SUMMARY AND CONCLUSIONS

A geographic study of urban-rural relations in district Hisar was undertaken with the objectives: (i) To study the evolutionary process of urban-rural relations in Haryana in general and Hisar district in particular. (ii) To make a detailed analysis of urban-rural relationship in the post-reorganization period of the state (1966) in light of agricultural development. (iii) To comprehend the role of backward and forward linkages of agriculture in promoting urban-rural interactions and (iv) To analyze the role of new initiatives in agricultural development like truck-farming, poultry-farming, dairy-farming and floriculture in strengthening urban-rural relations.

The whole exercise on urban-rural relations in the district was done from the perspective of regional development. The following were the questions of enquiry:

i) How have the nature and intensity of urban-rural relations changed during different periods of history?

ii) What was the impact of the state’s reorganization on urban-rural relations in the study area?

iii) What role did the Green Revolution play in strengthening urban-rural relations in the study area?

iv) How have the backward and forward linkages of agriculture contributed to the strengthening of urban-rural relations in the study area?

v) To what extent have the new initiatives in agricultural development contributed to the promotion of urban-rural relations in the study area?

The study also aimed at testing of some hypotheses. It was hypothesized that the level of urban-rural relations in a village is positively related to its: i) population size, ii) accessibility and connectivity of these villages by roads iii) and commercialization and diversification of agriculture; whereas this is negatively related with its iv) distance from the city.
Both primary and secondary sources were used for data collection for the study. Due to non-availability of data on direct indicators of urban-rural interaction, certain surrogate indicators were used for the purpose. The percentage of rural non-agricultural workers and availability of pucca roads were taken as indicators for the parameter of commuting; the percentage of irrigated land to total cultivated area and percentage of cultivated land to total area in the villages were taken as indicators of commodity flow and indicators of availability of education, health and post and telegraph facilities were taken for service exchange. Moreover, indicators of newspapers, magazines and telephones have been used to exhibit the flow of ideas; whereas indicators of banks and agriculture credit societies have been used to indicate capital flow in the district in 2001. These broadly fall under service exchange. Village was taken as a base unit for data analysis. Data on various indicators of different parameters was collected from District Census Handbook, Hisar from 1961 to 2001. To study evolution and spatial pattern of urban-rural relationship in Haryana, data on various indicators was procured from Statistical Abstract of Haryana, 2010-11. For hypotheses testing, data regarding the indicators for commercialization and diversification of agriculture was collected from Department of Animal Husbandry and Dairying. In addition to this, field visits were undertaken to 23 villages to collect the primary information. Stratified random sampling technique was used to select these villages with the help of random table. This was done to capture the latest scenario regarding urban-rural relations using such indicators which were not available in secondary sources.

The study area which was backward before the formation of Haryana, witnessed rapid transformation after 1966 which was the period of formation of Haryana coinciding with the initiation of Green Revolution. Green revolution helped in increasing production by way of increased irrigation facilities, use of hybrid seeds, fertilizers and pesticides. Surplus production led to the commercialization and diversification of agricultural activities. Infrastructure development took place in the study area to reap the full benefits of Green Revolution. Consequently, a crash programme was started to link every village with a metalled road in 1970. Connection of the villages with the urban centres by pucca roads made the commuting, commodity and service exchange an easy process.
Moreover, increased consumption in these urban centres for grain, vegetables, milk and fruits promoted the commercialization and diversification of agriculture which was supported by increased irrigation in the study area. Vegetable and fruit cultivation, dairy-farming, poultry-farming, bee-keeping and fishing were resorted to in the district seeing the consumption of these products in the urban centres. There was a strong link between Hisar city and the commuter’s zone and the villages supplying perishable products like milk, vegetables and fruits. Villages located on considerable distances were dependent on the city for medical and educational provisions, which helped in developing only the weaker links between the city and the villages. For these distant located villages, urban centres like Uklana, Barwala and Narnaund came into existence to fulfill daily needs of their surrounding villages and urban-rural interaction became an intense process even for the distant located villages.

In aggregate, urban-rural interaction gained momentum after formation of Haryana. Tremendous growth of population and expansion of economic activities within and outside the city in the district after formation of Haryana brought revolutionary change in the urban-rural interaction process. Inclusion of Hisar city in the ring of National Capital Region, Delhi as a satellite town also led to its faster development. Population grew at a rapid pace as a result of one of the best infrastructure in the city. This also extended the supply zone of the city for various products in the study area. The quality infrastructure in the form of educational institutions, health facilities and transport network accelerated the process of interaction with Hisar city. In addition to this, various employment avenues were generated in the city providing employment to the people in surrounding villages. All this resulted in strong urban-rural relations in the district.

