PHYSICAL CHARACTERISTICS
Nepal is predominantly a mountainous country. It has 147,181 sq.km. of land for a population of about 22.3 million. Ecologically, the country is divided into three regions: mountain (4,877 m - 8,848 m above sea level), hills (610 m - 4,877 m), and the Terai (59 m - 610 m). The mountain region covers about 35 percent of the land area of the country. Only about two percent of its land area is cultivable. Almost all big rivers of Nepal originate here. The hill region consists of several peaks, fertile valleys, and basins. It accounts for 42 percent of the country’s total land area. One-tenth of this area is suitable for cultivation. The Terai region forms a low flat land occupying 23 percent of the country’s total land area, with 40 percent of its area being cultivable.

Apart from the ecological division, the country is divided into five development regions, 14 zones, and 75 administrative districts. There are 16 districts in the mountain zone, 39 in the hills, and 20 in the Terai.

SOCIO-ECONOMIC LIFE
The importance of mountains in human life notwithstanding, mountain communities often have to face hardships in life both in social and economic terms. Nepal is a living example for this. The country is blessed with eight out of the 14 world’s highest peaks that rise above 8000 meters. Nepal’s 850 species of birds constitute some 10 percent of the world’s bird species. More than two percent of the world’s flowering plants are available in Nepal. About five percent (246 species) of the total world flora are reported to be endemic to the country. The mountain region accounts for almost one-third of the endemic species. These figures mean much when one takes Nepal’s size into account. The country represents a meager 0.1 percent of the world’s landmass.

However, this natural wealth has not been able to ease the poverty-smitten life of mountain people. Even basic socio-economic indicators operate against them. There is a wide variation in the incidence of poverty across the three ecological zones. Disparities are also seen in social indicators. Access to social services such as health, education, and drinking water is much more limited for mountain communities compared to their counterparts living in the Terai. On the other hand, human poverty index is the highest in the mountains followed by the hills.

Difficult terrain, lack of transportation facilities, limited cultivable land, and unfavourable climatic conditions are major problems. A total of 20 mountain districts are yet to be linked to motorable roads. Even in the districts linked by roads, the network of feeder roads is rudimentary. As a result, the costs of inputs and marketing are sometimes too high to be competitive.

However, it is not always true to say that Nepal’s hills and mountains have only problems. There are also opportunities. They particularly have enormous potential in terms of production of high-value crops such as tea, coffee, cardamom, mushroom, fruits, off-season vegetables, and flowers. The mountain region is also good for seeds production. In addition, there are some ‘premium’ products such as the yak cheese in high mountains. Large pasture areas in the mountains offer good prospects for sheep farming, which may be a good source of raw material for Nepali pashmina (woolen shawls).

Non-timber forest products (NTFPs) are another major source of income for mountain communities. Among NTFPs, medicinal and aromatic plants (herbs) are most important in terms of economic value. Some 690 species of herbs have been identified. Nearly 100 of them are actively traded. Tourism is another area of economic importance.

POLICY REGIME
National policies
The overriding objective of Nepal’s development efforts is poverty reduction. The Ninth Plan (1997-2002) for the first time defined long-term (20 years) targets for poverty alleviation. The recently adopted approach paper for the Tenth Plan also expresses commitments to bringing down the number of people living in absolute poverty.

In keeping with the international trends, Nepal has been implementing economic reform programmes based on liberalisation. High importance is being attached to macro-economic stability. As an aid-dependent country, Nepal’s development policies should also find concurrence among donors. Accordingly, a ‘priority reform programme’ has been adopted. Major reform areas identified in this programme include macroeconomic stability, private sector development, financial sector reform, good governance, aid effectiveness, and an enhanced role for civil society. An increasing investment in the social sector is another policy priority. The subson...
project of public-private partnership is also receiving an increasing policy support in Nepal’s development agenda.

**Sectoral policies**

The national policies are being reinforced by sectoral policies. Relevant policies will be discussed below.

