CHAPTER VIII

PUBLIC POLICY AND RURAL NON-FARM SECTOR IN PUNJAB

In Punjab's agrarian economy, rural non-farm sector as a provider of productive employment and contributor to rural households' incomes did not receive proper attention at the hands of policy makers, development administrators and academicians. One hardly finds a theoretical or empirical work on the subject barring a few studies like Chadha (1986a, 1986b), Simmons and Supri (1995, 1997), and Chahal et al. (1995). Fisher et al. (1997) also spared some pages to Punjab’s rural non-farm economy. Most of the academic and empirical work has been done on the non-farm employment in Punjab has been produced during the first decade of the new millennium, (Ghuman et al. 2002; Ghuman, 2005; Sidhu and Toor, 2002, Rangi et al. 2002, to mention some of the main studies). A perusal of these empirical works reveals that not only the growth of non-farm employment in the state has become a reality but it has also become one of the most significant components of rural development strategy therein.

This chapter discusses the broad contours of the state policy for the rural development as enunciated and implemented from time to time, particularly to promote non-farm employment in Punjab. The discussion has been divided in two sections: Section I examines the direct efforts made by the state for the promotion of rural non-farm employment and Section II analyses the state policy in creating physical and social infrastructural environment which also contributed towards the growth of non-farm sector in the state.

I

8.1.1 Direct initiatives, programmes and policies

The state government has taken a number of direct initiatives, programmes and policies to promote rural development and non-farm employment. For instance, it took a number of steps to promote rural manufacturing sector in the state. In fact, till very recently, rural industrialization was the most visible component in the rural non-farm employment strategy of the state. Gupta (1984) provides a much useful review
of the policies and programs of the state government towards rural manufacturing. We shall briefly review these initiatives, programmes and policies taken at different points of time by the state.

(i) Setting up of Khadi and Village Industries Board (KVIB)

The KVIB was set up in 1956 in the state. It was basically set up to revitalize and redevelop the traditional activities and crafts carried out by the rural artisans since time immemorial. Actually, under the pressure and competition from the modern factory produced goods, these artisanal products were facing extinction. The main interventions of the KVIB aimed at modernizing the production techniques of village artisans and craftsmen through the provision of credit and market support. Village entrepreneurs were provided subsidized financial assistance and technical help for setting up small and tiny enterprises in the rural areas. The KVIB has been promoting very small and tiny industries run by the traditional artisans like the weavers, spinners, cobblers, blacksmiths, carpenters, potters, etc. It also encourages the manufacturing of traditional-cultural items like Phulkaris, desi juttis, etc. Of late, the KVIB has started giving financial assistance for modern industrial activities like manufacturing of PVC pipes, agricultural machinery, tiles making units, etc. It has also started advancing subsidized loans for other activities like the garments selling shops, boutiques, etc.

In 2009-10, an amount of Rs. 621.08 lakh was disbursed as subsidy by the KVIB for promoting various village based rural industries in the state compared to Rs. 94.21 lakh disbursed in 1980-81 (Statistical Abstract of Punjab, 2010). By 1999-2000, the number of units established under the various schemes of the KVIB went up to 34,678, with production valued at Rs. 220.46 crore, and providing employment to about 45,100 persons. The data in Table 8.1 highlights the rising production, sales and employment levels in the village industries supported by the KVIB in Punjab. For instance, production level of all these village industries increased from Rs. 1506.15 lakh in 1980-81 to Rs. 46405.55 lakh in 2009-10, and that of sales from Rs. 1839.69 in 1980-81 to Rs. 49415.40 lakh in 2009-10. Interestingly, a large number of persons (full-time and part-time) got employment in these village industries. Their number rose from 25,628 persons in 1980-81 to 64,533 persons in 1990-91, 88,680 persons in
2000-01 and 118, 201 persons in Punjab. At current prices, per employee production level increased from Rs. 5877 in 1980-81 to Rs. 39,257 in 2009-10.

