

Looking Ahead with Agenda 21

Summary Country Statements

Bangladesh	Kyrgyzstan	Pakistan
Bhutan	Laos	Papua New Guinea
China	Mongolia	The Philippines
India	Myanmar	The Russian Federation
Indonesia	Nepal	Thailand
Iran	New Zealand	Vietnam

Statements by International Organisations

ICRAF CIP IBSRAM UNEP FAO

BANGLADESH

Although the hilly areas of Bangladesh, better known as the Chittagong Hill Tracts, constitute about 10 per cent of the land and one per cent of the population, it is of great socioeconomic significance to the country. The Government of Bangladesh has been taking several measures to raise the living standards of its hill population. The strategy for development not only addresses agricultural development but also the development of social sectors such as literacy, health, and family planning practices and training in newer skills along with strengthening the old and traditional skills and craftsmanship.

In conformity with its pledge at Rio, the Government has recently completed the National Environmental Action Plan with the participation of the local people and grassroots' organisations. It has also prepared a draft Forestry Master Plan and the concerns of the hill area people have been taken into account in the preparation of these documents. The Government has also adopted the local participatory mechanism as an integral part of its national planning process in the preparation of the forthcoming perspective plan, on expiry of the present five-year plan. The Government has also made it mandatory to carry out Environmental Impact Assessment (EIA) for the approval of any development project.

BHUTAN

Being a late comer into the development process, the natural resources of Bhutan are largely intact and it is the policy of the RGOB to ensure that this rich endowment is preserved and that development is sustainable. Thus, in Bhutan, environmental planning precedes environmental degradation and the principles of sustainability are embodied in government policies that are being implemented.

Subsequent to the UN Conference, Bhutan has incorporated the concerns and issues of Agenda 21 into its 7th five-year plan programmes which embody the following six principles: self reliance, sustainability, efficiency and development of the private sector, people's participation and decentralisation, human resource development, and regional balanced development. Bhutan has established bilateral sustainable development cooperation, under which the rich countries provide technical and financial assistance and the developing countries in return share their rich and unique cultural and traditional values and biodiversity.

Emphasis is being given to comprehensive family planning, developing an integrated and more balanced land-use planning capacity, watershed management, hydropower generation, more participatory involvement of the rural people in sustainable resource use and management for individual and collective benefits, implementing a very restrictive and conservation-oriented forest policy, preserving Bhutan's rich biodiversity, maintaining its rich cultural heritage, and strengthening government institutions to ensure efficient forward planning in relation to the environmental impact of new activities.

CHINA

The complex mountain areas of China constitute 66.57 per cent of its total area and 33 per cent of its population live there. Because of social, economic, and geographic constraints, economic development in these mountain areas is slow and even backwards. It is difficult to improve the living conditions of the people, eliminate poverty, and develop the local economies in these poor areas without a strong focus on sustainable use of natural resources, mobilisation of the people, and a substantial investment programme.

China's mountain development priorities focus on 1) the development of national plans of action for mountain areas, 2) the development of mountain database, 3) human resource development, 4) increased international and regional cooperation, 5) population control, and 6) seeking financial assistance.

So far, emphasis has been given to increasing food supply, providing hybrid seeds and plastic film, and building high quality farmlands, including other measures such as afforestation, conservation of water and soil, improving the ecological environment, and export of labour.

In the context of Chapter 13 of Agenda 21, the most important activity would be to integrate watershed management. The experience of China in this field is similar to those experienced by other countries in the region. Effective participation of the local people is the key to developing the economy and to preventing further ecological imbalance.

INDIA

Geological instability interacting with a complex of problems (including population pressure, deforestation, landslides, erosion, water scarcity, outmigration, and poverty) typifies the fragility of the Himalayan ecosystem. Despite all these problems, apparent in the degradation of the Himalayan environment and the poor living standards of its people, the region has several "resource rich spots".

All the initiatives mentioned in Chapter 13 of Agenda 21 are in operation as far as India is concerned. The Government of India has formulated a concrete action plan which is being followed in principle jointly by all the institutions working for the Himalayas and in the Himalayan Region.