(a) Trade, investment, and industry


These initiatives aim at deregulating and streamlining investment procedures. Both domestic and foreign investments are encouraged. Foreign investments in almost all sectors except for a small negative list of cottage and small industries are allowed. The liberalised trade regime refers to elimination of quantitative restrictions and import licenses. Reduction and rationalisation of tariff rates has been a further policy initiative. Export procedures have also been simplified, and bonded warehouse and duty-drawback facilities are available to exporters. These measures have resulted in a higher trade-gross domestic product (GDP) ratio, which was about 42 percent in 2001. Similarly, the export-GDP ratio has almost doubled over the past 10 years and reached 14 percent in 2001. On the other hand, trade in services has been steadily increasing.

Despite the policy enthusiasm about foreign investment, the flow of foreign direct investment (FDI) into Nepal has been very low compared to other countries in South Asia. Small size of domestic market, inefficient bureaucracy, and lack of trained manpower have been identified as major impediments. In the foreign trade sector, the country is doing relatively well with the proportion of trade deficit being reduced to 14.5 percent in 2000 from 25 percent in 1996.

(b) Agriculture

With 81 percent of Nepal’s labour force employed in agriculture, the agriculture sector is pivotal for making any move to increase incomes, alleviate poverty, and enhance living standards. Accordingly, this sector has been given top priority in the Ninth Plan with a view to achieving broad-based growth. The 20-year ‘agricultural perspective plan’, formulated in 1995, aims at increasing the agricultural growth rate from less than three percent in the past 20 years to five percent during the next 20 years. The Plan is regionally balanced. It intends to prioritise investment in production pockets so as to transform the subsistence-based agriculture into commercialised agriculture.

Like other sectors of the economy, agriculture has been liberalised. Elements of liberalisation include:

- Deregulation in distribution of chemical fertilisers
- De-monopolisation of the supply of seeds by the Agricultural Inputs Corporation
- De-controlling prices of agricultural inputs
- Withdrawal of irrigation subsidy on shallow tube wells
- Withdrawal of transportation subsidy for food grains (given up to motorable roads)
- Creation of marketing centers
- Establishment of a ‘national agricultural development fund’ for competitive grants for research and development activities
- Partnership and contract-based extension services through private service providers
- Privatisation of veterinary services
- Establishment of revolving funds in partnership with farmers’ groups

However, the agriculture sector grew only by 2.5 percent during the 1990s against 4.0 percent in 1980s. Poor growth in this sector has adversely affected the goal of poverty reduction. The trend continues in the Ninth Plan. The mid-term review of the Plan shows, for example, agricultural GDP growing at 2.9 percent annually against the targeted 6 per cent.

(c) Forestry and environment

Policy measures in this sector include community forestry development, forestry products development, national and leasehold forests, plants research, national parks and wildlife conservation, soil and watershed conservation, and wetlands. Policy measures in the sectoral framework for achieving environmental protection include the National Environment Conservation Policy, 1992; the Environment Protection Act, 1996; and the Environmental Impact Assessment Act, 1997. These measures emphasise, among others, environmental impact assessment, species protection, and the use of traditional knowledge. More specifically, the major initiatives include the introduction of a ‘national environment policy and action plan’ with the participation of all stakeholders.

Nepal’s development plans, especially since 1970s, have been emphasising the need for environment management. In 1993, a ‘national environment policy and action plan’ was introduced. The Ninth Plan re-emphasised it as a national level policy. Also the sectoral policies include strategies to improve environmental conditions. In the mean time, Environmental Protection Act (1996) and Environmental Protection Rules (1997) have come into force. These legislative instruments emphasise, among others, environmental impact assessment (EIA) of development activities. Altogether, 216 types of activities are required to follow the EIA process. Besides, Nepal has ratified 16 environment-related international conventions.

(d) Mountain development policies

It is an irony that Nepal, though a mountainous country, does not have specifically designed mountain development policies. Even the Ninth Plan has forgotten to reflect on mountain development. It has been rightly observed that mountain people remain invisible to Nepal’s policymakers.

