CHAPTER - V

URBAN-RURAL RELATIONS IN ISCR: A CONTEMPORARY SCENE

In the preceding chapter an effort was made to trace the evolution and growth of urban-rural relations before and after the emergence of Chandigarh as a growth pole centre. This chapter attempts to capture the contemporary scenario, that is post 1966, of urban-rural relations in the ISCR.

As already hinted at in the preceding chapter, several important events, having profound impact on urban-rural relations, took place during this period. Punjab was reorganized on a lingual basis in 1966. Its Hindi speaking areas in the southern part emerged as a newly organized state of Haryana and the Pahari Hindi speaking hilly areas in the North were merged with Himachal Pradesh. In the process, Chandigarh emerged into a centrally administered territory as Haryana and Punjab both staked claims over it. Emergence of Chandigarh as a UT marked a new phase in its growth and development as an administrative growth centre. This coincides with the success of the Green Revolution in the Punjab-Haryana plains. Yet another development of a politico-administrative nature resulted in shifting of the headquarters of the Western Command of Indian Army to Chandimandir from Shimla and emergence of Panchkula and Mohali towns as a contiguous urban growth. Besides the emergence of these two new towns in the vicinity of Chandigarh, the population of Chandigarh itself witnessed a phenomenal increase. On the one hand, a large number of job opportunities in administrative and construction activities in Chandigarh and its near vicinity emerged, on the other the demand for farm products viz., milk and milk products, fruits, vegetables, poultry and foodgrains recorded a tremendous
In this chapter, we take up a data based analysis of the patterns and changes in urban rural interactions during the period 1971-91. Data for the purpose was picked up from secondary sources. For analysing the pattern and the change in the post – 1991 period, data were collected through fieldwork conducted during January-March 2002. Both, the interview as well as observation methods were used to collect qualitative and quantitative data.

The discussion in this chapter has been organized into two sections. The first section examines spatial patterns of urban-rural relations in 1971, captured through the dimensions of commodity exchange, commuting and service exchange. In the second section, change in levels of urban-rural relations during 1971-91 has been analyzed. The post 1991 scenario has been captured through the field work and is presented in the next chapter.

I

URBAN – RURAL RELATIONS, 1971

I. Commodity Exchange

In the discussions to follow, an attempt has been made to analyse the regional pattern of commodity exchange in the ISCR.

In a number of studies the criteria of commodity flow has been used to delineate umland of cities by the geographers. In such attempts supply of milk, vegetables, and food grains etc. have been the most frequently used indicators of commodity flow. Since data on such indicators are not available in secondary sources, following proxy indicators have been used. (i) percentage of irrigated land to total cultivated area; (ii) percentage of
cultivable land to total area; and (iii) percentage of workers engaged in livestock rearing.

These indicators would show the degree of commercialisation in generating agricultural surplus to promote commodity flows through forward and backward linkages. Villages in the region have been grouped into three categories of high, moderate and low level of commodity exchange on the basis of their index values.

There were wide inter-village differentials in the levels of commodity exchange (Fig. 5.1). The index value ranged from a high of 75.44 in Sandhari Majra village (Chamkaur Sahib block, Rupnagar district, Punjab) to a low of 1.50 in Baswal village (Pinjore block, in Ambala district) of Haryana. The range difference was 73.94. In other words, the village at the top had 50 times greater possibilities of interaction with an urban market centre for selling the marketable agricultural surplus or in turn purchasing farm inputs.

On the basis of index value in commodity exchange, 904 villages in all have been grouped into three levels of commodity exchange by identifying the critical breaks in distribution of index values at village level.

I (a) Areas of High Commodity Exchange Level

About one fourth or 219 of the total villages in the study region recorded a high level of commodity exchange. They had an index value ranging from 75.44 in Sandhari Majra village (Chamkaur Sahib block, Rupnagar district, Punjab) to 40.1 in Paintpur village of Kharar block in the same district. The range difference of 35.44 reveals that the village at the top differs by nearly two times from the village at the bottom, which is not a wide gap. The same is supported by a coefficient of variability value of 16.1 per cent. In other words, villages falling in the high commodity exchange level category do not differ widely in terms of commodity exchange.
High level of commodity exchange was a feature of villages located around
the city of Chandigarh and Morinda town in the North western parts of the
region. These villages, falling in the upland plain, had fine alluvium with
fertile soils and a developed irrigation system. The Bhakra canal played a
vital role in enhancing the irrigation facilities of this area. Villages around
Chandigarh city in Kharar and Majri blocks had tubewell irrigation as well.
Besides, Majri block of Rupnagar district had a substantial population of
traditionally vegetable growing castes, like the Sainis and Labanas. In
addition, they had locational advantage of being in proximity to Chandigarh.
Hence, distance from the city played an important role in the supply of
perishable goods like vegetables, milk and milk products.

I (b) Areas of Moderate Commodity Exchange Level

A dominant majority of the villages, 589 out of 904 or more than three-fifths
of the villages in the study region fall in this category. The value of the index
varied from a low of 20.0 in Khokra village (Pinjore Block, Ambala district,
Haryana) to a high of 39.84 in Rampur village (Bassi Pathana Block, Patiala
district, Punjab), giving a range difference of 19.77. The coefficient of
variability value being only 16.1 per cent, inter-village variations in terms of
commodity exchange were low. Earlier, the variability index was also of the
same magnitude for areas in high category of commodity exchange. Such
villages were widely distributed in all parts of the region except in the
northern hilly tracts. Introduction of tubewell irrigation in the post Green
Revolution period increased both irrigation extent and intensity. Encouraged
by this, farmers in the area shifted more land under vegetable crops so as to
encash upon the increased demand for vegetables from the fast growing city
of Chandigarh.
Inter-State Chandigarh Region
Index of Commodity Exchange, 1971
(Data by Villages)

Index value

* *
* *

40
20

Level
High
Moderate
Low

Urban places
Reserved forest and hill tracts without settlements

Highest index value: 75.44 (Sandhari Majra)
Regional average: 31.68
Lowest index value: 1.50 (Baswal)

0 10 Kms

Fig. 5.1
The flood plain area of river Ghaggar towards the South-east with sandy soils and an adequate supply of water emerged as an important source of vegetables to Chandigarh city. In the meantime, the growing attention of the state government towards rural roads also helped in this process.

I (c) Areas of Low Commodity Exchange Level

96 or about one-tenth of the total villages in the region exhibited a low level of commodity exchange. The index value varied from a maximum of 19.98 in Harnampura village of Majri Block in Rupnagar district of Punjab to a minimum of 1.50 in Basiwal village of Pinjore block in Ambala district of Haryana. The range difference was 18.48. In other words, the village at the top had an index value 13 times higher than that of the village at the bottom. The coefficient of variability was 50.93 per cent. Obviously, intra-category variations in this case were of a very high order (Table 5.1).

