# Annex 1. Workshop Programme

### Annex 1. Workshop Programme

DAY ONE			
Session 1			
WELCOME	Dr. R. V. Singh, President Forest Research Institute & Colleges, Dehra Dun	ON - FARM O POLICY IMPLIC	OFF - FARM LINKAGES : CATIONS  Dr. Ram P. Yaday
<b>OPENING</b>	Mr. T. N. Seshan Secretary Ministry of Environment and Forests	Discussants FLOOR DISCUS	Dr. R. V. Singh Dr. S. Mukhopadhaya Lin Qinfa SION
ICIMOD WORK I	PROGRAMME  Dr. K. C. Rosser  Director, ICIMOD	Session 4  Chairman Dr. P. Wickramasekara	
INTRODUCTION TO WORKSHOP AND VOTE OF THANKS  Dr. Prodipto Roy Convenor Off - Farm Employment			AL SECTOR IN MOUNTAIN TRADING, TRANSPORT, AND ETWORKS
Programme, ICIMOD		PANEL DISCUS	SION Understanding of the Informal
Sessions 2 and 3		Sector in Mounta	sin Economics Dr. Nigel Harris
Chairman	Dr. Bhupinder Singh	Trans - Himalaya	an Traders Dr. Hikmat Bista
TENTATIVE AGENDA FOR COMPARATIVE REGIONAL RESEARCH PRIORITIES:		Apple Marketing	in Himachal Pradesh Dr. Arun Sud
OFF - FARM EMPLOYMENT GENERATION		Women and Off -	- Farm Activities Dr. Anita Dighe
Speaker	Dr. Mahesh Banskota	FLOOR DISCUS	SSION

DAY TWO	
Session 5	1
Chairman Dr. Zhang Xiaoshan	Major Conclusions of the Workshop on
	Urbanisation in the Hindu Kush - Himalaya
INFRASTRUCTURE DEVELOPMENT AND	Saroj Basnyet
EMPLOYMENT GENERATION IN MOUNTAIN	FLOOR DISCUSSION
ECONOMICS	
	DAY THREE
Cooker Dr. D. W. Looki	Session 8
Speaker Dr. B. K. Joshi	Chairman Dr. Harvey Demaine
Discussants Dr. Robert Yoder	Onali III Dr. Harvey Delitative
Dr. Tej Mahat	SIGNIFICANCE OF HUMAN RESOURCE
Dr. Mahabub Hossain	DEVELOPMENT IN EMPLOYMENT
FLOOR DISCUSSION	PROMOTION FOR MOUNTAIN AREAS
Session 6	Speaker Dr. Prodipto Roy
Chairman Dr. M. Hossain	
	Discussants Dr. V. G. Bhatia
INDUSTRIAL DEVELOPMENT AND	Dr. B. N. Sahay Dr. Y. B. Karki
EMPLOYMENT GENERATION IN THE HILLS	Dr. 1. B. Karki
Speaker Mr. Ram-Raj Shrestha	Session 9
	Chairman Dr. V. G. Bhatia
Discussants Mr. Vinod Bhattarai	
Ms. Lan Jin	POLICY EXPERIENCES AND PRIORITIES
Mr. Bhaskar Ghose	REGARDING OFF - FARM EMPLOYMENT
FLOOR DISCUSSION	GENERATION IN HILL AREAS
Session 7	Discussants L. K. Devkota
Chairman Dr. Nigel Harris	Dr. M. Hossain
	Dr. Liu Wenpu
ROLE OF SMALL TOWNS : RURAL - URBAN	Dr. Bhupinder Singh
LINKAGES AND EMPLOYMENT	
IMPLICATIONS	Session 10
9433	Chairman Dr. Ram P. Yadav
Small Towns in Nepal	DIGGUAGON ON GOVERNMENT PROTECTION
Mangal S. Manandhar	DISCUSSION ON COMPARATIVE REGIONAL
Spatial Linkages in the Hills	RESEARCH PRIORITIES ON OFF - FARM EMPLOYMENT GENERATION
Spatial Linkages in the Hills  Dr. Prodipto Roy	EMI BOTMENT GENERATION
Dr. Frodipto Roy	CLOSING OF THE WORKSHOP
Rural - Urban Linkages in Yunnan Province	Closing Comments Dr. R. V. Singh
Dr. Zhang Xiaoshan	Vote of Thanks Dr. Prodipto Roy

# Annex 2. Background Papers

		Page
BANGLADESH		
Mahabub Hossain and Zaid Bakht	Off - Farm Employment in the Hindu Kush - Himalaya Region: A Country Paper for Bangladesh	25
BHUTAN		
Binayak Bhadra and Philippe Alirol	Off - Farm Employment Generation in Bhutan	25
CHINA		
Liu Wenpu	An Investigation of Migration in Mountain Areas of the Liupanshan Region of Ningxia Autonomous Region	26
He Naiwei and Zhang Yuhuan	Surveys on the Adjustment of the Rural Labour Force in the Mountain Areas of Sichuan	26
Lan Jin and Deng Yiming	An Initial Study of the Shift of Agricultural Labour Forces in the Tibetan Autonomous Region	27
Zhang Xiaoshan and Deng Yiming	On the Non - Agricultural Employment of Agricultural Labour Forces in the Mountain Areas of Yunnan Province	27
Lin Qinfa	An Investigation of Several Issues Relating to Mountain Development and Off - Farm Employment in Wenchuan County, Sichuan	27
Liu Wenpu and Zhang Baomin	Rural Economic Development and Shift of Labour Force in the Mountain Areas of Sichuan, Yunnan, and Tibet	28