Areas being emphasised for the development of the Indian Himalayas include water management and soil conservation, management of forest resources, improving non-conventional energy sources, promoting sustainable farming systems, improving the management of livestock, developing horticulture, preservation of biodiversity and implementation of different conservation strategies, improving transport and communications in mountain areas, promoting tourism, developing industries, improving health and nutrition, and management of natural hazards.

The Government of India has also made it mandatory to carry out Environmental Impact Assessment before implementing any development project and in the case of water resource-related projects it is mandatory for the project proponents to evolve a watershed development programme and delineate the lifespan of the project.

INDONESIA

The high rates of economic growth combined with rising population have put further pressure on the limited land, water, and other natural resources. The Government of Indonesia is adopting a sustainable development process to ensure a balance between economic growth and the conservation of natural resources and the environment.

Indonesia faces high rates of soil loss owing to "unwise" use of upland resources. Neglect of upland agriculture leads to two consequences. First, once the upland soils are severely impaired, it requires large amounts of time and resources for rehabilitation and development. Second, upper-watershed areas or uplands tend to be more crowded and the direct and indirect external consequences of such farming activities contribute to a decrease in welfare conditions. An appropriate policy is therefore required to control soil erosion on highly crowded, upper-watershed areas especially on deep and less erodible soils.

In the sectoral policies, agricultural development will be directed towards raising the quantity, quality, and diversity of agricultural products; environmental development will be directed towards balancing natural resource use and population growth; the forestry programme will strive to preserve approximately 92.4 hectares of protected natural forests and improve the living standards of those living in and around the forest areas; and the water resources' policy will be directed towards controlling damage to the environment, strengthening water resources' institutions, and supporting programmes for the development of regional water resources.

IRAN

The complexity of mountain environments and a long history of human settlements in the mountain areas of Iran has created traditional modes of exploitation with specific modes of resource allocation which not only take into account the constraints of this environment but even change them into favourable advantages. In these mountainous traditional modes of exploitation, special attention has been given to all or some of the following points.

Complementary uses of (potential) different micro-environments in each one unit of settlement (village), and/or each unit of production (farm or pasture).

Using strict social regulations (traditions) accepted by everyone to control the pressure exerted upon natural resources, to preserve these vital resource bases for future generations.

Acceptance and even taking advantage of limitations and constraints imposed by the environment by adoption of a territorial organisation of resource allocation, i.e., nomadism.

Existence of various temporal (seasonal) superposition of different modes of production to achieve a multi-objective, land use pattern.

Iran has started to appreciate the specificities of mountain environments and although it has traditional knowledge and experience it is somewhat lacking in scientific experience. Iran seeks to have close interactions with more experienced international research and planning bodies in other countries.

KYRGHYZSTAN

The Republic of Kyrgyzstan has a wide variety of landscape—desert, steppe, forests, alpine meadows, to glacier fields (arctic type). It is very rich in terms of hydropower and mineral resources and has great potential for tourism.

However, heightened geological activity is a major constraint resulting in heavy economic loss and loss of human life. Qualitative implementation of investigations using highly precise and sensitive equipment and automated operative data processing are being used to make prognoses about earthquakes. Preventive measures include qualitative, seismostable constructions. Maintaining greenery in such areas is being emphasised.

Nevertheless intense economic activities carried out to meet modern requirements are exploiting the natural resources without taking into account its specificities thereby destabilising the ecological balance. Sixty-four per cent of the soil in the Republic is subject to erosion and 30 per cent of its pastureland is highly degraded. Contamination with heavy metals has reduced both the variety and quantity of the flora and fauna of the country. Unfortunately, in the discussion of the economic and social development of the Republic, no mention is made of the ecological aspects but measures to mitigate these problems will certainly be included in the national plan of action.

LAOS

The conditions in the mountains of the Lao People's Democratic Republic are in many ways different from those found in many other Asian countries: the population density is low and the natural environment is relatively rich. But increasing population, improved infrastructure, increasing timber prices, and increased foreign investments are exerting pressure on the natural resources. Much of the development potential is in the mountainous areas, where the environmental conditions are particularly prone to deteriorate. Regarding development in the management of natural resources, there are four areas of particular interest to the Government.