Table 5.1

<table>
<thead>
<tr>
<th>Level of commodity exchange</th>
<th>Average value for category</th>
<th>Standard deviation</th>
<th>Coefficient of variability (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>High</td>
<td>52.47</td>
<td>8.45</td>
<td>16.10</td>
</tr>
<tr>
<td>Moderate</td>
<td>30.10</td>
<td>4.84</td>
<td>16.07</td>
</tr>
<tr>
<td>Low</td>
<td>12.27</td>
<td>6.25</td>
<td>50.93</td>
</tr>
</tbody>
</table>

These villages of Kharar, and Kalka tahsils fell in the Siwalik foothills. They had a low proportion of cultivated land (15 per cent) because of rugged topography and infertile soils. Irrigation mainly depended on seasonal
streams, locally known as ‘choes’, and was available only during the rainy season from July to September. Consequently, agriculture was of a subsistence nature with little interaction with the outer world. These choes also impeded mobility as the construction and maintenance of the roads network was both challenging and costly.

Briefly, a vast majority (60 per cent) of the villages fell in the moderate category. Commodity exchange was a feature of the upland plain where fertile soils and developed irrigation system provided a fine base for agriculture. Introduction of tubewell irrigation in the post Green Revolution period played a vital role in increasing the degree of agricultural commercialization in the region. Consequently, these villages produced marketable surplus which promoted commodity exchange in the region. On the contrary, villages falling in the Siwalik foot hills, had subsistence agriculture owing to rugged topography and infertile soils. Irrigation mainly depended on choes. Such villages failed to generate any marketable surplus to promote commodity exchange.

II. Rural-Urban Commuting

Chandigarh opened up new employment avenues for the people living in the surrounding villages and towns. This promoted rural-urban commuting. It was well supported by the available road transport between the villages and Chandigarh city.

The commuting as a criterion to study city-hinterland relations has already been used by geographers. Among them Mukerji (1962), Dewedi (1964) and Krishan and Agarwal (1970) took commuting as one of the indicators to delineate the umland. Such studies have, however, been conducted with primary data. For a village-level study like the present one, it is imperative to resort to surrogate indicators.
In this light (i) the proportion of rural non-agricultural workers and (ii) availability of pucca roads in villages has been taken as an indicator of rural-urban commuting. The assumption is that the presence of non-agricultural workforce in the villages would indicate the diversification of the rural economy and the road would provide the necessary connectivity, which in its turn would work towards increased rural-urban interaction. Among the non-farm workers, the proportion of those engaged in tertiary services like health, education, social and administrative services along with trade and commerce would play a vital role in strengthening rural-urban interactions.

Commuting index, which has been calculated on the basis of percentage of non-agricultural rural workers and availability of metalled roads, differ widely at the village level. It varies from a high of 25.78 in Jetpur village of Barwala block to a low of 0.50 in Basawal village of Pinjore block in Ambala district; giving a ratio of 1:50 between the highest and lowest values. In other words the village at the top has a commuting index nearly fifty times higher than that of the village at the bottom. For a detailed analysis, the villages have been categorised as High, Moderate and Low by identifying the critical breaks in distribution of index values at village level (Fig. 5.2).

II (a) Areas of High Level of Commuting

Only 78 villages or less than one-tenth of the total villages in the region were categorised as high on the index of commuting. Index values ranged from a high of 25.78 in Jetpur village of Barwala block (Ambala district, Haryana) to a low of 10.1 in Badala Naya Shahr in Kharar block (Rupnagar district, Punjab), giving a ratio of 1:2.6 between the highest and lowest value and coefficient of variability of 23.83 per cent (Table 5.2). The intra category variations in case of areas having high level of commuting were much more wider than the areas having high level of commodity exchange.
Table 5.2

ISCR: Levels of commuting and their average, standard deviation and coefficient of variability, 1971

<table>
<thead>
<tr>
<th>Level of commuting</th>
<th>Average value for category</th>
<th>Standard deviation</th>
<th>Coefficient of variability (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>High</td>
<td>14.22</td>
<td>3.39</td>
<td>23.83</td>
</tr>
<tr>
<td>Moderate</td>
<td>6.81</td>
<td>1.33</td>
<td>19.53</td>
</tr>
<tr>
<td>Low</td>
<td>2.30</td>
<td>1.46</td>
<td>63.47</td>
</tr>
</tbody>
</table>

Villages having high level of rural-urban commuting were characterized by:
(i) plain topography (ii) proximity to Chandigarh, say, within a radius of 20 kms of the city which could conveniently be traveled by a bicycle, (iii) location on highways / main transport routes and (iv) high diversification of economy.

II (b) Areas of Moderate Level of Commuting

193 villages or slightly more than one-fifth of the villages in the region had a moderate level of commuting. The index value varied from a high of 9.98 in Haripur village of Pinjore block of Ambala district of Haryana to a low of 5.05 in Rasoolpur village of Kharar block in Rupnagar district of Punjab. The range difference of 4.93 showed that the index value of the village at the top was nearly two times higher than that of the village at the bottom. The coefficient of variability of 19.53 per cent showed the low intra-category variations. In fact, it was the lowest of all three categories of areas in commuting.

Moderate level of commuting was mostly found in villages situated beyond a distance of 20 kms from Chandigarh city. These villages had high diversification of rural economy but low connectivity. Besides, these villages also had a relatively higher proportion of Scheduled Castes population which
Inter-State Chandigarh Region
Index of Rural-Urban Commuting, 1971
(Data by Villages)

Index value Level
High
Moderate
Low

Highest index value: 25.78 (Jetpur)
Regional average: 4.04
Lowest index value: 0.50 (Basawal)

Fig. 5.2
had a greater propensity to commute for construction work and jobs related to maintenance of parks, and gardens in Chandigarh (Krishan and Aggarwal, 1970, p.38).

II (c) Areas of Low Level of Commuting

More than two-third of the villages or 633 villages in the region showed a low level of commuting. The index value varied from a high of 4.99 in Sarhava village of Chamkaur Sahib block (Rupnagar district, Punjab) to a low of only 0.50 in Barghate village of Pinjore block (Ambala district, Haryana). The ratio between the highest and the lowest value was 1:10, indicating wide inter-village variations in commodity exchange. The same is supported by the highest (63.5 per cent) value of coefficient of variability (Table 5.2).

Low level of commuting in such a large majority of villages reveal that rural economy in major parts of the region was least diversified. In other words, there were few links of the rural economy with the outside world. This was mainly because of the physical isolation due to lack of roads. Construction of link roads in these villages was by and large a post 1970s phenomenon.

In sum, a majority (70 per cent) of the villages in the region showed a low level of commuting. Since construction of roads was by and large a post 1970s phenomena, there were few links of the rural economy with the outside world. Commuting was a feature of only those villages which were either located close to Chandigarh or on the main transport routes. In relative terms, intra-category variations were the least for the moderate category of areas and maximum for the low category areas.

III. Service Exchange

The indicator on service exchange primarily captures that segment of population which commuted either to urban centres to work in offices, industries and business activities or went to rural areas as teachers, doctors,
governments, itinerant traders etc. and thus strengthened the urban-rural interaction nexus. For calculating index of service exchange we have taken the availability of facilities like education, health, posts and telegraph in the villages.

Levels of service exchange differ widely at the village level (Fig 5.3), the index value ranges from a high 81.67 in Kakar Majra village (Raipur Rani block, Ambala district, Haryana) to 3.67 in Sabilpur village of Morni block in the same district. A range difference of 78 reveals that the village at the top differs all of twenty two times from the village at the bottom. For a detailed analysis, the villages have been grouped into High, Moderate and Low categories on the basis of index value in service exchange.

