
However, urban-rural interaction is the outcome of a series of underlying economic, social, political and ideological processes. It is not the modern means of transport and communication that have related the village to town for the first time. Modern technology and other modern forces have undoubtedly brought about a change in the urban-rural relationship but these have certainly not begotten this relationship. Institutional, cultural, religious, political and economic ties have existed between the villages and urban cultures since the beginning of historical times. In fact, cities/towns could not have come into being or continued to exist without this relationship. The urban centres had to depend on villages for agricultural products and other rural surpluses. For continuance of these primary supplies, a stable pattern of urban-rural relationship was a pre-requisite. However, the base of this relationship was much wider including political and cultural dimensions also other than economic.

Moreover, urban-rural interactions along administrative and political dimensions have a history longer than that which generally appears in contemporary studies of the villages (Srinivas, 1955). One of the first attempts to define this interaction was undertaken by Preston (1975), who identified five main categories of interaction i.e. movement of people, movement of goods, movement of capital, social transactions and administrative and service provisions. Later on, Gould (1982) recorded how ‘rural-urban interaction’ was the theme of the first of a series of four workshops on the third world to be sponsored during 1982 by the Human Geography Committee of the Social Science Research Council (SSRC). Within this context, Gould (1985) noted that rural-urban interaction could be considered as the two-way flow of people, goods, money, technology, information and ideas between rural and urban areas. He further suggested that these flows are not only symptoms of the ‘development process’ but are
themselves active features in the transformation of rural and urban places (Gould, 1985).

Most of social and economic innovations originate in the cities. Thus, while city dwellers are dependent on agriculturists for sustenance, the latter looks to the former for innovations. Their interaction results in the entry of technology in the villages. Literacy, school-attendance, subscription to newspapers, dietary habits, the use of particular articles of clothing, voting in local or national elections, membership in voluntary associations, the presence of radio, telephones and television sets in homes and the ownership of automobiles have become the feature of even rural areas. This acceptance of the urban traits by rural residents reflects diffusion of urban innovations, which has been feasible because of their increased interaction.

Surplus wealth beyond the needs of meeting subsistence is ploughed back into agriculture and urban connections are established for the purpose. Adult franchise, institutions of local government and participation in general elections add new varieties to polity and inputs are then realized through urban connections. Life in a village revolving around rituals of the life cycle and festivals finds new vistas in the use of technology- trucks, tractors, buses, decorations and electronic media. Participation of rural dwellers in rituals of different kinds reveals how the town is practically brought into the village and a new value conflict in welcoming the urban elements and retaining rural identity is seen (Chauhan 1990).

In celebrations of the rituals of the life cycle, particularly marriage and death ceremonies where hundreds of persons have to be provided with dinner and all types of gifts, the villagers enter into multiple interactions with the nearby urban centres to such an extent that the village itself seems to acquire temporarily urban dimensions. In the value system of villagers it is being increasingly felt that the greater the urban content in menus, gifts or entertainment, the more respectable the ceremony becomes. Urban additions to rural ways of life have become the symbols for status maintenance or status enhancement in the rural areas. Thus, the village and town no longer remain two separate worlds isolated or antagonistic to each other; the actor in rural situation even when dealing with his counterpart in the same environment makes use of the urban ethos in scoring points over the other (Sharma, 1977).
There is a two-way traffic in mass communication, the town is extending to reach the rural populace while the latter seeks occasions to obtain urban exposure. Other developments in economy in the nature of growth of cash crops, new implements and use of inanimate sources of energy have further widened areas of contacts between the town and village. Connections of a village with the wider world can be seen through the extension of tertiary sector of economy. On the one hand, the village acts as a recipient of service men from the urban centres; on the other, it provides a reservoir for the supply of manpower needs of the towns (Chauhan 1990).

Interaction of the rural and the urban areas in the economic sector represents the increasing rationality in the villages and the extension of urban institutions to the hinterland. Qualitatively, the nature of contacts of a villager with town can be seen in the traditional and modernized sectors of life (Chauhan, 1988). In the traditional sector, administrative connections and links with a small market are included; whereas in the modernized sector, sale of commercial crops and purchase of valuable goods, education and health are included.

Adoption of advanced technology goes along with the high degree of urban contacts. All the tractor owners come under the category of persons with high degree of urban contacts. They happen to be developed farmers having pumping sets and other accessories as well. Frequent visits to the town are necessary for purposes such as purchase of spare parts and getting repairs done, purchase of fertilizers and cement, supply of cotton, payment of electricity bills besides the sale of principal crops and purchase of modernized household ware. Thus, the progress of Green Revolution in agriculture has created a new interrelationship between the village and the town.

Villagers are coming in urban contact in the cultural field particularly education and health and urban culture is being extended to celebrations and festivals in rural areas. There is a sizable student population commuting between the village and the schools and colleges in urban centres.