### **INDIA**

Arun Sud	Off - Farm Employment Generation in Himachal Pradesh	28
Arun Sud	Marketing Apples in Himachal Pradesh	29
T. N. Dhar	Off - Farm Employment Generation in the Hill Region of Uttar Pradesh	29
B. K. Joshi	Infrastructure and Development in the Uttar Pradesh Hill Areas	30
B. N. Sahay	Employment through Special Rural Development Programmes in the Himalaya States during the Sixth Five-Year Plan (1980-85)	30
Tej Vir Singh and Jagdish Kaur	From Himalaya Pilgrimage to Tourism: Sacred Sites and Secular Seers	30
Bhaskar Ghose	Off - Farm Employment in Sikkim and the Darjeeling Hill Areas	31
Prodipto Roy	Human Resource Development	31
Prodipto Roy  NEPAL	-	31
	-	
NEPAL		
NEPAL P. Pradhan	Public Works and Employment in Nepal: A Review	32
NEPAL P. Pradhan Pitamber Sharma	Public Works and Employment in Nepal: A Review  Migration and Employment Generation in Nepal  Small - Scale Industries and Employment	<b>32</b> 32
NEPAL P. Pradhan Pitamber Sharma R. R. Shrestha	Public Works and Employment in Nepal: A Review  Migration and Employment Generation in Nepal  Small - Scale Industries and Employment Generation in Nepal	<b>32</b> 32 33
NEPAL P. Pradhan Pitamber Sharma R. R. Shrestha Chandni Joshi	Public Works and Employment in Nepal: A Review  Migration and Employment Generation in Nepal  Small - Scale Industries and Employment Generation in Nepal  Women in Nepal and Off - Farm Employment	32 32 33
NEPAL P. Pradhan Pitamber Sharma R. R. Shrestha Chandni Joshi Binod Bhattarai	Public Works and Employment in Nepal: A Review  Migration and Employment Generation in Nepal  Small - Scale Industries and Employment Generation in Nepal  Women in Nepal and Off - Farm Employment  Micro Dimensions of Off - Farm Employment  Spatial Linkages and Off - Farm Employment Generation in the Hills:	32 32 33 33 34

### Annex 2.

### Summaries of Background Papers'

OFF - FARM EMPLOYMENT IN THE HINDU KUSH - HIMALAYA REGION : A COUNTRY PAPER FOR BANGLADESH

Mahabub Hossain and Zaid Bakht

The population growth rate of the Hindu Kush - Himalaya Region in Bangladesh (Chittagong Hill Tracts) is more than double the national average. Immigration from surrounding districts is the primary cause. Although illiteracy is a constraint, about 51 per cent of the Hill Tracts' residents are economically active, compared to the national 40.5 per cent, mainly due to greater participation of women.

Total cropped acreage has remained constant in the Hills over the last three decades (0.26 acre per person). Population pressure is causing environmental deterioration, forest encroachment and soil erosion. A 2.3 per cent annual rate of agricultural growth has been achieved largely through pineapple and banana cash crops.

About 43 per cent of the labour force is employed in off - farm occupations. The most impressive growth has been in non - crop agricultural activities, services and trade. Potential for expansion of off - farm employment, based on vast forests and their industrial raw materials, is encouraging.

The main constraint to development of offfarm sectors is lack of infrastructural facilities, particularly roads. In 1984, the government launched a Special Five - Year Plan, with priority on infrastructural development. A significant proportion of tribal people (59 per cent of the Hill Tracts' population in 1981) regard roads and development with suspicion, thinking these provide employment mainly to outsiders during implementation, and subsequently help non - tribals occupy land and control trade and business. For effective implementation of development programmes, the government will have to win the trust of the local people. The necessary balance of directly productive activities ( with support services such as credit, skill training, investment for development of marketing and irrigation facilities, etc.) and infrastructure development is currently lacking in the development programme of the region.

OFF - FARM EMPLOYMENT GENERATION IN BHUTAN

Binayak Bhadra and Philippe Alirol

The economy of Bhutan is highly rural and subsistence agriculture oriented. Small and medium scale industries include primarily sawmills, food - processing plants, distilleries and cement factories. Other sources of off - farm employment are handloom weaving, paper making and traditional painting and sculpture. Traditional crafts have great potential for export and sales to tourists; however, training and export promotion are needed. Social services and tourism have so far generated limited employment.

<sup>\*</sup> Not all authors have had the opportunity to comment on the summaries presented here ICIMOD has tried to reflect as accurately as possible the major points raised by the authors.

Constraints to development of the industrial sector include: limited domestic markets, absence of trained manpower (about two - thirds of the industrial labour force is non - Bhutanese), and lack of adequate infrastructure. Most industries are dependent on expensive and unreliable grid electricity from India. By 1990, power from the Chukka Project in west Bhutan will ease this.

Although the government sought selfsustaining industrialisation through restrictions on foreign investment, it was realised that alternatives were needed by the end of the 70s. In the period 1980 - 82, thirty projects were approved by the National Commission for Development of Trade and Industries, for loans from the Bank of Bhutan. Provision of subsidised loans can further promote industrial investment.

Improved availability of labour to industry will depend on upgrading subsistence agriculture and labour productivity, and labour - saving technology for cottage industry development. Industries being promoted are mini - cement, calcium carbide, gypsum, and charcoal plants.

AN INVESTIGATION OF MIGRATION IN MOUNTAIN AREAS OF THE LIUPANSHAN REGION OF NINGXIA AUTONOMOUS REGION

Liu Wenpu

A century ago, a Moslem community immigrated to Liupanshan mountain area. Rapid population growth caused unemployment. Resources are inadequate, and the area remains impoverished. The government recently adopted measures to improve living conditions; the most effective has been organisation of farmers for emigration by support through technology, loans, investment opportunities, and commodities.

Emigration improves standards of living both for those who emigrate and those who remain. Further, emigration reduces the burden on the state of sending relief funds and grain. Beginning in 1983, poor farmers from three mountain villages were resettled in the plains. Over one hundred cadres and technicians were sent for surveys and development planning. Irrigation, cultivation, and building was undertaken.

