CHAPTER - I
INTRODUCTION, REVIEW OF LITERATURE AND METHODOLOGY

1.1 Introduction

On the eve of the first plan, Indian agriculture was in a hopeless and deplorable condition. A large part of population was dependent on this sector. Our cultivators were having small and scattered holdings. They had neither the money nor the knowledge to utilize equipments, seeds and chemical manure properly. “The partition of India in 1947 caused considerable imbalance in agricultural production. With the setting up of the planning commission in 1950 and the institution of five year plans, agricultural development assumed greater significance in the matter of stabilizing the country’s economy” (Mukherjee, S.K. 1992). In spite of the fact that most of the people of our working population, i.e., farmers and agricultural labourers were engaged in cultivation, the country was not self-sufficient in food grains and facing severe food shortage. Besides, the partition of the country, at the time of independence worsened the agricultural situation as a relatively fertile agricultural area went to Pakistan.

During the First Five Year Plan, the performance of agricultural sector was more than expected. Influenced and satisfied by this performance, the Government of India changed its priority for development via the development of industrial sector under the Industrial Policy of 1956. Moreover, the Government of India got assurance by the Ford Foundation System under which the food was to be supplied under Public Law (P.L.) 480 by U.S.A. in case of any
shortage in India. However, this system could not work properly as during late fifties some constraints came into the way and our planners started changing their priority from Industrial development to include agriculture sector also (Tendulkar, S.D. 1981).

The Second Five Year Plan (1956-61) states, "development involves transfer of a part of the working force from agriculture to tertiary activities."

It was the Third Five Year Plan (1961-66) in which new strategy for agricultural development was implemented.

Bhalla, G.S. & G. Singh (2001) stated that the introduction of new seed fertiliser technology during the mid 1960's was a major breakthrough that transformed the rural scenario in India. During the early phase of the green revolution the new High Yield-Variety (HYV) technology was more or less confined to Punjab, Haryana and some districts in Western Uttar Pradesh (UP) in North-Western India. Its introduction brought about some major changes in the nature and pattern of agricultural development in India. There was a big increase both in the area under cultivation and the output of these crops resulting in acceleration in growth rates of output in the areas that had adopted the new technology.

Ledijensky, W. (1973) is of the view that green revolution had created disparity in income generated on farms of different sizes. Large farmers gained more because of their capacity to invest liberally in the new inputs. The gap between the productivity on large farms and that on small farms grew. And as a result, difference in the
income of the large farmers and that of the small farmers widened.

It is generally held that Indian agricultural economy was found to be benefited but these benefits had gone primarily to some groups of people (i.e., big farmers, commission agents, blacksmiths, etc.). Though this sector had attained miraculously development but the most deserving two classes of agricultural field, it seems, were still left unprivileged, i.e., agricultural labourers and small farmers.

It can be concluded from the above studies that under New Agricultural Strategy both intensive and extensive cultivation of agricultural activities started taking place. Green Revolution did not come in one year or two in Punjab. It was a continuous process of adopting new methods of production by different farmers at different times. Similarly with the passage of time, new techniques were continued to be implemented one by one and not in totality. So in the initial years High Yielding Varieties of seeds, fertilisers, new tubewells for irrigation were mainly adopted in this phase, (approximately up to seventies) which increased the total production and the demand for labour especially for weeding out grass, harvesting of wheat, cotton plucking, besides sowing and irrigation, etc. Actually this partial mechanisation increased the demand for labour.

It is only after almost total mechanisation due to which demand for agriculture labour decreases, e.g., use of harvesting combines, use of weedicides, pesticides, etc.

A study conducted by Singh, H.K.M. (1979), highlights that
tractor use has positive effect on employment of agricultural labour. The supply of local labour was not enough to meet the increased demand for labour in agricultural sector. Consequently, wages started rising. But because of the segmented labour market, the labour from other states, e.g., Uttar Pradesh, Bihar and Rajasthan started migrating to Punjab. The abundant supply of labour hit badly the phenomenon of potential wage rising. Perhaps, not satisfied with very slow rising wage rates the native labour started withdrawing from the agriculture to shift to some non-agricultural activities.

Regarding the history of agriculturist labour, Mamoria, C.B. states (1976) that one of the most disquieting features of the rural economy of India has been the growth in the number of agricultural workers (cultivators and agricultural labourers) engaged in crop production. The phenomenon of under-employment, under-development and surplus population are all simultaneously manifested in the daily lives and livings of agricultural labourers.

Regarding the peculiar characteristics of agricultural labour, Pandhi, K. (2007) describes agricultural labour as unorganised. Unlike industrial labour, agricultural workers need not work in union. A lack of contact between workers makes it impossible to develop any meaningful organisation. Agricultural workers being mainly unskilled and do have less bargaining power.

So far the number of agricultural proletariat is concerned; it has increased tremendously during the last years.
The corresponding figures for 1951 were 70 million cultivators and 28 million agricultural labourers. This implies an increase of 43.00 per cent and 14.00 per cent in the two categories. According to Census (1961), the total number of agricultural workers engaged in crop production was 131 million, of whom 99.5 million were cultivators and 31.8 million agricultural labourers.

