

## Conclusions and Recommendations

On the final day of the Expert Meeting, participants were divided into three groups:

Group A: Production and productivity of horticultural crops

Group B: Diversification of horticulture through ancillary horticultural programmes

Group C: Marketing and use of horticultural produce.

Extensive and in-depth discussions took place in all three groups during the final plenary session. The summary of the discussions from each group is as follows:

### **Production and Productivity of Horticultural Crops**

As the cultivation of horticultural crops has developed under different climatic conditions, throughout the countries of the region, these experiences should be exchanged periodically by organizing conferences and publishing reports and periodicals. Visits of orchardists and horticulturalists, from one region to the other, should be arranged in order to exchange views with those engaged in cultivation programmes. The International Centre for Integrated Mountain Development should take the responsibility for organizing these activities.

Arrangements should be made by ICIMOD to replicate the successful experiences with suitable technologies from some countries of the region. This can be done through demonstration effects and by comparing the successes achieved.

There is no data base system for horticulture germplasm in the region and this is a bottleneck in the systematic planning of programmes. Such data base systems should be initiated in the different countries of the region, and information should be exchanged in the interests of horticultural development.

Horticultural programmes are generally launched on an ad hoc basis, without reference to market development and disposal, and this sometimes results in programme failure. Integrated programmes, covering all

aspects of horticultural development, should only commence after thorough study. The master plan approach may be a solution to many of the problems occurring after the production stage. Marketing and post-harvest technology ought to be an integral part of such programmes.

Horticultural programmes should be established according to land-use patterns. Proper surveys should be carried out of the areas involved, taking into consideration the elevation, aspects, infrastructure (available or to be developed), and the weather conditions.

Horticultural development should include a proper emphasis on watershed management. Market analyses should be carried out before launching specific programmes. Incentives should be given to encourage farmers (small and marginal farmers in particular) to adopt scientific cultivation techniques.

Traditional crops should not be neglected but, rather, modified by new technologies and by the introduction of new strains and varieties.

Pilot testing should be done in the areas concerned before new technologies and successful examples from other regions are introduced on a commercial scale.

The application of insecticides and pesticides is increasing but their deleterious effects are not known. Proper studies should be undertaken before recommending them to farmers.

In order to introduce planned programmes to achieve the above objectives and conduct periodical evaluations, international support should be sought.

ICIMOD should publish the papers of this Expert Meeting in book form to serve as a reference source.

### **Diversification of Horticulture through Ancillary Horticultural Programmes**

Cropping patterns need to be diversified through the introduction of useful innovations and augmented horticultural activities, sustainability of horticultural activities needs to be enhanced, and diverse biological resources made increasingly available.

The approach to diversification should commence with exploration, development, and utilization.

Emphasis should be given to linking the conservation of genetic horticultural resources with sustainable development in the field.

Research on these resources should focus not only on their identification but also on providing horticultural, genealogical, and biological information about them and assessing their cash crop potential.

In harnessing numerous underused biological resources, the guiding principle should be their potential to relieve the severe problems of mountain regions.

Exchange of information among countries of this region and other mountain regions of the world, as well as the creation of a mountain information network, is needed.

Horticultural, genealogical, and biological surveys should be organized by ICIMOD in collaboration with national agencies.

Specific recommendations were made to establish the following activities on a priority basis for diversification of horticulture in the mountain areas:

- floriculture,
- aromatic and medicinal plants, and
- apiculture.

### **Marketing and Use of Horticultural Produce**

There is a need to develop the concept of marketing as a system, from production to consumption. The shift from subsistence farming to cash crop production depends on the efficient marketing of cash crops.

Proper locational strategies need to be identified for the development of market places in hill districts. The help of disciplines such as spatial planning is required for this purpose.

Supply of price information is an important component for the better organization and grouping of producers. Price systems have an important role to play in the evolution of marketing systems.

Agro-based industries and post-harvest technology have a pertinent role to play in promoting the processing of surplus produce, because of the perishable nature of fruits and vegetables. Agro-based industries also increase off-farm employment opportunities in hill and mountain areas.

Other important aspects of marketing that deserve further attention are: price mechanisms, organization of farmers, and the changing role of the public and private sectors in marketing.