Around 30 per cent villages recorded a low level of interaction with urban centres in 1971, which were mostly concentrated in the western part of the district. This can mainly be attributed to physiographic handicaps and disabilities of resource development. These were also the villages of small size population failing to provide a threshold for any service. There were wide inter-dimensional variations. 42 per cent of villages in the district revealed a low level of commuting; approximately 17 per cent villages fell in the low level of commodity exchange and almost half of the villages registered a low level of service exchange in the district. This shows that even more
than four-fifth of the total villages in the district had moderate or high level of commodity exchange due to developing agricultural economy of the district in 1971 due to adoption of new technology. 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 having diversified economic base. 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. There were also inter-dimensional variations in high level category. Only 66 villages or slightly more than one-fourth of the total villages in the district were categorized as high on the index of commuting; around 38 per cent villages were in the category of high level of commodity exchange and 79 villages or 29 per cent of the total villages in the district recorded a high level of service exchange.

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 level 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. Sandy topography also played an important role in the western part of the district in determining the level of urban-rural interaction by interrupting the commuting, commodity exchange and service exchange.

Relatively, intra-category variations were maximum in case of the 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 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. In commuting, intra-category variations were the least for the moderate category of areas and maximum for the low category areas. Intra-category variations were the lowest in the villages with high level of commodity exchange and the highest in the villages with low level of commodity exchange and Intra-category variations were the lowest for the moderate category villages and highest for the low
category villages in service exchange. Intra-category variations were the highest for low level of index in all the three indicators and their aggregate; whereas intra-category variations were the lowest in case of moderate and high level categories. Intra-category variations were maximum in case of service exchange as a parameter; whereas these were the least for parameter of commodity exchange. This shows that the commodity exchange between the towns and villages was quite good even in 1971. This can be attributed to the initiation of agricultural development as a consequence of Green Revolution in the district.

In post 1966, especially during 1971 to 2001, the nature and intensity of urban-rural relations underwent a dramatic change in district Hisar. It happened because of rapid infrastructure development after formation of Haryana and prosperity due to Green Revolution. Infrastructure development made the urban-rural interaction process faster; whereas Green Revolution paved the way for intense urban-rural interaction because of its backward (bringing inputs to rural areas) and forward (selling output/product in urban centres) linkages and resultant prosperity due to increased production. Surplus production led to the commercialization and diversification of agricultural activities further increasing the interaction with the urban centres for purchasing inputs and selling outputs. Moreover, prosperity also motivated people to avail higher education and better medical facilities in urban centres. Thus, as a consequence of Green Revolution the rural society drew closer towards urban centres. This helped in strengthening urban-rural relations.

A dominant majority of villages (around 63 per cent) experienced an upward movement in their levels of urban-rural interaction during 1971 to 2001. Increased irrigated area, cent per cent road connectivity, high degree of commercialization and diversification of rural economy and better availability of education, health and communication facilities played a catalytic role in strengthening urban-rural relations in the district. All the dimensions, except commodity exchange in case of three villages, recorded an upward movement or maintained status-quo individually as well as collectively. However, 47 of 171 villages recording an upward movement moved to ‘moderate’ from ‘low’ level of urban-rural interaction. There were 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 due to adoption of new technology in agriculture, construction of link roads and increase in education, health and communication facilities played the role of catalysts 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. In the western part of the district, Desert Development Programme (1977) helped the villages to come out of their low category. In the north-east margins of the district, increase in irrigation helped the villages to come out of their low category level. Moreover, development of towns like Barwala and Narnaund also helped in increasing the level of urban-rural interaction in the villages of the north-east. On the other hand, 101 villages did not register any change in their respective levels of urban-rural interaction. Though there was improvement in their index values, yet the category remained same. These were situated along the major transport routes and around urban centres and most of these were already in high level category of urban-rural interaction.