In reality, urban and rural areas are two sides of the same coin. The main types of interactions involved are the movement of people, goods, money, capital, new technology, information and ideas. Rondinelli (1983) has argued that ‘rural
development goals, no matter how carefully conceived, cannot be achieved in isolation from the cities or entirely through ‘bottom-up’ strategies’. He suggests that linkages are crucial because the major markets for agricultural surpluses are in urban centres; most of the agricultural inputs come from organizations in cities; workers seek employment as rising agricultural productivity frees rural labour and many of the social, health, educational and other services that satisfy basic human needs in rural areas are distributed from urban centres.

Table 7.1

<table>
<thead>
<tr>
<th>Linkage type</th>
<th>Elements</th>
</tr>
</thead>
<tbody>
<tr>
<td>Physical linkage</td>
<td>Road networks, river and water transport networks, railroad networks</td>
</tr>
<tr>
<td>Economic linkages</td>
<td>Market patterns, raw materials and intermediate goods flows, capital flows, production linkages-backward and forward, consumption and shopping patterns and income flows</td>
</tr>
<tr>
<td>Population movement linkages</td>
<td>Migration-temporary and permanent, journey to work</td>
</tr>
<tr>
<td>Technological linkages</td>
<td>Technology interdependencies, irrigation system, telecommunications system</td>
</tr>
<tr>
<td>Social interaction linkages</td>
<td>Visiting patterns, kinship patterns, rites, rituals and religious activities, social group interaction.</td>
</tr>
<tr>
<td>Service delivery linkages</td>
<td>Credit and financial networks, education, training and extension linkages, health service delivery systems, transport service systems</td>
</tr>
<tr>
<td>Political, administrative and organization linkages</td>
<td>Organizational interdependencies, inter-jurisdictional transaction patterns, informal political decision chains</td>
</tr>
</tbody>
</table>

Source: Rondinelli, 1985; pp. 143

Rondinelli’s (1985) classification of linkages (Table 7.1) in spatial development provides a broad framework for the consideration of urban-rural interaction.

The town is thus connected with its hinterland by all sorts of links i.e. economic, demographic, cultural and social. Power of attraction varies considerably according to the town’s size and dynamism. Reilly has formulated a rule inspired by Newton’s law and which, for this reason, has been called the law of gravitation of the retail trade. According to Reilly, ‘Towns exert their influence in direct proportion to their population, but their influence decreases outwards in proportion to the square of the distance’ (Garnier and Chabot, 1967). This also applies in case of Hisar being the
largest city in the district. Hansi and Hisar had same size of population in 1901 but now the population of Hisar city is much more than that of Hansi because of its high growth rate; therefore, its attraction force is also more.

Focus of the present study has been the urban-rural relations in district Hisar. For arriving at a consolidated picture, a composite index has been calculated by clubbing together all the six indicators of various parameters of urban-rural interaction. The following method has been used to calculate this. The index values, arrived at for each individual indicator, were summed up to have a 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, to have the index value for urban-rural interaction.

The chapter has been divided into two sections. The first section will take care of the spatial patterns of urban-rural interaction from 1971 to 2001; whereas the second section will cover the change in levels of urban-rural interaction over the period of 40 years.

SECTION-I
1. SPATIAL PATTERNS OF URBAN-RURAL INTERACTION: 1971

There were wide inter-village inequalities in the level of urban-rural interaction (Map 7.1). The value of interaction index varied from a high of 77.70 in Dhana village of Hansi-I block to a low of 16.32 in Dobeta village of Hisar-I block in the district giving a ratio of 1:4.76 in 1971. Villages have been categorised into High, Moderate and Low on the basis of their index values for a detailed analysis.

(a) Areas of High Urban-Rural Interaction

Only 68 villages or 25 per cent or one-fourth of the total villages in the district registered a high level of urban-rural interaction. The index value varied from a high of 77.70 in Dhana village of Hansi-I block to a low of 55.46 in Channot village of the same block in the district. The range difference of 22.24 revealed that the village at the top had an index value of 1.4 times higher than that of the village at the bottom. The coefficient of variability was 9.50 per cent which was the least of all the three categories (Table 7.2).
District Hisar
Index of Urban-Rural Interaction, 1971
(Data by Villages)

Highest Index Value: 77.70 (Dhana)
District Average: 43.08
Lowest Index Value: 16.32 (Dobeta)

Source: District Census Handbook, Hisar (1971)
Table 7.2

District Hisar: 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>62.19</td>
<td>5.90</td>
<td>9.50</td>
</tr>
<tr>
<td>Moderate</td>
<td>43.98</td>
<td>5.34</td>
<td>12.15</td>
</tr>
<tr>
<td>Low</td>
<td>25.45</td>
<td>5.30</td>
<td>20.81</td>
</tr>
</tbody>
</table>

High level of interaction was a feature of the villages having large size of population, located on the major transport routes i.e. national or state highways and around urban centres, commercialization of agriculture and had a diversified economic base. All this was catalytic in promoting urban-rural interaction. Most of the villages in this category were functioning as the rural service centres for the villages in their vicinity.