There are, however, some policy initiatives that refer to mountain development. Already in early 1970s, the concept of regional planning was introduced which covered the districts in hills and mountains. But, it did not go beyond some temporary exercises. There are four sets of initiatives undertaken specifically for mountain development: (a) regular government programmes implemented by line agencies at the local level, (b) integrated rural development programmes, (c) remote area development programmes, and (d) local development programmes led by local government institutions.

The government’s environment conservation programmes referred to above include initiatives to protect mountain resources including parks, water bodies, and wild animals. They go sometimes too far in protecting natural resources and ignore the need to protect people first. This has led to the out-migration of population from mountains. It is against this background that the government is trying to create more economic opportunities for mountain communities. Expan-
of NTFPs and herbs farming are examples. Other policy instruments, which help use mountain resources more appropriately, include:

- National Conservation Strategy 1989
- Nepal Environmental Policy and Action Plan 1993
- Natural Parks and Wildlife Conservation Act 1973
- Water Resources Act 1992
- Forest Act 1993
- Environment Protection Act 1997

Farmers’ rights

The concept of farmers’ rights, which emerged in the debates at Food and Agriculture Organisation (FAO), acknowledges the contribution of farmers to the conservation and development of plant genetic resources. It also foresees protection of farmers from the commercially motivated intellectual property systems. Specifically, this concept intends to protect the interests of farmers against International Union for the Protection of New Varieties of Plants (UPOV), an international agreement signed in 1961 to provide strong monopoly rights to breeders of new plant varieties.

Nepal is not yet a party to UPOV. Neither has Nepal any legislation to protect plant breeders’ rights on new varieties. There is also no specific law on farmers’ rights. Nepal has ratified the Convention on Biological Diversity (CBD). The Nepal Treaty Act (1990) provides that provisions of an international treaty/convention, to which Nepal is a party, supersede domestic laws as far as they are inconsistent with the treaty. In this sense, provisions of CBD are mandatory. However, Nepal has not been able to take appropriate steps to implement its provisions on access to genetic resources and benefits sharing. It must be mentioned here that the Environment Protection Act is the first legislative initiative to define biodiversity. The Act and the Rules framed under it require foreigners to obtain approval from the Ministry of Forest and Soil Conservation to carry out research on plant varieties, genetic resources, and biodiversity.


The IPR regime

Nepal’s intellectual property right (IPR) laws date back to 1936 when the first Patent, Design and Trademarks Act was promulgated. This was replaced by a new Act with the same name in 1965. This is still in force. A Copyright Act is also in force since 1965. In this long history, a total of 44 patent and 29 design protections have been granted to industrial entrepreneurs. Out of them, 17 patent and 24 design applications were of foreign origin. This shows Nepal’s limited capacity in terms of industrial innovation.

Nepal’s IPR regime is different from Trade Related Aspects of Intellectual Property Rights (TRIPS) in matters of (i) period of patent protection (seven years), (ii) coverage (geographical indications and trade secrets excluded from protection), (iii) patentability (requirements of Article 27.3.b of TRIPS left open), (iv) enforcement (ineffective border measures, poor institutional response, and negligible punishments), and (v) flexibility (no provisions for compulsory license, parallel imports, and sui generis protection).

The government is therefore working for the amendments to these laws. The work is underway. The government is working together with civil society organisations in designing appropriate mechanisms for the protection of biodiversity. A ‘national biodiversity committee’ has been formed under the leadership of the National Planning Commission. Relevant laws are being drafted.

IMPLICATIONS OF WTO MEMBERSHIP

Nepal has an observer status in the World Trade Organisation (WTO). Accession negotiations are going on. Once the country joins the WTO, mountain communities will be affected. There are opportunities and challenges.

Opportunities

The recently concluded fourth Ministerial meeting of the WTO at Doha has recognised the need for duty-free market access for least developed countries (LDCs) like Nepal. This means an enhanced market access for Nepal’s export products in the international market. Given the requirements under the Agreement on Agriculture (AoA) to cut subsidies, it could be expected that production costs would increase in developed countries which in turn will make Nepal’s products more competitive. This can also lend support to Nepal’s efforts at export diversification, that includes products from the mountain zone. Cash crops such as cardamom, ginger, tea, and linseed are examples. Besides, the already increasing trade in NTFPs would receive a further boost. Farm and non-farm incomes of mountain communities would thus rise.