Agriculture: Shifting cultivation is the predominant cropping system in the mountains. Stabilisation of shifting cultivation is a major concern to the Lao Government, because of the threat to the forest, water, and hydropower resources. This is attempted through regulations on land use, expansion of the paddy areas, improved cropping systems in the hills, and social development work. Terracing has been introduced in Northern Lao PDR and is gaining popularity.

Forestry: Logging remains an important source of foreign revenue, with a total exported income of US\$44 million in 1993.

Hydropower: Laos currently has two major hydroelectric dams with a total generating capacity of 800 Gwh, of which 80 per cent are exported to Thailand.

Minerals: With the introduction of the government's new economic policy, foreign investment in joint ventures to exploit the rich minerals of Northern Laos is increasing.

Conservation: The Lao Government has become increasingly aware of the need to balance economic development with long-term management strategies and conservation of forests and wildlife. Measures currently being implemented include: legislation to protect the existing forest, management plans to stabilise shifting cultivation, and allocation of about 10 per cent of the land as protected areas where exploitation will be excluded, except for local people already living there.

MONGOLIA

The mountain areas of Mongolia are very rich in terms of diversity, in flora and fauna, and in sun, wind, and hydro energy. However, it faces the same problem of not being able to harness them without destabilising the ecosystem.

Establishing national 'Preserve Zones' for natural landscape and its flora and fauna was identified as a prerequisite for sustainable development of the Mongolian mountain areas. A law regarding special 'Preserve zones' has recently been promulgated. The Government of Mongolia has also realised the imperative favourable conditions it has for the development of tourism and has initiated work in this direction with a focus on establishing and developing the infrastructure. Measures are also being taken for establishing natural national parks, prevention of natural diseases, and the creation of scientific information systems.

The necessity for rational management of the land-use policy has also been realised: development plans and programmes must be reconditioned based on the classification of what kinds of activities are permitted and what kinds are forbidden. Creation of alternative sources of livelihood is also a major problem. Initiatives towards sustainable mountain development have begun in Mongolia, but success can only be achieved if regional and international support and collaboration are also forthcoming.

MYANMAR

The remote mountain areas of Myanmar, besides being isolated, have similar problems as those in other countries of the region; the local populace practice unwholesome activities leading to an ecological imbalance. The Government of Myanmar is endeavouring to change this by providing them alternative means to maintain a decent livelihood. In order to achieve this, it was imperative to launch an integrated mountain area development initiative through the concerned line agencies.

Development activities are being carried out in 16 regions of five states and two divisions of the union of Myanmar and 18 subcommittees have been formed to implement the measures effectively. Development activities are being carried out primarily in the fields of roads and transport, education, health, energy, agriculture, forestry, livestock breeding, communications, mineral exploration and mining, trade, domestic science and vocational training, and public relations.

In addition to the joint efforts being undertaken by the various government line and support ministries, assistance has also been obtained from the UN agencies and international organisations in terms of inputs, transfer of technology, and also cash and services in kind for these development efforts.

NEPAL

The major environmental problems in Nepal are caused by land degradation, deforestation, and pollution. Poverty is the root cause of environmental degradation. Land and forest resources are overexploited because of heavy dependence on the natural resource base, while water and mineral resources are underutilised owing to lack of financial resources and infrastructure.

The areas for priority attention under the current Eighth Plan, a 21-year Forestry Sector Master Plan, and the Nepal Environmental Policy and Action Plan are: reduction in population growth; poverty alleviation; conservation of biological diversity and environmentally-sound management of biotechnology; strengthening and expanding national institutions for training, education, research, and management capability for sustainable development; improving the physical infrastructure; development of water resources; and preservation of the natural heritage of the country and the rich cultural heritage of its people. The National Environmental Impact Assessment (EIA) Guidelines were endorsed in May 1992 and environmental protection was included under the directive principles of the Constitution of Nepal in 1990.