Effective measures and policies promoting emigration by the Autonomous Government of Ningxia have included: support from the state to promote ultimate self - reliance the principle of voluntary movement, tax and water payment exemptions, free coal fixed allowances for clearing land, long - term settlement planning, and training programmes by technicians. With opportunities such as these, emigrants may secure long - term stability, rapidly improve their living conditions and exploit the resources of a new area with beneficial results.

SURVEYS ON THE ADJUSTMENT OF THE RURAL LABOUR FORCE IN THE MOUNTAIN AREAS OF SICHUAN PROVINCE

He Naiwei and Zhang Yuhuan

While the proportion of rural population in the Sichuan Mountains has decreased since the middle of this century, the agricultural labour force has increased by over ten million. Prior to 1978, almost all of the rural labour force was cultivating land. While a shift toward industry, house construction, transportation, commerce, and other services has occurred in recent years, 93 per cent were still in agriculture in 1984.

The rural labour force has an unbalanced distribution because of geographical conditions, distribution of resources, and traditional customs. The majority of the surplus labour force are young and middle - aged. Lack of education remains a constraint for the employment structure.

Rural economic reforms are being introduced in Sichuan, mainly through diversified systems of family contracts, to change from a mono - cultural to a multiple rural economy. Adjustment of the productive structure, which has just started, is leading to redistribution of the labour force.

Means by which to accelerate diversification of the rural labour force include: moving to a nonagricultural economic structure; expansion of rural industry through labour intensive, small - scale enterprises within an integrated production system; moving to rural commerce, services, and the tertiary sector; building up country fairs and small towns; and exporting labour. AN INITIAL STUDY OF THE SHIFT OF AGRICULTURAL LABOUR FORCES IN THE TIBETAN AUTONOMOUS REGION

Lan Jin and Deng Yiming

The structure of the labour force has been changing as a result of recent state policies. The rural labour force has been shifting to the non agricultural, animal husbandry, and handicraft sectors. This occurred first in areas between cities and countryside, and areas bordering Nepal.

The transformation rate of the agricultural labour force is very slow and in only a few sectors. The rural-labour force is increasing faster than the number of those changing. However, the main factor hindering the shift of the labour force is the poor quality of rural labourers.

Tibet has a wealth of resources for agriculture, forestry, animal husbandry, and fishery, but lacks the strength to develop them. The key points for development are shifting the surplus agricultural labour force to forestry and animal husbandry, and processing of products.

Given the large capital requirements and technology necessary to make such shifts, and given the unskilled labourers, poor production, and economic weaknesses, the following measures are needed: flexible policies giving preferential treatment to family - run, jointly - run and individually - run factories and enterprises; state input of capital, technology and qualified personnel; and major efforts to develop education and enhance the quality of the rural labour force.

ON THE NON - AGRICULTURAL EMPLOYMENT OF AGRICULTURAL LABOUR FORCES IN THE MOUNTAIN AREAS OF YUNNAN PROVINCE

Zhang Xiaoshan and Deng Yiming

The terrain of Yunnan Province, 90 per cent of which is hilly and mountainous, contributes to the backward economy resulting in surplus labour force 78 per cent higher than the national average. The speed of farmers shifting to non - farm work reflects the slow rural economy.

Three types of shift should take place: cereal crop to cash crop planting; cereal crop to forestry, animal husbandry, and fishery management; and agricultural sector to rural industry, commerce, transportation, construction and services. Given the capital, technological and socio - economic constraints facing Yunnan, the first two types have greater potential, especially in light of the wealth of forest, grassland, and water resources.

To speed the shift of rural labourers, constraints should be relaxed and assistance made preferential, help should be given to key specialised households and collectives to develop resources, all areas suited for individual management should be contracted long - term to the peasants, and capital and technology imported. Also, schools should be established, teachers' status raised, and middle and high school students trained for non - agricultural work.

AN INVESTIGATION OF SEVERAL ISSUES RELATING TO MOUNTAIN DEVELOPMENT AND OFF - FARM EMPLOYMENT IN WENCHUAN COUNTY, SICHUAN PROVINCE

Lin Qinfa

Wenchuan County has been the focus of much mountain economic development work. While grain production is the major agricultural activity, a diversified economy also exists. Electricity is available throughout the county and fifteen industrial and mineral enterprises are in operation. Labour is being gradually transferred from agricultural production to other sectors, both in direct transfer of surplus labour to non agricultural activities, and inter - county migration of surplus labour.

Favourable conditions encouraging Wenchuan's development have included geographical location along a communication route, rich resources, focus of hydropower generation, industry, and sufficient farm labour force. However, constraints such as financial instability, uneven economic growth, lack of technology and low educational levels still exist.

In recent years, rural township and town - run enterprises have been developed rapidly in Wenchuan. Over 13 per cent of the total agricultural labour force, which had been surplus, became employed. Expansion of the mining industry has played a key role. Farmers' living standards have improved considerably.

Achievements have been brought about through: no relaxation in grain production while ensuring development of diversified economy, developing rural township and town - run industries for promotion of mountain commercial production, invigorating tertiary industry, developing scientific technology, and training personnel. From a long - term perspective, development of forestry production in line with local conditions should be practised.

The key to speeding mountain development is the establishment of a rational economic structure for overall development of agriculture, forestry, animal husbandry, secondary occupations, industry, and fishery.