III (a) Areas of High Level of Service Exchange

Seven per cent or 65 villages of the total villages in the region recorded a high level of service exchange. The index value ranges from a high of 81.67 in Kakar Majra village (Raipur Rani block) to 41.33 in Khet Parali village (Barwala block) both in Ambala district. The range difference of 40.34 and coefficient of variability of about 19 per cent indicate a relatively low intra-category gap in service exchange.

Table 5.3
ISCR: Levels of service exchange and their average, standard deviation and coefficient of variability, 1971

<table>
<thead>
<tr>
<th>Level of service exchange</th>
<th>Average value for category</th>
<th>Standard deviation</th>
<th>Coefficient of variability (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>High</td>
<td>52.09</td>
<td>9.84</td>
<td>18.89</td>
</tr>
<tr>
<td>Moderate</td>
<td>36.83</td>
<td>2.67</td>
<td>7.24</td>
</tr>
<tr>
<td>Low</td>
<td>5.09</td>
<td>2.85</td>
<td>55.99</td>
</tr>
</tbody>
</table>
Inter-State Chandigarh Region
Index of Service Exchange, 1971
(Data by Villages)

None of the facilities included in the index was available in these villages.

Highest index value: 81.67 (Kakar Majra)
Regional average: 8.28
Lowest index value: 3.67 (Sabilpur)

Fig. 5.3
A high level of service exchange was a feature of larger population villages functioning as rural service centres. These villages had educational, health, postal and telegraph facilities to serve the villages in their surroundings. Consequently, a number of teachers, doctors and government officials commuted to these villages from Chandigarh.

III (b) Areas of Moderate Level of Service Exchange

Only six per cent or 57 of the total villages in the region exhibited moderate levels of service exchange. The index value varied from a low of 20.33 in Kharak Mandoli village (Pinjore block, Ambala district, Haryana) to a high of 37.67 in Allapur village (Kharar block, Rupnagar district, Punjab) giving a range difference of 17.34. In this way, inter-variations in terms of service exchange were not only low but also had a similar nature to that of the higher category. These villages were mostly found in scattered pockets located either proximate to Chandigarh or had a large population base. Such villages could only promote service exchange in the region.

III (c) Areas of Low Level of Service Exchange

A dominant majority of 782 villages or 85 per cent of the total villages showed a low level of service exchange in the ISCR. Out of these 782 villages, 386 villages did not have any educational, medical or communication facility. The index value varied from a minimum of 3.67 in Sabilpur village (Morni block) to 19.33 in Bhagwanpur village (Pinjore block) both in Ambala district. The range difference of 15.66 and coefficient of variability of 56 per cent indicates not only a wide intra-group gap but is also the highest of all the three categories.

In these villages poor economic base, widely scattered distribution and small size has been largely responsible for their relative isolation from within as well as nearby towns. The smaller settlements failed to provide a threshold
population for having any educational, health or communication facility. Also, poor accessibility, poor, eroded soils and deficiency of water both for irrigation and drinking were the main factors for their physical isolation and socio-economic backwardness. It was in the Fourth Five Year Plan (1969-74) that for the first time focused attention was paid to the development of hill and other backward areas under the backward area development programme.

In sum, a dominant majority (85 per cent) of the villages registered a low level of service exchange in the region. A poor economic base coupled with poor accessibility and relatively smaller size of settlements were largely responsible for their physical isolation and socio-economic backwardness. Only large sized villages with large populations were found functioning as rural service centres and had educational, medical or postal and telegraph facilities to promote service exchange. In line with commodity exchange and commuting, intra-category variations were the lowest for the moderate category areas and highest for the low category of areas even in the case of service exchange.

IV. Urban-Rural Interaction – A Consolidation

For arriving at a consolidated picture, a composite index has been calculated by clubbing together all the six indicators of urban-rural interaction. This has been done in the following manner. The index values earlier arrived at for each individual indicator were summed up to arrive at the composite index of urban-rural interaction. The summed up value was divided by six which is the number of total indicators included in the analysis.

There are wide inter-village inequalities in the level of urban-rural interaction (Fig. 5.4). The value of interaction index varied from a high of 48.35 in Lalru village (Dera Bassi block, Patiala district, Punjab) to a low of 1.50 in Asarwali village (Barwala block, Ambala district, Haryana) falling consequently in the
Inter-State Chandigarh Region
Index of Urban-Rural Interaction, 1971
(Data by Villages)

Regional average: 14.67
Lowest index value: 1.50 (Asarwali)

Highest index value: 48.35 (Kakkar Majra)
Regional average: 14.67
Lowest index value: 1.50 (Asarwali)

Fig. 5.4
ratio 1:3.2. For a detailed analysis, villages have been categorised as High, Moderate and Low on the basis of their composite index value.

IV (a) Areas of High Urban-Rural Interaction

Only 7 villages among all (904 villages) in the region registered a high level of urban-rural interaction. The index value varied from a high of 48.35 in Lalru village (Dera Bassi block, Patiala district, Punjab) to a low of 40 in Kakar Majra village of Raipur Rani block of Ambala district in Haryana. The range difference of 8.35 revealed that the village at the top had an index value of about one time higher than that of the one at the bottom. The coefficient of variability was only 6.69 per cent which is the least of all the other three categories.

Table 5.4
ISCR: Levels of urban-rural interaction and their average, standard deviation and coefficient of variability, 1971

<table>
<thead>
<tr>
<th>Level of urban-rural interaction</th>
<th>Average value for category</th>
<th>Standard deviation</th>
<th>Coefficient of variability (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>High</td>
<td>43.62</td>
<td>2.92</td>
<td>6.69</td>
</tr>
<tr>
<td>Moderate</td>
<td>25.81</td>
<td>4.52</td>
<td>17.51</td>
</tr>
<tr>
<td>Low</td>
<td>12.28</td>
<td>3.78</td>
<td>30.37</td>
</tr>
</tbody>
</table>

High interaction level was a feature of the villages having a large population size, were located on the major transport routes, opted for commercial agriculture and favoured a diversified economy. All this played a catalytic role in promoting urban-rural interaction. Almost all the villages included in this category were acting as the rural services centres for the villages in their surroundings.
IV (b) Areas of Moderate Urban-Rural Interaction

More than one-tenth of the total villages, i.e. 107 villages in number, in the region recorded a moderate level of interaction with the index value varying from a high of 39.70 in Nogawan village to a low of 20.02 in Fatehpur Jattan village both in Bassi Pathana block of Patiala district (Punjab). In other words, the village at the top had an interaction index more than nineteen times higher than that of the village at the bottom. The value of coefficient of variability of 17.51 per cent also reveals that the intra-category variations, are though low, but not the lowest.

Moderate level of interaction was a characteristic of villages which were close to Chandigarh, had a large population size and were located on major transport routes radiating out from the city. Such villages were largely located in the North-western part of the region around Morinda and Kharar towns and in the South-eastern part along Chandigarh-Naraingarh road. In villages around Kharar and Morinda towns, vegetable cultivation and dairy farming had come up in a big way. Besides, a large number of employees working in Chandigarh city commuted daily from the villages located along the two highways in the North-west and South-east directions of Chandigarh city.