Table 8.1: Production, Sales and Employment in Village Industries in Punjab

<table>
<thead>
<tr>
<th>Year</th>
<th>Production (Rs. Lakh)</th>
<th>Sales (Rs. Lakh)</th>
<th>Employment (Number)</th>
<th>Per Employee Production (Rs.)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1980-81</td>
<td>1506.15</td>
<td>1839.69</td>
<td>25,628</td>
<td>5877</td>
</tr>
<tr>
<td>1990-91</td>
<td>7722.82</td>
<td>9019.46</td>
<td>64,533</td>
<td>11967</td>
</tr>
<tr>
<td>2000-01</td>
<td>19745.44</td>
<td>21695.76</td>
<td>88,680</td>
<td>22266</td>
</tr>
<tr>
<td>2009-10</td>
<td>46405.55</td>
<td>49415.40</td>
<td>118,211</td>
<td>39257</td>
</tr>
</tbody>
</table>

Source: Khadi and Village Industries Board, Punjab.

(ii) Setting up of rural focal points

Rural focal points were set up to support and sustain rural industry in a cluster like approach. Under the focal points strategy, common infrastructural facilities are created for a cluster of villages at an identified central point location. A focal point is supposed to serve as a central growth point hosting village level agro-service facilities, a primary agricultural co-operative society, a market yard for sale and purchase of food grains and a number of agricultural processing industries, etc. So far, 594 rural focal points have been identified, of which land has been made available for about 260 focal points. These focal points come under the administration of Department of Rural Development and Panchayats, Punjab.

An assessment of data in Table 8.2 show that there has been impressive growth in the number of industrial units, employment created and amount of investment made in small scale/tiny industries in the rural Punjab during the period of 1980-81 to 2000-01. During this period, number of industrial units in SSI/Tiny sector in the rural areas increased eight times, employment 6.5 times and investment 38 times. Investment per employee in SSI/Tiny sector in the rural areas increased during 1980-81 to 2000-01 from Rs. 10,400 to Rs. 60,000 compared to the increase of total SSI/Tiny sector per employee from Rs. 12,500 to Rs. 46,000 during the same period (Punjab Development Report, 2002).
Table 8.2: Growth of Industries in Rural Areas

<table>
<thead>
<tr>
<th>Variable</th>
<th>Location</th>
<th>1980-81</th>
<th>%</th>
<th>1990-91</th>
<th>%</th>
<th>2000-01</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Units (Number)</td>
<td>Urban</td>
<td>32884</td>
<td>75.88</td>
<td>93267</td>
<td>58.16</td>
<td>117866</td>
<td>58.76</td>
</tr>
<tr>
<td></td>
<td>Rural</td>
<td>10454</td>
<td>24.12</td>
<td>67101</td>
<td>41.84</td>
<td>82737</td>
<td>41.24</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>43338</td>
<td>100.00</td>
<td>160368</td>
<td>100.00</td>
<td>200603</td>
<td>100.00</td>
</tr>
<tr>
<td>Employment (Number)</td>
<td>Urban</td>
<td>223018</td>
<td>84.20</td>
<td>482454</td>
<td>72.13</td>
<td>624806</td>
<td>69.61</td>
</tr>
<tr>
<td></td>
<td>Rural</td>
<td>41851</td>
<td>15.80</td>
<td>186391</td>
<td>27.87</td>
<td>272836</td>
<td>30.39</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>264869</td>
<td>100.00</td>
<td>668845</td>
<td>100.00</td>
<td>897642</td>
<td>100.00</td>
</tr>
<tr>
<td>Investment (Rs. Crore)</td>
<td>Urban</td>
<td>288.73</td>
<td>86.93</td>
<td>1000.91</td>
<td>74.21</td>
<td>2448.00</td>
<td>59.57</td>
</tr>
<tr>
<td></td>
<td>Rural</td>
<td>43.40</td>
<td>13.07</td>
<td>347.87</td>
<td>25.79</td>
<td>1661.14</td>
<td>40.43</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>332.13</td>
<td>100.00</td>
<td>1348.78</td>
<td>100.00</td>
<td>4109.14</td>
<td>100.00</td>
</tr>
</tbody>
</table>


(iii) Promotion of handloom industry and handicrafts in villages

Several schemes for improving the efficiency in production and quality improvements and designs of handloom products were initiated. Setting up of sale outlets including mobile vans in different parts of the region, payment of rebates on sale of the handloom cloth, organization of handloom weavers into cooperatives to enable them face competition from the factory sector, provision of working capital to weavers and their societies and encouraging the conversion of handlooms into powerlooms were some of the steps initiated by the state government to promote handloom in the rural areas of the state. Similarly, many programmes were initiated for the development of handicrafts in the rural as well as in the urban areas. The main thrust of these programmes was to develop new designs for the products, expansion of the market and the provision of training facilities for those who were involved in the manufacturing of these products. Under this scheme, bamboo work, doll making, clay modeling, carpets, druggets, ivory laid work, fancy leather, artistic furniture, etc. were promoted. Other schemes for the promotion of handicrafts including the organization of study tour of master craftsmen, supply of improved tools and equipment, and provision of raw materials were also initiated in the state.