RURAL ECONOMIC DEVELOPMENT AND SHIFT OF LABOUR FORCE IN THE MOUNTAIN AREAS OF SICHUAN, YUNNAN, AND TIBET

Liu Wenpu and Zhang Baomin

Development of Sichuan, Yunnan, and Tibet has been minimal due to irrational requirements regarding grain self - sufficiency, over - emphasis on collective production, and rigid policies preventing local inhabitants from direct forest management. Remedial policy measures have been introduced, including implementation of the family contract responsibility system, linking output with remuneration. Since 1980, funds for economic support in these underdeveloped mountain regions have been used in building highways, reservoirs and water and irrigation facilities. Low incomes plague the area largely because of limited employment opportunities; incomes from agriculture make up 90 per cent of total earnings.

Given the restraints regarding funds, technology, qualified personnel, and infrastructure, it is recommended that agricultural development be encouraged, which will in turn promote rural industry. Specific considerations for mountain area development include the need for more open and flexible policies, adoption of measures to raise the

quality of the rural labour force, implementation of policies attaching equal importance to agricultural and non - agricultural undertakings, and development of transport and communications facilities. Economic development and shift of agricultural labour force into non - agricultural undertakings are two sides of the same coin.

### OFF - FARM EMPLOYMENT GENERATION IN HIMACHAL PRADESH

Arun Sud

Himachal Pradesh is one of the least industrialised states in the Indian Union. Uncertain political conditions in the past led to an inadequate flow of development resources. In recent years, the state administration has taken initiatives to remedy this, including: small industrial estates, an equity participation scheme, an entrepreneurial development scheme, and a nuclear complexes scheme with incentives and concessions. The village and cottage industries sector has also been revitalised.

The State's economy is primarily land based, and it remains one of the least urbanised states of India (8.2 per cent). Lack of raw materials and adequate energy resources, highly underdeveloped infrastructure, paucity of capital and technical skills, illiteracy, poor health, and limited transportation facilities pose severe constraints to development. The absence of secondary and tertiary sectors causes outmigration, primarily of males.

Most people in the State are engaged in agro-based and pastoral occupations. Unless the horticultural potential of the state is exploited to the fullest possible extent, solutions to economic problems will remain elusive. Concerted efforts are being made by the government for development of fruit plantations in the lower and mid - hills. While inadequacy of infrastructure facilities has proved to be a bottleneck, promising results have been achieved. Sericulture, livestock, dairy - farming, and sheep breeding have been shown to have high potential.

The highest concentration of non - agricultural enterprises is in manufacturing and repairing, followed by trade, hotels, and restaurants.

Bicycle and rickshaw repair trade is found to be the highest value added enterprise.

Himachal Pradesh boasts some of India's best tourist locations with a rapidly growing tourism industry. Though nationalisation of forests has been undertaken for environmental protection, dams and mining are executed carelessly. Important ongoing schemes of the Tourism Development Corporation include: skiing courses, hotel management training, and winter facilities construction. The opening of an aerodrome near Simla by the end of 1986 will help achieve the expected major breakthrough in tourism.

### MARKETING APPLES IN HIMACHAL PRADESH

Arun Sud

Himachal Pradesh has become the " fruit bowl of India " due to both dynamic and pragmatic policy, and willing participation of farmers. Full exploitation of horticultural potential is recognised as the key to economic development. In 1982, 89 per cent of total fruit production in the state was apples. After an initial upsurge in the late fifties, stagnation set in. Marketing facilities failed to keep pace with the rapid increase in production of apples. A five - year project was initiated, through the Horticulture Produce Marketing and Processing Corporation, to create a network of packing houses, collection centres, juice concentration plants, road construction, cableways, and technical assistance and training. However, extension remained a missing link.

Other problems identified have been inadequate infrastructure facilities and inaccessibility of scientific inputs to small and marginal farmers. Though integrated development was accepted in principle by Himachal Pradesh policy makers long ago, a hiatus persists. Efforts launched by the state administration to benefit the orchardists need to be streamlined. As a first step towards improving the marketing infrastructure, a comprehensive and critical stocktaking of strengths and weaknesses is necessary. Second, possibilities for cooperatives of small and marginal farmers and marketing

arrangements with vegetables and fruit growers' associations need to be explored. Finally, continuing positive policy support is necessary.

OFF - FARM EMPLOYMENT GENERATION IN THE HILL REGION OF UTTAR PRADESH

T. N. Dhar

In the Himalaya, cropland is scarce and population growth is high. While under - and unemployment encourage outmigration, shortages of medium and highly skilled labour induce immigration.

Traditional off - farm activities such as cottage industries, porterage, and lumbering have declined due to changes of transportation systems, technological substitutions, and environmental constraints.

Land is the major basis of status and identification in the U. P. Himalaya. Agriculture provides sustenance to nearly 70 per cent of workers, but 73 per cent of holdings are small or marginal. Productivity is low, and the possibilities for increase in direct farm employment are limited. The resource depletion rate is high. Land use needs to be re-ordered to suit land capability.

The core strategy for development of the U. P. Himalaya should be a combination of protection, regeneration, and production. Planning priorities should include adopting a dynamic family planning programme and maximising people's participation. Social infrastructure is essential for economic and physical infrastructure to be effective. Vocational and adult education are needed. To enable women to be agents of change for development, they need organisation and improvements are required in fuel, fodder, and water availability.

The possibilities for agriculture - related, offfarm employment are considerable, but maximum employment potential lies in forestry, soil conservation, and pasture development. Horticulture, floriculture, apiculture, and sericulture are other options, along with improvement of animal husbandry practices and related industries.

The main constraints facing industries are the environmental cost considerations. Focus must be

force, planning policy supported by research, skill formation policies, environmental security policies, preferential policies to raise productivity and income, liberal incentives for non - farm areas, an integrated watershed approach, and people's participation policies. As a part of a national strategy of increasing employment, primarily non - farm in rural areas, special programmes have been initiated and planned for the next five years but less restrictive norms for hill areas need to be developed.