(b) Areas of Moderate Urban-Rural Interaction

124 villages or 45.59 per cent of the total villages in the district exhibited a moderate level of interaction. Index value varied from a high of 54.70 in Kirori village of Agroha block to a low of 35.33 in Samani village of the same block in the district. This gives a range difference of 19.37. In other words, the village at the top had an interaction index more than nineteen points higher than that of the village at the bottom. The value of coefficient of variability of 12.15 per cent also reveals the moderate intra-category variations but not the least.

Moderate level of interaction was a characteristic of the villages which were located close to the villages with high urban-rural interaction, had comparatively large population base, commercializing agriculture and diversifying economy. Pockets of the villages with moderate urban-rural interaction index were widely scattered throughout the district in 1971.

(c) Areas of Low Urban-Rural Interaction

80 villages or 29.41 per cent of the total villages recorded a low level of interaction. Index value varied from a low of 16.32 in Dobeta village of Hisar-I block to a high of 34.54 in Daroli village of Adampur block in the district. The range
difference of 18.22 and coefficient of variability of 20.81 per cent indicate comparatively wide intra-category variations. This is also the highest value of the coefficient of variability for any category of areas.

Major concentration of the villages having low level of urban-rural interaction was found in the western part of the district, only some pockets of this category of villages were in the eastern part of the district. This was because of less road network in the western part of the district due to sandy soil topography; less agricultural production due to lack of water (low water table) leading to the traditional way of agriculture resulting in the backward economy. These were mostly small population size villages. Thus, poor accessibility, low diversification of economy and small size of population hindered both commodity as well as service exchange. All this hindered the urban-rural interaction in the western part of the district.

In sum, there were wide spatial variations in the level of urban-rural interaction in the district. Around 30 per cent villages recorded a low level of interaction in 1971, which were mostly concentrated in the western part of the district due to topographical and resource development handicaps. These were also the villages of small population size failing to provide a threshold for any service. On the other hand, high level of urban-rural interaction was found in the villages which had large population size; situated on or close to the national or state highways; in proximity to urban centres and with diversified economic base. Whereas, villages with moderate category of urban-rural interaction had no particular pattern of their distribution in the district and were interspersed in between the villages with high or low category of urban-rural interaction with comparatively large size of population. In other words, urban-rural interaction was basically a function of distance from the urban centres, transport facility, population size and diversification of economy; though sandy topography also played an important role in the western part of the district in determining the level of urban-rural interaction. Relatively, intra-category variations were maximum in case of areas of low level of urban-rural interaction and minimum in the areas of high level of urban-rural interaction. This finding goes against the well known Williamson’s hypothesis (1965) which states that variations in the development will be high at moderate level of development. In fact, a greater heterogeneity among villages either in terms of road accessibility or agricultural development or availability of services was a characteristic
of the areas with low level of urban-rural interaction in 1971 in the study area. This heterogeneity resulted in higher variability.

II. SPATIAL PATTERNS OF URBAN-RURAL INTERACTION: 1981

There were wide inter-village inequalities in the level of urban-rural interaction (Map 7.2) in 1981. The value of interaction index varied from a high of 86.75 in Adampur village of Adampur block to a low of 24.01 in Inchha Kharkhari village of Hisar-II block of the district giving a ratio of 1:3.61 in 1981. Villages have been categorised into High, Moderate and Low on the basis of their index value for a detailed analysis.

(a) Areas of High Urban-Rural Interaction

155 villages or 57 per cent or majority of villages in the district recorded a high level of urban-rural interaction in 1981 adding 87 villages in this category as compared to 1971. The index value varied from a high of 86.75 in Adampur village of Adampur block to a low of 55.08 in Masoodpur village of Hansi-I block of the district. The range difference of 31.67 revealed that the village at the top had an index value of about one and a half times higher than that of the village at the bottom. Value of standard deviation for this category is 5.89. Value of coefficient of variability is 9.06 which is the least of all the other categories. Thus, it shows the lowest intra-category variation (Table 7.3).

