CHAPTER IV

SOCIAL DEVELOPMENT

The Concept

An Operational Definition

A. INFRASTRUCTURAL FACILITIES
   Spatial Patterns and Trends
   Regional Disparities

B. DEMOGRAPHIC ATTRIBUTES
   Spatial Patterns and Trends
   Regional Disparities
Now over to social development. The main questions to answer include: How has Haryana fared in the sphere of social development since its formation? Was its performance better than before in this regard? What are the prevailing disparities in social development? Is there any association between the patterns of economic development and those of social development?

The Concept

Here it would be necessary to first deliberate over the concept of social development and arrive at some operational definition. Emanating from several social sciences, the literature on the theme is vast. In geography, the idea caught the special attention of radical geographers who raised the question of 'who gets what, where and how'? In the wake of economic development.

In the process, a plethora of terms has come in vogue: social welfare, social well being, social justice, and, in geography, spatial justice.

Social welfare embraces all things contributing to the quality of human existence (Smith, 1977). It concerns not only the what but also who gets it where. Social well-being is at the more concrete or specific end of a continuum of abstraction that descends from human happiness through the concept of the quality of life (Smith, 1973). Social justice seeks reduction in inequalities which are seen as leading to exploitation and discrimination. Spatial justice seeks a
greater equality among places in terms of their quality of life.

It is not surprising that many scholars equate social development with 'quality of life' a phrase which is not easy to define.

According to UNESCO (1977) quality of life is an inclusive concept which covers all aspects of living, including material satisfaction of vital needs as well as more transcendental aspects of life, such as personal development, self-realisation and a healthy eco-system. All of them can be consequence of development process, being the cumulative product of 'commodity surface' in economics, 'welfare surface' in sociology, 'democratic surface' in political science and 'conservation surface' in ecology (Dubey, 1981).

An Operational Definition

In essence, social development can be seen only as a part of the overall development. It denotes, from a geographic viewpoint, 'the quality of a social system in terms of social justice it delivers, social cohesion it maintains, and quality of life it provides for as an integral part of a regional system' (Krishan, 1986). To this we may add the parameter of 'quality of people' as a demographic expression of social development.
Accordingly, the pattern of social development can be referred to four measures: (i) social justice, (ii) social cohesion or harmony, (iii) quality of life, as provided by the infrastructural facilities, and (iv) quality of people, as manifest in their demographic attributes.

By social justice, we expect that inequities, discrimination, and exploitation are minimised in the society. The distribution of income, wealth, power and prestige distributed among different sections of society is a case in point. The hiatus between poor and rich, urban and rural, males and females, must be bridged. In spatial context, inter-regional and intra-regional disparities are to be minimised. The effort has to be in the direction of equity since equality is neither feasible nor desirable.

Social cohesion refers to the social forces that draw and keep men together (Encyclopaedia of Social Sciences, 1968, p. 542). Harmony is the word which expresses the essence of the goal to be achieved. This stands for minimisation of conflict situations arising from any differences in culture, political ideology or economic interests.

Quality of life in any area is contingent upon the strength of its infrastructural facilities and services, including education, health, transport, among others. The basic job of any administration is to provide all services, in right quantity, of desired quality, at all viable human locations.
Finally, the social development of any area is very neatly reflected in the characteristics of its population. These include in particular its vital rates, literacy pattern, urbanisation level, and non-agricultural rural economy. Infant mortality rate, for example, indicates the survival chance of a newly born, female literacy rate is a dependable surrogate for attitude toward the girl child, degree of urbanisation is a fair index to the extent of modernisation, and non-agricultural rural economy is an expression of rural transformation.

It is not difficult to appreciate that the necessary empirical data on social justice and social cohesion are difficult to obtain. Hence any discussion on these parameters has to remain cursory. On the other hand, data on infrastructural facilities and quality of people are available, in sufficient detail, from various sources. Hence in the present work, the discussion on social development has been carried out in two sections:

i) social services or infrastructural facilities; and

ii) demographic attributes.

Whereas quality of life gets established through the former, the latter represents the quality of people in an area (Table 4.1).

Let us first look at the level of social development in Haryana to be followed by a detailed discussion on 'quality of life' and 'quality of people' in two subsequent sections.
Table 4.1
Social Development: Analytical Framework Adopted in the Dissertation

<table>
<thead>
<tr>
<th>Criteria</th>
<th>Social Justice</th>
<th>Social Cohesion</th>
<th>Quality of Life</th>
<th>Quality of People</th>
</tr>
</thead>
<tbody>
<tr>
<td>Indicators</td>
<td>Infrastructural facilities</td>
<td></td>
<td></td>
<td>Demographic attributes</td>
</tr>
<tr>
<td>1. Safe drinking water supply</td>
<td>Percentage of problem villages covered with safe drinking water supply</td>
<td></td>
<td></td>
<td>1. Fertility and mortality (infant mortality, in particular)</td>
</tr>
<tr>
<td>2. Electrification</td>
<td>Percentage of inhabited villages electrified</td>
<td></td>
<td></td>
<td>2. Urbanisation</td>
</tr>
<tr>
<td>3. Educational Institutions</td>
<td>i) Primary school facility per thousand sq. kms</td>
<td></td>
<td></td>
<td>1) Urban population as per cent of total population</td>
</tr>
<tr>
<td></td>
<td>Percentage of inhabited villages with primary school</td>
<td></td>
<td></td>
<td>11) Population in 20,000+ towns as per cent of total population</td>
</tr>
<tr>
<td></td>
<td>ii) High/Higher secondary schools per thousand sq. kms</td>
<td></td>
<td></td>
<td>3. Literacy</td>
</tr>
<tr>
<td></td>
<td>per hundred thousand of population</td>
<td></td>
<td></td>
<td>1) Literates as per cent of total population</td>
</tr>
<tr>
<td></td>
<td>iii) Colleges per thousand sq. kms</td>
<td></td>
<td></td>
<td>11) Female literates as per cent of female population</td>
</tr>
<tr>
<td></td>
<td>per hundred thousand of population</td>
<td></td>
<td></td>
<td>111) Rural literates as per cent of rural population</td>
</tr>
<tr>
<td>4. Medical institutions</td>
<td>Per thousand sq. kms</td>
<td></td>
<td></td>
<td>4. Non-agriculturalisation of rural economy</td>
</tr>
<tr>
<td></td>
<td>per hundred thousand of population</td>
<td></td>
<td></td>
<td>1) Non-agricultural workers as per cent of total workers in rural areas</td>
</tr>
<tr>
<td>5. Transportation and communication</td>
<td>Road length per thousand sq. kms percentage of inhabited villages connected with metalled road</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Percentage of inhabited villages with metalled road</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Rural post offices per thousand sq. kms percentage of inhabited villages with post office</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6. Shelter</td>
<td>Proportion of rural households in pucca houses</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Proportion of urban households in pucca houses</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Haryana does not rank high in social development in spite of its creditable accomplishments in the economic sphere (Table 4.2). In per capita terms, it ranks second only to Punjab and is far above the national average in this regard. But when judged on the parameters of birth rate (which is alarmingly high), infant mortality rate (which is not that low), sex ratio (which is relatively very low), the picture is not encouraging. In particular, its female literacy rate is much below the national average. The proportion of women employed in the organised sector is small. All this represents a low status of women. Thus, the economic development in the state has not been accompanied by a commensurate advancement in social development.

How is the above explained? Let us look at the plausible factors which explain this situation.