INFRASTRUCTURE AND DEVELOPMENT IN THE U.P. HILL AREAS

### B. K. Joshi

Hill areas tend to have enclave economies which contribute to capital formation elsewhere. Hardly any investment or employment opportunities exist outside agriculture. Development of infrastructure only strengthens the economic enclave situation. Infrastructure may provide tangible benefits to some people of hill areas, but not economically productive consequences.

Focusing on road transport and power in the hill areas of Uttar Pradesh, the role of infrastructure development is marginal and in some cases detrimental to the economy, and also environmentally degrading. One case study found the impact of road transport is visible and direct on the consumption economy and indirect on the production economy in hills areas. Another case study showed electricity use in the hills is largely confined to domestic lighting, and scope for productive use of electricity is limited by low levels of development and limited markets: the impact of electrification on the economic structure, income, and employment is minimal. If infrastructure is to play a catalytic role in hill area development, the character of the economy must be altered. Subsistence agriculture must be replaced with surplus producing agriculture through an integrated approach, with high value crops and provision of credits and inputs, along with development of marketing and transport facilities and supply of foodgrains. Once surplus has been generated in agriculture, infrastructure will begin to play a

useful role for development.

EMPLOYMENT THROUGH SPECIAL RURAL DEVELOPMENT PROGRAMMES IN THE HIMALAYA STATES DURING THE SIXTH FIVE - YEAR PLAN (1980 - 85)

#### B. N. Sahay

In 1980, over half of the rural population was still below the poverty line in India. Thus, the major objectives of the Sixth Five Year - Plan included strengthening the socio - economic infrastructure of development in the rural areas, alleviating rural poverty, and reducing regional disparities. Types of special rural employment programmes included both self - employment and wage employment. Integrated Rural Development Programmes and Training of Rural Youth for Self - Employment were included in the former, and the Rural Landless Employment Guarantee Programme was under the latter.

In the Himalaya States and Union Territories, greater priority needed to be placed on creation of infrastructure upon which the process of socio-economic transformation takes places. Areas for improvement included: a sound administrative structure and personnel policy, monitoring and evaluation systems, identification and involvement of various rural institutions, and a good communication strategy for education of the rural people regarding the programmes. Positive steps have been initiated in the Seventh Plan.

### FROM HIMALAYA PILGRIMAGE TO TOURISM - SACRED SITES AND SECULAR SEERS

#### Tej Vir Singh and Jagdish Kaur

Himalaya pilgrimages have traditionally been a form of holistic tourism, enriching host and guest communities, promoting the regional economy, and respecting the environment. Garhwal, with the sources of the Ganga and Yamuna, has particularly been attractive in the late 19th century: over half of the revenue of British Garhwal came from respecting the environment. Garhwal, with the sources of the Ganga and Yamuna, has particularly been attractive in the late 19th century: over half of the revenue of British Garhwal came from seasonal pilgrimages.

After independence, the area suffered from the struggle toward modernisation. Ad hoc planning of roads, impulsive resource use and inadequate infrastructure had negative impacts. Planners in Garhwal face both a challenge and opportunity in promoting new tourism and preserving the timeless pilgrimage tradition. Only research - based planned development can produce positive results. Urgent steps to be taken include: appointment of a multidisciplinary task force on tourism for the Garhwal Region, a definite tourism policy for Himalaya tourism development, zoning of the potential recreation areas, and segregation of pilgrim zones.

### OFF - FARM EMPLOYMENT IN SIKKIM AND THE DARJEELING HILL AREAS

#### Bhaskar Ghose

Sikkim has experienced more rapid urban population growth than the Darjeeling Hill Areas, reflecting economic activity in off - farm enterprises. In the Darjeeling Hill Areas there is surplus agricultural labour, in Sikkim the problem is one of keeping the workers on the farm. The development of off - farm employment is a result of state development implementation in Sikkim.

The Darjeeling Hill Areas have greater population pressure than Sikkim, but a lower percentage of agricultural workers, mainly because almost 30 per cent are employed in tea gardens. Additional employment is not promising in the tea gardens. Land not presently cultivated is under the Forest Department. The establishment of tea gardens in Sikkim would be possible depending on land leases by the state. From an environmental perspective, areas under cultivation must be limited areas and forest cover expanded. While animal husbandry is important and has considerable growth potential in Sikkim and Darjeeling, provision of fodder involving removal of vegetative cover must be restricted.

Sikkim's industrial activities are just beginning, but small centres have existed traditionally in Darjeeling. These are declining due to lack of transgenerational transfer of skills, absence of ready markets, and high cost of production. Rapid growth is occurring among contemporary small industries such as noodle making, watch repairing, and wool knitting, though these do not appear to be attracting the rural unemployed. Tourism is one of the most promising sectors for employment generation. While Darjeeling can hardly sustain existing traffic, Sikkim and other centres deserve promotion.

In the Darjeeling Hill Areas, the need for offfarm employment generation is urgent. Small rural industries to ease pressure on land, such as poultry farming, milk production, and high - value, low volume crops like sericulture, need to be developed.

The major obstacle to the development of many new areas of employment is the lack of roads and marketing facilities. An effective organisation to market produce will transform the economic character of rural regions. A catalytic agent in employment generation will be the Integrated Rural Development Programmes and other beneficiary oriented programmes now being undertaken during the Seventh Plan period.

#### HUMAN RESOURCE DEVELOPMENT

#### Prodipto Roy

The concept of human resource development used here is summarised as " calibrated skill enhancement for maximising income and employment of the hill and mountain people". Introduction of formal education, health care and potable drinking water systems has conventionally signified human resource development in the Hindu Kush - Himalaya over the past fifty years.