The immense biodiversity extending from the humid tropics to an alpine temperate ecosystem in Nepal can provide an ideal location for further research on biodiversity as well as on land degradation processes. Nepal also considers the importance of research in light of the interrelationships between the people, resources, environment, and development in the mountains.

NEW ZEALAND

Chapter 13 is a useful "enabling and empowering statement which allows, and indeed, requires, policy development for individual countries to employ it." Two issues are important for each of us - first, we should each give priority to establishing the referential database of mountain lands and peoples that has been requested in CSD 95. Second, we should listen to mountain peoples, with their own diversity and experiences. The database is only one dimension of our informing, reorienting, and focussing efforts if we have worthwhile individual country developments of Chapter 13.

It is my personal hope and expectation that New Zealand's traditional sharing in development work across the whole range of mountain terrains from Turkey in the west to China, the Philippines, Vietnam, and Papua New Guinea in the east tends to be focussed on mountains. Mountains in the tropics provide the opportunity for increased relevance of temperate agriculture and forestry. This has been acknowledged by numerous speakers at this meeting. Their grateful allusion to New Zealand and Australia is acknowledged. What I emphasise is what was brought out at the inaugural of the EAPMA conference, that this sharing is a two-way process with benefits to both parties. I am conscious of enrichment of especially non-material kinds which I and other New Zealanders and Australians have derived from shared work experience in continental and insular Asia and the Pacific. Such shared work has included fields as diverse as water resource development, nature conservation, forestry, recreation, tourism, animal husbandry, agriculture, and horticulture, as well as community development and infrastructural development.

PAKISTAN

About 40 per cent of the total area of Pakistan consists of mountains and uplands. Owing to heavy biotic pressure and overexploitation of natural resources, particularly water and vegetation, these mountain areas are subject to degradation. However, soil erosion due to reduction in plant cover is the major problem. The vast mountain areas depict signs of resource base depletion. Unchecked disturbances of the physical, ecological, and biological cycles have upset the entire natural balance:

Realising the importance of the limited natural resources, the Government of Pakistan has initiated several programmes and projects for the rehabilitation of these deteriorating areas.

The 1992 National Conservation Strategy specifically recommends integrated development of mountain areas. The Forestry Sector Master Plan, also formulated in 1992, further prescribes specific programmes for afforestation of the denuded mountain watersheds and conservation of the remaining meagre forest resources.

Pakistan has ample knowledge and technical knowhow in cultivating valuable mountain crops, such as apples and citrus, in the dry mountains and in the management of pastures and grazing lands and is prepared to share its experience with other countries of the region. Any collaborative programme or project in this field shall receive its full support.

PAPUA NEW GUINEA

The problems that exist in the mountainous areas of Papua New Guinea are common throughout the region, namely, population increase, increasing use of marginal lands, rapid depletion of the resource base, and superimposition in the areas of cultural diversity and diversity of flora and fauna. Being an island nation, the coastal and marine resources are equally important as the fragile mountain resources. Therefore, the interrelation between the two is of prime concern.

The mountains of PNG are rich in mineral resources and the pace of development has been quite fast, taking into consideration the fact that these mountain areas had access to roads and infrastructure only in the mid-1960s. After Rio, the Government of PNG has been quite active in implementing the initiatives taken by the conference. The Department of Environment and Conservation is spear-heading programme coordination and programme development based on Agenda 21 and several programmes and projects that complement these initiatives are already underway.

A Tropical Forest Action Plan had commenced, but it was felt to be too narrow in focus and therefore a National Forestry and Conservation Action Plan was formulated. This programme has an intersectoral steering committee and is conducting programmes that demand high technical input. Projects that have been completed include biodiversity mapping of the whole of PNG and rapid resource upgradation. A project that deals with 'land owner awareness' is also being implemented by a non-government organisation. A National Sustainable Development Strategy has been submitted to the Government for endorsement. The Government also accords high priority to strengthening existing institutional capacities and to human resource development.

THE PHILIPPINES

In response to the June 1992 Earth Summit, a national conference attended by representatives from all levels was held in the Philippines to draw up priority actions to set into motion Agenda 21 in line with the provision set out in the

Philippine Strategy for Sustainable Mountain Development. This resulted in the formulation of the Philippines' Agenda 21 under which priority actions were drawn towards combating deforestation, protecting biodiversity, and protecting the atmosphere.