The basic purpose of these government measures for the development and growth of rural industries, handloom and handicrafts in rural areas has been to modernize the production structure and improve the designs of the products to enable them to face the competition from factory produced items. The main scope of these schemes consist in providing training in various trades, acquainting the craftsmen with improved techniques, supplying raw materials and subsidized tools and equipment and, marketing of products. To sale up the production operations, the artisans were encouraged to form cooperatives. While these techniques have indeed
helped in revival and modernization of village industries such activities have obvious limitations in generating employment (Gupta, 1984).

(iv) Development of sericulture

Another important measure initiated by the state to promote non-farm employment is related to the development of sericulture in rural areas. Basically, this step has been taken to provide gainful employment to rural households at their doorsteps. This profession is adopted by the poorest and mostly landless rural households. Promotional measures include the supply of disease-free silk sheds, increased cultivation of mulberries and introduction of new techniques. But about 70 to 80 per cent of rural families engaged in the production of sericulture in the state are in one single block-Dhar Block of Gurdaspur district, and the rest in the adjoining Mukerian development block of Hoshiarpur district (Director of Horticulture, Punjab). The sericulture requires a temperature around 20-25°C and humidity level 82 to 85 per cent. As these conditions are not available everywhere in the state, sericulture, thus, has limited applicability as provider of employment to rural families. The department of horticulture is the nodal agency for carrying out policies and programmes for the development of sericulture in the state. A family rearing one unit of silk worms (1 ounce of worm eggs) earns an income ranging from Rs. 6200 to Rs. 8000 per unit. Because of the temperature-humidity requirements, only one unit can be reared in a year. It means that for the livelihood these households, we must find other farm and non-farm income avenues to earn livelihood. During 2007-08, an amount of Rs. 17.25 lakh was received from the GOI for the development of sericulture in the state. A matching amount of Rs. 3.50 lakh was provided by the state government. This amount was disbursed to the families engaged in sericulture as a subsidy for the construction of rearing huts, plantation of mulberry plants and rearing kits (Director of Horticulture, Punjab).

(v) Rural industrial estates, rural industrial development centres and rural artisan training centres

These were some of other initiatives taken by the state government to promote rural industrialization. The scheme of Rural Industrial Estates was started during the Second Five Year Plan (1956-61) with a purpose of creating a common minimum infrastructure at one place and to ensure that small units do not develop in a
haphazard manner. The industrial estates had not only common infrastructural facilities but these had common workshops to carry out repair and other works. It was expected that after the creation of industrial estates, the existing units in congested areas would move here and will lead to further over all development of the area. However, an evaluation study of Rural Industrial Estates Programme revealed that it had failed miserably in Punjab (Gupta, 1984).

The main objective of the programme of rural industrial development centres was again to provide rural artisans with common infrastructural facilities at one place for the manufacture of various products. Rural artisan training centres aimed at disseminating skills through on the job trainings and practical demonstrations.

(vi) **Community development programme and rural industries**

Community Development Programme was launched in the state within the framework of three-tier Panchayati Raj Institutions: Gram Panchayat at the village level, Panchayat Samiti at the block and Zila Parishad at the district level. Started in earlier 1960s, community development programme had industrial development as an integral component of rural development at the block level. This has led to creation of posts of District/Block Level Industrial Extension Officers who were responsible for not only encouraging and supplementing the activities of KVIB, but also for stimulating the development of more modern small scale industries with power-driven equipments. The programme, however, was not very effective due mainly to the poor quality of training provided to the workers under the programme and also because the approach behind the programme was too general to have any effective focus (Gupta, 1984). With the setting up of District Industries Centres(DICs), industries extension staff moved out of the ambit of rural development programmes at the block level.