IV (c) Areas of Low Urban-Rural Interaction

A dominant majority of villages (790 of the total 904 villages) registered a low level of interaction. Index value varied from a low of 1.50 in Asarwali village (Barwala block, Ambala district, Haryana) to a high of 19.93 in Milak village (Kharar block, Rupnagar district, Punjab). The range difference of 18.43 and coefficient of variability of 30.37 per cent indicates wide intra-category variations. This is the highest value of the coefficient of variability for any category of areas.
Low interaction level was found in villages which suffered from physical handicaps like remote location, undulating topography, low fertility and erosion-prone soils, transgressed by numerous torrential streams. Digging tubewells for irrigation was not only a challenging job but also required heavy investment. The same applied to construction and maintenance of the roads network. In general, size of rural settlements ranged from small to very small. Poor accessibility, low diversification of economy and the small size of settlements hindered both commodity as well as service exchange. In fact, these physical handicaps played a significant role in keeping these settlements socio-economically backward and isolated from the mainstream.

Briefly, there were wide spatial variations in the level of urban-rural interactions in the region. A dominant majority (87 per cent) of the villages in the region showed low level of interaction. High level of urban-rural interaction was found in villages which were (i) large sized (ii) in proximity to Chandigarh and (iii) situated along various roads radiating out from the city. On the other hand, low level of urban-rural interaction was found in villages of hilly tracts where physical constraints of topography and choes impeded mobility. Also villages of the upland and dissected plain had low level of urban-rural interaction owing to lack of road connectivity. Further, their small sized settlements failed to provide a threshold for any service. In other words, the urban-rural interaction was largely a function of the distance from the city, transport links, size of the settlement and proportion of Scheduled Castes population. Physiography, nevertheless, plays an important role in facilitating or hindering the urban-rural interactions. In relative terms, inter-category variations were maximum in the case of areas at a low level of interaction and minimum in the high level areas category. It shows that greater heterogeneity was a characteristic of areas included in the low level category of urban-rural interaction.
II


The change in urban-rural relations in the ISCR during 1971-91 has been examined by way of looking at inter-category movement of villages between 1971 and 1991. If any village moved from 'low' level to 'moderate' or 'high' between 1971 and 1991, such a change has been termed as 'upward' movement. On the other end of the scale, movement from 'high' level to 'moderate' or 'low' has been termed as 'downward' movement. If the village remained in the same category 'low' or 'high' or 'moderate' at 1971 and 1991 both, it is termed as 'no change'. 'Upward' movement is further divided into: 'low upward' and 'high upward' movement. The former refers to movement from moderate category to high or low to moderate, while the latter to a movement from 'low' category to 'high'. The same applies to a 'downward' movement. Firstly, we will examine change in individual dimensions viz. commodity exchange, rural-urban commuting and service exchange followed by an examination of change in aggregate level of urban-rural interaction.

(i) Commodity Exchange, 1971-91

Of the 904 villages in the ISCR, 336 or 37 per cent recorded an upward trend, 568 showed no change and none had any downward movement in their respective levels of commodity exchange during 1971-91. Of the 336 villages which recorded upward movement in their respective categories during 1971-91, an overwhelming majority (300 villages) moved to 'high' from 'moderate' category during this period (Fig. 5.5 and 5.6). Of the remaining 36 villages, 23 moved to 'moderate' from 'low' and another 13

1 In order to discern change in a meaningful manner, the upper and lower limits of different categories (high, moderate and low) have been kept same for both the starting (1971) and ending (1991) years.
Inter-State Chandigarh Region
Index of Commodity Exchange, 1991
(Data by Villages)

Highest index value: 75.4 (Burail rural) kms
Regional average: 38.76
Lowest index value: 1.53 (Bir Gaggar)

High
Moderate
Low

U - Urban places
- Reserved forest and hill tracts without settlements

Fig. 5.6
Inter-State Chandigarh Region
Change in Levels of Commodity Exchange
1971-91
(Data by Villages)

High upward movement
Low upward movement
No change

Note
(i) Low upward movement refers to change from moderate to high/low to
moderate category whereas high upward movement refers to change from low
to high category.

(n) There is no unit which has experienced downward movement during 1971-91

Fig. 5.7
villages from ‘low’ to ‘high’ category of commodity exchange (Table 5.5). Only 37 per cent or less than two-fifths of the villages registered an upward movement in their respective levels whereas a dominant majority remained in the same category both in 1971 and 1991. Thus, this trend does not speak of a happy or favourable situation as pertained to the urban-rural interaction.

The 13 villages, which directly jumped to ‘high’ from ‘low’ category of commodity exchange, recorded the highest achievement in this context. These villages were located in scattered pockets. In 1971, the irrigated area was almost nil in these villages. During 1971-91 these villages experienced an increase of almost 50 percent points in proportion of irrigated area.

Fig. 5.5
Table 5.5

ISCR: Change in levels of commodity exchange during 1971-91

<table>
<thead>
<tr>
<th>Level of commodity exchange</th>
<th>Number of villages</th>
<th>Change / movement</th>
</tr>
</thead>
<tbody>
<tr>
<td>1971</td>
<td>1991</td>
<td></td>
</tr>
<tr>
<td>Low</td>
<td>High</td>
<td>13</td>
</tr>
<tr>
<td>Moderate</td>
<td>High</td>
<td>300</td>
</tr>
<tr>
<td>Low</td>
<td>Moderate</td>
<td>23</td>
</tr>
<tr>
<td>High</td>
<td>High</td>
<td>219</td>
</tr>
<tr>
<td>Moderate</td>
<td>Moderate</td>
<td>289</td>
</tr>
<tr>
<td>Low</td>
<td>Low</td>
<td>60</td>
</tr>
</tbody>
</table>

Note: None of the villages experienced a negative change in their respective levels of commodity exchange during 1971-91.

Out of 904 villages, the 300 which moved to 'high' from 'moderate' category during 1971-91, were located in the vicinity of towns, like Morinda, Kharar, Kural, Banur, Chandigarh and Dera Bassi. The proportion of irrigated area in such areas had increased from 30.35 to 50.82 per cent during 1971-91. Canal irrigation, available through the Bhakra Canal with its Gobindgarh and Rajpura distributaries and supplemented by the tube well irrigation enabled the villagers to take advantage of the growing demand and rising prices for seasonal vegetables in Chandigarh city. Villages around Kharar, Kurali and Banur towns have gone in for seasonal vegetables in a big way. Jhande Majra, Mehrauli, Khizerabad, Desu Majra, Jhungian, Harlalpur, Jhandpur and Teur villages need special mention in this context.

The area South-east of Banur, irrigated by the Banur inundation canal and in the surroundings of Shatabgarh and Chhat villages, constituted another vegetables growing belt. Here farmers belonging to the saini caste, a caste with a long tradition of growing vegetables, are found in large numbers. The peasantry is hard working and of an enterprising nature. The farmers visit...
Apni Mandis\textsuperscript{2}, organised on routine basis in different sectors of Chandigarh, Panchkula and Mohali since 1980’s to sell their products. A major demand for vegetables emerges from Chandigarh for the following reasons:

(i) Chandigarh is the largest and fastest growing town in the whole region. Gradually, it is emerging as a large urban complex composed of Chandigarh, Panchkula and Mohali.