Table 7.3
District Hisar: Levels of urban-rural interaction and their average, standard deviation and coefficient of variability, 1981

<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>64.98</td>
<td>5.89</td>
<td>9.06</td>
</tr>
<tr>
<td>Moderate</td>
<td>44.58</td>
<td>5.31</td>
<td>11.91</td>
</tr>
<tr>
<td>Low</td>
<td>30.21</td>
<td>3.65</td>
<td>12.08</td>
</tr>
</tbody>
</table>

Villages with high index of urban-rural interaction were mostly located on or close to national and state highways and around urban centres. But in 1981, spread of this category of villages was wide compared to that in 1971. This happened because in the eastern part of the district, most of the villages with moderate level of urban-rural interaction in 1971 joined the high level of urban-rural interaction in 1981 and the same
Map 7.2
District Hisar
Index of Urban-Rural Interaction, 1981
(Data by Villages)

Highest Index Value: 86.75 (Adampur)
District Average: 55.67
Lowest Index Value: 24.01 (Inchha Khalkhan)

0 30 Kilometers

happened with the many villages in western part of the district. This was the result of increasing commercialization of agriculture, increase in size of population and increasing diversification of economy in these villages. This, in turn, resulted in more facilities available in these villages which coupled with other factors took them to the high level of urban-rural interaction.

(b) Areas of Moderate Urban-Rural Interaction

107 villages or 39.34 per cent villages in the district registered a moderate level of interaction with the urban centres. The index value varied from a high of 54.86 in Bandaheri village of Hisar-II block to a low of 35.18 in Talwandi Badshahpur village of Hisar-I block in the district. This gives the range difference of 19.68. In other words, the village at the top had an interaction index more than 20 times higher than that of the village at the bottom. Standard deviation for the moderate category is 5.31. The value of coefficient of variability is 11.91 per cent which also reveals the less intra-category variations but not the lowest.

Majority of the villages in this category were concentrated in the western part of the district, only some pockets of villages in this category were scattered in the eastern part of the district. This happened because in the eastern part of the district, most of the villages with moderate level of urban-rural interaction in 1971 joined the high level category of urban-rural interaction by 1981; while many villages with moderate level of urban-rural interaction in the western part of the district also joined the high level category of urban-rural interaction, but the number of such villages was less than that in the eastern part of the district. Characteristics of villages in this category were same as in 1971 i.e. increasing size of population, commercializing agriculture and diversifying economy. These villages were intervened between the villages of high commodity exchange.

(c) Areas of Low Urban-Rural Interaction

Only 10 villages or about 4 per cent of the total villages registered a low level of urban-rural interaction in 1981. Index value varied from a low of 24.01 in Inchha Kharkhari village of Hisar-II block to a high of 34.96 in Bhojraj village of Hisar-I block in the district. The range difference of 10.95 and coefficient of variability of 12.08 per
cent indicate that intra-category variations are not so high but this is the highest value of coefficient of variability compared to two other categories.

Only 10 villages were left in category of low level of urban-rural interaction in 1981 compared to 80 villages in 1971. Out of which, 6 villages were in the western part of the district and 4 villages in the eastern part of the district. Most of the villages with low level of urban-rural interaction in 1971 had been included either in the category of moderate level of urban-rural interaction or high level of urban-rural interaction by 1981. This revolutionary change happened because of development of more road network and supply of water in the western part of the district by canals or by drip or sprinkler irrigation systems by state government. Thus, desert land was converted into green land by government efforts leading to prosperity even in the western part of the district. In the changed scenario, commercialization of agriculture and diversification of economy happened resulting in increased commodity and service exchange. In this way, villages in the category of low urban-rural interaction in 1971 attained the moderate or high category level of urban-rural interaction in 1981.

In sum, there were wide spatial variations in the level of urban-rural interactions in the district. Even less than 4 per cent villages recorded a low level of urban-rural interaction and a majority of villages (57 per cent) registered a high level of urban-rural interaction in 1981. This revolutionary change was the result of construction of more road network, supply of water by canals, drip irrigation and sprinkler irrigation systems in the drier parts (especially western part) and provision of more service facilities in the district compared to 1971. High level of urban-rural interaction was found in the villages with large size of population, in proximity to urban centres, situated on or close to national and state highways up to the long distances. A little less than 40 per cent of villages revealed a moderate level of urban-rural interaction, which had more concentration in the western part of the district because of inclusion of most of the low level of urban-rural interaction villages in the moderate and high level categories by 1981. Villages with low level of urban-rural interaction were small population size settlements failing to provide even threshold level for any service. Thus even in 1981, urban-rural interaction remained largely a function of distance from the urban centres, transport facility and size of settlement. Relatively, intra-category variations were maximum in case of areas of low level of urban-rural interaction and minimum in areas
of high level of urban-rural interaction category; though difference was not much between the minimum and maximum values by this time. This shows that villages in the low level category of urban-rural interaction were more heterogenous in character than the villages in other two category levels.

III. SPATIAL PATTERNS OF URBAN-RURAL INTERACTION: 1991

There were wide inter-village inequalities in the level of urban-rural interaction (Map 7.3) in 1991. The value of interaction index varied from a high of 81.40 in Adampur village of Adampur block to a low of 28.25 in Kajal village of Hansi-I block in the district giving a ratio of 1:2.88 i.e. village at the highest level had about three times more interaction than the village at the lowest level in the district. Villages have been categorised into High, Moderate and Low levels on the basis of their composite index value.