(vii) **Rural industries programme**

Rural industries programme was another initiative started by the government of Punjab. The programme consisted of identification of prospective entrepreneurs in the rural areas and providing them technical support in choosing a particular production line. Provision of technical, credit and market support to them was also envisaged. The programme was initially started in two district of the state, i.e., Sangrur and Hoshiarpur in the late 1980s.
After coming into power of the Janta Government in 1977 in the Centre, a new initiative in the form of District Industries Centres (DICs) was launched throughout the country. All the previous schemes and programmes meant for rural industrialization were to operate under the umbrella of DIC. The strategy of rural industrialization was vigorously perused during the Sixth Five Year Plan (1980-85) of the state. In fact, one of the main objectives of this Five Year Plan was the promotion of rural industries for which separate initiatives were envisaged so that the economic condition of weaker sections of the rural society could be ameliorated. The Seventh Five Year Plan (1985-90) continued with the similar policy thrust (Punjab Development Report, 2002).

With the advent of economic policy reforms initiated in 1991-92, it was hoped that rural industrialization in the state would surge forward as it had all the basic prerequisites: highest per capita income/consumption, high saving-deposit ratio, better infrastructure facilities, entrepreneurial capabilities of its people, etc. It was hoped that the new economic policy by creating an enabling environmental for the easier acquisition of raw materials, new technologies and techniques of production, would induce the new entrepreneurs to invest more in rural areas. It was also expected that the state with the abovesaid positive features would attract national as well as foreign direct investments. However, as the recent studies have shown, the experience of Punjab with regard to rural industrialization during the era of liberalization, globalization and privatization is far from impressive (Gill, 2005). This study revealed that rural enterprises in Punjab have grown at a compound rate of 2.14 per cent per year during the 1980-1990 and at 1.94 per cent during the 1990-1998. Employment in these enterprises grew at a rate of 3.08 per year in the 1980-1990 and 2.80 during 1990-1998.

Table 8.3: Annual compound growth rate in employment and enterprises in unorganized manufacturing sector of Punjab

<table>
<thead>
<tr>
<th>Location of Enterprises</th>
<th>1980-90</th>
<th>1990-98</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rural Enterprises</td>
<td>2.14</td>
<td>1.94</td>
</tr>
<tr>
<td>Urban Enterprises</td>
<td>2.55</td>
<td>2.06</td>
</tr>
<tr>
<td>Total Enterprises</td>
<td>2.37</td>
<td>2.01</td>
</tr>
<tr>
<td>Rural Employment</td>
<td>3.08</td>
<td>2.80</td>
</tr>
<tr>
<td>Urban Employment</td>
<td>2.36</td>
<td>1.46</td>
</tr>
<tr>
<td>Total Employment</td>
<td>2.59</td>
<td>1.92</td>
</tr>
</tbody>
</table>

Source: Gill, 2005.
8.1.2 Initiatives for self employment and wage employment in rural areas

Till early 1970s, the approach and strategy towards the development of rural areas was focused on the development of agriculture and allied activities along with the urban based small scale industry. It was however realized that agriculture has its limitations for the productive employment of rural labour force. This realization forced the government of India as well as the state governments to initiate a number of schemes/programmes which aimed at provision of productive employment outside the agricultural sector to rural poor. Various schemes for self employment and wage employment were initiated by the state government with in the over all policy framework of the Union of India. Some of these are briefly reviewed below.

(i) Small Farmers’ Development Agency (SFDA) was set up in 1971 in the state to encourage small farmers and agricultural labourers to set up self employment ventures outside the agriculture. The provision of subsidized loans was the main component of this programme. The target groups were assisted to start ventures in the dairy, retail shops beekeeping, carpentry, mule carts, repair of agricultural implements, etc.

(ii) Integrated Rural Development Programme (IRDP) was started throughout the country in 1980. The main objective of IRDP was to assist below poverty line (BPL) households in setting up self employment ventures in order to get out of the poverty. Under this programme, the main economic activities encouraged were the dairy, stitching, mule carts, shop keeping, carpentry, black-smithory, etc. The programme continued for the next 19 years (up to March 1999), and since April 01, 1999 it was merged with a new scheme, namely, Swaran Jyanti Gram Swarozgar Yojna (SGSY). The new scheme focused on small groups of beneficiaries instead of approaching the households below the poverty line individually. Under the scheme, persons below the poverty line were encouraged to form self help groups for creating self employment ventures. A subsidy of Rs. 1 lakh to the group and 10,000 to the individual members was provided to set up self employment ventures. Training facilities were also to be provided to the groups to make them competitive and professionals. District Rural Development Agency was made the nodal agency to implement the SGSY in the district. Main economic activities emphasized under the scheme are the dairy, stitching, transport activities, shop keeping, fruit vending,
furniture making, etc. The groups were exposed to outside world through various craft melas. It is the centrally assisted scheme with 75 per cent share coming from government of India and the rest 25 per cent from the state.