(ii) Per capita income of the people in the city is quite high. Therefore, not only the per capita consumption is higher but quality of vegetables and fruits is of a much improved and expensive variety.

(iii) Chandigarh city has a big grain and vegetable market which serves as a regional market.

(iv) In small towns, located in the region, a substantial part of the demand for vegetables and fruits is met either through personal contacts or family farms. Several households in small towns produce vegetables for their own consumption. So consumption of vegetables in these towns is not as large as in Chandigarh. Vegetables and fruits sold in Chandigarh get much higher prices than the small towns.

Apart from growing vegetables, villagers in these areas have also gone for rearing milch cattle to cater to the demand for milk and milk products in Chandigarh city. Some of these villages are Dhanas, Karoran, Dhangrauli, Rattangarh, Aurnauli, Prempur and Sandhari Majra. Strict land use zoning and legal provisions do not permit dairying operations within the city of Chandigarh. Therefore, the city has to depend completely for dairy products on villages in its surroundings.

\textsuperscript{2} Under the concept of Apni Mandi producers of farm products and the consumers get an opportunity to have face to face contact without middlemen in between.
Dairy farming has helped the farm community not only to diversify farm activities away from the crop farming but also in generating an additional income. Moreover, the income earned through dairy farming and vegetable cultivation provides a regular source of earnings to the farmers, while the income from the cash crop farming is a seasonal one. The Jat farmers who were earlier averse to the idea of selling milk have also recognized its virtue.

23 villages, which moved to ‘moderate’ from ‘low’ category between 1971 and 1991 are located mainly in the South-east direction from Chandigarh. These villages fall largely in the dissected upland plain with undulating topography, good for grazing. Villages in this area have recently turned to production of poultry and dairy products in a big way. Gujjar villages, in particular, have gone in for milk production. Such villages include Barwala, Bhagwanpur, Mauli Jatwar, Kami, Nagar, Manak Tabra, Kot and Maltanwala. Poultry farms have come up mainly in villages falling along the Chandigarh – Naraigarh road.

On the other side of the scale, 568 villages which did not register any change at 1991 in their levels of commodity exchange had maintained their previous ‘high’, ‘low’ or ‘moderate’ level. 267 of such villages fall in Punjab, 219 fall in Haryana and remaining 10 in Chandigarh (UT), part of ISCR. High level villages (219) of this type were located mainly around Chandigarh and Morinda towns, while low level villages (60) were in the Siwalik foothill tract.

Villages having ‘low’ level of commodity exchange both in 1971 and 1991 is more a cause of worry in comparison to those remaining in ‘high’ level category both in 1971 and 1991. Let us examine in details the villages staying in low category both in 1971 and 1991.

These villages had, in general, a peripheral location in the foothills zone of the Siwalik hills. Undulating terrain and peripheral location were the biggest
impediments in their development. Stony soils were in general low fertility soils. Ground water was available not only at great depth but also available in few patches. Seasonal streams originating in the Siwalik hills were the main source of irrigation. Crops were, thus, highly dependant on seasonal rains. In recent years, the government as well as other agencies, working for ecological regeneration and improving living standards in hill regions have paid attention to such areas. Efforts are being made for the restoration of ecology through afforestation and water harvesting along with creation of employment opportunities in these areas. It is expected that there would be a qualitative change in their socio-economic development in the near future. It is to be noted here that most of the villages from this zone though maintained status quo as regards the level of urban-rural interaction but recorded a positive change in value of commodity exchange.

Briefly, 37 per cent of the villages in the region recorded an upward movement in their respective levels of commodity exchange during 1971-91. Amongst them, an overwhelming majority (90 per cent) moved to ‘high’ from ‘moderate’ category and the remaining moved to ‘moderate’ from ‘low’ and ‘low’ to ‘high’. None of the villages in the region experienced a downward movement. There are 13 villages which directly moved from low to high and thus recorded a remarkable achievement in this context. All these villages have witnessed a tremendous increase in their proportion of irrigated area. The same is true for villages, which moved to ‘high’ from ‘moderate’ level and are located close to towns like Morinda, Kharar and Kurali, where canal irrigation supplemented with tubewell irrigation enabled the farming community to grow seasonal vegetables to take advantage of the market demand. Another group of villages, which moved to the moderate from low category and located in South-eastern parts of the region, fall in the dissected upland plain with undulating topography, good for grazing. Such villages have gone in for dairy and poultry farming in a big way.
On the other side of the scale, 63 percent of villages which did not register any change in their levels of commodity exchange, were mostly located in peripheral Siwalik foothill zone of undulating topography dotted with torrent streams. Physical handicaps coupled with long neglect in developmental matters have kept them far behind as compared to other parts of the ISCR region.

(ii) Rural-Urban Commuting, 1971-91

By 1991, 95 per cent of the villages in the region were linked with all-weather roads in place of 33 per cent in 1971. This played a major catalytic role in promotion of commuting. The Department of Rural Development and Mandi Board, two government organizations, were responsible for construction and maintenance of rural roads in the region.

Table 5.6
ISCR: Change in levels of commuting during 1971-91

<table>
<thead>
<tr>
<th>Level of commuting</th>
<th>Number of villages</th>
<th>Change / movement</th>
</tr>
</thead>
<tbody>
<tr>
<td>1971</td>
<td>1991</td>
<td></td>
</tr>
<tr>
<td>Low</td>
<td>High</td>
<td>27</td>
</tr>
<tr>
<td>Moderate</td>
<td>High</td>
<td>135</td>
</tr>
<tr>
<td>Low</td>
<td>Moderate</td>
<td>317</td>
</tr>
<tr>
<td>High</td>
<td>High</td>
<td>78</td>
</tr>
<tr>
<td>Moderate</td>
<td>Moderate</td>
<td>58</td>
</tr>
<tr>
<td>Low</td>
<td>Low</td>
<td>289</td>
</tr>
</tbody>
</table>

Note: None of the villages experienced a negative change in their respective levels of commuting during 1971-91.

Of the 904 villages in the region, 479 or 54 per cent experienced upward movement in their respective levels of commuting (Fig. 5.8). The remaining 425 villages did not witness any movement in their respective levels. In this way, none of the villages experienced a downward movement in level of commuting between 1971 and 1991 (Table 5.6). Notably, a majority (54 per
Inter-State Chandigarh Region
Index of Rural-Urban Commuting, 1991
(Data by Villages)

Index value Level
High 1 10
Moderate 5
Low

Highest index value: 29.51 (Darua)
Regional average: 7.68
Lowest index value: 1.50 (Tepla)

Fig. 5.8
cent) of villages recorded an upward movement in the respective categories of their commuting levels against less than two-fifths (37 per cent) in case of commodity exchange. Obviously, performance in commuting was much better in comparison to commodity exchange.