However, spatial pattern of urban-rural relations differed widely within various parts of the district in 2001. A high level of urban-rural interaction was found in villages which were i) with big population size ii) situated in proximity to urban centres and iii) situated along highways. On the other hand, a low level of urban-rural interaction was found only in one village located in the western part of the district with less population. Moderate category villages were mostly located in the western part of the district. Thus, urban-rural relations were a function of the population size of a village, its distance from the city, their connectivity and accessibility and also commercialization and diversification of agriculture. Relatively, intra-category variations were maximum in moderate category areas and minimum in high category areas of urban-rural interaction in 2001. 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 with moderate level of urban-rural interaction in 2001 in the study area.
Somehow, the new economic policy initiated in post 1990s had a profound impact on the urban-rural relations in the district. In 1991, the Government of India initiated a new economic policy, in which liberalization, privatization and globalization were the key words. It focused on infrastructure development in the country. Under liberalization policy, various restrictions were removed or lessened on foreign capital investment. More and more foreign capital and technology were used in the infrastructure development of the country. Under privatization, private sector was allowed to develop infrastructure. Various educational, medical and banking institutions recorded a tremendous growth in the urban centres. Globalization made Indian industries and institutions globally competitive. Hisar being a satellite town of National Capital Region (NCR) was taken care of in a better way in the field of infrastructure development by the central as well as state governments. Thus, it enabled Hisar to reap the benefits of the new economic policy being in close proximity to NCR.

Under the changed scenario in 1990s, brought by infrastructure development and revolution in transport, communication and information technology played a catalytic role in shaping the urban-rural relations in the district. Change in their intensity, nature and direction is visible. In the recent scenario, increased number of vehicles and telephones has significantly contributed in strengthening the intensity of urban-rural relations. The increased means of transport have not only facilitated the movement of perishable goods but also increased the movements of the people. The daily commuter zone and supply zone of various commodities, which was earlier limited to only 10-15 kilometers, has now extended even up to 40 kilometers. Thus, distances began shrinking. The zone of commuting is expanding further and further with time and so are the services supplied by Hisar city. Urban-rural relations have widened their scope with the passage of time in the district. Consequently, rural areas are interacting more with urban centres in the district through commuting, service exchange and recreational facilities, thereby getting closer to the urban areas. The rapid expansion of telephone and transport facilities boosted the trade and service linkages between Hisar and its surrounding villages. The retail traders in the villages are now in a position to place orders on telephone at wholesale market in the city and the goods can be supplied at their doorsteps in no time. Moreover, supply of newspapers especially city editions has played a vital role in increasing the awareness of people and thereby strengthen the urban-rural relations.
Besides, land use and cropping pattern have undergone a dramatic change after Green Revolution in the district. Pulses like massar, moth and arhar and oilseeds like toria, taramira and til have almost disappeared from the district; whereas area under pulses like gram and moong has reduced to a considerable extent. Lucern, which was a green fodder especially for horses, has lost its importance because of no more use of horses in transportation. Jute is also not grown any more because of synthetic alternatives available in the market. Cultivation of oats, fruits and vegetables has also started recently. Rice cultivation has been initiated on a large scale in the district depending on irrigation facility.

Recently, a new trend in urban-rural relations is emerging. Due to very high land prices in the city, many private institutions for technical and professional education have come into scene in the surrounding villages ensuring a pickup facility for the students, teaching faculty and other members of the staff. All this has changed the direction and course of urban-rural relations in the district. Now, rural areas are attracting the city dwellers and that too for availing the higher technical and professional education. This has further led to the enhancement of urban-rural relations in the district. Thus, it can be inferred that urban and rural areas are heading towards a symbiosis but how far and to what extent these will succeed, can only be answered in due course of time.

All the four hypotheses formulated in the study have been validated by empirical testing of the data regarding these. The statistical results of the analysis suggest a strong correlation between independent variables viz. population size of the villages, connectivity and accessibility of the villages, distance from the city and commercialization and diversification of rural economy vis-à-vis their levels on the urban-rural interaction index. However, strong relationship between commercialization and diversification of rural economy and urban-rural interaction reveals that agriculture has contributed significantly to urban-rural interaction. Commercialization and diversification of agriculture strengthens the aspect of commodity exchange. This happens as various inputs are brought to the rural areas and market for the increased surplus production is in the urban centres. Moreover, prosperity due to sale of surplus production leads towards high aspirations of the people in the fields of education.
medical facility and above all employment for the betterment of their life in rural areas. All this facilitates urban-rural interaction.

To conclude, Green Revolution has transformed the backward area of Hisar district into a prosperous one where villages and towns are no more ‘independent’ entities. These should be seen as entities promoting social change in terms of social, economic and political mobility of the people. Hence, urban and rural problems cannot be tackled separately rather a single comprehensive approach is bound to be more effective. The policies geared towards their development should also see them as two entities placed on a continuum rather than treating them separately.