During the last decade, national governments and international agencies have emphasised human resource development. The particular areas of focus have been literacy, nutrition and health education for women, infrastructure construction, regeneration of fuelwood and other renewable energy sources, hill farming, forestry and livestock

rearing, tourism, trekking, and religious pilgrimages. Traditional skills are being traded for new skills in all countries of the Region. Skill upgrading needs to be carefully tailored to meet employment market needs, and specifically linked to sectoral development programmes. While national priorities and methods differ with area and ethnicity, regional cooperation may lead to a collaborative methodology for research and training programmes.

### PUBLIC WORKS AND EMPLOYMENT IN NEPAL: A REVIEW

#### Prachanda Pradhan

In Nepal, infrastructure investments have become the most important production sector after agriculture, and the largest contributor to wage employment. In view of the growing labour force, poor performance of the Nepalese economy, and environmental degradation, rapid employment expansion is called for. Focus on employment generation in the nation's five - year plans has not been translated into effective programmes. Planning of investment alone is insufficient; coordinated and integrated efforts from other sectors are needed if employment maximising objectives are to be achieved.

Public works in Nepal receive 30 - 40 per cent of development expenditures in the form of investments in roads, irrigation, power projects, and other construction activities. Some of these projects have benefitted the rural areas and particularly the poorer groups through the creation of employment opportunities. Apart from these government - initiated infrastructure development projects, local public works activities could be an important source of employment if the necessary support is provided.

Presently, there is a great outflow of resources from the public works project areas and the country because of decisions favouring certain types of technology and management practices. Wherever projects have depended heavily on imports and large - scale contracting practices, payments to local factors of production have been minimal and outflow of resources has been high. Not all of this

can be avoided, but there is adequate scope for implementing decisions that favour increasing payments to local factors of production, particularly labour. It is also important to emphasise the need for increasing economic diversification.

Employment generation through public works cannot be an end in itself, though public works are critical stop gap measures. Employment generation should serve as a basis for economic and social welfare programmes, using infrastructure investments for both short and long - term goals.

### MIGRATION AND EMPLOYMENT GENERATION IN NEPAL

#### Pitamber Sharma

Rapid increases in population, gradual decrease in the scope and magnitude of emigration, and deterioration of the hill - mountain environment as a result of population pressure, have in the last three decades exacerbated migratory flow from the highlands to the lowlands. Subsistence and gainful employment have remained at the heart of the migration issue, upon which the entire question of hill - mountain development is based.

All indications are that highland to lowland migration will continue for the foreseeable future, with seasonal and semi - permanent migration being replaced by permanent migration. Emigration is likely to decrease. An increasing proportion of rural migrants will make market centres, small towns, and urban centres their destination, particularly in the southern plains. Urban investment policies will therefore play a crucial role in orienting migration, and off - farm employment generation programmes have promising prospects in these areas.

Off - farm employment prospects in the hill - mountain region have to be identified by linkages. The resource base at present does not look favourable. Increasing growth of secondary and tertiary services in the south enhances prospects there, with skilled immigrants having advantages over the native population. Off - farm employment in the hill - mountain region, to be self - sustaining,

has to provide the basis for economic interaction between the hills / mountains and southern region.

Creation of off - farm employment to stabilise migration must be seen in terms of access to, control over, and ability to manipulate, resources. Furthermore, migration and off - farm employment must be understood in terms of ecological stability, and socio - cultural context.

### SMALL - SCALE INDUSTRIES AND EMPLOYMENT GENERATION IN NEPAL

R. R. Shrestha

Off - farm activities, particularly manufacturing, form the second most important source of employment and income in Nepal. A number of studies suggest that efficient substitution of labour for capital is possible in a broad spectrum of manufacturing activities. Small - scale enterprises are generally more labour intensive and generate more direct and indirect jobs per unit of capital invested, as reflected in a lower fixed investment - job ratio. Their development is also a viable export promotion strategy.

National development plans have accorded high priority to the development of cottage and small industries (CSIs). The Industrial Enterprises Act of 1982 offered a number of incentives to this sector. The CSI Project designed to develop and promote cottage and small - scale industries has provided gainful employment, supplemented rural earnings, and enhanced loan and recovery position. The Intensive Banking Programme is gaining momentum and has played a crucial role in developing CSIs.

Credit for CSIs needs to be effectively coordinated with technical assistance, and the design for delivery systems should vary to meet the diversity of the CSIs'. Organisational alternatives for technical and marketing components are the start to effective assistance for CSIs. Lending criteria needs streamlining in matters of security, working capital finance, and procedures need to be simplified. The feasibility of rural industrial estates needs exploring and entrepreneurial development programmes to be vigorously launched for developing CSIs in the country.

### WOMEN IN NEPAL AND OFF - FARM EMPLOYMENT

Chandni Joshi

Women are major contributors and producers in the Nepalese rural subsistence economy: no development efforts can be meaningful without their participation. Average contribution to household income is 50 per cent by women, 44 per cent by men, and 6 per cent by children. Women also play a substantial role in innovative and daily decision making.

Women of Nepal, particularly the landless and marginal farmers, have conventional experience and future potential for employment in food processing, soap making, silk production, sericulture, jute weaving, herb / ginger / vegetable drying, paper and pickle making, raw wool processing, forestry / nursery cultivation, portering, construction, inn management, bamboo and cane work, and other cottage industries.

Off - farm roles of women can be classified as urban or rural. The predominant urban work is domestic help, performed mostly by rural women. During the last decade, other urban opportunities have been provided by the tourism sector, garment factories, and police force. Loan activities have linked women with banking institutions and women development officers have been sought.

Women's roles in rural areas have been affected by migration of men to urban centres for employment. Women left behind often function as household heads, assuming tasks previously done by men. Data is lacking regarding female migration.

The main factors prohibiting women from seeking off - farm employment are household drudgery and child care responsibilities. Areas for improvement are: time and labour saving devices, basic service education, appropriate technology, availability of credit, management skill training, stable markets, appropriate employment policies, flexible employment schemes, equal pay, recognition of supportive customary laws, diversified programming focused on women, and recognition of women's economic contribution.