Table 1.1: Growth of Agricultural Labour in India

<table>
<thead>
<tr>
<th>Year</th>
<th>Number (Millions)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1951</td>
<td>27.3</td>
</tr>
<tr>
<td>1961</td>
<td>31.5 (1.44)</td>
</tr>
<tr>
<td>1971</td>
<td>47.5 (4.19)</td>
</tr>
<tr>
<td>1981</td>
<td>55.5 (1.56)</td>
</tr>
<tr>
<td>1991</td>
<td>74.6 (3.00)</td>
</tr>
<tr>
<td>2001</td>
<td>107.4 (3.71)</td>
</tr>
</tbody>
</table>

Note: Figures in brackets are the compound growth rates.

Regarding the growth of agricultural labour in India, data in Table 1.1 show the fact that the number of agricultural workers in Indian economy had been increasing. The data also reveal that the growth rate of agricultural labour has shown rise from 1.44 per cent in 1961 to 4.19 per cent in 1971 which may be the outcome of adoption of new agricultural strategy but this rate declined to 1.56 per cent in 1981 and it again increased to 3.00 per cent in 1991 which further witnessed the rise by 3.71 per cent in 2001.
Table 1.2: Percentage of Agricultural Labourers to Total Workers

<table>
<thead>
<tr>
<th>Year</th>
<th>Punjab</th>
<th>India</th>
</tr>
</thead>
<tbody>
<tr>
<td>1981</td>
<td>22.20</td>
<td>25.10</td>
</tr>
<tr>
<td>1991</td>
<td>23.80</td>
<td>26.10</td>
</tr>
<tr>
<td>2001</td>
<td>16.40</td>
<td>26.70</td>
</tr>
</tbody>
</table>

Source - Census of India 2001, Series-4, Punjab, Provisional Population Totals

Similarly the proportion of agricultural labourers to total workers in India indicates rising trend in Table 1.2. It is clear from data that this proportion was 25.10 per cent in 1981, which further increased to 26.10 per cent in 1991 and it was observed grown to 26.70 in 2001. Unlike in case of India, this proportion highlights sharp decline by the year 2001 in Punjab state. Though, this proportion increased from 22.20 per cent in 1981 to 23.80 per cent in 1991 but it decreased to the level of 16.40 per cent in 2001, indicating the change in structure of employment in rural Punjab.

Regarding the causes of growth of agricultural labour, Mukherjee (1930) says, every circumstance, which has weakened the position of the small holder has increased the number of agricultural labourers viz., the loss of common rights in the rural economy, the disuse (abandonment) of collective enterprise, the sub division of holdings, the multiplication of rent receivers, free mortgaging and transfer of land followed by a decline in cottage industries.

According to Dutt, G. (1996), "Unlike the industrial worker, the agricultural labour is not organised". His employment is more a matter of personal whim of the employer. The employer frequently exploits the situation. Wherever, the labour has been organised as in Kerala the results were generally encouraging.
A study done by International Labour Organisation (ILO) (1991) states, "the state in India has generally been lukewarm to the problems of agricultural labourers. In some other countries where similar situations arose, the respective governments intervened to protect the interests of labourers by adopting both restrictive and promotional measures. Restrictive measures have generally taken the form of legislation so framed that it could ensure minimum wages and tolerable living condition. Promotional measures have taken the form of imparting training and skills besides exploring alternative employment opportunities for agricultural labourers in India, the State has been aware of this widespread and serious problem. It has not done much beyond enacting legislation to protect the interests of the labourers, except perhaps in Kerala".

There is no unanimity regarding the definition of agricultural worker and agricultural labour family. The First Agricultural Labourer's Enquiry Committee (1952) defines an agricultural labourer as a person who for more than half of the total number of days on which he actually works during the year is engaged in agricultural operations as a hired labourer. Whereas, an agricultural labour family is defined as "One in which either of the family or 50.00 per cent or more of the earners report agricultural labour as their main occupation".

The Agricultural Labour Enquiry Committee (1955), differentiated between the "attached" and "casual" workers. The former are those who are under some sort of contract with the employers. While the latter are free to leave one job for another, whenever, they please and they are paid at the market rate.
The Second Agricultural Labour Enquiry Committee (1956-57) has defined agricultural labour as one who is employed not only in crop production but also in hired employments in other agricultural occupations such as dairy farming, horticulture, raising of live stock, bees, poultry etc. While an agricultural labour family was defined as a family, which derived the bulk of its income from agricultural wages.

The above findings relating to agricultural labour explore the growing trend of agricultural labour, describe the causes of growth and also explain the term ‘agricultural labour’.

1.2 Review of Literature

The present study is concerned with the ‘dynamics of occupational change of agricultural labour in Punjab. The review of literature presented in the following pages will be limited to the relevant studies related to the field selected for study.

Related to labour surplus economies, withdrawal of agricultural labour from agriculture sector may or may not affect the output growth rate adversely as Schultz, T.W. (1964) has sited the fact that output in India declined with a decline in the agricultural working population due to an influenza epidemic. As he has put in the proof that surplus labour in agriculture was not a true doctrine.