(iii) **Training of Rural Youth for Self Employment (TRYSEM)** programme consisted of providing the necessary skill and training to the rural youth for self employment in the activities of repair and maintenance of agriculture and non agricultural machinery, trade and trading activities, and in various service-oriented activities. It was also hoped that once equipped with necessary skills and know-how, the rural youth belonging to the poorer sections of society would become employable in the labour market. Under this scheme, both self employment and wage employment were targeted. For the purpose of training, the linkages with government/private industrial training institutes and private factories were created. The beneficiaries were given monthly stipends. The trainers were also given financial incentives. A connected programme was also started, namely, the Supply of Improved Tools in Rural Areas (SITRA) under which the rural craftsmen and artisans were provided with new and improved tools and implements. The scheme was started in 1993-94, but since April 01, 1999, this was also merged with the SGSY.

(iv) **Development of Women and Children in Rural Areas (DWACRA)** programme has been started to develop the core competencies of women and children in the rural areas. Realizing that rural women could not benefit much from the IRDP, the DWACRA was started in 1990. The scheme was group based and a one time subsidy was provided in the shape of revolving fund to the group. The groups were also assisted in marketing of their products. This scheme has again been merged with SGSY.

(v) **National Rural Livelihoods Mission (NRLM)** is the latest initiative of government of India towards the betterment of rural poor which has been initiated in the year 2010 substituting the existing Swarn Jayanti Gram Swarojgar Yojna (SGSY). The NRLM mission is to reduce poverty through building strong grass root level institutions for the poor. These institutions enable the poor households to access gainful self employment and skilled wage employment opportunities resulting in appreciable increase in their incomes on a sustainable basis. Naturally, formation and development of self help groups is the corner stone of the strategy of this mission.
(vi) **Mahatma Gandhi National Rural Employment Guarantee Scheme** (MG-NREGS) is another flagship programme of government of India being implemented in the Punjab (like in all the other states of India). The programme was started in the state initially in one district during the year 2006, but subsequently, it is being implemented in all the districts of state since April 01, 2008. The programme envisages a guaranteed employment of 100 days to every rural household which registers, seeks manual employment and is willing to work at the stipulated wage rate under the programme. Two studies (Ghuman and Dua, 2008, and Gill, Singh and Brar, 2011) evaluated the functioning of NREGA programme in the state. First study is based upon the experience of one district (Hoshiarpur) of the state and the second study presented district-wise performance of NREGA programme in the state. The latter one also highlighted the best and worst practices of NREGA programme along with the contribution of NREGA employment/income in their total employment/household income. Both the studies, however, revealed that the overall performance of NREGA was not very encouraging during the last three years of its implementation in the whole state. Against the stipulation of a minimum 100 days of manual employment to every job seeking rural household less than one-fourth of the sampled households could achieve this level of employment. It was also noted that in view of the current poverty line even this 100 days employment under NREGA does not help the households to cross the poverty line. Therefore, the employment and earnings under NREGA should at best be treated as additional avenues for the poor households (Ghuman and Dua, 2008; Gill, Singh and Brar, 2011).

It is worthwhile to mention that all these programmes and schemes for self employment and wage employment were started at the initiative of government of India and were almost similar in their reach and approach throughout the country. The centre's share in the financial outlay was in the range of 50 to 75 per cent in the individual programmes listed above. In Punjab, the Department of Rural Development and Panchayats has been the implementing department for all these programmes. A study by Singh (2008) provides an evaluative survey of many of these schemes. It has found that the most deserving households were financially so weak that small gains from limited schemes were not enough to pull them out of their current poverty. Wrong identification of the beneficiaries, political populism and interference at the
local level made things worse for the rural poor and for the implementing agencies as well (Singh, 2008; Gill, Singh and Brar, 2011). These programmes may have limited scope to encourage non-farm employment in Punjab.