The Haryana territory has traditionally been a self-contained agricultural society by and large, at a subsistence level. Its interaction with the outer world was limited. Strong caste and kinship feelings persist even today. The joint family system, as a core institution, governs the common living, renders continuity to the societal heritage, binds an individual with an inflexible social structure, and impedes the penetration of modern thinking. And in a strong patriarchal society like that of Haryana, a strong resistance is given to rise in the status of woman.
### Table 4.2
India: Comparative Picture of Some Economic and Social Parameters for Major States

<table>
<thead>
<tr>
<th>State</th>
<th>Per capita net state domestic product at current prices 1985-86</th>
<th>Birth rate 1986</th>
<th>Infant mortality rate 1986</th>
<th>Sex ratio literacy 1981</th>
<th>Female mean age at marriage 1981</th>
<th>Female Per cent women employed in the organised sector 1984</th>
</tr>
</thead>
<tbody>
<tr>
<td>Andhra Pradesh</td>
<td>2,205</td>
<td>31.40</td>
<td>975</td>
<td>20.39</td>
<td>13.00</td>
<td>17.30</td>
</tr>
<tr>
<td>Bihar</td>
<td>1,643</td>
<td>36.00</td>
<td>99</td>
<td>946</td>
<td>13.62</td>
<td>16.62</td>
</tr>
<tr>
<td>Gujarat</td>
<td>2,985</td>
<td>32.20</td>
<td>107</td>
<td>942</td>
<td>32.30</td>
<td>19.50</td>
</tr>
<tr>
<td>Haryana</td>
<td>3,748</td>
<td>34.90</td>
<td>85</td>
<td>870</td>
<td>22.27</td>
<td>17.80</td>
</tr>
<tr>
<td>Karnataka</td>
<td>2,264</td>
<td>28.80</td>
<td>74</td>
<td>963</td>
<td>27.71</td>
<td>19.20</td>
</tr>
<tr>
<td>Kerala</td>
<td>2,140</td>
<td>22.40</td>
<td>27</td>
<td>1,032</td>
<td>65.73</td>
<td>21.80</td>
</tr>
<tr>
<td>Madhya Pradesh</td>
<td>1,974</td>
<td>37.10</td>
<td>117</td>
<td>941</td>
<td>15.53</td>
<td>16.60</td>
</tr>
<tr>
<td>Maharashtra</td>
<td>3,542</td>
<td>30.00</td>
<td>63</td>
<td>937</td>
<td>34.79</td>
<td>18.80</td>
</tr>
<tr>
<td>Orissa</td>
<td>1,973</td>
<td>32.10</td>
<td>123</td>
<td>981</td>
<td>21.12</td>
<td>19.10</td>
</tr>
<tr>
<td>Punjab</td>
<td>4,536</td>
<td>28.60</td>
<td>67</td>
<td>879</td>
<td>33.69</td>
<td>21.10</td>
</tr>
<tr>
<td>Rajasthan</td>
<td>1,993</td>
<td>36.40</td>
<td>104</td>
<td>919</td>
<td>11.42</td>
<td>16.10</td>
</tr>
<tr>
<td>Tamil Nadu</td>
<td>2,432</td>
<td>23.70</td>
<td>80</td>
<td>977</td>
<td>34.99</td>
<td>20.20</td>
</tr>
<tr>
<td>Uttar Pradesh</td>
<td>2,003</td>
<td>37.50</td>
<td>132</td>
<td>885</td>
<td>14.04</td>
<td>16.70</td>
</tr>
<tr>
<td>West Bengal</td>
<td>2,712</td>
<td>29.50</td>
<td>71</td>
<td>911</td>
<td>30.25</td>
<td>19.20</td>
</tr>
<tr>
<td>INDIA</td>
<td>2,596</td>
<td>32.40</td>
<td>96</td>
<td>934*</td>
<td>24.82*</td>
<td>18.30*</td>
</tr>
</tbody>
</table>


* Excluding Assam.
Secondly, the various castes, such as the Hindu Jats, Ahirs, Gujars, Rajputs are contained within certain pockets or tracts. Caste solidarity is quite endemic. Traditional values tend to perpetuate. An egalitarian culture is slow to emerge.

Thirdly, the Haryana territory has historically been a marchland. Political instability was frequent and evolution of a mature culture did not take deep roots. The region did not experience any strong religious or social movement till around the beginning of the twenty century when Arya Samaj entered as a reform movement. It is notable that while in India one out of every 100 establishments is a religious institution, such as a temple, masjid, or church, for Haryana this ratio is one in every 300.

Fourthly, migration from Haryana to other parts of India was small, except for service in the army. Likewise, any sizeable migration to Haryana had to wait till the partition of the Indian subcontinent in 1947. Hence for a long time Haryana did not experience benefits accruing from its exposure to external influences associated with migration.

Fifthly, the impact of urbanisation on rural life remained feeble till recent past. Haryana has been one of the less urbanised parts of the country. Its urban places were small and not too effective in transformation of the countryside. It is only after Independence in 1947 that the Haryana territory came under an active influence of the national capital of Delhi.
### Table 4.3

<table>
<thead>
<tr>
<th>Facility/Attribute</th>
<th>Haryana</th>
<th>Punjab</th>
</tr>
</thead>
<tbody>
<tr>
<td>High/Higher secondary schools per 1,000 km², 1965-66</td>
<td>11.22</td>
<td>19.56</td>
</tr>
<tr>
<td>Medical institutions per 1,000 km², 1965-66</td>
<td>6.44</td>
<td>9.85</td>
</tr>
<tr>
<td>Road length (metalled) per 100 km², 1965</td>
<td>11.95</td>
<td>12.65</td>
</tr>
<tr>
<td>Per cent of electrified villages, 1966</td>
<td>18.59</td>
<td>29.41</td>
</tr>
<tr>
<td>Per capita non-plan expenditure on education (in rupees), 1963-64*</td>
<td>1.15</td>
<td>1.34</td>
</tr>
<tr>
<td>Birth rate (1971-73)**</td>
<td>41.00</td>
<td>34.00</td>
</tr>
<tr>
<td>Per cent literates, 1961</td>
<td>19.90</td>
<td>26.74</td>
</tr>
<tr>
<td>Per cent urban population, 1961</td>
<td>17.20</td>
<td>23.06</td>
</tr>
<tr>
<td>Per cent non-agricultural workers in rural areas, 1971</td>
<td>23.02</td>
<td>21.55</td>
</tr>
</tbody>
</table>

**Source:**

Sixthly, being a peripheral part of the former Punjab till 1966, it suffered a neglect in provision of social infrastructure (Table 4.3). As a result, it was late in evolution of its middle class. Most of the professionals and members of the bureaucracy hailed from the present Punjab territory. At the time of formation in 1966, Haryana territory had only a small proportion of its natives in the administrative set up. Many of them were the displaced persons from Pakistan who were comparatively far more educated and accomplished.

Above all, never had social development been projected as an important issue for special attention of the government. Priority was always given to the economic sector. The social sector did not receive requisite importance in allocation of resources. Plan outlay for this sector seldom went beyond one-fifth of the total (Table 4.4).

