

Intervention Guidelines

Area of Investigation	Components	Method of Enquiry	Reasons for Investigation
1. Local Population and Employment	<ul style="list-style-type: none"> a) Population growth b) Population distribution c) Migration d) Employment structure e) Age distribution f) Urban male/female proportions g) Daily/weekly population flows 	<ul style="list-style-type: none"> 1) Obtain as much detailed population, employment, and migration data as possible from census and other sources. 2) Discuss with local leaders and experts on population and employment patterns and trends. 3) Obtain from rural households information on their non-agricultural employment, and its trends. 	<ul style="list-style-type: none"> a) Local detail on population and employment trends will assist in identifying more precisely where growth is taking place. b) Need to distinguish push and pull factors in rural to urban flows - push may become less severe as agriculture is reformed c) Frequent in and out flows important: towns and more important centres of activity than indicated by permanent population
2. Economic Activities	<ul style="list-style-type: none"> a) Geographical distribution of economic activities b) Levels of economic activity c) Future changes in main economic activities d) Characteristics of informal sector e) Linkages among economic activities: urban-urban, urban-rural f) Flow of goods and services within, into and out of the region g) Involvement of women in emerging economic activities 	<ul style="list-style-type: none"> 1) Examine secondary data on economic activity by location: industrial, agricultural sector studies ; census; special studies; map the data. 2) Discuss local economy with local private or parastatal sector leaders: chamber of commerce, trade associations, banks. 3) Visit entrepreneurs at informal sector sites: markets, repair and processing centres. 4) Discuss with entrepreneurs their current activities, growth potential, infrastructure needs, credit needs, willingness-to-pay. 5) Discuss with entrepreneurs their links with other entrepreneurs. 6) Obtain same information from sample local farmers at varying distances from towns. 7) Make sure women are included in discussions: they dominate many "linkage" activities. 	<ul style="list-style-type: none"> a) The objective is to build up a picture of the local economies. b) Once the dynamics of the local economy are understood, it will be possible to identify what is needed to make them more efficient. c) Need to identify, as a result of this analysis, the key investment requirements, including better access to credit d) Also identify the capacity of the local community to pay for the investment, or at least its maintenance. e) Identify activities, training areas, etc from which women could benefit.
3. Infrastructure	<ul style="list-style-type: none"> a) Land use b) Basic infrastructural and community services c) Marketing, processing and storage facilities 	<ul style="list-style-type: none"> 1) Consult land use maps. 2) Together with local administrators, experts, draw rough land use map. 3) Add to map sketch of infrastructure lines, current traffic. 4) Note quality of infrastructure, through discussions with local engineers. 5) Note location, quality marketing facilities, and ownership. 6) SPOT satellite imagery could be used to map current and past land use and main transport network (where available). 	<ul style="list-style-type: none"> a) Need to link demand for infrastructure and services with supply b) Also, need to link where development taking place (rural and urban) and access of those locations to infrastructure c) Need to identify locations where demand is greatly outstripping supply: their rates of return on upgrading will be very high d) Link information on regional flows of goods, produce to marketing facilities
4. Investment Priorities	<ul style="list-style-type: none"> a) Infrastructure needs by location b) Infrastructure costs by location, including maintenance c) Priorities, on the basis of alternative development scenarios d) Credit needs 	<ul style="list-style-type: none"> 1) Together with local leaders and community groups, draw up list of infrastructural needs with costs. 2) Prepare alternative scenarios on availability of funds (from all sources), linked to alternative development scenarios. 3) Prioritise the investments in accordance with these scenarios. 4) Estimate private and local public sector credit needs under alternative investment programmes. 	<ul style="list-style-type: none"> a) Need to link what is needed to stimulate the local economy with the likely availability of resources b) Availability of resources will, to a certain extent, vary by local economic performance, if cost recovery and sustainable growth is high, prioritise them. c) Both private and public sectors will need access to credit to fund their own development programmes. This applies to informal as well as formal sectors.