(a) Areas of High Urban-Rural Interaction

By this time, 167 villages or 61 per cent of the total villages had registered a high level of urban-rural interaction in the district; thus adding 12 villages in this category as compared to 1981. The index value varied from a high of 81.40 in Adampur village of Adampur block to a low of 55.25 in Sandlana village of Barwala block in the district giving a range difference of 26.15 or a ratio of 1:1.47 between the highest and the lowest value. In other words, village at the top had one and a half times more interaction than the village at the bottom in this category. The coefficient of variability was only 7.82 per cent which is less but not the least of all the three categories (Table 7.4).

<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>64.27</td>
<td>5.03</td>
<td>7.82</td>
</tr>
<tr>
<td>Moderate</td>
<td>45.55</td>
<td>4.6</td>
<td>10.09</td>
</tr>
<tr>
<td>Low</td>
<td>31.37</td>
<td>1.98</td>
<td>6.31</td>
</tr>
</tbody>
</table>

Table 7.4

District Hisar: Levels of urban-rural interaction and their average, standard deviation and coefficient of variability, 1991

Pattern of distribution of the villages in this category remained almost same with 1981 except that a few more villages were included in this category from moderate
Map 7.3
District Hisar
Index of Urban-Rural Interaction, 1991
(Data by Villages)

Highest Index Value: 81.40 (Adampur)
District Average: 56.79
Lowest Index Value: 28.25 (Kajal)

District boundary
State boundary
District Fatehabad
District Jind
District Bhiwani

RAJASTHAN

level in 1981. In other words, villages on or close to national highways and around urban centres having modern facilities, commercial agriculture and diversified economy had high level of urban-rural interaction.

(b) Areas of Moderate Urban-Rural Interaction

100 villages or 36.76 per cent of the total villages in the district recorded a moderate level of interaction in 1991. The index value ranged from a high of 54.89 in Daroli village of Adampur block to a low of 35.42 in Rawat Khera village of Hisar-I block in the district giving a range difference of 19.47. In other words, the village at the top had an interaction index more than nineteen points higher than that of the village at the bottom. Index of the village at the bottom and that at the top gives a ratio of 1:1.55 i.e. urban-rural interaction of the village at the top was about one and a half times higher than that of the village at the bottom of the category. The value of coefficient of variability is 10.09 which reveals that intra-category variations are though not so high, yet is the highest of the three categories.

Mostly villages with moderate level of urban-rural interaction were concentrated in the western part of the district and only a few pockets of villages in this category were scattered in the eastern part of the district. From 1981 to 1991, a few villages shifted from moderate to high category and only 5 villages shifted from low to moderate category. Thus, there was not a big change in the number and distribution of moderate category villages in 1991 as compared to 1981. These were located in between the villages with high urban-rural interaction.

(c) Areas of Low Urban-Rural Interaction

Only 5 villages or around 2 per cent of the total villages registered a low level of urban-rural interaction in 1991 as compared to 10 villages in 1981. Index value varied from a low of 28.25 in Kajal village of Hansi-I block to a high of 33.11 in Risalu Khera village of Agroha block in the district in 1991. The range difference of 4.86 and coefficient of variability of 6.31 per cent indicate low intra-category variations. This is also the lowest value of coefficient of variability of all the three category of areas.

By 1991, only 5 villages were left in the category of low level of urban-rural interaction. Other five villages attained the moderate level of urban-rural interaction in
1991. This decreasing number of villages in low level of urban-rural interaction was the result of increasing infrastructure development, commercialization of agriculture and diversification of economy.

In sum, there were wide spatial variations in the level of urban-rural interactions in the district in 1991 also, which were minimizing at a rapid pace. More than 60 per cent villages recorded a high level of urban-rural interaction; whereas, even less than 2 per cent villages registered a low level of urban-rural interaction. Minimization of this gap was due to more and more infrastructural development with the passage of time. Moderate category villages were having more concentration in the western part of the district even in 1991. In relative terms, intra-category variations were maximum in case of villages in moderate category and minimum in low category areas i.e. maximum heterogeneity was a characteristic of the areas with moderate level of urban-rural interaction.

IV. SPATIAL PATTERNS OF URBAN-RURAL INTERACTION: 2001

There are wide inter-village inequalities in the level of urban-rural interaction (Map 7.4) in 2001 also. The value of interaction index varies from a high of 92.42 in Adampur village of Adampur block to a low of 34.13 in Risalu Khera village of Agroha block in the district, which gives the range difference of 58.29 and ratio of 1:2.7. In other words, village at the top has approximately three times higher urban-rural interaction than the village at the bottom in the district in 2001. Villages have been categorised as High, Moderate and Low on the basis of their composite index value for a detailed analysis.