Regarding the surplus labour in agriculture, Mehra, S. (1966) states that the excess of actual over the required work force on farms constitutes such surplus population on farms. She also points out that the same workers, however, may be engaged in non-agricultural activities like household industry and may thus be performing a productive activity but they are surplus in respect of agriculture.

Concerned with the problems of agricultural labourers, the
Fourth Five Year Plan (1968) reports that in many parts of the country, the agrarian economy is unable to provide continuous work throughout the year. The slack season extends from 3 to 6 months, which creates seasonal unemployment in the economy.

Bardhan, P. (1970) made an attempt to examine the impact of the green revolution on the agricultural labourers. The author concluded that, at the end of the sixties more than 70.00 per cent of rural population was living below poverty line. The percentage of rural households below the bare minimum acceptable level of living apparently doubled during the sixties in rural India as a whole.

Regarding the mechanisation of agriculture, Billings, M.M. and A. Singh (1971) conducted a study on the impact of technological changes on human labour demand in Punjab and Maharashtra states representing developed and under developed regions in India based on the extent of new farm technology. The adoption of new farm technology such as area under high yielding varieties, power system of irrigation and use of power thrashers, reapers and tractors, etc. was higher in Punjab and its cumulative effect on human labour demand was assessed to be labour replacing by 5.5 per cent during 1968 – 69.

Impact of green revolution on landless labour has been examined by Aggarwal, A.N. (1971). The author found that with the advent of green revolution, large farmers were becoming prosperous. They were investing in capital-intensive equipment in order to enhance their direct control over agriculture. The labourers, on the other hand, had been losing out in several ways because demand for their traditional services decreased, availability of land on crop sharing basis reduced and alternative employment opportunities
remained behind requirements. Consequently, the two classes were becoming polarized and increasingly antagonistic to each other.

Rao, C.H.H. (1974) brings out the favourable as well as unfavourable objectives of new technologies on employment. He states, "If the green revolution is regarded as a package consisting of HYV and fertilisers, its contribution to employment has been substantial. Also, tubewells seem to have contributed significantly to the employment of labour".

Herdt, R.W. and R.A. Baker (1972), concluded on the basis of their study that in most parts of India, increases in the demand for labour, as a result of new technology, which was more labour intensive, were not accompanied by the increase in the agricultural wages because supply curve of labour came to be perfectly elastic at the point of intersection with the demand curve in these regions but increase in employment was marginal. However, in some regions, especially Punjab, Kerala and Tamilnadu, the supply curve of labour near the point of intersection with the demand curve was not found perfectly elastic.

Lal, D. (1976) states that the real income of agricultural workers has increased over the year 1956-57 to 1970-71.

Bhalla, G.S. (1979) undertook a study on the real wage rates of the agricultural labourers in Punjab from 1961 to 1972. He found that there was a race on, between rising farm productivity and an increasing labour force. During the given period, the rise in money wages remained behind price changes, leading to reduce wage rates for most operations between 1965 and 1968, and again during 1974, 1975 and 1977 except in harvesting.
Singh, G. (1980) found that even though the green revolution was ushered in Punjab in the mid-sixties, the condition of agricultural labourers in Ludhiana district had not improved because a large section of them was still living below the poverty line.

NCAER study (1980), found that after adoption of new agriculture strategy (NAS), there was huge introduction of machinery like tractor and other equipments etc., which created employment opportunities in non-agricultural sectors due to the backward linkages. Factories concerned with manufacturing of agricultural machinery and its supporting units provided employment to more workers.

Joshi, P.K. and others (1981) assessed the effect of technical change on direct employment in Uttar Pradesh agriculture. They also found that tractor technology and cropping pattern shift had a negative effect on employment between 1966-67 and 1977-78. Whereas, the effect of other technologies like irrigation and high yielding varieties and that of increase in cropping intensity was observed to be having positive effect on employment during the said period.

Oberoi, A.S. and H.K.M. Singh (1983) conducted a study on the rural–urban migration in the green revolution belt, selecting Ludhiana of the Punjab state. The study brought out that because of the process of migration, Punjab was gaining illiterate /low educated population and that the out-migrants have a relatively higher level of education having socio-political implications for rural areas.

Jayashanker, K. and K.V. Narayana (1983) have organized a study of Wrangal district in Andhra Pradesh on the wages and
conditions of the agricultural labourers under modern agriculture. The authors observed that the increased demand for labour owing to the adoption of new technology was evidently absorbing certain amount of unemployed rural labour with marginal increase in their wages. The change in the real wage rate was non-significant.

Bhalla, S. (1987), attempted to examine both temporal and spatial changes in the absorption of human labour in agriculture in different regions of India during post green revolution period (1971-72 to 1983-84). On the basis of her study she concluded that due to the rapid adoption of labour saving technology, human labour use in Indian agriculture in the coming decades was bound to decrease.