II

8.2 Creation and development of enabling environment for RNFS

In the earlier Chapter 7 titled ‘Determinants and Linkages of Rural Non-Farm Sector’, the study stated that there were a number of pre-requisites for encouraging productive non-farm employment in the rural areas. Physical infrastructure like rural link roads, electric power, communications & banking, and social infrastructure like development of educational, health and recreational facilities are very important for a vibrant rural non-farm sector. Apart from these, a dynamic agricultural sector is also a must for a non-involuntary type of non-farm employment. In fact, Punjab's development strategy lay in the direction of developing the most dominant sector i.e. agriculture and a network of small scale industries based in the urban areas using agricultural raw materials or engaged in manufacturing implements and consumer goods (Chadha, 1986a). Thus, the factors and institutional mechanisms which helped in modernization of Punjab agriculture were also indirectly responsible for the growth and development of the non-farm employment sector. We shall briefly review these indirect initiatives as under:

8.2.1 Infrastructure for agricultural development

(i) The consolidation of scattered land holdings was one of the most outstanding achievements of the state. This enabled the individual farmers to make capital investment in their holdings. For example, consolidation of holdings enabled even the small and marginal farmers to invest in sinking of tube-wells for irrigation purposes. This created backward linkages for the local rural non-farm economy in the form of provision of tube-well implements, motors, maintenance and repairs and so on. This has become an important source of non-farm employment opportunities in the state.

(ii) Expansion of irrigation facilities has been emphasized as one of the important modernizing factors determining the development of rural non-farm employment (Fabella, 1985) and the irrigation has proved to be another driving force of Punjab's agriculture since the inception of planning. Even in 1950-51, 52.30 per cent of the
The gross cropped area in Punjab was irrigated (against 17.11 per cent at the national level). Because of the massive public and private investment in the subsequent years, gross cropped area under irrigation in Punjab increased to 90.00 per cent in 1983-84, whereas at the national level, it grew only to 28.61 per cent in 1980-81. By 2005-06, percentage of gross irrigated area to gross cropped area in Punjab rose to 97.6 per cent (Statistical Abstract of Punjab, 2006). Over the years, the tube-wells (mainly electricity operated) have become the dominant source of irrigation in the state. For example, percentage of net area irrigated by tube-wells and wells increased from 36 per cent in 1950-51 to 69.31 per cent in 2005-06 (Statistical Abstract of Punjab, 2006). The high consumption demand of diesel to operate pump sets and tractors led to a chain of diesel/petrol pumps. This has opened new avenues not only for employment but also for investment in this line by the farmers/businessmen having surpluses and entrepreneurial skills. Indirectly the assured irrigation by increasing the agricultural production and huge marketable surpluses led further to a chain development of agricultural markets and resultant employment in construction of pucca markets, arhtiya shops, transportation of agricultural produce, its handling, cleaning and warehousing, etc.

(iii) Provision of electric power to the rural areas is not only very important factor in agricultural production, but has also been shown to be a significant determinant of rural non-farm employment (Shukla, 1992). The generation of power has been given a very high priority in the planned development of Punjab. The installed capacity was 680 MWs in 1970-71 generating 2364.80 million KWHs. It increased to 4376 MW generating 24642 million KWHs in 2005-06 (Statistical Abstract of Punjab, 2006). The sectoral distribution of total electricity consumed shows that the state had accorded a very high priority to agricultural development, especially after the introduction of green revolution technologies. The rural bias in power consumption is an outstanding feature of Punjab's development strategy (Chadha, 1986a). By 1981, cent per cent villages were electrified in the state as compared to 47 per cent at the national level. The increased availability of electricity in rural areas resulted in energized pump sets, power threshers, sugar-cane crushers, chaff-cutters, etc., again giving rise to and strengthening of backward linkages with rural non-farm economy.
It has been rightly said that the rapid transformation of rural economy of Punjab would not have been possible without a consistent programme of power development. (iv) Organization of farmers into cooperative societies is again important factor in the transformation of rural economy of the state. The agricultural cooperative societies provide short term agricultural loans to the member-farmers. Cooperative banks and land mortgage banks at the district level have provided much needed capital for the land development as well as purchase of agricultural implements and machinery. However, between 1970-71 and 2005-06, there is a substantial decrease in the number of primary agricultural cooperative societies in Punjab (the number decreased from 10,932 to 3978 at the two points of time). Whereas in 1970-71, 76 per cent of these societies were recording profits, only 60 per cent of these societies are making any profit in 2005-06 (Statistical Abstract of Punjab, 2006). The fact, however, is that the cooperative credit structure in rural Punjab has fully responded to the growing requirements of the new production technology (Chadha, 1986a).