Area of Investigation	Components	Method of Enquiry	Reasons for Investigation
5. Financial Resource Availability	<ul style="list-style-type: none"> a) Central government expenditure on urban infrastructure b) Central government expenditure on "linkage" infrastructure c) Local government expenditure d) Local government revenue e) Private contribution potential f) Cost recovery potential 	<ul style="list-style-type: none"> 1) Examine development and current budgets. 2) Note proportions allocated to local and regional government. 3) Examine local authority's budgets. 4) Note dependence on central government for development and recurrent expenditures. 5) Examine trends in local revenue mobilisation by local authorities. 6) Assess actual and potential cost recovery by infrastructural agencies. 7) Discuss with local "focus" groups willingness-to-pay. 	<ul style="list-style-type: none"> a) The first step is to make rough estimates of central and local government resources available for investment in market towns and to maintain those investments. National cutbacks in public expenditure may be reducing central government allocations. b) The next step is to estimate possible future increases in those resources from local sources in the future, the property tax revaluations, etc. c) Then, explore potential for private sector or beneficiary contributions: this includes infrastructure agencies or municipalities recovering the costs of their services.
6. Environmental Context	<ul style="list-style-type: none"> 1) Site and situation hazard 2) Local capability for dealing with it 3) Sanitation-related issues 4) Financing and cost recovery 	<ul style="list-style-type: none"> 1) Physical survey 2) Discussion with experts 3) Identification of priority sanitation problems and problems that could emerge with projected growth 4) Discuss with different groups the actions that need to be taken for maintaining a clean environment and willingness to pay of the local population. 	<ul style="list-style-type: none"> a) To identify the potential environmental problems and plans for mitigation

Source: Adapted from Garnett et al 1989

Factors and weight values used to identify potential market towns in Dechang County, China

Factors	Criteria	Weight value
1	Population size, off-farm population and minority population	0.148
2	Accessibility, including planned road linkages and postal and telecommunication services	0.148
3	Economic base, including agriculture, other resources, financial ability, historical importance, existing infrastructure	0.213
4	Functional magnitude, including commercial units and their trend, volume of trade and its trend	0.291
5	Size of hinterland	0.148
6	Other issues such as site and situation, environmental hazards	0.052

Criteria and scoring technique used to identify the potential market towns in Tehri Garhwal District, India

Attributes of Market Town

Attributes of Market Town	Scoring technique
1. Population dependent on town	< 1000 = 1, 1000-2000 = 2, > 2000 = 3
2. Population growth since 1981	Declined = 0, Low = 1, Moderate = 2, Rapid = 3
3. Floating population in a week	< 50 = 1, 50-100 = 2, > 100 = 3
4. Frequency of bus service	> 2 hr = 1, 1-2 hr = 2, < 1 hr = 3
5. Electricity supply	Yes = 1, No = 0
6. Trade potential	Declined = 0, Low = 1, Moderate = 2, High = 3
7. Industrial potential	Declined = 0, Low = 1, Moderate = 2, High = 3
8. Tourism potential	Declined = 0, Low = 1, Moderate = 2, High = 3
9. Growth of town (in ten-year period)	Declined = 0, Low = 1, Moderate = 2, High = 3
10. Agri. Cooperative Bank	1 or > 1 = 1, Nil = 0
11. Post Office	Yes = 1, No = 0
12. Telegramme Office	Yes = 1, No = 0
13. Public Telephone	Yes = 1, No = 0
14. Commercial Bank	< 2 = 1, 2 and more = 2
15. No. of Government Offices	< 10 = 1, 10-15 = 2, > 15 = 3
16. High School	One = 1, > One = 2
17. Inter College	One = 1, > One = 2
18. Deg. College/Polytechnic	One and more = 1, Nil = 0
19. Vocational Training Centre	Nil = 0, One = 1, > One = 2
20. Hospital	Nil = 0, One = 1, > One = 2
21. Newspapers	< 500 = 1, 500-1000 = 2, > 1000 = 3
22. No. of four-wheelers	< 20 = 1, 20-50 = 2, > 50 = 3
23. No. of commercial establishments	< 20 = 0, 20-50 = 1, 51-100 = 2, > 100 = 3
24. Growth of shops in last ten years	Declined = 0, Low = 1, Moderate = 2, High = 3
25. Water supply	Un. Restrict = 2, Restrict = 1
26. Seed and fertiliser distribution centre	Yes = 1, No = 0
27. Plant nursery	Yes = 1, No = 0
28. Veterinary dispensary	Yes = 1, No = 0
29. Truck/taxi service	Yes = 1, No = 0
30. Mahila/Yuva Mandal	Yes = 1, No = 0