(a) Areas of High Urban-Rural Interaction

192 villages or around 71 per cent villages i.e. more than two-third of the total villages registered a high level of urban-rural interaction in the district in 2001. The index value varied from a high of 92.42 in Adampur village of Adampur block to a low of 55.13 in Bandaheri village of Hisar-II block of the district. This gave a range difference of 37.29 and ratio of 1:1.7. In other words, village at the top had almost a quarter to two times more interaction than the village at the bottom in 2001. The value of coefficient of variability was only 8.14 per cent which reveals low intra-category variations (Table 7.5).
Map 7.4

District Hisar
Index of Urban-Rural Interaction, 2001
(Data by Villages)

Highest Index Value: 92.42 (Adampur)
District Average: 59.09
Lowest Index Value: 34.13 (Risalu Khera)

Source: District Census Handbook, Hisar (2001)
Table 7.5
District Hisar: Levels of urban-rural interaction and their average, standard deviation and coefficient of variability, 2001

<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>64.28</td>
<td>5.23</td>
<td>8.14</td>
</tr>
<tr>
<td>Moderate</td>
<td>46.78</td>
<td>4.28</td>
<td>9.15</td>
</tr>
<tr>
<td>Low</td>
<td>34.13</td>
<td>-</td>
<td>-</td>
</tr>
</tbody>
</table>

Note: There is only one village in low category.

In 2001, 25 more villages were included in this category compared to 1991, taking the number to 192 out of 272 villages. A major belt of villages in the western part of the district with moderate level of urban-rural interaction in 1991 was disrupted due to their shifting from moderate to high level category in 2001. There was widespread concentration of this category villages along major transport routes. More and more villages in the western part of the district were covered under high level of urban-rural interaction as compared to that in the eastern part because most of the villages in eastern part already had high level of urban-rural interaction by 2001. Still, there were more villages with high level of urban-rural interaction in the eastern part of the district because of more density of roads, more diversified economy and commercialized agriculture. Thus, a dominant majority of the villages was included in high category level of urban-rural interaction by this time and the distribution pattern of these villages was broadly same with 1991.

(b) Areas of Moderate Urban-Rural Interaction

79 villages or 29 per cent villages registered a moderate level of urban-rural interaction in the district. The index value varied from a high of 54.95 in Sabarwas village of Agroha block to a low of 35.78 in Dobeta village of Hisar-I block in the district. This gave the range difference of 19.17 and ratio of 1:1.5. In other words, the village at the top had one and a half times more interaction than the village at the bottom in 2001 in moderate category. The value of the coefficient of variability was 9.15, which was low but the highest of all the other categories in 2001.

Pockets of the villages with moderate level of urban-rural interaction were there in the western as well as eastern parts of the district but major concentration was there in the south-western part of the district like 1991. Villages in this category were the
emerging villages in the context of commercialization, diversification and availability of facilities. Pattern of their distribution was almost same with 1991 i.e. intervened between the villages with high level of urban-rural interaction.

(c) Areas of Low Urban-Rural Interaction

Only one village i.e. Risalu Khera village of Agroha block out of 272 villages registered a low level of urban-rural interaction in 2001 in the district, which had an index value of 34.13. This indicates that it was also on the verge of entering the moderate category. In 2011, hopefully there will be no village in this category. In this category, there is no case of range difference and coefficient of variability because of single value.

By 2001, only one village having low level of urban-rural interaction reveals that economy of the district was in a prosperous stage. Every village in the district had attained average level of accessibility, commercialization of agriculture and diversification of economy.

In sum, spatial variations in urban-rural interaction had narrowed to a considerable extent by 2001. Presence of one village in the category of low level of urban-rural interaction indicates that most of the villages had attained average level of progress, transport linkages and service facilities. Majority of the villages (71 per cent) now recorded high level of urban-rural interaction; whereas 29 per cent villages recorded a moderate level of urban-rural interaction. Their major concentration was in the south-western part of the district. Overcoming the physical hindrances, villages in the western part of the district were also heading towards the achievement of high level of urban-rural interaction. In relative terms, intra-category variations were maximum in moderate category areas and minimum in high category areas of urban-rural interaction. This finding goes in consonance with the well known Williamson’s hypothesis revealing high variations at moderate level of development. Thus, greater heterogeneity was a characteristic of the areas of moderate level of urban-rural interaction in 2001 in the study area. In 2011, perhaps there will be no village in the low category of urban-rural interaction and even lesser number of villages will remain in moderate category level of urban-rural interaction.
None of the 272 villages recorded a negative change or downward movement in their respective levels of urban-rural interaction in the district during 1971-2001 (Fig. 7.1 and Map 7.5). Therefore, it can be said that the direction of movement in the urban-rural interaction stayed forward. Though, there were wide spatial variations in the level of urban-rural interaction in the district. In the discussion to follow, the spatial pattern of change in urban-rural relations has been examined.