To hasten its implementation, the Philippine Government established the Philippines Council for Sustainable Development in September 1992 and also issued a Memorandum Order. The Philippine medium-term plan now contains the following thrusts: undertaking ecological profiling and physical framework planning at the national, regional, and provincial levels; strengthening financial arrangements and security for upland farmers; affirming and enforcing ancestral land rights and the rights of indigenous communities to develop their ancestral domains using sustainable land management practices; adopting proper pricing and accounting for all forest products and commodities; establishing community-based forest resource management and production systems; and studying the traditional practices of indigenous people in biodiversity conservation for possible emulation.

THE RUSSIAN FEDERATION

The mountain areas of the Russian Federation possess an astonishing diversity of natural, climatic, ethnic, social, cultural, historic, and economic peculiarities.

However, an extraordinary vulnerability of the natural and sociocultural habitats, resulting in the instability and fragility of the ecological balance, is common throughout. This destruction of the natural system, the traditional production methods, and the mountain people's way of life was mainly owing to strict centralisation in planning and management with disregard for mountain specificities. The economic structure was based mainly on the exploitation of natural resources.

The situation has somewhat changed now and the local administrative institutions of the mountainous regions have been entrusted with the authority for the preservation of nature, ecological balance, and the distinctive native cultures. But this effort has to be combined with active scientific-organisational work on the part of the state, the scientists, the community, and international organisations in order to achieve long-term sustainable mountain development. Planning and management have to be done taking into account distinctive local specificities.

Current development efforts are focussing on the preservation and regeneration of resources' potential; preservation and development of the cultural and historical heritage; increase in employment opportunities; development of education, science, and infrastructure; developing alternative energy sources; increasing production; livestock breeding; industry; and health and recreation aspects.

THAILAND

About one-third of the area of the Kingdom of Thailand is mountainous. Like its neighbouring countries, about two-thirds of its forests have been destroyed by nomadic hill tribes whose livelihood depends on shifting cultivation.

To divert mountain development to a sustainable path, the Thai Government is undertaking the activities listed below.

1) In order to restore the forest environment, rehabilitation through reforestation is being given first priority by the Thai Government. 2) To mitigate poverty among the indigenous people living in the mountain areas, increasing their level of income is urgent, therefore, cash crops and new agricultural techniques are being introduced. 3) Perennial crops and fruit trees are being introduced to ensure that the hill tribes settle in one place. 4) To preserve biodiversity, conservation of forests by proclaiming them national parks or wildlife sanctuaries is being carried out. 5) Building roads in remote areas is being given priority to ensure that the mountain people have access to markets. 6) To reduce population pressure on the natural resources, family planning programmes are being implemented even among minority groups. 7) Since all hill tribes speak different languages and are illiterate, education is very important if the government expects to get their cooperation and participation in sustainable development, therefore schools have been built in mountain areas wherever possible.

VIETNAM

The mountainous areas of Vietnam account for 3/4 of the national territory and, like the mountainous areas of other countries in the region, they are in a serious state of degradation. The mountainous areas are mostly inhabited by ethnic groups who constitute 13 per cent of the total population. These minority ethnic groups have been identified as those having a primary concern in the mountainous ecosystems and numerous national programmes have been devised to uplift them, with due consideration given to avoid destabilising the environment on which they survive.

A ministerial-level Committee for Ethnic Minorities and Mountainous Areas (CEMMA) was established in 1993 to look into the sustainable development of mountains and their people. This committee carefully analyses all mountain development programmes that involve exploitation, use, and mobilisation of natural resources in the context of benefits to and development of the ethnic communities.

Future attention will be geared to providing investments to those targetted for fixed cultivation; linking fixed cultivation with forest allocation; assisting communities having favourable conditions for the formulation of commodity production zones; programmes to assist ethnic communities with sudden difficulties; highland socioeconomic programmes; programmes for population and labour readjustment; and programmes for application, training, and universalisation of scientific technologies.

