

Development Strategies: 'Lead Sector' Approach and Intersectoral Linkages

Two points need to be especially kept in mind during the assessment and ranking of activities on environmental and economic bases. Firstly, an activity's environmental and economic impacts need to be assessed in totality; and this should include the impact that the linked activities as prerequisites or resultants will produce. Thus, the impact has to be seen within an integrated and interlinked framework. Secondly, mountain areas are generally not suitable for a highly diversified economic structure because of problems of ecological fragility and inaccessibility, and, therefore, a limited number of activities based on the **'niche' or comparative advantage** of the area concerned should be considered for promotion. In other words, development planning in mountain areas will have to rely primarily on a lead sector(s) strategy, specialising in a few

sectors and avoiding development of all conceivable activities. This approach, no doubt, is contrary to the conventional notion of self-sufficiency and implies a larger role for trade in goods and services. This seems essential for the improvement of living standards in the mountains, as insistence on self-sufficiency is likely to condemn them perpetually to poverty. This has several implications, of course, relating to the access to markets, infrastructure, and, particularly, food security. But it should be possible to take care of these issues if mountain specificities are taken into account in national policies for the development of activity and programme structure, infrastructure, and public support systems in mountain areas.

A development approach requiring a shift in economic structure from one oriented towards subsistence and self-sufficiency to one of commercialisation, specialisation, and trade, immediately focusses on the importance of **infrastructure and related technologies**. Development of infrastructure, especially for **transport** and energy, in mountain areas requires special consideration of two aspects: one, its impact on ecology and environment and, two, its effective use for development of the local area and improvement in the standards of living of the people. There are specific problems in each of these aspects in the context of mountain regions. For instance, development of a road network involves environmental costs and hazards, besides requiring huge investments without necessarily bringing in commensurate returns. On the energy front, continuous use of fuelwood to meet the requirements of an increasing population leads to shrinkage of forests; and establishment of large hydro-electric plants with large dams has the potential for significant environmental and human dislocation. The issues of appropriate modes and technologies for the provision of infrastructure, therefore, assume special significance in the mountains. Technologies for road building and other construction activities that minimise ecological disturbance and environmental hazards and risks and use of non-road modes of transport, improving the use-efficiency of biomass energy, promoting solar and wind energy technologies, and generating electricity through mini- and micro-hydel plants are some of the options that need to be actively pursued to provide infrastructure in mountain areas.

Providing infrastructure does not in itself induce the development of income-generating activities in mountain areas, as postulated in the conventional theory of development. The linkages that develop on their own with the development of infrastructure in the plains do not easily materialise in the mountains. On the contrary, development of transport sometimes leads to more 'backwash' than 'spread' effects, through extraction and drainage of mountain resources for profit-making elsewhere. Thus, roads, for example, which have led to changes in cropping patterns through introduction of more remunerative crops, faster development of local resource- and skill-based products, and better financial returns as a result of access to markets in the villages in the plains, have only succeeded in bringing about a change in consumption patterns in favour of urban products paid for from remittances from the increasing number of migrants, with little or no impact on the production economy of mountain villages. Similarly, use of the generating capacity, even of the 'appropriate' micro-hydel power plants, has been found to be extremely low due to the lack of demand for non-domestic use. It is possible to sell electricity to outside users, and, in fact, in some mountain regions, plans to develop electricity as a tradeable commod-

ity are being seriously considered. This could be a useful development if the revenues realised from the sale of electricity could be used in the development of the region. This, in turn, would depend on the ownership of the power plants and suitable plans for the development of investment opportunities in the area.

In view of the weak linkages which characterise underdeveloped areas, in general, and mountain areas in particular, planning for infrastructural development needs to be accompanied by and integrated with planning for development of directly productive activities. It should be recognised that provision of transport facilities and power has the potential for improving the production economy and the standards of living significantly. In mountain areas, this potential can only be realised through integrated planning. In addition, the development of communication systems, despite having no adverse environmental impacts and being of crucial importance for marketing and trade, has not received adequate attention as a part of mountain infrastructure and needs to be recognised as a priority for mountain development.

In addition to the linkages between infrastructure and economic activity, linkages among different economic activities are equally important for effective realisation of the economic gains of development in an area. Even in a niche-based, lead-sector approach, in which trade plays an important role, development of minimum production linkages within the area is necessary for both cost-effectiveness and maximisation of economic benefits for a wider population. For example, processing of primary products, instead of mere production, collection, and export, would lead to increased value-addition, employment of the local labour force, and an increase in the 'spread effects' of development. Development processes and the use of new equipment and technology require various kinds of services and repair facilities. Normally, these forward and backward linkages are expected to develop on their own once the lead activities take off, but, in mountain areas, suitable conditions and policies have to be developed to realise these linkages.

An important aspect that needs to be kept in mind in a lead-sector, trade-oriented development process for mountain regions is the likely changes that may take place in economic and social structures, particularly in respect to equity. Mountain communities have, generally, not been known for a very high degree of economic and social inequality, since a predominantly subsistence-oriented economy does not produce either the super rich or the destitute. Privately-owned resources (basically land) do not have a highly skewed distribution, and all have access to public or community-owned resources. Social differentiation has existed on caste, tribe, and ethnic lines, but it has rarely resulted in significant social conflicts, because specific mountain conditions have necessitated the use of collective and mutually-supportive approaches for economic and social activities. A development process that is based on specialisation and production for the outside market introduces strong elements of commercialisation and a 'cash nexus', resulting in erosion of the traditional principles of collectivity and mutual obligation. It also leads to sharper economic differentiation among individuals and households on the basis of their resource endowments, education, social skills, and access to public officials servicing development, resulting in an increase in economic inequity. Any development strategy will, therefore,

have to ensure expansion of employment opportunities and broad-based development of human resources and skill formation, particularly among small-holders, the landless, and women, to ensure that the benefits of development are widely distributed.

A schematic portrayal of the interrelationships involved in sustainable and equitable transformation of a subsistence economy into a commercial economy can be seen in Chart II.