Ravenstein, E.G. in two articles entitled "the laws of migration", published in 1985 and 89, has suggested that all migration emanates from low productivity areas and proceeds towards high productivity areas. Migrants from the rural areas frequently move first to nearby towns, if any, and then to large towns and cities. He observes that between the rural and urban people, the latter are less migratory than the former and migration is positively related to the growth of trade and industry.

Kahlon, A.S. and N.J. Kurien (1983) examined the impact of technological progress on labour absorption, productivity and returns to labour in Indian agriculture in the wake of green revolution in mid-sixties. They analysed the data on wheat cultivation from 1970-71 to 1979-80 for major wheat-producing states, namely, Punjab, Haryana and Madhya Pradesh. The study observed a declining trend in the intensity of labour use almost in all the states. This decline came to be the highest in the Punjab.
Parthasarthy, G. (1988) has estimated the daily money wages in 1984-85 to be broadly between Rs. 6 and Rs.11 (except in Punjab, Haryana and Kerala where they were higher), as against this, the minimum wage required to maintain a basic minimum standard of living was Rs. 22 per day. With the advent of green revolution, money wage rates started increasing. However, as prices also increased considerably the real wage rates did not increase much.

It has been generally said that increases in output did lead to increase in real wages in some states but such spurt in real wages has been of a short duration and there is hardly any state which managed to maintain sustained increase in wage over a period of three decades from the mid - 1960s onwards. A study by Unni, J. (1988) shows that between 1964-65 and 1974-75 daily real wage earnings of adult males actually declined at the All India level and in most of the States (except in Karnataka, Punjab and Uttar Pradesh).

Sidhu, R.S. and S.S. Grewal (1990) analysed the demand for labour in tractor-operated farms and bullock operated farms in Punjab. They brought out that contrary to the belief that tractor displaces labour, the intensity of human labour use was found to be higher by 1144 man hours per hectare on tractor operated farms than 1099 man hours on bullock operated farms. The increase in farm size, use of weedicides and low wages were found to have negative influence on human labour demand in the state agriculture.

Papola, T.S. (1994) accomplished a study on ‘employment growth and social protection of labour in India’ and found that in rural sector of India, the increase in ‘casualisation’ primarily directs the phenomenon of occupational shift of workforce from agricultural to
non-agricultural activities. The phenomenon of major shift from agricultural to non-agricultural activities need to be given special attention for drawing implication regarding the improvement and worsening of employment situation accompanying the overall process of ‘casualisation’ in rural areas. He further noted that one is not compelled to move away from self-employment in agriculture, unless the income situation is likely to improve. He indicated that ‘casualisation’ that is taking place in rural India is a positive process induced by higher earnings outside agriculture. Still employment pattern continue to be dominated by agriculture sector, on the other side the growth in non-agricultural sectors particularly, industrial sector has not been employment intensive. Overall organised sector remained slow in creating new job opportunities.

Johl, S.S. (1995), states that when there was an active demand in the market, the benefits of higher prices were almost completely absorbed by the middlemen and the new demand signals never conveyed to backwards.

Jha, P. (1997) concludes that the rural workforce structure had more or less remained unchanged for the first two and a half decades since independence, and subsequently, it started shifting to the non-agricultural occupations; it reached the highest level ever in 1989-90. During the 1990s, this trend has suffered a reversal contraction in the rural non-farm activity means shrinkage in whatever employment opportunities had opened up in this sector for members belonging to agricultural labour households, thus having a depressive effect on their income.

The deterioration in living of standard of agricultural labour
households is expected due to the falling agriculture share in the state. Casualisation is on rise among both female and male labourers, while male labourers are more prone (Rao, K.H. 1998).

Regarding determinants of occupational change, a study conducted by Pal, S. and J. Kynch (2000) reveals that the major causes remained behind occupational change in rural India were being male, from larger farming families or having higher schooling experience.

The study conducted by Sidhu, H.S. and J.S. Toor (2002) states that there were altogether 147 non-farm activities in which the agricultural labour households were engaged. Rural Non Farm Activities (RNFAs) were emerging as an alternative in the state of Punjab.

In his paper ‘Employment Oriented Development’, Bharat, T. (2002) described that the sharp rise in unemployment in the country originates from large-scale structural adjustment in some previously over employed sectors. The RNFS has significant potential for absorbing rural labour.

Mahajan, R. K. (2002) states in his study that the green revolution was hugely successful only till 1970s after which agricultural growth in Punjab started decelerating. The cost of production per unit of agriculture increased, the profit margin decreased and the real wages of rural agricultural workers became stagnant.

Gosh, J. (2003) in his paper ‘Whatever happened to farm employment’, indicates that the growth of agricultural employment by usual status fell from an annual rate of 2.08 per cent in the period
1987-88 to 1993-94 and shrank to 0.8 per cent in the period of 1993-94 to 1999-2000. The paper also throws light on the reasons of decline in the farm employment. The labour saving technologies and pattern like mechanization and shifting of cropping pattern (Especially towards horticulture at the margin in some areas) might have decreased the demand for labour. On the other side, the increase in non-agricultural work has been much less than the decline in agricultural employment.