Of the 479 villages, which experienced an upward movement in their respective levels of commuting, as many as 317 villages moved from ‘low’ to ‘moderate’ category. Of the remaining 162 villages, 135 villages moved from ‘moderate’ to ‘high’ category and 27 villages directly jumped to ‘high’ from ‘low’ category of commuting level during 1971-91 (Fig. 5.9). Earlier, in case of commodity exchange in the number of such villages was only 13. These 27 villages were located in the vicinity of Chandigarh on the Chandigarh-Shimla highway. Here, proportion of non-agricultural workers increased by more than 40 per cent points during 1971-91. Hindustan Machine Tools (HMT) factory at Pinjore, a Cement factory at Surajpur, and industrial units and government offices in Panchkula and Chandigarh provided employment to several villagers in the surroundings. A dominant majority of such workers commuted daily to their work place and returned in the evening.

135 villages, which moved to high from ‘moderate’ category, were located in the surroundings of Chandigarh on state or national highways radiating out from Chandigarh to cities such as Patiala, Ludhiana, Ropar, Shimla and Ambala. Obviously, all such villages were well connected by good road network with Chandigarh. Regular and fast bus services were available between Chandigarh and such villages. The average bus frequency was 4 to 5 with a break of 30 minutes during office hours in the morning. Nevertheless, the prosperity induced through earnings from vegetable cultivation, dairy farming and job opportunities in Chandigarh enabled them to afford personal two wheelers and even four wheelers as a mode of transport for commuting.
A majority of the commuters were working in government offices, trade, transport and business activities and industrial units in Chandigarh, Panchkula and Mohali. Another group of daily commuters comprised of milkmen supplying milk daily using privately owned tempos and motor bikes to individual households as well as shops in Chandigarh, Mohali and Panchkula.

On the other side of the scale, 425 villages did not register any change in the levels of commuting. 254 of such villages fell in Punjab, 155 in Haryana and 16 in Chandigarh (UT) part of the ISCR. 78 such villages maintained a ‘high’ level, 58 ‘moderate’ and 289 ‘low’. The villages which maintained a ‘high’ and ‘moderate’ level had fairly good road connectivity in 1971. On the contrary, the villages maintaining their status quo in the ‘low’ level had poor accessibility and backward agriculture due to poor stony soils and lack of irrigation facilities. Construction of transport and communication network is not only a challenging task but also requires heavy financial investment. A dominant majority of such villages was in the Haryana part of the ISCR especially in Raipur Rani and Naraingarh blocks.

In sum, the construction of a link road played a catalytic role in promoting commuting. The spatial pattern of commuting underwent a sea change during 1971-91. More than half the total villages witnessed an upward movement in their respective levels of commuting. Against this, was an average of less than two-fifths for commodity exchange. 27 villages, which recorded the highest upward movement by jumping directly to ‘high’ from ‘low’, were located very close to Chandigarh, Pinjore and Kalka. They witnessed a phenomenal increase in the proportion of non-farm workers during 1971-91. A number of small, large and medium industries came up in the cities of Panchkula, Mohali, Chandigarh, Pinjore and Parwanoo during 1971-91. A segment of workers employed in the industrial units or offices located in these cities commuted daily between their villages and these work
Inter-State Chandigarh Region
Change in Levels of
Rural-Urban Commuting, 1971-91
(Data by Villages)

High upward movement
Low upward movement
No change

Note (i) Low upward movement refers to change from moderate to high/low to moderate category whereas high upward movement refers to change from low to high category.
(ii) There is no unit which has experienced downward movement during 1971-91

Fig. 5.9
places. Also, a majority of government employees working in the
surrounding villages commute daily between Chandigarh/Panchkula/Mohali
and their work places in various villages. Another group of villages which
moved from ‘low’ to ‘moderate’ and ‘moderate’ to ‘high’ levels were mainly
located around Chandigarh or on the state or national highways radiating out
from Chandigarh. On the other side of the scale was the remaining half
which maintained their previous levels of 1971. Of such villages 78
maintained their ‘high’ level, 58 ‘moderate’ and 289 ‘low’. The last group is a
cause for worry. These villages were located in the hilly and choe-infested
tracts of the Siwaliks where poor accessibility and low level of agricultural
development kept them aloof from the main stream. Construction of a
transport and communications network was not only challenging but also an
expensive proposition in these villages.


During 1971-91, there had been considerable expansion of various social
infrastructural facilities in the rural areas (Fig. 5.10, 5.11 and 5.12). Apart
from the efforts made by the state governments, the central government
launched a minimum needs programme to boost social consumption in rural
areas and reduce regional disparities therein.

In 1971, there were only 57 per cent villages which had any educational
facility. Health and postal services were almost negligible. Only 7 per cent
villages had medical centres and 13 per cent had postal and telegraphic
facilities. By 1991, 89 per cent of the villages in the region had educational
facilities, 26 per cent had medical facilities and 56 per cent had postal and
telegraph services (Fig. 5.13). This was bound to boost further urban-rural
interaction as there were now more government employees to go to rural
areas from the urban centers for working in educational, health, postal and
other social services. Also these were more students and their parents, job
seekers and information and guidance seekers from rural areas who looked
towards urban areas for higher studies, better jobs and career guidance. All this was well reflected in the increased index value and upward movement in levels of service exchange for a large number of villages during 1971-91.

![ISCR: Availability of Facilities in Villages](image)

As revealed from the analysis of data on service exchange for 1971-91, 491 or more than one-half of the villages in the region witnessed a positive change or an upward movement in their respected levels of service exchange (Fig. 5.14). The remaining half or 413 villages did not record any change in their respective levels of service exchange. Credibly, none of the villages in the region recorded a negative change or downward movement in their respective levels of service exchange.

It is notable that locational factors played an important role in this context. Almost all the villages in the vicinity of towns in the ISCR recorded an upward movement in their respective levels of service exchange. In contrast, remotely located villages in the Siwalik foothill zones, in general, registered no change in their respective levels (Fig. 5.15).
Inter-State Chandigarh Region
Spatial Expansion of Educational Facilities
(Data by Villages)

Education institutions evolved during
1960’s
1970’s
1980’s
1990’s
School doesn’t exit within the village territory

U – Urban places
* – Reserved forest and hill tracts without settlements

Fig. 5.10
Health institutions evolved during
- 1960's
- 1970's
- 1980's
- 1990's
- No health facility within the village territory

U - Urban places
* - Reserved forest and hill tracts without settlements

Fig. 5.11
Postal and telegraph offices evolved during

- 1960's
- 1970's
- 1980's
- 1990's
- No postal and telegraph service within the village territory

U = Urban places
* = Reserved forest and hill tracts without settlements

Fig. 5.12
None of the facilities included in the index was available in these villages.

Highest index value: 91.67 (Nogawan)
Regional average: 30.46
Lowest index value: 4.33 (Wasepur)

Fig. 5.14
Of the 491 villages which recorded an upward movement in their respective level of service exchange, 49 villages moved from ‘moderate’ to ‘high’ 110 villages from ‘low’ to ‘moderate’ and 332 from ‘low’ to ‘high’ (Table 5.7). Also, these were 332 villages which jumped directly to ‘high’ from ‘low’ as they recorded a spectacular increase in the level of service exchange. These villages were distributed all over the region except the northern parts (Fig. 5.15). The villages in the northern part were relatively smaller in size owing to hilly terrain and therefore failed to provide a threshold population for the various services.