As far as the total banking institutions (including the cooperative) are concerned, the number of their offices in the state increased from 1883 in 1970-71 to 7567 in 2005. Even in rural areas, the number of offices of the commercial banks has increased during 1980-2005, but in relative terms, the share of rural areas has declined. For example, of all the commercial banks' branches in 1980, a little more than one-half (51.60 per cent) branches were in rural areas which decreased to 43.18 per cent in 2000. And, in 2005, only 38.54 per cent of these branches were in rural areas of the state. It shows that commercial banks have shifted their focus from purely rural areas (of population up to 9999) to the towns and cities. If we look at the banking penetration in the state, it comes out that there were 56 branches of commercial banks in the state per thousand square kilometer of area which is much below than that of the Kerala and Goa. Though the advance-deposit percentage has increased from 35 per cent in 1970 to almost 43 per cent in 2004 and finally 56 per cent in 2006, yet this ratio is lower than in many other states like Tamil Nadu, Karnataka, Maharashtra and Gujarat (Statistical Abstract of Punjab, 2006). It clearly shows the out flow of surplus funds generated in the state which ideally should have been reinvested in the state.
8.2.2 Infrastructure for social development

(i) Rural education is very important for agricultural modernization (Schultz, 1964). Its role in promoting rural non-farm employment has also been noted (Huffman, 1980; Elbers and Lanjouw, 2001). The state has heavily invested in rural education up to the 1980. The number of recognized primary/junior basic schools (both government as well as private) has almost doubled from 7258 schools in 1971 to 13291 schools in 2005. Similarly, the middle/senior secondary schools have more than doubled in the same period (from 1060 schools in 1971 to 2481 schools in 2005). Junior Basic Training (JBT) and Elementary Teachers Training (ETT) institutes have increased from 7 to 17 during the same period. Similarly, the Polytechnic institutions have increased from 8 to 18 and Technical, Industrial, Art and Craft schools have increased in number from 37 to 105. Similarly, the institutions of higher educations have increased multifold during the last 30 years or so. Many of these new institutes especially those set up during the 2000s are in the rural or in the peripheral of urban areas because of the prohibitive land prices in urban areas. The number of professional education colleges/institutions has increased in the state from just 8 during 1981 to 13 in 1991 and 168 during 2006-07. But as far as the enrollment of rural students is concerned, the situation is really dismal in the state. The findings of two studies conducted by the Punjabi University, Patiala are worth-quotting. First study conducted across all the departments/regional centres of four universities of Punjab revealed that rural students constituted just 4.07 per cent of total students enrolled in all higher education courses run by these four universities (Ghuman et al., 2006). Second study revealed that proportion of rural students across all the professional courses run by another five universities of the state was only 3.71 per cent of total students enrolled in the professional courses (Ghuman et al., 2009). With 66 per cent of the state population residing in rural areas and sending less than 4 per cent of its children to the institutes of higher profession education courses speaks volumes about the highly iniquitous nature of the market driven educational system.

Punjab invested heavily in its school infrastructure. Approximately 93.5 per cent of the rural habitations in Punjab have an access to a primary school within a distance of 1 km, 91 per cent have an upper primary school within a distance of 3 km. Physical infrastructure in the schools, is one of the best in the country. But this
infrastructural advantage is offset to a considerable extent by its poor score on teachers and school outcomes (Ahluwalia, 2011). Further, the share of educational expenditure in the overall state budget and state income seems to suggest a declining priority in the allocation of resources to the education sector (Brar, 2008). The state is relying heavily on centrally assisted programme of *Sarv Sikhya Abhiyan*. Recently, state government has decided to set up 150 *Adarsh* schools (one each in every development block). These schools are expected to provide the best quality but affordable education to the rural students. The private sector has been invited and encouraged to build infrastructure and run these schools on professional lines. On its part, the state is to provide the land free of cost to the private entrepreneurs. Only time will tell how this heavy reliance on private sector in rural education delivers in terms of quality education.