Employment opportunities in agriculture sector are seasonal in nature. To meet the increasing requirements of the family, one has to seek better options of employment, specially, when rural poor is not well equipped financially. A work named, ‘Study of financial status of rural poor: Report of the pilot study in Udaipur district’ (Sriram, M.S. and S. Parhi 2004) highlights that though rural households had income both from agricultural and non-agricultural sources, however, the income from non-agricultural sources remained higher than from agriculture. A large number of people of the selected area for study go to nearby urban centres for work as this fetches them regular cash as against the seasonal flaws in agriculture.

Saxena, M. (2004) briefly assessed that the share of labour force in agriculture to the total labour force has been showing the declining trend since 1970s. The problem of unemployment and poverty was arrested by RNFS. Besides, the study also revealed that technological advancement along with institutional changes in agriculture sector will lead to further shrinking of employment and convert the under-employed into openly unemployed seeking work elsewhere. Some of them may opt to migrate to urban areas to find some work, but the
need is to diversify the economy into RNFA to provide productive employment to rural labour force as it may help in arresting migration from rural to urban areas also.

Pandhey, M.K. (2004) stated that non-agricultural self-employment jobs have increased due to globalization. Due to non-availability of jobs several people are forced to do some jobs on their own to earn a very low earning living, which has reduced the quality of job.

Ramaswami, C. (2004) explains that mechanization complements modern varieties to realize the production potential, the spread of modern varieties induced labour saving technologies such as use of tractors, threshers and farm equipments and their easy availability due to the custom of hiring, facilitated even small farmers to adopt these technologies. The proposition that the labour saving technologies like tractors had expanded rapidly and they were substituted for human and bullock labour is partially supported by statistical evidences. The share of human labour cost in paddy production remained almost constant but decreasing in recent years over the three decades ending 2001.

The workforce pushed out from agriculture does not get absorbed elsewhere. ‘Manufacturing’ and ‘service category’ are just not able to accommodate it (Mehta, J. 2004).

The structure of employment in rural Punjab has witnessed notable changes due to growth of economy during past few decades. There is no denying the fact that the rural workforce employed in agricultural sector is declining gradually (Kaur, D. 2004).

Mis, T. and R. Kata (2005) in their paper, ‘Conditions of non-
agricultural enterprises in rural areas in a structurally dispersed region' show that the problem of unemployment in rural areas can be alleviated with the development of non-agriculture enterprises, which further may also avoid uncertainties linked with making structural economic changes in rural areas.

Gopalappa, D.V. (2005) in his study ‘Rural Non-Farm Employment (RNFE) in Karnataka’ found out that RNFE generation depends on two factors, first the rapid agricultural growth would have direct impact on it basically with the development in processing sector and by creating demand for inputs such as fertilizers, etc. Second, the shifting of people to non-farm activities can also be the result of poverty related factors, such as unemployment, low agricultural wages. He also stated that when rural poor is unable to gain productive employment in agriculture, he/she seems to be insisted upon to take up RNFAs. He revealed this phenomenon as ‘distress diversification’, i.e., diversification into unproductive and low paid non-farm jobs especially caused when under-employment in agriculture is high.

Chen, M.A. (2005) found out that in India except in its modern commercial areas, the sidewalks are lined by barbers, cobblers, vendors of vegetables, rickshaw-pullers, auto-rickshaw drivers, casual or day labourers in construction and agriculture, etc. Most of the workers in all these categories of work are informally employed without secure contracts, worker benefits or social protection and formal recognition. The informal economy is growing and it is not a traditional phenomenon but a feature of modern capitalistic development, associated with both growth and global integration.
Beams, N. (2006) affirmed that many countries (like China, India, Russia) besides achieving high levels of growth are facing serious unemployment problems. Gradually, the proportion of non-regular workers in total employment is increasing in Asia. The main reason behind this was increase in the effective size of the global labour force had not been accompanied by a surge (flow) in capital for investment.

Related to exploitation of local agricultural labour by farmers, Verma, A.K. (2006) explains that “the dark side of the picture emerges when it is reported by 99.32 per cent of the local agricultural labourers that they are never paid by the farmers for extra work done”.

Agriculture sector in India accounts for almost 60.00 per cent of aggregate employment in India. 97.00 per cent workers of agriculture hail from rural sector. The rate of growth of agricultural employment is abysmally low (.006 per cent) and was insignificant during the 1990’s. The agriculture sector almost stopped absorbing more labour in it and it is found that there have been mixture of the both push as well as pull factors being responsible for these changes in employment in agriculture sector (B. Jha 2006).

Bhaumik, S.K. (2007) states that “the rural work force flocked during the post reform period whenever the prospects of farm employment dwindled like present phase of agrarian crisis in India. The recent spurt in rural non-farm employment seems to have occurred due to slack in farm sector employment. In any case, the rural non-farm sector in India appears to have been the sector of 'last resort' to the growing workforce, and it would remain so in future too
unless there is marked improvement in employment opportunities in the farm sector.”