Things have started changing, in quite a marked fashion, since the formation of the state. The most conspicuous is the growing size of the native middle class through their preferred entry into government service and professions. The tradition in army service of certain parts of the state in Rohtak, Hisar, and Mahendragarh districts is also contributing to new awareness. The modernising impact of Delhi on the traditional Haryana society is also making its inroads. Above all, the state government has also been keen to spread the education, health, transport, and other
<table>
<thead>
<tr>
<th>Plan</th>
<th>Haryana</th>
<th>India</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Education</td>
<td>Medical</td>
<td>Sewerage</td>
</tr>
<tr>
<td></td>
<td>(Rs. in hundred thousand)</td>
<td>(Rs. in hundred thousand)</td>
<td>(Rs. in hundred thousand)</td>
</tr>
<tr>
<td>First Plan</td>
<td>417.97</td>
<td>301.97</td>
<td>285.02</td>
</tr>
<tr>
<td>(1951-56)</td>
<td>(2.97)</td>
<td>(2.71)</td>
<td>(2.02)</td>
</tr>
<tr>
<td>Second Plan</td>
<td>983.73</td>
<td>649.18</td>
<td>446.78</td>
</tr>
<tr>
<td>(1956-61)</td>
<td>(6.63)</td>
<td>(4.38)</td>
<td>(3.01)</td>
</tr>
<tr>
<td>Third Plan</td>
<td>2439.81</td>
<td>1539.44</td>
<td>83.07</td>
</tr>
<tr>
<td>(1961-66)</td>
<td>(9.53)</td>
<td>(6.02)</td>
<td>(0.32)</td>
</tr>
<tr>
<td>Fourth Plan</td>
<td>1066.08</td>
<td>1010.93</td>
<td>1407.80</td>
</tr>
<tr>
<td>(1969-74)</td>
<td>(5.21)</td>
<td>(2.82)</td>
<td>(3.93)</td>
</tr>
<tr>
<td>Fifth Plan</td>
<td>2725.23</td>
<td>1641.57</td>
<td>2079.54</td>
</tr>
<tr>
<td>(1974-79)</td>
<td>(4.03)</td>
<td>(2.42)</td>
<td>(3.07)</td>
</tr>
<tr>
<td>Sixth Plan</td>
<td>6811.22</td>
<td>4752.16</td>
<td>9344.52</td>
</tr>
<tr>
<td>(1980-85)</td>
<td>(4.27)</td>
<td>(2.98)</td>
<td>(5.86)</td>
</tr>
<tr>
<td>Seventh Plan</td>
<td>15594.00</td>
<td>7877.00</td>
<td>16944.00</td>
</tr>
<tr>
<td>(1985-90)</td>
<td>(5.38)</td>
<td>(2.72)</td>
<td>(5.84)</td>
</tr>
</tbody>
</table>

Source: Government of India: Five Year Plans (First to Seventh) of Haryana and India, Planning Commission, New Delhi.

Note:

i) Figures in parentheses indicate percentage to total outlay.

ii) The first three plans relate to the erstwhile Punjab.
infrastructure with the twin objective of promoting economy and breaking social backwardness. Allocations to the social sector have significantly increased since the Sixth Plan.

The above discussion should not lead one to believe that Haryana is spatially homogeneous in its social development. Far from it. Therefore, it is imperative for us to examine the regional disparities in this regard. As explained earlier, this has been done through a two fold analysis of the infrastructural facilities and the demographic attributes. The former is the cause and the latter the effect of social development, in a manner of speaking.
INFRASTRUCTURAL FACILITIES

A variety of indicators on infrastructural facilities have been employed by scholars to measure social development. The assumption is that these facilities reflect the quality of functioning of a social system and welfare bias of its polity. And this is one of the ways in which the process of social development can be meaningfully viewed (Krishan, 1980).

Alam (1974) in his analysis of regional development in Andhra Pradesh, adopted fifteen indicators of infrastructure grouped in three categories: social infrastructure rural (percentage of villages having higher secondary schools, colleges and other institutions, dispensaries, hospitals, primary health centres, maternity and child welfare centres, and protected water supply); economic infrastructure rural (percentage of villages having power supply, pucca roads, rail-roads, and telegraphic offices); and economic infrastructure rural-urban combined (telephones, number of banks, and roads per thousand square kilometres of area).

Raza (1978) used twenty-five indicators of economic infrastructure and social amenities as a measure of social development in various parts of India. Gosal and Krishan (1979) worked out a composite index of social development for Punjab using twenty-five indicators of infrastructural facilities, including primary schools, middle schools, higher secondary schools, colleges, hospitals, dispensaries, medical...
institutions, beds available in medical institutions, post offices and banks measured in terms of area, population, and location; roads, railway, and village electrification. Dubey (1981) used thirty seven indicators pertaining to education, health, mobility and energy whose distributional pattern was examined in terms of area covered, population served and proportion of settlements as their locale. Rao (1984) used 53 indicators on education, health, transport, communication, banking, cooperation and power to discern levels of infrastructural facilities in Karnataka.

Similarly, Gornostayeva (1986) examined social infrastructural levels in the largest cities of the USSR using twelve indicators on housing and municipal services, state of environment, transportation, retailing and public eating places, public health, education, and cultural institutions.

It follows that social development has been measured in terms of variety of quantifiable criteria such as education, health, mobility, banking, and transport.

In the present analysis safe drinking water supply, rural electrification, educational facilities, health services, transportation and communication, and shelter have been adopted for the purpose. All these have a direct bearing on the health, general awareness, mobility and quality of living of people.
For identification of regional disparities in respect of these facilities, data were examined at three planes: area covered, population served and proportion of settlements directly benefitted. A higher density, in terms of area, of a particular facility represents its greater degree of availability, a large number of units, in relation to population, of a given facility suggests its higher adequacy, and presence of a facility in a larger proportion of settlements is an expression of its greater accessibility.

**Spatial Patterns and Trends**

**Safe drinking water supply**

Since its formation, Haryana has made a commendable progress in the supply of safe piped drinking water as a public health measure. This was imperative in its case because the level of subsoil water is deep at many places, and more often brackish. People have to fetch potable water from distant sources of fresh water in many areas.

In 1980, 4,690 villages out of a total of 6,745 were identified as problem villages in respect of drinking water supply. A problem village is the one which does not have an assured source of drinking water within 1.6 kms, or where the available water has an excess of salinity, iron, fluorides and other toxic elements (Government of India, 1985, p. 675). In case of Bhiwani, Mahendragarh, Rohtak and Sirsa districts all the villages were identified as problem (Table 4.5).
<table>
<thead>
<tr>
<th>District</th>
<th>Percentage of problem villages</th>
<th>Percentage of problem villages covered</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ambala</td>
<td>57.74</td>
<td>92.20</td>
</tr>
<tr>
<td>Bhiwani</td>
<td>100.00</td>
<td>94.02</td>
</tr>
<tr>
<td>Faridabad</td>
<td>54.73</td>
<td>85.54</td>
</tr>
<tr>
<td>Gurgaon</td>
<td>99.10</td>
<td>81.87</td>
</tr>
<tr>
<td>Hisar</td>
<td>86.32</td>
<td>90.73</td>
</tr>
<tr>
<td>Jind</td>
<td>96.88</td>
<td>79.47</td>
</tr>
<tr>
<td>Karnal</td>
<td>19.76</td>
<td>71.79</td>
</tr>
<tr>
<td>Kurukshetra</td>
<td>7.19</td>
<td>92.31</td>
</tr>
<tr>
<td>Mahendragarh</td>
<td>100.00</td>
<td>96.37</td>
</tr>
<tr>
<td>Rohtak</td>
<td>100.00</td>
<td>72.41</td>
</tr>
<tr>
<td>Sirsa</td>
<td>100.00</td>
<td>81.70</td>
</tr>
<tr>
<td>Sonipat</td>
<td>72.99</td>
<td>42.68</td>
</tr>
<tr>
<td>Haryana</td>
<td>69.53</td>
<td>84.47</td>
</tr>
</tbody>
</table>

Source: Statistical Abstract of Haryana, 1985-86.

In 1966, hardly 3.82 per cent of problem villages were covered by the safe drinking water supply. This percentage went up to 84.47 in 1985 - a tremendous achievement indeed. A spatial variation in this performance is observed: from 42.68 per cent of the concerned villages in Sonipat district to 96.37 per cent in Mahendragarh.
district. On the whole, the western districts were given greater attention than their eastern counterpart (Map18:a,b). This was in fitness of things because the scarcity of drinking water is much more pronounced in the former.