**District Hisar: Movement in Levels of Urban-Rural Interaction, 1971-2001**

Spatial pattern of change in levels of urban-rural interaction revealed that almost all the villages except one which earlier in 1971 fell in the ‘low’ category moved to ‘moderate’ or ‘high’ category of urban-rural interaction. Thus, it can be said that all the villages except one out of the total 272 villages experienced an upward movement in their respective levels of urban-rural interaction. Out of these 271 villages, 32 villages moved from ‘low’ to ‘high’, 92 ‘moderate’ to ‘high’ and 47 ‘low’ to ‘moderate’ category (Table 7.5). These results are very encouraging. Firstly, only 47 villages (out of 171 recording upward movement) moved from ‘low’ to ‘moderate’ category i.e. rest 124 villages joined the group of ‘high’ category level villages. Out of these 124 villages, 32 moved from ‘low’ to ‘high’ category (Map 7.6) and rest 92 villages joined ‘high’ category from ‘moderate’ level. Secondly, the upward movement in most of the cases is combined effect of all the three parameters i.e. commuting, commodity exchange and service exchange.
Map 7.5

District Hisar
Movement in Levels of Urban-Rural Interaction
1971-2001
(Data by Villages)

Source: District Census Handbooks, Hisar (1971 & 2001)

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

Map 7.6
District Hisar
Change in Levels of Urban-Rural Interaction
1971-2001
(Data By Villages)

Source: District Census Handbooks, Hisar (1971 & 2001)
Commuting indicates towards a diversified base of economy i.e. progress of the individuals reflected in their adoption of non-agricultural jobs, which strengthen commuting because non-agricultural workers have higher propensity to move to the urban centres. Commodity exchange refers to the economic development by way of individual’s efforts and investment. Service exchange is mainly result of public investment, thus reflects social advancement. All this indicates that economic linkages between Hisar and its rural hinterland are getting stronger.

<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 2001</td>
<td>32</td>
<td>Upward (High)</td>
</tr>
<tr>
<td>Moderate 1971, High 2001</td>
<td>92</td>
<td>Upward (Low)</td>
</tr>
<tr>
<td>Low 1971, Moderate 2001</td>
<td>47</td>
<td>Upward (Low)</td>
</tr>
<tr>
<td>High 1971, High 2001</td>
<td>68</td>
<td>No Change / Movement</td>
</tr>
<tr>
<td>Moderate 1971, Moderate 2001</td>
<td>32</td>
<td>No Change / Movement</td>
</tr>
<tr>
<td>Low 1971, Low 2001</td>
<td>1</td>
<td>No Change / Movement</td>
</tr>
</tbody>
</table>

Note: None of the villages experienced negative change / downward movement in their respective levels of urban-rural interaction during 1971-2001.

The 32 villages, which jumped directly from ‘low’ to ‘high’ level category of urban-rural interaction, were located around Adampur service centre and some of them were scattered here and there in the district. Their connectivity with metalled roads, good irrigation system and establishment of service facilities in these villages helped them to jump to the ‘high’ category level of urban-rural interaction. Even being in ‘low’ category in 1971, these were not at the lower margin in that category.

139 villages, which witnessed a low upward movement in their respective levels of urban-rural interaction, had major concentration on the western margin of the district and some pockets of these villages were in the eastern part of the district. Provision of irrigation, connectivity with good roads and establishment of various service facilities were the main reasons for their movement towards higher pedestal in urban-rural interaction. Earlier, low density of road network was hindering their interaction with the urban centres. Irrigation helped them in producing marketable surplus of various crops. Now, these villages started producing surplus foodgrains, commercial crops like mustard, cotton, vegetables and fruits. Developed commercial agriculture required farm inputs like chemical fertilizers, agricultural implements and improved variety of seeds.
from urban centres especially Hisar. To diversify their source of income, villagers also started dairy-farming and poultry-farming for which consultations were sought from Hisar. Sale of these products also increased their interaction with the city. This increased their income to purchase consumable and capital goods to improve their standard of living. In addition, these villages provided a threshold level of population for establishment of various facilities like health, education and communication. Now, these villages functioned as rural service centres for the villages in their surrounding. Thus, villages in the western part of the district with sandy topography have come out of low level of urban-rural interaction, of late.

On the other hand, 101 villages did not reveal any change in their respective levels of urban-rural interaction. Of these, 68 maintained their ‘high’, 32 ‘moderate’ and only 1 ‘low’ level of urban-rural interaction as in 1971. One village, which exhibited ‘low’ level of urban-rural interaction even in 2001, is located in the western part of the district and has a population below the threshold norms to establish various facilities. which has been its main reason to remain in ‘low’ level of urban-rural interaction. 68 villages, which maintained their ‘high’ level of urban-rural interaction as in 1971, were located on or close to national or state highways and around urban centres. These villages being benefited from the early connectivity had adopted commercial agriculture and had diversified economic base since 1971. 32 villages, which maintained their ‘moderate’ level of urban-rural interaction, were scattered throughout the district. Though, there was improvement in their index values over the period of time, yet their category remained same.

