highest and driest inhabited places on earth. For centuries the area was home to a rich and self-sustaining culture. There is only very little natural plant growth (few small succulent plants, some grasses and moss), the people have developed very specific agricultural adaptations in order to survive. Through a complex network of irrigation canals and through ingenious methods of fertilizing soils people produced more than enough food for their needs.

Problem:
In the early 1970s development started. First roads were built and cultural self-esteem started to erode through idealised images of the western consumer world. Development is gradually undermining the entire culture and results in increasing community and family breakdown, unemployment, sprawling of urban slums and pollution.

Objectives:
The objective of the ISEC project is to establish more sustainable patterns of development based on the use of local resources and indigenous knowledge to improve the well being of the Ladakhi people. ISEC is supporting:
- food and farming: seed-saving programme, networking with farmers, village workshops, solar greenhouses, etc.
- renewable energy: hydraulic ram pumps, solar room heating, solar water heaters and cookers, micro-hydro installations and small wind turbines, etc.
- women's alliance of Ladakh: raising the status of rural women and strengthening local culture and agriculture
- cultural exchanges: encourage genuine dialogue between Ladakh and the West
- health and healing: helping traditional doctors to keep their ancient knowledge alive.
- handicrafts: setting up handicrafts co-operatives and training centres in villages

How to collect case studies?
The selection of the case studies will take into consideration that each continent should be represented including both industrialized and developing countries and that a wide variety of topics is included. For the identification of appropriate case studies it is intended to involve three main groups of partners:
- experts from FAO headquarters in Rome and FAO Representatives in country offices
- members of the Interagency Group on Mountains
- donors with experience in mountain related projects(e.g. GEF, World Bank, DANIDA, etc.)

Presentation of the case studies
Each case study will be presented -in 10-15 pages in an Issues Paper with pictures and graphs comparable to the Swiss-supported thematic brochures which are prepared every year by the Mountain Agenda for the CSD. The discussion of each case study should follow a standardised structure:
- a map, showing the geographical location of the case study
- indication of project manager and leading agency
- themes and objectives of the case study
- implementation of the project or initiative
- results, were the objectives achieved?
- lessons learned, highlighting the sustainability issues (in a box)

4. Implementation strategy

The following immediate steps are envisaged:
- Developing the concept note in the IYM-Coordination Unit at FAO
- Sending the concept note to key partners in order to solicit feedback (comment, ideas, input...)
- Refining the concept note by incorporating the incoming comments and suggestions; transform the concept note into a project proposal
- Developing an implementation strategy
- Fundraising for the project

The implementation of the project could be assigned to volunteers and consultants with relevant expertise in sustainable mountain development approaches. In order to ensure the appropriate selection of case studies and an optimum stock-taking of available expertise, a close collaboration with partners is envisaged. In view of the tight schedule, a pragmatic and efficient approach will be required to implement the project.