**Rural electrification**

In 1966-67, the state had only 18.59 per cent of its villages as electrified as compared to 29.41 per cent in Punjab. At the district level, percentage of electrified villages ranged from 7.67 in Jind to 33.55 in Rohtak.

The picture dramatically changed within four years. By 1971, the state had extended electricity to every village (Map 18 : c,d). The spatial disparity at the village level virtually disappeared. Haryana was forerunner of Punjab in achieving this target.

Rural electrification was an act of strong political will. This was seen as vital to rural transformation. Urban-rural disparity on this parameter was grossly reduced and a base was prepared for promotion of tubewell irrigation, in particular. The economic benefits of rural electrification accrued more to those parts of the state where underground water was fit for tubewell irrigation.

**Educational facilities**

Among various agents, education is most vital to any engineering of social change. It imparts new skills and knowledge and assists in rationalising attitudes (Inkeles and Smith, 1974). It also works as a catalyst for stimulating social mobility, and upgrading the labour force (Anderson, 1965).
Haryana: Rural Water Supply and Electrification

Map 18

Safe drinking water supply
1967
(Data by districts)

Safe drinking water supply
1985
(Data by districts)

Electrified villages
1966
(Data by districts)

Electrified villages
1985
(Data by districts)

Percentage of problem villages covered

Percentage in inhabited villages

50 kilometres
It is through the educational institutions that education is spread. Primary schools form the foundation of the entire system. These cater to children in 6-11 age group and have to be within easy walking distance from their homes (Government of India, 1961, p. 578).

The Report of the Working Group on District Planning (1984) envisaged the provision of a primary school within 1.5 kms in a state like Haryana where the plain topography is most typical (Table 4.6). Realisation of such a target would require 141 primary schools per 1,000 square kms of area. In Haryana, this ratio was 132 in 1966-67 and 185 in 1985-86. The state did not satisfy the norm at the time of its formation but greatly improved its position afterwards (Map 19:a,b).

Anyhow the increase in the number of primary schools was not in proportion to the growth of population. Haryana had 64 primary schools per lakh of population in 1966 but this ratio declined to 57 in 1985-86. This may not cause worry. Now practically every settlement has a primary school (Map 19:c,d). The increasing pressure on these schools has to be taken care through the provision of additional equipment and staff.

In India, high/higher schools hold a special importance because these see to the completion of the first phase in an individual's educational career. A successful completion of high school education facilitates one's entry into higher educational institutions for advance study or
Haryana: Educational Institutions - (i)
Primary School Facility

Per thousand square kilometres: 1966
(Data by districts)

Per thousand square kilometres: 1985
(Data by districts)

Villages having primary school facility 1969
(Data by districts)

Villages having primary school facility 1979
(Data by districts)

Percentage in Inhabited villages

Map 19
Table 4.6

Haryana: Infrastructural Facilities, Norms and Actuals

<table>
<thead>
<tr>
<th>Institution</th>
<th>Per 1,000 sq. kms</th>
<th>Per 100,000 population</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Educational Institutions</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Colleges</td>
<td>1.24</td>
<td>1.19</td>
</tr>
<tr>
<td>High/Higher secondary school</td>
<td>4.97</td>
<td>13.61</td>
</tr>
<tr>
<td>Primary school</td>
<td>141.41</td>
<td>131.76</td>
</tr>
<tr>
<td>Medical Institutions</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Hospital</td>
<td>1.24</td>
<td>1.27</td>
</tr>
<tr>
<td>Primary health centre</td>
<td>-</td>
<td>2.00</td>
</tr>
<tr>
<td>Dispensary</td>
<td>4.97</td>
<td>3.19</td>
</tr>
<tr>
<td>Branch post office</td>
<td>19.89</td>
<td>D.N.A.</td>
</tr>
<tr>
<td>Sub-post office</td>
<td>4.97</td>
<td>D.N.A.</td>
</tr>
<tr>
<td>Linkd road</td>
<td>All villages with</td>
<td>*</td>
</tr>
<tr>
<td>1,000+ population</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>


- : absence of norm
* : data not relevant
D.N.A.: data not available
professional training. It also makes one eligible for a job in an organised sector. In rural context, a higher secondary school turns a settlement into a central place, if not already one, since its catchment area covers quite many villages.

The number of high/higher secondary schools per 1,000 sq. kms and per 100,000 of population is expected to be 5 for an economically developed state like Haryana (Government of India, 1984). The state did have this requisite number at the time of its formation. Impressive gains have been made since then. The number of such schools almost doubled during 1966-1986.

Here it would be necessary to highlight the role of the government in spread of high school education. For long, the religious, sectarian, and caste organisations, such as the Arya Samaj, Sanatan Dharam Sabha, Jat Mahasabha, and Yadav Mahasabha played a significant role in this regard. Under considerations of financial viability, most of these institutions were located in urban places. Rural areas were ignored. On the contrary, the entry of the state government in this field changed the picture. Not only the number of schools multiplied, both in urban and rural areas, but also education became available to the masses at a highly subsidised rates. To be precise, while the ratio between private and government schools was nearly 1 : 3 in 1966, it became 1 : 6 in 1986.
Regional disparities did not disappear. The frequency of high/higher secondary areas was higher in the more developed eastern and southern parts than in the west (Map 20). Education did advance in every part of the state but at a slower pace in the less developed areas.

An equally impressive expansion is seen in college education. At the time of Independence, the Haryana territory had only six colleges at Rohtak (3), Ambala City (1), Rewari (1) and Bhiwani (1). All (with the sole exception of the Government College, Rohtak) were denominational in terms of caste. By 1966, the number of colleges had increased to 66: fifty-two private and 14 government. By 1986, the numerical strength of colleges had grown to 140: 103 private and 37 government. One can easily discern the role of private sector, especially of different caste associations, in the spread of college education in Haryana. The college education was seen as an entry permit to the government service. Various castes were eager to ensure their place in administration.

The number of colleges per 1,000 sq. kms of area is expected at 1.24: this was 1.19 in 1966-67 and 3.17 in 1985-86. The state reversed its position from that of deficiency at the time of its formation to one of high frequency over the period.
Haryana: Educational Institutions - (ii)
High/Higher Secondary Schools

- **Map 20**
  - **a**
    - Per thousand square kilometres: 1966
    - (Data by districts)
    - Number: 20
  - **b**
    - Per thousand square kilometres: 1985
    - (Data by districts)
    - Number: 40
  - **c**
    - Per thousand square kilometres: 1966
    - (Data by districts)
    - Number: 5
  - **d**
    - Per thousand square kilometres: 1985
    - (Data by districts)
    - Number: 15

Map 20
East and south contrasted with west in terms of the density of college (Map 21). Ambala district had the highest density with 5.48 and Sirsa the lowest with 1.17. The latter was the only district with below the norm density of colleges in 1985-86.

A phenomenal increase in the number of educational institutions associated with their spatial spread is evident from the previous discussion. The expansion is equally impressive in the case of primary schools, high/higher secondary schools, and colleges. While the role of the government was paramount in the case of primary and high/higher secondary education, the private sector's contribution was more pronounced in respect of college education. The expansion of educational facilities has been universal but disparities remain in favour of economically more developed parts of the state.

Medical facilities

While education is critical to one's intellectual capacity, health is crucial to one's physical well-being. It is critical to not only personal happiness, but also economic productivity.