At Doha, WTO members have also agreed to seek reconciliation between TRIPS and CBD. Should this happen, mountain communities can have a share in the benefits that accrue through the use of bio-resources they “own”.

Challenges

It is equally, and even more likely, that the mountain communities lose from the country’s membership in the WTO. Three Agreements of the WTO pose a direct threat to them: AoA, Agreement on the Application of Sanitary and Phytosanitary (SPS) Measures, and TRIPS.

Firstly, the subsistence farming practices in the mountains could face problems from commercialised agriculture, aggravating the already food-insecure situations. Commercialised farming weakens traditional system through the use of chemical pesticides and fertilisers, over emphasis on cash crops, and monoculture. The abolition of agricultural subsidies could also deal a severe blow to the mountain farmers. Secondly, their products may be denied access to foreign market.
RECOMMENDATIONS

Policy measures at the national level

(a) Mountain development
- Formulate specific mountain development policies taking into account the socio-cultural and economic factors in different mountain environments.
- Promote complementarities and interdependence between diverse ecological belts within the mountain zone through appropriate technologies, infrastructure, and human resources development. Differentiate mountains from hills, high hills, and the Siwalik range, with the attention on accessibility and marginality, and not on altitude alone.
- Work out a ‘master plan’ to manage water resources, environment-friendly transportation, environment conservation, and energy use in a mountain specific manner.
- Undertake land-use planning focusing on linkages between mountains, hills, and the Terai.
- Integrate crops, livestock, and forestry into a single package of interventions.
- Combine resource protection with the protection of people.
- Identify production pockets on the basis of competitive and comparative advantages.
- Focus on unique characteristics of the mountain zone in terms of production and productivity.
- Streamline activities of government agencies, non-governmental organisations (NGOs), and donors.
- Use the existing link of the mountain region with Tibet for more productive interactions between communities on both sides of the Himalayas.

(b) Farmers’ rights
- Define framers’ rights and protect them through a separate Act, granting the farming community the rights to save seeds and exchange or sell harvest.
- Design an appropriate IPR regime replacing the two existing Acts (Patent, Design and Trademarks, and Copyright), explicitly excluding life form from patentability.
- Design a new biodiversity protection law incorporating the spirit of CBD and provide legal recognition to community-based biodiversity register.
- Increase public funding for agricultural research and promote public-private partnership in the development of the agriculture sector.
- Create a network of rural roads and enhance agricultural productivity.
- Streamline donor activities to suit national needs.
- Promote awareness among farmers about the implications of the WTO regime to them.

Policy measures at the international level

(a) Mountain development
- Collaborate with neighbouring countries in increasing physical accessibility to the mountain zone, for example, by promoting ‘green roads’.
- Collaborate with foreign governments/international institutions to promote mountain development, for example, within the framework of International Centre for Integrated Mountain Development (ICIMOD).
- Sensitise the international community on specificity of mountains and their relationships with human beings, for example, within the framework of International Year of Mountain (IYM) 2002.
- Create a network of mountain development institutions to promote information exchange and experience sharing.

(b) Farmers’ rights
- Use regional trading blocs such as South Asian Association for Regional Co-operation (SAARC) to voice concerns about farmers’ rights.
- Ensure binding commitment and special and differential (S & D) treatment for LDCs with regard to the implementation of the AoA.
- Reconcile the provisions of TRIPS with those of CBD in line with the work programme adopted at Doha.
- Define the term ‘invention’ more precisely.
- Provide technical and financial support to LDCs in creating/strengthening the institutional infrastructure for maintaining and developing the IPR administration.
- Ensure food security even with some degree of protectionism allowing, for example, special safeguard measures and flexibility for net food importing countries.
- Provide intellectual property protection for indigenous knowledge and folklore.
- Ensure compatibility of the sui generis system with CBD.