Regarding adoption of non-ancestral occupations, Singh, G. (2007) found that people from all castes adopted non-ancestral occupations as 40.00 per cent each from SC (Ramdasia) and SC (Mazhabi) reported leaving their ancestral occupations in a sampled village, basically due to education and new technology in the field of transportation, etc.

During our preliminary survey before actual survey we found that some of the workers who withdraw from the agricultural sector also get the work away from their villages. In some cases workers migrate to the new work place. That is why it becomes desirable to know about the dynamics/features of their migration.

Gladys, K. B. (1964) highlights that “more than one half of the farm population age 10-19 in 1940 had left the farm by 1950. About 40.00 per cent of the age 20-24 in 1940 migrated prior to 1950. However, less than 20.00 per cent of those 30-49 years old in 1940 migrated from the farm during the subsequent decade.”

Sjaastad, L.A. (1962) brought in the concept of human capital to explain the phenomenon of migration. This model assumes that people will migrate when the benefits arising out of migration outweigh the costs involved in the process.

In an article, lewis (1954) suggested a model based on transference of surplus labour which was later extended by Fei and Ranis (1963). This model looks upon migration as essentially an equilibrating mechanism which shifts labour from labour - surplus agriculture sector to labour - deficit capitalist sector areas with the
help of market forces and eventually brings equilibrium between the two areas.

Subsequent developments in the theory of migration begin with the Todaro, M.P. (1970) model that was evolved by the author in 1969 and developed further by him individually and in collaboration with Harris (1970). A major step Todaro took was to incorporate the probability of getting an urban modern sector job in the decision-making process. According to Todaro migration is a direct function of the rural urban income differential and indirect function of the difficulty of getting a modern sector job.

Fuller, G. and M. Chapman (1974) highlighted that rural urban migrants are comparatively apt to have made previous visits to the cities, and have friends and relatives in those cities, thus acquiring both contacts and information about opportunities that are available.

Dasgupta, B. (1978) states that an important development in the field of migration is rural to rural migration, which is the result of the introduction of new agricultural technology based on the use of high yielding varieties of seeds and chemical fertilisers in specific areas. The development has necessitated large inflows of labour, some seasonal but comprising permanent settlers also.

Another approach that places migration in the wider context of overall development of the economy is that of the World Bank (1978). This approach is based on the idea that different sectors of rural and urban areas are interconnected by systems of backward and forward linkages. Through such linkages, development in rural areas influences economic activities in urban areas. Agricultural development is associated with increased demand for farm inputs;
this backward linkage results in the growth of such urban activities as production and distribution of farm implements and machinery, fertilizer, new seed varieties, credit and other related inputs. Forward linkages include transport and storage of agriculture commodities, food and other agricultural-processing activities and, wholesaling and retailing of agriculture-based products.

Many empirical studies have been done, related to agricultural labourer's problems, in the context of mechanisation of agriculture and migration from one place to another. But these studies did not focus on the withdrawal of agricultural labour in Punjab especially in Bathinda and Jalandhar districts or if any, have become redundant with the passage of time. Hence, it is desirable to undertake a study on "Dynamics of Occupational Change of Agricultural Labour in Punjab: A Study of Bathinda and Jalandhar Districts" and that is why we have selected the problem to probe it in detail by mainly using primary data.

1.3 Importance of Study

The green revolution almost affected each and every aspect of households concerned with agriculture sector in Punjab. It is generally held that production and productivity of Punjab agriculture increased manifold. Again in Punjab, all the sections related to agriculture sector were not equally benefited (Ledijensky, W. 1973). It seems that agricultural labour did not get its due share in the increased income of the agriculture sector and started shifting to non-agricultural occupations. Hence, it becomes desirable to know that how and why agricultural labour changed their occupation in the context of changing socio-economic scenario in Punjab.
1.4 Objectives of Study

The specific objectives of the study are as under:

i) To know the structure of employment of withdrawn agricultural labour.

ii) To find out the various causes of occupational change by the agricultural labour.

iii) To examine the various types and locations of new occupations joined by the withdrawn agricultural labour.

iv) To know the different attributes of withdrawn agricultural labour and making inter and intra district comparisons.

v) To make suggestions, if any, on the basis of the study.

1.5 Methodology and Sampling Design

1.5.1 Selection of Districts

Bathinda and Jalandhar districts have been chosen on the basis of various socio-economic parameters for studying the selected theme. The proportion of agricultural labourers in the agriculture sector to the total workers in Bathinda district was 21.20 per cent, whereas, it was 11.00 per cent in Jalandhar district. Apart from it, the proportion of Household Industry (HHI) workers to the total workers in Jalandhar district was observed 4.20 per cent, on the other hand in Bathinda district it was 2.70 per cent in 2001. Further, the proportion of urban population to total population in Jalandhar district was 47.45 per cent, but it emerged to be relatively lower at 29.78 per cent in Bathinda district, whereas, it came to be at the highest equal to 55.80 per cent in Ludhiana district and at the lowest, i.e., just 19.66 per cent in Hoshiarpur district in 2001 (Government of Punjab, Census
Besides, per capita income in Jalandhar district was found Rs. 15719.00 (per annum), whereas, it came to be Rs. 14091.00 (per annum) in Bathinda district in 2002 (Government of Punjab, E.S.O. 2003). Moreover, the rural literacy rate of Jalandhar district was estimated 73.90 per cent and it was ascertained 55.10 per cent in Bathinda district, whereas, the overall literacy rate of Punjab was 64.70 per cent in 2005 (Government of Punjab, Statistical Abstract of Punjab 2006).