The variables on medical facilities are surrogates for the health conditions of people. Better provision and improved accessibility of these facilities reduce morbidity and mortality. These are crucial to welfare of the mother and the child and assist in family planning.
Haryana, which was relatively poor in medical facilities at the time of its formation, made a constant endeavour to improve the situation. The number of allopathic medical institutions increased from 285 in 1966 to 498 in 1985. There was a proportionate increase in the number of medical personnel, including doctors, and nurses/midwives. Much of the credit for this expansion goes to the government. The proportion of government run medical institutions was two-thirds in 1966 and four-fifths in 1985.

As per norms, Haryana is expected to have 1.24 hospitals and 4.97 dispensaries, respectively, per 1,000 sq. kms of area. In 1966, these were 1.27 and 3.19; by 1985, these had increased to 1.92 and 5.11, respectively. Seen in terms of their adequacy, 3.33 primary health centres and 5.00 dispensaries per 100,000 of population are required in Haryana. These were grossly inadequate in 1966-67 and continue to be so even at present. It signifies that while accessibility to health services has been improved over the years, their availability on per capita basis has declined.

The available data at district level for all types of medical institutions - hospitals, primary health centres and dispensaries, helps in obtaining a spatial picture. The eastern and southern districts are noted as better placed in this regard. Their number per 1,000 sq. kms ranged from 6.31 in Sirsa to 25.12 in Faridabad (Map 22). The exceptionally high score for Faridabad is explained by the location of a
large number of the Employees State Insurance Scheme dispensaries in this Industrial complex.

It follows that while medical institutions in the public sector have made health services more accessible to the people yet the adequacy of this facility is under a great strain due to a fast growing population. Their capacity to meet the challenge is constrained due to scarcity of resources. In all probability, the private sector is likely to expand fast simply by default of inefficiency on the part of the medical institutions in public sector.

Transportation and communication

Among other things, the utilisation of educational and health services is strongly linked with the quality of the available transport network. Roads are indispensable for breaking the isolation of villages. These are also critical to establishment of interregional linkages at the national level.

In Haryana, hardly one-fifth of the inhabited villages were connected by metalled road in 1966; the proportion increased to 55.82 per cent in 1969 and further to 98.00 per cent in 1985. Haryana's accomplishment in construction of village link roads is most creditable. It is one of the few states in India which have linked practically their every village with a metalled road (Map 23). Punjab and Kerala are the other two success stories.
At the initial stage, Rohtak district was comparatively the best equipped with road transport while Jind was at the other end of the spectrum. But it was Bhiwani district which had practically all its villages linked with pucca roads by 1976. This was due to the special interest taken by a former chief minister who belonged to this district. The role of political considerations in provision of infrastructural facilities is not unknown in India.

Post office is an important channel of communication between a settlement and the rest of the world. Like road, it interlinks space. An important distinction between the two may be made in the Indian context: while the former is primarily the state responsibility, the latter is looked after by the Central government. Hence the locational patterns of the two have to be referred to the specific considerations of the two.

Even at the time of its formation, Haryana had adequate number of post offices (sub-post offices + branch post offices) in rural areas, 35.94 per thousand square kilometres. The Central government is likely to discriminate less in spatial terms. It follows some specific norms. The number of post offices in rural areas increased from 1,573 in 1969 to 2,155 in 1985. As a consequence, the proportion of villages having the facility increased from nearly one-fourth in 1969 to about one-third in 1985.
A disparity in the percentage of villages equipped with post office does exist. In Sirsa district, over two-thirds of the villages have a post office; in Rohtak and Bhiwani districts this ratio is one in two. In Ambala district, only one in every six villages has a post office (Map 24). All these ratios find a meaningful relationship with average population size of villages in various districts. These tend to be more favourable if the average village size is bigger.

For this reason, the disparity is greatly reduced if we compute the average distance within which a post office is accessible. This varies from 2.12 kms in Sonipat district to 3.12 kms in Hisar district. For Haryana as a whole, a post office is accessible within 2.5 kms as compared with a norm of around 4 kms. The state is fairly served through this facility.

Shelter

The quality of living of any population or area is strongly associated with the quality of its shelter. Poor housing conditions have been shown to lead to increase in the incidence of infant mortality rates, stress, mental ill-health and morbidity from infectious diseases (Martin, 1967). At aggregate level, they exhibit strong ecological correlations with deviant behaviour and social instability (Douglas, 1964).
Haryana: Communication (Post Office)
Facility in Rural Areas

Per thousand square kilometres
1969
(Data by districts)

Per thousand square kilometres
1985
(Data by districts)

Villages having post office facility
1969
(Data by districts)

Villages having post office facility
1985
(Data by districts)

Percentage in Inhabited villages
40
20

Map 24
Houses may be grouped into pucca, katcha and semi-pucca on the basis of materials used in the construction of walls and roofs. Pucca houses are those which are constructed of durable materials of more permanent nature: burnt bricks, metal sheets, stone and cement. Katcha houses on the other hand are those which are liable to superannuation within a few years of service. These are made of grass, leaves, reeds, bamboo, thatch, mud, unburnt bricks and wood as material of wall and roof. Semi-pucca houses are those which have pucca walls and katcha roofs or vice-versa (Census of India, 1971).

In Haryana, the proportion of rural households in pucca houses increased from 22.67 in 1971 to 29.90 in 1981. Most of the houses in rural areas are semi-pucca with either katcha roof or katcha house wall. The proportion of pucca houses ranges from 5.22 per cent in Jind district to 73.74 per cent in Mahendragarh district where stone is used extensively. Only five districts: Rohtak, Bhiwani, Mahendragarh, Gurgaon and Faridabad, all covering the southern half of the state, have above the state average pucca houses.

Likewise, the percentage of pucca houses in urban areas increased from 55.61 to 62.51 during 1971-81. There is a high degree of correspondence between the urban and rural areas in terms of their proportion of pucca houses (Map 25). The proportional increase in pucca houses has been more in rural areas than in the urban.
Haryana: Shelter

Rural households in pucca houses 1971 (Data by districts)

Percentage in rural households

50
25

Rural households in pucca houses 1981 (Data by districts)

Percentage in rural households

50
25

Urban households in pucca houses 1971 (Data by districts)

Percentage in urban households

75
50

Urban households in pucca houses 1981 (Data by districts)

Percentage in urban households

75
50

Map 25
Regional Disparities

A summary picture of regional disparities in distribution of various infrastructural facilities is presented in Table 4.7. This is done for the years 1966-67 and 1985-86. This enables us to discern the trends in these disparities since the formation of the state.

For 1966-67, a high order of regional disparity is observed in respect of percentage of problem villages covered with safe drinking water supply, proportion of pucca houses in rural areas, and percentage of electrified villages.

Regional disparity in distribution of educational and medical institutions was relatively of moderate level. Within these institutions, the higher order ones showed greater disparity. For instance, the spatial disparity coefficient was 54.98 per cent in case of colleges per thousand sq. kms while the corresponding figure for primary schools was 27.72 per cent.

Regional disparity in distribution of post offices and rural road links was comparatively less. The same was true of pucca houses in urban areas.