Table 5.7

<table>
<thead>
<tr>
<th>Level of service exchange</th>
<th>Number of villages</th>
<th>Change / movement</th>
</tr>
</thead>
<tbody>
<tr>
<td>1971</td>
<td>1991</td>
<td></td>
</tr>
<tr>
<td>Low</td>
<td>High</td>
<td>110</td>
</tr>
<tr>
<td>Moderate</td>
<td>High</td>
<td>49</td>
</tr>
<tr>
<td>Low</td>
<td>Moderate</td>
<td>332</td>
</tr>
<tr>
<td>High</td>
<td>High</td>
<td>65</td>
</tr>
<tr>
<td>Moderate</td>
<td>Moderate</td>
<td>08</td>
</tr>
<tr>
<td>Low</td>
<td>Low</td>
<td>340</td>
</tr>
</tbody>
</table>

Note: None of the villages experienced a negative change in their respective levels of service exchange during 1971-91.

In fact, the Haryana part of the ISCR showed greater change in terms of service exchange as compared to its Punjab counter part. The spread of educational, medical and postal and telegraph services had been relatively more in the Haryana part of the ISCR owing to their large population size as compared to Punjab. A large number of government employees working in schools, colleges, health and administrative services in the rural areas located in the proximity to Chandigarh, Panchkula and Mohali commuted
daily between their rural work places and urban residences. These villages were served by good roads. Similarly in the Punjab part of the ISCR, villages around Kharar, Dera Bassi and Banur showed a high level of service exchange. These villages had very good connectivity with Chandigarh, Mohali and Panchkula towns and were preferred places of posting for the government employees.

On the other side of the scale, 413 villages, which did not record any change in their respective levels of service exchange during 1971-91, were distributed in the following manner: 314 in Punjab, 83 in Haryana and 16 in the Chandigarh (UT) part of the ISCR. Amongst them 65 maintained their 'high' 8 'moderate' and 340 'low' level both in 1971 and 1991. These villages were, in general, located in the northern part of the region along the Siwalik foothills and choe-infested tracts. These were small sized villages (population between 200-500 persons) failing to provide a threshold population for the different services. In addition, the hilly terrain cut by several small seasonal streams impeded mobility in the absence of all weather roads and bridges.

In brief, during 1971-91 the region witnessed a considerable expansion of various social – infrastructural facilities in the rural areas. This enhanced the service exchange in the region since a large number of government employees were required to work in educational, health, postal telegraph and other services. More than half the total villages witnessed a positive change or an upward movement in their respective levels of service exchange. Earlier in case of commodity exchange, the share of such villages was less than two-fifths in total. Amongst these, 332 villages jumped directly from 'low' to 'high' thereby recording the highest achievement in this context. Earlier, the number of such villages was only 13 and 27 in case of commodity exchange and commuting, respectively. Such villages were
Inter-State Chandigarh Region
Change in Levels of Service Exchange
1971-91
(Data by Villages)

---
Fig. 5.15

- High upward movement
- Low upward movement
- No change

Note:
(i) Low upward movement refers to change from moderate to high/lower to moderate category whereas high upward movement refers to change from low to high category.
(ii) There is no unit which has experienced downward movement during 1971-91

Legend:
U - Urban places
* - Reserved forest and hill tracts without settlements

0 10 Kms
mostly located in all parts of the region except the northern part where as many as 340 villages maintained their ‘low’ level of 1971. These villages were located along the Siwalik foot hills and choe infested tracts. Since the villages in this hilly tract were small in size they failed to provide a threshold for different services.


It is evidently clear from the above discussion on different dimensions of urban-rural interaction that none of the 904 villages in the entire region recorded a negative change or downward movement in their respective levels in different dimensions. Therefore, one can easily assume that the direction of movement in the urban-rural interaction stayed forward. Nevertheless, there existed wide spatial variations. Let us examine in the following, the regional pattern of change in urban rural relations, in aggregate terms.

The spatial pattern of change in levels of urban-rural interaction showed that most of the villages which earlier in 1971 fell in the ‘low’ category moved to ‘moderate’ level of urban-rural interaction (Fig. 5.16). A dominant majority of villages (658 out of total 904 villages) experienced an upward movement in their respective levels of urban-rural interaction. Of these, 14 villages moved from ‘low’ to ‘high’, 47 ‘moderate’ to ‘high’ and 597 ‘low’ to ‘moderate’ (Table 5.8). Such results may be termed as good but not very encouraging. Firstly, the overwhelming majority of villages (597 of a total 658 registering upward movement) has moved from ‘low’ to ‘moderate’ category, while the number of villages moving from ‘low’ to ‘high’ is only 14 (Fig. 5.17). Secondly, the upward movement in most of the cases is mainly attributed to service exchange. There is a marginal role played by commodity exchange in this regard. Service exchange is promoted mainly by public investment and
hence reflects social advancement while commodity exchange depends more on individual efforts and investment and thus speaks of economic development. It seems that economic linkages between Chandigarh and its rural hinterland are still not very strong.

Table 5.8
ISCR: Change in levels of urban-rural interaction during 1971-91

<table>
<thead>
<tr>
<th>Level of urban-rural interaction</th>
<th>Number of villages</th>
<th>Change / movement</th>
</tr>
</thead>
<tbody>
<tr>
<td>Low 1971 High 1991</td>
<td>14</td>
<td>Upward (High)</td>
</tr>
<tr>
<td>Moderate 1971 High 1991</td>
<td>47</td>
<td>Upward (Low)</td>
</tr>
<tr>
<td>Low 1971 Moderate 1991</td>
<td>597</td>
<td>Upward (Low)</td>
</tr>
<tr>
<td>High 1971 High 1991</td>
<td>7</td>
<td>No Change / Movement</td>
</tr>
<tr>
<td>Moderate 1971 Moderate 1991</td>
<td>60</td>
<td>No Change / Movement</td>
</tr>
<tr>
<td>Low 1971 Low 1991</td>
<td>179</td>
<td>No Change / Movement</td>
</tr>
</tbody>
</table>

Note: None of the villages experienced a negative change in their respective levels of urban-rural interaction during 1971-91.

The 14 villages which jumped directly from a low to a high category were located around Dera Bassi town on two highways viz. Chandigarh-Dera Bassi-Ambala and Chandigarh-Rajpura-Patiala. Plain topography, fertile soils, good irrigation network and all round connectivity helped this belt to come up well in the post-Chandigarh phase. Even the pre-Chandigarh phase of this belt was better placed in comparison to other parts now comprising the ISCR region.