In sum, the urban-rural relations strengthened in the district during 1971-2001. A dominant majority of villages (around 63 per cent) experienced an upward movement in their levels of urban-rural interaction. However, a further detailed analysis reveals that 47 of 171 villages recording an upward movement moved to ‘moderate’ from ‘low’ level of urban-rural interaction. There were only 32 villages, which directly jumped to ‘high’ from ‘low’ level category during 1971-2001. Further, the upward movement in urban-rural interaction was mostly the result of positive change in all the three parameters of urban-rural interaction. Such results are very encouraging. Increase in irrigation intensity, construction of link roads and increase in education, health and communication facilities played the role of an accelerator in strengthening the urban-
rural relations during 1971-2001. Within the district, the highest degree of change in urban-rural relations occurred in the villages on the western and north-eastern margins of the district. On the other hand, 101 villages did not register any change in their respective levels of urban-rural interaction; these were situated along the major transport routes and around urban centres.

Main Highlights

1) Urban-rural interaction has been defined as movement of people, goods, capital, technology, information, ideas, social transactions and administrative and service provisions between urban and rural areas. It is the outcome of a series of underlying economic, social, political and ideological processes. Institutional, cultural, religious, political and economic ties have existed between the villages and urban cultures since the beginning of historical times. The very existence of cities/towns depends on this relationship. However, contacts of a villager with town can be seen in the traditional and modernized sectors of life. In the traditional sector; administrative connections and in modernized sector; sale of commercial crops, purchase of valuable goods, education and health are included.

2) Urban and rural areas are two sides of the same coin. Rural development goals cannot be achieved in isolation from the urban centres. The initiation of Green revolution in agriculture has created a new interrelationship between the village and the town/city by generating various forward and backward linkages related to agriculture. Linkages are crucial because the major markets for agricultural surpluses are in urban centres and most of the agricultural inputs come from the towns/cities. Moreover, many of the social, health, educational and other services that satisfy basic human needs in rural areas are distributed from the urban centres.

3) In 1971, only one-fourth of the total villages recorded a high level of urban-rural interaction. These were the villages with big size of population, located on the major transport routes and around urban centres, commercialized agriculture and diversified economic base functioning as rural service centres for the villages in vicinity; whereas 80 villages or around 30 per cent villages registered a low level of interaction. Major concentration of these villages was in the western part of the district because of less connectivity, inadequate irrigation and sandy soil
topography, small population size hindering both commodity as well as service exchange (i.e. due to topographical and resource development handicaps and small size population failing to provide threshold for any service). Thus, urban-rural interaction was a function of distance from urban centres, transport facility, population size and diversification of economy. Intra-category variations were maximum in case of the areas with low level of urban-rural interaction and minimum in areas of high level of urban-rural interaction.

4) In 1981, 155 villages (57 per cent) were in the high level category of urban-rural interaction or 87 more villages were added to this category over a decade. It happened because of rapid infrastructural development after formation of Haryana contributing towards urban-rural interaction. Their spread along transport routes and around urban centres became wider. Only 10 villages were left in low level category of urban-rural interaction. This revolutionary change was the result of increased connectivity, availability of adequate irrigation facility and infrastructural creation at a rapid pace; only a few villages were left in the low level category of urban-rural interaction. Intra-category variations were in tune with 1971.

5) In 1991, more than three-fifth of the total villages recorded high level of urban-rural interaction and only 5 villages were left in the low level category of urban-rural interaction. Intra-category variations were maximum in case of villages in moderate category and minimum in low category areas. Intra-category variations recorded decrease in 1991.

6) 192 villages were in the category of high level of urban-rural interaction in 2001; thus adding 25 more villages in this category as compared to 1991. More villages in western part of the district were added to the high level category due to later day developments in this part of the district. However, more villages with high urban-rural interaction index were in the eastern part of the district. Only one village was left with low level of urban-rural interaction index indicating that spatial variations in urban-rural interaction were narrowed to a considerable extent. This village with small size of population and less irrigation though not in category of moderate level, yet was close to join it. In other words, most of the villages had attained average level of progress, transport linkages and service facilities by 2001. Intra-
category variations were maximum in moderate category areas and minimum in high category areas of urban-rural interaction.

7) In sum, out of 272 villages, 124 villages recorded an upward movement; whereas there was no change in the category of 101 villages. Out of 101 villages, 100 maintained their ‘high’ or ‘moderate’ level of urban-rural interaction and one village did not show any improvement by retaining ‘low’ level category. Though there was no change in their category, yet these villages experienced a positive change in their index values.