The above discussion indicates that regional disparities were most pronounced in facilities which were directly specific to rural areas (rural drinking water supply and electrification), relatively moderate where facilities found initial concentration in urban areas and gradually spread to the rural (educational and medical institutions),
Table 4.7
Haryana: Disparity in Infrastructural Facilities, 1966-1985

<table>
<thead>
<tr>
<th>Facility</th>
<th>Coefficient of spatial disparity* (in percentage)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Percentage of problem villages covered with safe drinking water supply</td>
<td>76.53 17.29</td>
</tr>
<tr>
<td>Percentage of inhabited villages electrified</td>
<td>42.43 0.00</td>
</tr>
<tr>
<td>Primary school facility</td>
<td></td>
</tr>
<tr>
<td>per 1,000 sq. kms</td>
<td>27.72 32.76</td>
</tr>
<tr>
<td>percentage of inhabited villages with primary school (1969 and 1979)</td>
<td>14.60 9.28</td>
</tr>
<tr>
<td>High/Higher secondary schools</td>
<td></td>
</tr>
<tr>
<td>per 1,000 sq. kms</td>
<td>37.55 29.16</td>
</tr>
<tr>
<td>per 100,000 of population</td>
<td>18.37 11.05</td>
</tr>
<tr>
<td>Colleges</td>
<td></td>
</tr>
<tr>
<td>per 1,000 sq. kms</td>
<td>54.98 40.77</td>
</tr>
<tr>
<td>per 100,000 of population</td>
<td>36.27 31.15</td>
</tr>
<tr>
<td>Medical institutions</td>
<td></td>
</tr>
<tr>
<td>per 1,000 sq. kms</td>
<td>29.74 39.26</td>
</tr>
<tr>
<td>per 100,000 of population</td>
<td>16.93 23.65</td>
</tr>
<tr>
<td>Road length</td>
<td></td>
</tr>
<tr>
<td>per 1,000 sq. kms</td>
<td>18.93 16.76</td>
</tr>
<tr>
<td>percentage of inhabited villages connected with metalled road (1969 and 1985)</td>
<td>19.09 2.11</td>
</tr>
<tr>
<td>Rural post offices (1969 and 1985)</td>
<td></td>
</tr>
<tr>
<td>per 1,000 sq. kms</td>
<td>19.90 20.12</td>
</tr>
<tr>
<td>percentage of inhabited villages with post office</td>
<td>38.81 43.47</td>
</tr>
<tr>
<td>Shelter (1971 and 1981)</td>
<td></td>
</tr>
<tr>
<td>proportion of rural households in pucca houses</td>
<td>64.70 67.09</td>
</tr>
<tr>
<td>proportion of urban households in pucca houses</td>
<td></td>
</tr>
</tbody>
</table>

* Coefficient of spatial disparity is the same as the coefficient of variability which is calculated as standard deviation \times 100/mean.
and comparatively less in facilities which connect rural areas with urban or other places (post offices and link roads).

Table 4.7 testifies that regional disparities got reduced over time in respect of most of the infrastructural facilities. This decline is most noticeable in rural electrification, villages connected with metalled roads, and villages covered with safe drinking water supply.

A moderate decline in disparity is observed in the case of educational institutions. This has been true particularly of the higher order educational institutions, such as colleges.

On the contrary, regional disparity in medical institutions increased. The proportion of pucca houses in rural areas also displays an increased disparity.

It follows from above that infrastructural base of rural parts of Haryana experienced a marked improvement since the formation of the state. The extension of the physical infrastructure such as roads and electrification, is more impressive than that of social infrastructure, such as education and medical institutions. Reduction in regional disparity is another hallmark of this development.

In brief:

- In terms of infrastructural facilities, the Haryana territory was less favoured part of the old Punjab. Its rural component presented a pathetic picture, in particular.
The formation of the state saw an increased involvement of the government in the provision of these facilities, especially to more disadvantaged areas. Not only the infrastructural system got strengthened almost everywhere but also the regional disparity showed a downward trend.

Rural development has been the major thrust of the Haryana government. A priority was accorded to link roads, electrification and drinking water supply in rural areas. This promoted rural-urban interaction and also reduced the urban-rural gap.

A trend contrary to the general was observed in the case of medical institutions and pucca houses in rural areas. Regional disparity widened in their case. This is explained by the big role that private sector has played in their expansion. In its location, private sector tends to favour the already developed areas.
With a growing realisation that it is human development which lies at the heart of the development process, scholars have started employing a variety of demographic indicators in their study on development. The plethora of information available from census sources has facilitated this task.

Schwartzberg (1962) in his study on regional variations in economic development in India used indicators on literacy, urbanisation and diversification of economy. Harvey and Bhardwaj (1973), using Indian census data, worked out several indices, namely nonsubsistence, capability of land, traditional crafts dominance, primary employment, range of commerce, literacy, female literacy, educational facilities, medical facilities, veterinary facilities, dependency ratio, circulation, migration, and scheduled caste component, bearing on the socio-economic aspects of modernisation.

Rao (1977) suggested six demographic indicators for socio-economic development: growth rate, birth rate, death rate, general fertility rate, net rural-urban migration rate and percentage of urban population. His focus was on different elements of population dynamics as representative of development process.

Social Statistics Division of the United Nations (1977) identified sixteen demographic indicators and grouped them into four categories: population stock; births, deaths,
and migration. Some additional demographic indicators were also listed under other categories and subcategories.

Morris (1979) worked out physical quality of life index based on three demographic indices of infant mortality rate, life expectancy at age one, and adult literacy at age 15 and over.

UNICEF (1989) suggested a combination of three indicators of adult literacy rate, under-five mortality rate, and average life expectancy to measure development. United Nations Development Programme (1990) also proposed a human index based on three variables: per capita national income, life expectancy at birth, and adult literacy rate.

Likewise, Gosal and Krishan (1979), Dubey (1981), Dasgupta (1990) employed a variety of demographic indicators to identify the regional patterns of socio-economic development in Punjab, Uttar Pradesh, and developing countries. Through an innovative management of data relating to occupational structure, Dickason (1989) identified socio-demographic areas of Delhi reflecting the traditional-modern, formal-informal, familistic, and ethnic ethos of different parts of this national capital of India. He found that Delhi is at least three technological cities in one: a walking city for the poorest of the informal sector a public transit city for the middle class, and a private transit city for various mercantile, governmental, and international diplomatic and tourist elites.
It follows that a majority of the studies used indicators on population dynamics, literacy, urbanisation and occupational structure to represent the quality of people inhabiting an area.

For the purpose of our study, the following four indicators were deemed as most critical:

1) fertility and mortality (infant mortality, in particular
2) urbanisation
3) literacy
4) non-agriculturalisation of rural economy.

Fertility and mortality patterns suggest the stage of demographic transition through which a particular area is passing. The infant mortality rate is indicative of the survival chances of a newly born (Smith, 1979).

Urbanisation represents the dynamics of social and economic development taking place. Insofar as urbanisation itself takes place as a result of social, political, economic, and technological processes, the extent of urbanisation may be viewed as a major index of changes and development occurring in the country or area in question (Matras, 1964, p.116). In a developing economy urbanisation is expected to play a positive role in diffusion of modern impulses, provision of social infrastructural facilities and transformation of rural economy of surrounding areas (Hoselitz, 1960; Dickenson et al., 1983; Gugler, 1989).
Literacy gives an idea about the intellectual advancement of a society. It is an investment in human capital. In the areas where development has not progressed very far and literacy is low, the marginal gains from education and training are high (Chisholm, 1982).

The structural transformation of working force, especially in rural areas, is the most important dimension to influence the socio-economic life of the region. In rural India, the distribution of working force is overwhelmingly skewed in favour of agricultural sector. Hence any shift from it is indicative of a new change. Non-agriculturisation of rural economy indicates a gradual rural transformation away from traditional agriculture.

Spatial Patterns and Trends

Fertility and Mortality

Haryana is one of the few states in India where birth rate is significantly higher and death rate considerably lower than the national average. The former reflects less of social development and the latter of more of economic development. The rate of natural increase in the state stood at 26.5 per thousand for 1983-85 as compared with 21.4 at the national level.