STATEMENTS BY INTERNATIONAL ORGANISATIONS

ICRAF

International Centre for Research in Agroforestry

The highlands of eastern and central Africa form an important region, both economically and from an environmental point of view. However, the high population growth rate has led to intensive cultivation resulting in environmental degradation, deterioration of the water resource base, and reduction in agricultural productivity. To address these problems, seven different agricultural research centres and national agricultural research programmes have launched a collaborative initiative called the African Highlands Initiative to look at ways of improving nutrient availability, reducing nutrient losses, improving nutrient cycling, synchronising nutrient availability with needs, and protecting plants under intensive cultivation systems. The overall governance of this collaborative initiative, coordinated and facilitated by ICRAF, falls under the Association for Strengthening Agricultural Research in Eastern and Central Africa which is made up of 10 different national programmes in the Region. ICRAF is keen to share the information and experiences gained from the above programmes with mountain areas in Asia.

CIP

International Potato Centre

Consortium for Research and Development in the Andean Ecoregion (CONDESAN) was launched to catalyse and bring together all efforts to develop the Andean ecoregion and basically to integrate research and development activities. It has had successful experiences in several of its initiatives. But what is important is a global link. CIP has recognised the use of CONDESAN's expertise and the importance of learning from the experiences of other areas. It is therefore integrating with ICRAF and ICIMOD in a global initiative towards sustainable mountain development.

CIP hopes that this collaboration will come up in the near future and that there will be a potential exchange of useful knowledge and experiences between the Himalayas, the highlands of eastern Africa, and the Andes.

IBSRAM

International Board for Soil Research and Management

To harmonise existing research with a view to improving the effectiveness of its outputs and outcomes and to target and implement new research where it is thought to be needed, six consortia, under specific topics, have been formed. This is a very important initiative and, quite clearly, it is relevant to ICIMOD and ICIMOD cooperatives. They have a very important role to play in all this, especially in ensuring that efforts and initiatives that have begun in this respect are sustained and produce results in the long run.

UNEP's three functional strategies in support of Agenda 21, Chapter 13, are comprised of: a) environmental assessment of mountain ecosystems, b) environmental policy development, and c) facilitating environmental management responses with special focus on support to environment-related research and national capacity building.

UNEP will focus on regional issues in the Mountain Agenda. The state of the Himalayan environment is a concern for UNEP and it is hoped that there will be close collaboration with ICIMOD in this area. UNEP is, for instance, negotiating its contribution of funds to the ICIMOD project on the State of the Environment and Development of the Hindu Kush-Himalayas. The Terrestrial Ecosystem Branch is ICIMOD's counterpart in UNEP.

Mountains did not emerge as a subject for a special chapter until fairly late in the preparatory negotiations of UNCED. The incorporation of a chapter on sustainable mountain development in Agenda 21 was mainly due to the efforts made by a group calling itself "Mountain Agenda", consisting of the International Mountain Society, the Swiss Development Cooperation, the United Nations University, the East West Centre, IUCN, the University of Bern, the Russian Academy of Sciences, and the International Centre for Integrated Mountain Development (ICIMOD). Several UN agencies and the World Bank also provided inputs including cost estimates to the UNCED secretariat.

The *ad hoc* inter-agency meeting on Chapter 13 convened by the Task Manager, FAO, in March 1994, and the NGO planning workshop on the Mountain Agenda convened by The Mountain Institute (TMI), have produced a productive cooperative network of Inter-governmental Organisations and Non-governmental Organisations concerned with sustainable mountain development. There is agreement that a political and economic "mountain lobby" needs to be generated enabling mountain people to fully demonstrate their potential contribution to sustainable development, with a thorough understanding of the specificity of mountain issues, similar to the outcome of the debates on small island states.

The main proposals for action, identified through a broad participatory process involving the major NGOs, include five areas in which progress is deemed to be urgently needed: poverty eradication; strengthening country capacity; raising awareness through the preparation and organisation of a World Conference on Sustainable Mountain Development; and formulation and negotiation of regional or subregional mountain conventions and possibly the development of a global mountain charter.