A majority of 644 villages which witnessed an upward movement in the levels of urban-rural interaction were characterized by a large population size, proximity to Chandigarh or its satellite towns and location on main routes radiating from Chandigarh. These villages had evolved stronger relations with Chandigarh through commercial agriculture and allied activities.
Inter-State Chandigarh Region
Index of Urban-Rural Interaction, 1991
(Data by Villages)

Highest index value: 50.77 (Zirakpur) Kms
Regional average: 25.97
Lowest index value: 3.22 (Asanwali)

Fig. 5.16
Inter-State Chandigarh Region
Change in Levels of
Urban-Rural Interaction, 1971-91
(Data by Villages)

High upward movement
Low upward movement
No change

Note (i) Low upward movement refers to change from moderate to high/low to
moderate category whereas high upward movement refers to change from low
to high category

(ii) There is no unit which has experienced downward movement during 1971-91

Fig. 5.17
producing marketable surplus especially foodgrains, milk, milk products, vegetables, fruits and poultry items. Developed commercial agriculture not only required farms inputs like chemical fertilizers, agricultural implements and improved variety of seeds from the non-farm sector, but also increased the income of farm households to purchase consumerable and capital goods to improve their living standards. In addition, these villages also provided a threshold population for locating education, health and communication facilities in them. They act as rural service centres for the surrounding villages. The villages situated in the South-eastern part of the region also showed an upward movement. These villages with relatively high proportion of Scheduled Castes had a tendency to develop closer ties with Chandigarh as they had a greater propensity to commute to the city.

On the contrary, 246 villages or about one-fourth of the villages which did not show any change in their level of urban-rural interaction were distributed in the following manner: 175 villages in Punjab, 70 in Haryana and only 1 in Chandigarh (UT) part of the ISCR. Of these, 7 maintained their ‘high’, 60 ‘moderate’ and 179 ‘low’ level of urban rural interaction as in 1971. 179 villages which still exhibited low level of urban-rural interaction in 1991 were largely situated towards the East and North of Chandigarh in the hilly and choe - infested tracts (Fig. 5.17). The features of choe – infested tracts of Siwalik hills, remote location, undulating topography, backward agriculture and little or no attention received from the government agencies in the past could be held responsible for their low level of urban rural interaction. However, the government is now trying to develop them by restoration of their ecology through afforestation and water harvesting along with generation of employment opportunities in these areas.
ISCR: Movement in Levels of Urban-Rural Interaction and its Dimensions, 1971-91

Commodity Exchange

- No. of villages
- Upward Movement: 500
- Downward Movement: 100
- No Change: 400

Rural-Urban Commuting

- No. of villages
- Upward Movement: 400
- Downward Movement: 100
- No Change: 500

Service Exchange

- No. of villages
- Upward Movement: 300
- Downward Movement: 100
- No Change: 400

Urban-Rural Interaction

- No. of villages
- Upward Movement: 800
- Downward Movement: 200
- No Change: 400

Fig 5.18
In sum, the urban-rural relations strengthened in the region during 1971-91. A dominant majority (more than 75 per cent) of villages experienced an upward movement in their level of urban-rural interaction. However, a further analysis reveals that 597 of 658 villages registering an upward movement crossed over to ‘moderate’ from ‘low’ level of urban-rural interaction. There were only 14 villages which directly crossed over to ‘high’ from ‘low’ level category during 1971-91. Further, the upward movement was mainly attributed to an upward movement in service exchange. Other dimensions especially commodity exchange played only a marginal role. Such results may be termed good but not very encouraging, as commodity exchange which reflects economic transformation, recorded a slow process during 1971-91 (Fig. 5.18). Increase in irrigation intensity, construction of link roads and increase in education, health and communication facilities played a catalytic role in strengthening of urban-rural relations during 1971-91. Within the ISCR the highest degree of change in urban-rural relations occurred in the villages immediately surrounding Chandigarh and situated along the major roads mainly Chandigarh – Kalka, Chandigarh – Kharar and Chandigarh – Zirakpur roads. On the other side of the scale, were the remaining 25 per cent of villages which did not register any change in their level of urban-rural interaction. These villages fell in the North eastern hilly and choe-infested tracts where their remote location, undulating topography, backward agriculture and sustained neglect by government agencies especially with regard to developmental programmes could be held responsible for their low level and slow pace of urban-rural interaction.

Main Highlights

1. Emergence of Chandigarh as a union territory in 1966 and the subsequent events such as shifting of northern command’s headquarters from Shimla to Chandimandir and the emergence of
Panchkula on Haryana, and Mohali on Punjab territory, all in proximity to Chandigarh had a profound impact on the urban-rural relations in the ISCR region. Urban-rural relations strengthened and expanded quite fast in the post-1966 period.

2. Chandigarh in quick succession snatched away the hinterland of other towns in the region to rapidly spread its area of commodity exchange, commuting zone and service exchange.

3. Nevertheless, there were wide intra-regional variations in different dimensions of urban-rural interaction. While, six out of every ten villages recorded moderate category of commodity exchange, seven of every ten villages were placed in the low category of commuting and more than 8 out of every group of ten villages fell in the low category of service exchange in 1971. The villages located close to Chandigarh, especially on the western and eastern side of the state highways were placed far ahead of villages located in the foothills zone of the Siwaliks on an urban-rural interaction index. The latter kind of villages suffered badly because of remote location, physical disabilities and backward economy.

4. Intra-category variations were the maximum in case of villages at the ‘low’ level of urban-rural interaction, while it was minimum in the case of villages included in the ‘high’ category in 1971. Amongst different dimensions of urban-rural relations, intra-category variations were the maximum in case of commuting, while it was the least for commodity exchange. Further, ‘low’ level category in all cases including commodity exchange, commuting, service exchange and aggregate level of urban-rural interaction had the maximum intra-category variation, while the opposite was true for other categories in these cases.
5. During 1971-91, all the dimensions of urban-rural interaction recorded an upward movement, individually as well as collectively. More than three-fourths of the villages registered an upward movement in their levels of urban-rural interaction. However, the dominant majority (597 of 658) of such villages moved from ‘low’ to ‘moderate’ level, against only 14 villages moving from ‘low’ to ‘high’ level of urban-rural interaction. Secondly, upward movement was a consequence of mainly any significant movement in case of service exchange. The role of commodity exchange in this was only marginal. While the service exchange reflected more on social transformation the commodity exchange spoke of economic change. Obviously, impact of Chandigarh was more on social transformation in comparison to economic change in its hinterland.

6. Quite interestingly, high level of urban-rural interaction was more a phenomenon of the Punjab part of the ISCR, while change was of high magnitude in the Haryana part. In fact, the Haryana part witnessed faster development during 1971-91. Coming up of Panchkula, HMT, Pinjore, Cement factory at Surajpur and increased attention of the government to develop hill and other backward areas under the Backward Area Development Programme in the Fourth Plan Period (1969-74) onwards rapidly transformed this part. Development of Parwanoo, Baddi and Barotiwala industrial estates in Himachal Pradesh also helped in the process.

After 1990, the ISCR witnessed a major breakthrough in the transport and communication technology with the increased popularity of two wheelers especially scooters, and motorcycles. This further strengthened the mechanism of urban-rural relations. Apart from this, the spread of telephone connections in the villages and mushrooming growth of STD booths played a vital role in strengthening the urban-rural interactions. An effort has been
made to capture all such changes in the chapter to follow. The chapter would be based on data/information collected and observations made during fieldwork conducted in January-March 2002 since data on such parameters was not available in secondary sources. The chapter to follow will present a recent scenario of the urban-rural relations in the region.