It is noted further that the infant mortality rate in the state is lower than the national average but the average number of children born to a mother in the state (6.30) is higher than that in India (5.00). Normally inclination for
larger number of children subsides in situations of lower infant mortality rate. This is not true in Haryana context. This is attributed to the traditional low status of women in the state. Things are gradually changing somewhat for better. Birth rate of Haryana declined from 40.60 in 1971-73 to 36.20 in 1983-85 and infant mortality rate from 115.80 in 1976-78 to 85.70 in 1985-87. The state is improving its position vis-a-vis parameters of fertility and mortality. Regional variations within the state on this count could not be ascertained due to non-availability of firm data at district level.

**Urbanisation**

Haryana has been predominantly a rural part of India. Not even one-sixth of its population was urban at the time of Independence in 1947. A stagnant urbanisation was associated with the predominantly subsistence nature of agricultural economy. Industry, commerce, and general services, which provide the major stimuli for urban change, had not make a breakthrough.

The partition of the Indian subcontinent at the time of Independence had a strong bearing on the urbanisation process in the Haryana territory. Thousands of refugees from Pakistan were rehabilitated in Haryana towns. This not only led to their explosive growth but also changed their population composition. The dramatic change was exogenous rather than endogenous to any change in the regional economy.
But as a subsystem appended to a bigger system of the former Punjab, the Haryana towns could grow up to a limit. Only 17.20 per cent of the population in the Haryana territory was urban in 1961 as compared with 23.10 per cent in the Punjab Territory (Table 4.8).

Table 4.8
Haryana, Punjab and India: Percentage of Urban Population to Total Population: 1951-81

<table>
<thead>
<tr>
<th>Year</th>
<th>Haryana</th>
<th>Punjab</th>
<th>India</th>
</tr>
</thead>
<tbody>
<tr>
<td>1951</td>
<td>17.00</td>
<td>21.70</td>
<td>17.30</td>
</tr>
<tr>
<td>1961</td>
<td>17.20</td>
<td>23.10</td>
<td>18.00</td>
</tr>
<tr>
<td>1971</td>
<td>17.78</td>
<td>23.80</td>
<td>19.91</td>
</tr>
<tr>
<td>1981</td>
<td>21.88</td>
<td>27.68</td>
<td>23.20</td>
</tr>
</tbody>
</table>

iii) Census of India, 1981, Series 1, Part IIB(ii), Primary Census Abstract, Registrar General and Census Commissioner, India.

After its formation as a separate state in 1966, Haryana experienced a marked acceleration in its urbanisation process. The proportion of urban population to the total stood at 21.88 in 1981. The rise in the percentage of its population was now comparable to that of Punjab.
Within the state, the proportion of urban population ranged from 40.82 per cent in Faridabad district to 13.07 per cent in Mahendragarh district. Faridabad, Ambala and Karnal districts, located in the eastern part of the state, are relatively more urbanised (Map 26). Urbanisation is now picking up in almost every part of the state but it is more pronounced in three tracts:

i) Faridabad-Ballabgarh-Gurgaon industrial complex to the south of Delhi;

ii) Delhi-Ambala corridor along the Grand Trunk road between Delhi and Ambala which is noted for its both agricultural and industrial development; and

iii) dispersed places like Rohtak, Bhiwani and Hisar where growth is attributed to an expansion of their administrative, educational and industrial functions.

A more firm picture is obtained if we examine the pattern of effective urbanisation by taking into account only those towns whose population is 20,000+. Only these towns are deemed as effective enough to impact upon their surrounding countryside. In 1951, 11.40 per cent of the population in the Haryana territory was living in such towns which were 14 in all in number. This percentage grew to 18.00 per cent in 1981 with number of such towns increasing to 29. Nonetheless eleven tahsils out of thirty-nine in all were without any town with 20,000+ population.

On the whole, the eastern part of the state presents a contrast with its western counterpart (Map 27). It shares no
Haryana: Urbanisation Level

Urban population 1971 (Data by districts)

Urban population 1981 (Data by districts)

Percentage in total population
| 25 | 20 |

Urban population 1971 (Data by tahsils)

Urban population 1981 (Data by tahsils)

Percentage in total population
| 25 | 20 |

0 50 kilometres

Map 26
Haryana: Effective Urbanisation

Population in 20,000 +
Towns: 1971
(Data by districts)

Population in 20,000 +
Towns: 1981
(Data by districts)

Population in 20,000 +
Towns: 1971
(Data by tehsils)

Population in 20,000 +
Towns: 1981
(Data by tehsils)

Map 27
less than 70 per cent of the state's urban population. This leaves other parts of Haryana much less urbanised.

The urbanisation level of different districts is significantly related to their per capita net domestic product \((r = +0.65)\). This relationship is stronger with the income generated in the tertiary sector \((+0.85)\) than that in the secondary sector \((r = +0.56)\). Evidently the role of services has been stronger than that of industry in promoting urbanisation in the state.

**Literacy**

At the time of Independence, only one out of every ten persons inhabiting the Haryana territory was literate. This proportion improved to one in every five in 1961 and further to one in every three in 1981 (Table 4.9). But the fact remains that even by 1981, Haryana was one of the less literate states of India. Its literacy rate was 36.10 per cent as compared with 36.20 per cent in India. The picture seems to have somewhat changed in favour of Haryana in 1991.

Spatially, the eastern and southern parts of the state are more literate than the western. The literacy rate ranged from 44.62 per cent in Ambala district to 26.18 in Jind district in 1981. At the tahsil level, Ambala with 50.01 per cent of its population as literate, and Ferozepur Jhirka with 19.48 per cent, formed two extremes of the spectrum (Map 28).
Haryana: Literacy

Literate persons: 1971
(Data by districts)

Percentage in total population
30

Literate persons: 1981
(Data by districts)

Percentage in total population
30

Literate persons: 1971
(Data by tahsils)

Percentage in total population
30

Literate persons: 1981
(Data by tahsils)

Percentage in total population
30

Map 28
### Table 4.9

**Haryana: Literacy Rates, 1951-81**

<table>
<thead>
<tr>
<th>Year</th>
<th>Total</th>
<th>Urban</th>
<th>Rural</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Persons</td>
<td>Male</td>
<td>Female</td>
</tr>
<tr>
<td>1951</td>
<td>9.80</td>
<td>2.80</td>
<td>26.60</td>
</tr>
<tr>
<td>1961</td>
<td>19.92</td>
<td>9.21</td>
<td>44.70</td>
</tr>
<tr>
<td>1971</td>
<td>26.89</td>
<td>14.89</td>
<td>51.00</td>
</tr>
<tr>
<td>1981</td>
<td>36.14</td>
<td>22.27</td>
<td>56.86</td>
</tr>
</tbody>
</table>

**Source:** Computed from Census of India, Punjab and Haryana, General Population Tables for relevant years.

The higher literacy rates in the eastern part of the state are associated with a number of factors: a strong urban influence, diversification of rural economy, and a fairly high proportion of displaced persons (including their progeny) from Pakistan among whom literacy is almost universal. Above all, the intense pressure on agricultural land in this densely populated part of the state impelled the parents to go in for education of their children so as to enable them to seek employment in jobs outside agriculture.

The higher literacy rates, especially of males, in the southern part of the state are associated with a tradition in army service. Education facilitated entry of an individual into army, and once in the service, the person was aware of educating his children. In addition, the impact of Delhi on spread of education in this part of the state has also been strong.
By contrast, lowest literacy rates are met in the Meo-Muslim inhabited tract in Gurgaon district. Both male and female literacy rates are low here. With their more traditional outlook, the Muslims have been less prone to education.