Criteria used to identify potential market towns in Dang District, Nepal

Criteria	Growth trend between 1988/89-1994		
	Increasing	Declining	No change
State of functional types (range)			
State of commercial functions (units)			
State of functional magnitude (total functional units)			
Functional types, commercial units and magnitude	At least 7 functional types, 10 commercial units, and functional magnitude of 20		
	Market towns which fulfill all the above criteria		
Planned infrastructure	Break-of-bulk point or nodal point which will be created by future development of road network		

Criteria and scoring technique used to identify potential market towns in Ghizar District, Pakistan

Attributes of Market Town	Scoring technique
1. Surrounding population dependent on village	< 1000 = 1, 1000-2000 = 2, > 2000 = 3
2. Growth in population since 1981	Decline = 0, < 20% increase = 1, 20-40% increase = 2, > 40% increase = 3
3. Electricity supply	No = 0, Yes = 1
4. Trade potential	Low = 1, Medium = 2, High = 3
5. Industrial potential	Low = 1, Medium = 2, High = 3
6. Tourism potential	Low = 1, Medium = 2, High = 3
7. Agricultural bank	No = 0, Yes = 1
8. Post office	No = 0, Yes = 1
9. Public call office	No = 0, Yes = 1
10. Commercial bank	None = 0, 1 or > 1 = 1
11. No. of government offices	None = 0, One = 1, 2-4 = 2, > 4 = 3
12. Middle school for boys	No = 0, Yes = 1
13. Middle school for girls	No = 0, Yes = 1
14. High school for boys	No = 0, Yes = 1
15. High school for girls	No = 0, Yes = 1
16. Hospitals	No = 0, Yes = 1
17. Health units	No = 0, Yes = 1
18. Number of commercial establishment	< 80 = 1, 80-150 = 2, > 150 = 3
19. Number of general stores	10-15 = 1, 16-25 = 2, > 25 = 3
20. Forest nursery	No = 0, Yes = 1
21. Fruit nursery	No = 0, Yes = 1
22. Distance from Gilgit, a major market town	> 200km = 0, 200-150km = 1, 149-80km = 2, < 80km = 3
23. Drinking water	No = 0, Yes = 1
24. Link road to main road	No = 0, Yes = 1
25. Veterinary dispensary	No = 0, Yes = 1

Notes:

4. Villages with less than 10% of households already involved in marketing activities score low in this item.
5. Electricity supply, trade potential and accessibility of raw materials add up to scores - of low, medium or high. Villages without electricity will automatically score low.
6. Tourism potential depends upon accessibility, scenery, and tour agencies presently operating in the area.
22. < 80km was chosen as the maximum distance for 3 points as day trips to Gilgit are possible within this limit.

About the Authors

Dr Phander Sharma is a Professor of Geography at Tribhuvan University, Nepal. He has a number of publications on aspects of population, urbanization, and the environment. Dr Sharma has worked in various capacities in the Ministry of Education, Government of Nepal, and is a graduate from Edinburgh University, USA, and is a graduate from Edinburgh University, USA.

Biophysical and Socioeconomic Conditions of the Districts Under Study: A Comparative Perspective