Since 1975, institutions generating off - farm employment for women have increased in both governmental and non - governmental sectors. The new trend of women's programmes aims to help women become self - reliant. A distinct focus on the problems of women was first made in the national Sixth Plan. A "National Plan of Action for Women's Development "was produced by the Women's Service Coordination Committee, highlighting the creation of atmospheres and infrastructures conducive to employment of women. The Seventh National Plan includes policies placing emphasis on education, child care, training and facilities for women.

An integrated and active participatory approach is required to promote national development, women's individual and collective self - reliance, and equity in power relations at local, national, and international levels. Recommendations include : more emphasis on clarity of aims and objectives, a regular review of the current status of women, social welfare measures relating to child bearing and child rearing, provision of creches and the allocation of specific responsibilities to appropriate national institutions, preparation of concrete action plans which should include both short - and long - term strategies in the area of labour opportunities, incentives, training, and women's representation at the management level.

### MICRO DIMENSIONS OF OFF - FARM EMPLOYMENT

#### Binod Bhattarai

Nepalese agriculture, characterised by limited land, increasing population growth, scarce capital resources, slow technological changes, and declining production, presents a bleak picture for the expanding labour force. Rapid expansion of the off-farm sector in rural areas is called for.

While data regarding dependency of rural farm households on off - farm employment is scarce, two main factors influence participation: income earning opportunities and availability of production assets. Agriculture seasonality, oscillation in wage rates, foodgrain prices, schooling level, age, proximity to off - farm work site, and number of dependents, are all considerations. For a land holding household member, size of farm and labour

days are further influencing factors. In a study conducted by the author, the highly significant variables were off - farm wage rate, farm income, distance from work site, and number of working adults in the household. Substitution elasticity suggests women have more domestic or household and farm alternatives than men.

An important feature of Nepal's rural economy is the low return to the landholder from the off farm sector compared to the farm sector. Studies indicate that greater inequality in farm incomes exist in the hills than the Terai and that the off farm incomes are much more equitably distributed in the hills. Though off farm income is distributed more equally than farm income, returns are relatively lower; this may only indicate the low levels of productivity and rudimentary skill levels currently employed. Increasing specialisation may affect this issue.

Generally speaking, the rich work less and the poor work more: total days worked by households and wives decrease as farm size increases. While underemployment is evident, the high difference in off - farm employment between landholders and landless does not support the hypothesis of consistent surplus labour. Market prices seem to be a determining factor in time allocation for off - farm employment. Reorganisation in the farm sector will also induce reallocation of hours worked in the off - farm sectors.

## SPATIAL LINKAGES AND OFF - FARM EMPLOYMENT GENERATION IN THE HILLS: THE CASE OF NUWAKOT DISTRICT IN NEPAL

#### Mahesh Banskota

Focusing on spatial linkages, which include demographic, economic, social, and political linkages, can enhance understanding of off - farm employment generation particularly in the area of rural - urban interactions. Studies of Nuwakot district in the middle hills reflect the powerful "push" factors at work, namely deteriorating hill economy and environment. Despite implementation of a hydroelectric scheme, road construction project, and integrated rural development programme in the area, less than half of total job

seekers, which constitute roughly half of the total labour force, succeed in finding employment. With increasing linkages to urban area (in education, health, inputs, and jobs) and decreasing opportunities for agricultural resettlement, rural to urban movements are likely to increase substantially.

Institutions and provision of services are currently highly concentrated in selected lowlying areas with practically nothing in the upper altitudes and smaller settlements. Service centres have become key distribution points for agricultural loans, inputs, and extension, indicating they can now be developed as marketing centres. While use of service centres marks an important beginning for a system of decentralised services and balanced spatial development, they must be developed cautiously, with policies that strengthen the forces for homogenisation of functions between rural and urban areas. In Nuwakot, this means promotion of newer markets with better access, and development of these markets as centres for seasonal and non agricultural employment. To mobilise local investment resources, it is necessary for those controlling land to invest in development of industrial activities. This requires changes in fiscal and other policies.

The need for more remunerative employment is clear. Employment thrust should be in intensification of agricultural operations using improved seeds and multiple cropping of lowlying areas; infrastructure development, particularly roads and irrigation schemes to support agricultural development; development of agricultural processing activities; and support to light consumer goods industries.

The overall implications for off - farm employment generation are that current spatial development forces are likely to concentrate on the location of off - farm activities along the accessible river valley belts. The extent to which other off - farm activities can develop will be determined by the pace of sustained improvements in agricultural productivity. Off - farm activities will have to be generated in those areas supporting the development of lowland agriculture simply because this will be the major source of demand for non - agricultural goods and services. The demand structure of the land - owning households

controlling lowland agriculture and accessible pockets becomes a major guide - post for the promotion of off - farm activities. The spatial structure and endowments have reinforced this position. Other alternatives are unlikely to be able to counter this strong lowland determinism in spatial development of hill areas and for a long time to come, poorer people in upper altitudes will either have to move to these lowland valley areas or migrate to more distant centres.

### OFF - FARM EMPLOYMENT: THE ROLE OF SMALL TOWNS

### Mangal S. Manandhar

A closely linked hierarchy of urban centres is essential for economic development. In Nepal, where towns are few and far between, the problems of depopulation of the hills and deterioration of mountain ecosystems should be addressed through planned intervention for urbanisation and off - farm employment creation. The Decentralisation Act (1982 - 83) is a step in this direction.

Nepal's towns were initially non - agricultural, but have become increasingly less so. Most hill towns are declining centres of administration, exhibiting few of the positive rural - urban links required for a healthy economy. With the gradual integration of the hills into the Indian market, towns have developed at the break - of - bulk points in southern Nepal.