Literacy rates are low also in the northwestern and western parts of Haryana. Here the economy is predominantly agricultural and the proportion of scheduled (low) caste population is comparatively high. Landholdings are comparatively large and do not cause a stress for an immediate shift to non-agriculture for which education is a must.

A study in correlates showed that literacy formed a strong association with the availability of infrastructural facility in the form of density of high/higher secondary schools \((r = +0.85)\). The extent to which the economy of an area was diversified, also had a strong bearing on literacy \((r = +0.80)\). It supports the contention that literacy is acquired more as an occupational necessity than as a social obligation.

Contrary to the general belief, literacy correlated mildly with urbanisation \((r = 0.38)\). It is a reflection on the nature of urbanisation in the state. A large number of towns in the state are small towns, with limited impact on their surrounding countryside.
But the role of road transport is observed as stronger. The correlation coefficient between the literacy and road density was found as +0.66. Roads break the isolation of rural areas and expose them to modern influences.

In contrast, literacy showed a strong inverse relationship with the size of agricultural landholdings (r = -0.74). Small size of landholdings poses an economic compulsion on people to enter into occupations for which education is required. Large landholdings do not generate such a stress.

Literacy also correlated negatively (r = -0.38) with the proportion of scheduled caste population. The low literacy among the scheduled castes is the result of socially enforced deprivation through ages. For the bulk of scheduled caste population, who are engaged mainly in agricultural labour or household industry, literacy is not an occupational necessity.

On the whole, the picture on the literacy front is not very encouraging. This is said with particular reference to female literacy. Only 22.27 per cent of the females were literate in 1981 as compared with 48.20 per cent of males (Map 29). By and large, the spatial patterns of female literacy follow those of male literacy; the coefficient of correlation between the two is +0.71.
Haryana: Female Literacy

(a) Literates females: 1971
(Data by districts)

(b) Literates females: 1981
(Data by districts)

(c) Literates females: 1971
(Data by tahsils)

(d) Literates females: 1981
(Data by tahsils)

Map 29
Likewise, there is a wide gap between the urban and rural literacy rate. The two were 56.86 and 30.33 per cent respectively in 1981. The spatial pattern of rural literacy corresponds with those of overall literacy (Map 30).

The growth behaviour of literacy during 1971-81 gives a clue to the situation as evolving in the newly organised state of Haryana. The state did make some headway in this regard. In 1971, its literacy rate of 26.89 per cent was below that of Punjab (33.66) and India (29.48). In 1981, its literacy rate of 36.14 per cent was almost at par with that of the country (36.23 per cent) and was catching up with that of Punjab (40.86 per cent). This is not to imply that overall picture on literacy front had become rosy.

Non-agriculturalisation of rural economy

Diversification of rural economy can be judged from the percentage of rural workers getting their livelihood from occupations other than agriculture. This can be taken as a reliable index to rural development. Non-farm employment in rural areas not only reduces pressure on agricultural land but also leads to a rise in the rural income.

Non-agricultural workers in rural areas can be broadly classified into three categories: (i) rural artisans, such as carpenters, blacksmiths, cobblers, weavers, and pottery makers; (ii) rural service class, such as priests, village officials, school teachers; and (iii) rural commuters working in nearby urban places as industrial labourers, office employees and
Haryana: Rural Literacy

Rural literates: 1971
(Data by districts)

Rural literates: 1981
(Data by districts)

Rural literates: 1971
(Data by tahals)

Rural literates: 1981
(Data by tahals)

Percentage in rural population

Map 30
general labourers. It can be understood that while the first two categories are engaged primarily in serving the local population, the third category is involved in wider regional economy.

In Haryana, the percentage of rural non-agricultural workers increased from 23.02 in 1971 to 24.52 in 1981. This was only a small change. Regional variations persisted. The percentage of rural non-agricultural workers ranged from 14.51 in Sirsa district to 34.82 in Ambala (Map 31). Relatively high proportion of rural non-agricultural workers is distinct in two areas: (i) the zone peripheral to Delhi and (ii) the Ambala-Jagadhri belt. These are the two relatively urbanised tracts. Impact of urbanisation on diversification of rural economy through encouragement to commuting is evident.

Regional Disparities

Regional disparities in urbanisation, literacy (including the general, female, and the rural), and non-agriculturalisation of rural economy were analysed with the help of district level data for the years 1971 and 1981 (Table 4.10). Non-availability of firm data constrained such an analysis of fertility and mortality.

Regional disparity was of the highest order in urbanisation level, in 1971. This was commensurate with the disparity in industrialisation. The pace of social change in Haryana is also highly spatially differentiated.
Haryana: Non-Agriculturalisation of Rural Economy

Rural non-agricultural workers 1971 (Data by districts)

Rural non-agricultural workers 1981 (Data by districts)

Rural non-agricultural workers 1971 (Data by tahsils)

Rural non-agricultural workers 1981 (Data by tahsils)

Percentage of workers in rural areas

Map 31
Table 4.10

Haryana: Spatial Disparity in Demographic Attributes, 1971-81

(in percentage)

<table>
<thead>
<tr>
<th>Attribute</th>
<th>Coefficient of spatial disparity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Urbanisation</td>
<td>1971</td>
</tr>
<tr>
<td>Urban population as per cent of total population</td>
<td>32.32</td>
</tr>
<tr>
<td>Population in 20,000+ towns as per cent of total population</td>
<td>40.65</td>
</tr>
<tr>
<td>Literacy</td>
<td>1971</td>
</tr>
<tr>
<td>Literates as per cent of total population</td>
<td>17.28</td>
</tr>
<tr>
<td>Literate females as per cent of total female population</td>
<td>31.91</td>
</tr>
<tr>
<td>Rural literates as per cent of population in rural areas</td>
<td>17.78</td>
</tr>
<tr>
<td>Non-agriculturalisation of rural economy</td>
<td>1971</td>
</tr>
<tr>
<td>Non-agricultural workers as per cent of total workers in rural areas</td>
<td>31.90</td>
</tr>
</tbody>
</table>

Rural non-agriculturalisation, which is significantly associated with urban-rural interaction, shows a moderate disparity. The urban impact on transformation of rural employment structure has been gradual. Only a few areas have majority of rural workers outside agriculture.

Regional disparities in literacy are not that sharp. Literacy rates are at a relatively low level in most areas. Meanwhile the spread of female literacy is strongly biased in favour of the eastern districts leading to a high disparity in their case.
Trends in regional disparity have not been consistent. Regional disparity in urbanisation widened while it narrowed down in rural non-agriculturisation and literacy. A disproportionate concentration of industry in the zone peripheral to Delhi and along the Delhi-Ambala road-rail route got manifest in an enhanced disparity in urbanisation level. Some decline in regional disparity in rural non-agriculturisation is associated with an increase in rural-urban commuting in all parts of the state. Likewise, spread of educational infrastructure to all parts of the state caused a decline in regional disparity in literacy.

In brief:

- The Haryana territory was a more rural, agricultural and illiterate part of the old Punjab. All this conformed to its peripheral status.
- After its formation, Haryana recorded impressive gains in urbanisation but advancement in respect of literacy and rural non-agriculturisation has been rather slow. A rise in regional disparity in urbanisation but its simultaneous fall in respect of literacy and rural non-agriculturisation has been an associated development.
- It seems that the pace of social change related to economic forces (urbanisation) has been stronger than that caused by direct social factors (literacy). An additional indication is that the provision of
Infrastructure in the form of educational institutions and rural link roads is yet to make its desired impact.

- The spatial patterns of social development display a conformity with those of economic development. While a transition in Haryana's economic development process is visible, the same could not be said of its social development. The latter remains at a comparatively low level, and of course, with more of spatial uniformity. The eastern part of the state contrasts with its western counterpart on both counts.