(ii) Rural health and rural education along with agricultural modernization are said to be the main anchors of rural reconstruction and transformation of the state of Punjab (Gill and Ghuman, 2000). During the decades of 1970s and 1980s, Punjab invested a massive amount of public finds in the rural health care (Singh and Gill, 2008). Resultantly, the number of rural hospitals, Primary Health Centres and dispensaries increased dramatically from 301 in 1969 to 1509 in 1981. The most significant increase was in rural dispensaries which increased from 183 in 1969 to 1289 in 1981 (Statistical Abstract of Punjab, 1981). Rural areas of the state clearly benefited up to the mid-1980s as far as rural primary health care infrastructure was concerned. Between 1990 and 2000, however, there was a rather decline in rural health institutions. The number of rurally located hospitals, primary health centres and dispensaries declined from 1799 in 1990 to 1776 in 2000 and further to 1771 in 2006 (Statistical Abstract of Punjab, 2006). This reflects the state's withdrawal from the health services. In 2006, roughly 1300 rural dispensaries were transferred to the Zila Parishads which further allotted to these service-providers for a fixed sum for their salaries and medicines. The relative share of public health sector out of total development expenditure of the state, which was on the increasing trend during the 1970s and up to the mid-1980s, had suffered a decline during the later period (Singh and Gill, 2008).
Further, delivery of health care services in rural areas is predominantly controlled by the private providers, mostly unqualified health personnels. Even the setting up of Punjab Health Systems Corporation has been viewed as a step towards privatization of health services in the state. Decreasing public funds, rising out-of-pocket payment to get treatment and changing pattern of diseases in the state, particularly in favour of the chronic, manmade, and age related diseases are causes of concern (Kumar and Singh, 2010). These trends, in fact, led to low utilization of health services by the state’s poor and the middle classes have also been affected badly. A majority of the health infrastructure in rural Punjab has become non-functional and has shown dismal performance (Singh and Gill, 2008). A recent review of Punjab’s experience in the social services shows that the state's outcomes in the education and health related indicators are not very satisfactory (Ahluwalia, 2011).

(iii) Construction of all weathered rural roads, initiated in the sixties, made a tremendous impact on the process of rural modernization. Inter-linkages between the villages and urban areas helped in the evolution and formation of market villages. Road linkage with nearly towns made commuting easier enabling the rural dwellers to work in nearly towns without actually migrating. Due to massive investments by the state's Public Works Department (PWD) and Punjab Agricultural Marketing Board, 98 per cent of all the inhabited villages were connected by rural link roads, way back in 1981. Not a single village of Punjab is without a pucca link road now. Central or market villages have a web of link roads connecting these with the surrounding villages. The specialized rural road wings in these two above named departments ensure that these roads are repaired every four to five years.

(iv) Transport and communications have revolutionized the lives of rural people. In fact, good roads coupled with affordable bus transport facilities make the journey to work places much easy. Punjab Roadways and Pepsu Road Transport Corporation are the two state owned companies having in their reach all most all the road network. In 1975-76, there were 4126 commercial buses in the state covering more than 8 lakh kilometers daily. More than 60 per cent of the buses were state owned (Statistical Abstract of Punjab, 1981). By 2000-01, total number of buses has gone up to 6277 covering 16.26 lakh kilometers daily. Over the years, private transporters have also expended their base tremendously and by 2005-06, 60 per cent of total buses were in
the private sector (Statistical Abstract of Punjab, 2006). Mini bus service is another unique feature of rural transport in Punjab. Started in the mid-1980s to provide employment to rural young boys hit by the militant movement in the state, mini bus service has expanded manifold since then. The interior villages are mainly served by these buses.

Further, good road network has made the commuting by other means like motorcycle/scooter, cars/jeeps, etc. also very easy. We have earlier seen that almost one-third of all commuting non-farm workers in the study villages used this mode of transport. Workers employed in the high-end activities on a salaried/regular basis like in the education and other government departments mostly use this mean. It is a common sight to see husband and wife traveling on a motorcycle or scooter to their workplace (mostly schools in other villages). Many young girls teaching in schools are seen plying scooters in the country side. Very high end worker use cars/jeep as a mode of travelling. The number of passenger vehicles of all kinds like buses, trucks, cars/jeeps station wagons, , taxies, three wheelers and two wheelers has gone up substantially from 1.10 lakh in 1981 to 23.76 lakh in 2000-01 and further to 34.29 lakh in 2005 (Statistical Abstracts of Punjab, 1981, 2006). Obviously, such a large number of passenger vehicles of all hues coupled with linkage of every village with link roads make journey of workers as well as goods and services from the villages to the urban areas/Mandi towns and back to the villages much easier and comfortable.

It is thus amply clear that the state of Punjab made serious efforts in creating the right kind of environment for the growth and development of productive non-farm sector in the state. Some of the initiatives aimed directly towards it and some other were targeting other sectors of the economy, but nonetheless have contributed significantly towards the growth non-farm sectors and employment in the state.