Strategy for small town development should stress indigenous development, strengthening of rural - urban links, and giving equal attention to social and industrial infrastructure, in order to stem migratory flow, invigorate hill economies, and generate urban advantages without the problems of larger towns.

Town development policies and projects to date have lacked sound criteria. Spatial perspectives and horizontal / vertical linkages have been largely ignored in Integrated Rural Development Projects and the service centres outlined in the Decentralisation Act. Not only is there no national spatial framework for urbanisation and job creation, but the incentives essential for rapid development of small town are lacking. In addition

to a definition of "small town", identification of centres, their hierarchy, resource bases and potential incentives for promoting small towns need to be carried out.

### ON - FARM AND OFF - FARM EMPLOYMENT LINKAGES

#### Ram P. Yaday

The economic and occupational structure and the continuation of rapid growth in population and labour force clearly indicate that the countries of the Hindu Kush - Himalaya Region, and mountain regions in particular, will remain predominantly agricultural and rural into the twenty - first century. The labour classes can participate actively in development only through employment - oriented growth: the primary emphasis of development should be to raise the opportunity cost of labourers. Appropriate patterns of development must simultaneously generate (1) self - sustaining cumulative economic growth, (2) expanding productive employment opportunities, and (3) slowed growth of the population and labour force.

Undoubtedly, the long - run comparative advantage of the mountain region lies in highly labour - intensive activities such as the export of processed fruits, vegetables, and dairy products. However, implementation would require massive investment in transport, processing, and marketing networks. Agricultural development can substantially contribute in off - farm employment generation. Foodgrain production can relieve wage goods constraints to employment growth, and agricultural growth can lead to substantial indirect growth in non - farm incomes and employment through increased demand for consumer goods services. Furthermore, agriculture utilises industrial outputs, has strong production linkages with rural non - farm activities, and provides raw materials for agro - forestry and livestock - based industries.

### Annex 3.

### **Participants**

### Bangladesh

Dr. Mahabub Hossain
International Food Policy
Research Institute
1776 Massachusetts, Ave. N.W.
Washington, D.C. 20036, U.S.A.

### China

Institute of Rural Development
Chinese Academy of Social Sciences
Beijing

Dr. Liu Wenpu, Deputy Director
Prof. He Naiwei, Head of Forestry
Ms. Lan Jin, Assistant Research Fellow
Prof. Zhang Baomin, Head, Scientific Research
Mr. Zhang Xiaoshan, Assistant Research Fellow

### India

Mr. T. N. Seshan

ICIMOD Board Member, and Secretary Ministry of Environment and Forests New Delhi, 110011

Dr. R. V. Singh
President
Forest Research Institute and Colleges
9 - New Forest, Dehra Dun 248006

Dr. Bhupinder Singh
Additional Secretary
Planning Commission, New Delhi - 110001

Mr. G. Subba Rao
Joint Secretary
Ministry of Environment and Forests
New Delhi 110011

Dr. V. G. Bhatia

Advisor

Planning Commission

New Delhi 110001

Dr. B. N. Sahay

Joint Advisor

Planning Commission

New Delhi - 110001

Mr. Bhaskar Ghose

Commissioner

Jalpaiguri Division

Jalpaiguri, West Bengal

Prof. Swapna Mukhopadyay
Institute of Economic Growth
Delhi University
Delhi 110006

Prof. B. K. Joshi Giri Institute of Development Studies B-42 Nirala Nagar Lucknow - 226607

Dr. T. N. Dhar
Chairman
Society for Himalayan Environmental
Rehabilitation and People's Action
27 B / 5, Lajpatrai Marg
Lucknow 226001

Dr. P. N. Gupta
Retd. Chief Conservator of Forests
146 - Vasant Vihar II
Dehra Dun

### Dr. Anita Dighe

Joint Director Council for Social Development 53 - Lodi Estate, New Delhi - 110003

Dr. Arun Sud

Senior Research Officer Council for Advancement of Rural Technology Guru Nanak Foundation Bldg New Delhi 110067

### Nepal

Mr. Vinod Bhattarai

Agricultural Development Bank Ramshah Path, Kathmandu

Mr. Lav Kumar Devkota

Planning Commission His Majesty's Government of Nepal Singha Durbar, Kathmandu

### Dr. Y. B. Karki

Consultant

National Commission on Population Singha Durbar, Kathmandu

### Dr. Mangal S. Manandhar

Professor

Department of Geography, Tribhuvan University Kirtipur, Kathmandu

Mr. Ram Raj Shrestha

Project Manager Nepal Rastra Bank CSI Project Office Maharajganj, Kathmandu

### International

Dr. Harvey Demaine

Asian Institute of Technology P.O. Box 1754 Bangkok, Thailand Dr. Nigel Harris

Development Planning Unit University of London 9 - 11 Endsleigh Gardens WCIH OED, U.K.

Miss Mying Malong

Asian Institute of Technology P.O. Box 1754 Bangkok, Thailand

Dr. Piyasiri Wickamasekara

ILO / ARTEP

YMCA Cultural Centre - cum - Library Jai Singh Road

New Delhi - 110001, India

Dr. Robert Yoder

IIMI, Water and Energy CommissionP.O. Box 3875Kathmandu, Nepal

ICIMOD: P.O.Box 3226, Kathmandu, Nepal

Dr. Colin Rosser, Director

Dr. Ram Prakash Yadav, Deputy Director

Dr. Prodipto Roy

Dr. Mahesh Banskota

Dr. Hikmat Bista

Mr. Lin Qinfa

Dr. T. B. S. Mahat

Mr. Saroj Basnyet

Mr. D. C. Das

Mrs. Zhang Li

Mr. Surendra Shrestha

Ms. Lisa Rush