The information regarding socio-economic parameters of both the districts revealed that the district Jalandhar was comparatively more developed than Bathinda district in Punjab. Hence, both the districts may serve to a substantial extent as true representatives of the Punjab state.

1.5.2 Selection of Villages

One village from each sub-division of both the districts, i.e., Bathinda and Jalandhar was taken for primary study. The number of sub-divisions in Bathinda district is three, whereas, in Jalandhar district it is five. Hence, the total number of selected sampled villages was eight in both the districts.

Firstly, all the villages of each district were divided into two parts, i.e., first part consisted of villages, which were located relatively nearby the main city (district head quarter) of the area and the another part constituted the villages that were situated comparatively far from the same city, as it was tentatively observed in preliminary survey related to this study that the extent of occupational change of local agricultural labour was stimulated by their proximity to the
The number of the villages that fell into the category of villages that were located nearby the main city was small as compared to the number of villages that were located relatively far from the same city in both of the districts. Therefore, in Bathinda district, only one village ‘Lehra Khana’ (18 Kms away from Bathinda city) has been drawn randomly from Bathinda sub-division to represent the first part of villages (i.e., located relatively nearby Bathinda city). Subsequently, two more villages, i.e., ‘Malwala’ (30 Kms away from Bathinda city) and ‘Dyalpura Bhai Ka’ (50 Kms away from Bathinda city) were chosen randomly from Talwandi Sabo and Rampura Phul sub-divisions, respectively, representing the second part of villages (i.e., located relatively far from the same city). Since most of the villages of Bathinda sub-division are located nearby Bathinda city than any other villages of the remaining sub-divisions (Talwandi Sabo and Rampura Phul). Consequently, one village each from Talwandi Sabo and Rampura Phul sub-divisions was drawn randomly to represent the villages located far off from the Bathinda city. Moreover, Bathinda sub-division has the major industrial set up, e.g., Guru Nanak Dev and Guru Gobind Singh Thermal Plants, the National Fertilizers Limited, the Milk Plant, Bathinda Chemicals Limited, Grasim Industries Limited, Birla Plus Cement Unit, Dhillon Oils and Fats Private Limited, Vardhman Polytex Limited, etc. and other economic and social infrastructural facilities like, roads, large marketing facilities and educational institutions, etc. On the other hand, Talwandi Sabo and Rampura Phul sub-divisions did not have
advantage of either major industrial set up or other important infrastructural facilities. The one and only major industry away from Bathinda, i.e., ‘Oil Refinery’ by Hindustan Petroleum Corporation is yet to be completed in Talwandi Sabo sub-division. Likewise, in Jalandhar district, two villages, i.e., ‘Sarai Khas’ (08 Kms away from Jalandhar city) and ‘Patara’ (12 Kms away from Jalandhar city) have been selected randomly from Jalandhar-II and Jalandhar-I sub-divisions, respectively, to represent the villages located relatively nearby the main city, i.e., Jalandhar. Similarly, three more villages namely ‘Bir Baloki’ (40 Kms away from Jalandhar city), ‘Bilga’ (45 Kms away from Jalandhar city) and ‘Kang Kalan’ (60 Kms away from Jalandhar city) have been chosen randomly from Nakodar, Phillaur and Shahkot sub-divisions, respectively, representing the villages that were situated relatively far from the same city. It was justifiable to take one village each from Jalandhar-II and Jalandhar-I sub-divisions to represent the villages having nearby location to the Jalandhar city, since most of the villages of these sub-divisions were located nearby this city as compared to villages of the remaining sub-divisions (Nakodar, Phillaur and Shahkot). Moreover, these sub-divisions have got relatively major industrial hubs comprising Sports Goods Industry, Hand Tool Industry, Auto Parts Industry, Rubber Goods Industry, Surgical Instruments Manufacturers, etc., and contain good economic and social infrastructural facilities, thereby, causing concentration of economic activity in this area as compared to the Nakodar, Phillaur and Shahkot sub-divisions that led the group of villages located distantly from Jalandhar city.
1.5.3 Selection of Withdrawn Agricultural Labour Households

With the help of village panchayats, related officials and some prominent villagers having information about occupations of people of the village, a complete list of Withdrawn Agricultural Labour Households (WALHs) was prepared. By adopting stratified random sampling technique, they were categorized on the basis of strata of employment adopted, i.e., Government/semi Government service, industrial sector, independent occupations started taking financial help, independent occupations started without financial help and other occupations such as helpers to mason, helpers in workshops/shops, etc. Finally, 10.00 per cent of the data of each category of employment was drawn as sampled WALHs. A detailed schedule-cum-questionnaire was prepared for collecting required information from the workers (households) in the eight sampled villages. Table 1.5 portrays total number of sampled households drawn from each selected village. It depicts that 10.00 per cent of the total households were selected for this study from each of the eight villages on the basis of stratified random sampling.