	Dechang, China	Tehri Garhwal, India	Dang, Nepal	Ghizar, Pakistan
Biophysical Characteristics				
Location	101°54'-102°23'E 27°05'-27°36'N	78°08'-79°03'E 30°03'-30°06'N	82°10'-82°53'E 27°40'-28°15'N	72°41'-74°10'E 36°08'-36°45'N
Area (km ²)	2288	4421	2955	5760
Altitude (m)	< 1000-5000	335-6705	200-2058	1600-5775
Topography	More than 92 per cent mountain slopes and 9 per cent river valleys	Rugged with steep slopes narrow river valleys	Nearly 62 per cent mountain slopes and 38 per cent plain (<i>Terai</i> and Inner <i>Terai</i>)	Rugged with deep gorges and narrow river valleys
Climate	Subtropical monsoon, average annual precipitation 1170 mm	Subtropical to alpine monsoon, precipitation between 940-3180 mm	Subtropical to warm temperate monsoon, average annual rain - 940mm	Monsoon unaffected, and with average annual rain less than 133 mm
Socioeconomic Characteristics				
Population	170,504 (1993)	580,153 (1991)	354,413 (1991)	108,326 (estimated for 1994)
Gross density (person/km ²)	75	131	120	19
Population growth rate	1.5	1.6	2.9	3.52-3.81
Sex ratio	More male than female	More female than male	More female than male	More male than female
Ethnicity/races	Mixed	mixed	mixed	Muslims
Literacy (%)	64	39	40	47
Urban (%)	7-10	6	15	8
Road density Km/1000km ²	192	347	102	217
Population served (persons/km)	386	378	1181	499
Resources and Production Characteristics:				
Forest (%)	63	69	67	
Cultivated (%)	9	13	26	
Percentage of people engaged in agriculture	85	80	80	40
Annual income		2900-4900	11600	17700
Major items of export	Sugar, tobacco, silk cocoon, iron ore, paper, fruits, and vegetables.	Vegetables, fruits and millet.	Primary and non-processed agricultural goods such as rice, maize, wheat, mustard, and potato.	Dried fruits, nuts, and vegetable seeds.

Source: Action Oriented Assessment of Market Towns in Selected Mountain Areas of the Hindu Kush-Himalayas. District Spatio-economic Profile Reports.



About the Authors

Dr Pitamber Sharma is a Professor of Geography at Tribhuvan University and is presently working as a Regional Planner in the Mountain Enterprises and Infrastructure Division of ICIMOD. Dr Sharma holds a Ph. D. from Cornell University, USA, and is a graduate from Edinburgh University, Scotland, and Tribhuvan University, Nepal. He has a number of publications on aspects of population, urbanisation, and regional planning in Nepal and the HKH region. Dr Sharma has previously served as the Chief Advisor to the National Commission on Population, His Majesty's Government, Nepal, and was a Research Fellow with the East West Population Institute.

Mr Narendra Khanal is a Lecturer in the Central Department of Geography, Tribhuvan University. He holds an M.A. in Geography from Tribhuvan University. He has contributed to a number of programmes at ICIMOD, including the Market Towns' programme. His research interests relate to aspects of physical geography and planning.

The International Centre for Mountain Development (ICIMOD) was established in 1983 as a result of a Memorandum of Understanding between the United Nations Environment Programme (UNEP) and the Government of Nepal. The Centre was formally inaugurated in December 1983 and began its operations in Kathmandu, Nepal with the support of its founding sponsors.

ICIMOD is a joint venture of the Government of Nepal and the Federal Republic of Germany.

The Centre, located in Kathmandu, Nepal, has the status of an autonomous international organization.

Participating Countries

Founding of ICIMOD

ICIMOD is the first International Centre in the field of mountain area development. It was founded out of widespread recognition of the alarming environmental degradation of mountain habitats and the consequent increasing impoverishment of mountain communities. A coordinated and systematic effort on an international scale was deemed essential to design and implement more effective development responses based on an integrated approach to mountain development and mountain environmental management.

The establishment of the Centre is based upon an agreement between His Majesty's Government of Nepal and the United Nations Educational, Scientific, and Cultural Organisation (UNESCO) signed in 1981. The Centre was inaugurated by the Prime Minister of Nepal in December 1983 and began its professional activities in September 1984 with the support of its founding sponsors:

**HMG Nepal, the Government of Switzerland,
the Federal Republic of Germany, and UNESCO**

The Centre, located in Kathmandu, the capital of the Kingdom of Nepal, enjoys the status of an autonomous international organisation.

Participating Countries of the Hindu Kush-Himalayan Region

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|---------------|--------------|
| * Afghanistan | * Bangladesh |
| * Bhutan | * China |
| * India | * Myanmar |
| * Nepal | * Pakistan |

**INTERNATIONAL CENTRE FOR INTEGRATED
MOUNTAIN DEVELOPMENT (ICIMOD)**

4/80 Jawalakhel, G.P.O. Box 3226, Kathmandu, Nepal

Telephone: (977-1) 525313

Facsimile: (977-1) 524509, 524317

Telex: 2439 ICIMOD NP

Cable: ICIMOD NEPAL