1.5.4 Time Period of Study

During the preliminary survey, we found that in Bathinda district, the total number of agricultural labour households that changed their occupation, were negligible before 1990, while a major shifting took place during mid 1990s, whereas, in Jalandhar district, the occupational shifting of agricultural labour households was at the highest in late 1980s, though they kept on shifting in the 1990s and so on. Hence, the time period taken to study this problem relates to
1990-91 to 2005-06. Data for the present study were collected in the year of 2006-07.

1.6 Concepts and Definitions

Agricultural Labour Household

We have taken agricultural labour household as defined by Agricultural Labour Enquiry Committee (1956), i.e., a household that derives bulk of its income from agricultural wages known as agricultural labour household. In this study, word ‘households’ is also used as labourers and workers and it is assumed that head of the family represents the whole family.

Migration

Migration is a permanent/semi permanent change of residence by an individual, household or a group (The New Encyclopedia Britannica, 1974).

Out-Migrant

Out-migrant is a person who has gone away to some other place, to live or work there (Singh, K., 1991).

In-Migrant

In-migrant is a person who has born elsewhere and has come to live or work in his present place of residence (Singh, K., 1991).

Household

A household consists of members of a family who partake of meals on the same kitchen (Government of Punjab, 2002, Statistical Abstract of Punjab).
1.7 Chapter Scheme

Chapter I discusses introduction, review of literature and methodology, chapter II examines the structure of employment, chapter III analyses the causes of occupational change, chapter IV discusses types and locations of new occupations, chapter V analyses the attributes of withdrawn agricultural labour, besides, summary, main conclusions and suggestions based on the study have been set forth in the last chapter, i.e., chapter VI.
### Table 1.3: Socio-Economic Profile of Sampled Villages-I

<table>
<thead>
<tr>
<th>S. No.</th>
<th>District</th>
<th>Sub-division</th>
<th>Village</th>
<th>Total Population (as per Census 2001)</th>
<th>Location</th>
<th>Distance from District H.Q.</th>
<th>Nearest Industrial Hub/Market Area</th>
<th>Focal Point</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Bathinda</td>
<td>Bathinda</td>
<td>Lehra Khana</td>
<td>2063</td>
<td>Link Road</td>
<td>18 Kms</td>
<td>Bhuco Mandi (3 kms) &amp; Bathinda (18 kms)</td>
<td>No</td>
</tr>
<tr>
<td>2.</td>
<td>Bathinda</td>
<td>Talwandi Sabo</td>
<td>Malwala</td>
<td>2394</td>
<td>Link Road</td>
<td>30 Kms</td>
<td>Sangat (15 kms) &amp; Rama Mandi (15 kms)</td>
<td>No</td>
</tr>
<tr>
<td>3.</td>
<td>Bathinda</td>
<td>Rampura Phul</td>
<td>Dyalpura Bhaika</td>
<td>4554</td>
<td>Main Road</td>
<td>50 Kms</td>
<td>Bhagta Bhai (5 kms) &amp; Rampura Phul (25 kms)</td>
<td>No</td>
</tr>
<tr>
<td>4.</td>
<td>Jalandhar</td>
<td>Jalandhar-II</td>
<td>Sarai Khas</td>
<td>7055</td>
<td>Link Road</td>
<td>08 Kms</td>
<td>Jalandhar (8 kms) &amp; Kartarpur (5 kms)</td>
<td>No</td>
</tr>
<tr>
<td>5.</td>
<td>Jalandhar</td>
<td>Nakodar</td>
<td>Bir Baloki</td>
<td>1448</td>
<td>Link Road</td>
<td>40 Kms</td>
<td>Nakodar Mehatpur (5 kms)</td>
<td>Yes (Baloki)</td>
</tr>
<tr>
<td>6.</td>
<td>Jalandhar</td>
<td>Phillaur</td>
<td>Bilga</td>
<td>9821</td>
<td>Link Road</td>
<td>45 Kms</td>
<td>Ludhiana (40 kms) &amp; Jalandhar (45 kms)</td>
<td>No</td>
</tr>
<tr>
<td>7.</td>
<td>Jalandhar</td>
<td>Jalandhar-I</td>
<td>Patara</td>
<td>2450</td>
<td>Near Main Road</td>
<td>12 Kms</td>
<td>Jalandhar Cantt (6 kms) &amp; Rama Mandi (6 kms)</td>
<td>Yes</td>
</tr>
<tr>
<td>8.</td>
<td>Jalandhar</td>
<td>Shahkot</td>
<td>Kang Kalan</td>
<td>1255</td>
<td>Link Road</td>
<td>60 Kms</td>
<td>Nakodar (30 kms) &amp; Lohian (6 kms)</td>
<td>No</td>
</tr>
</tbody>
</table>

Source: Primary Survey
Table 1.4: Socio-Economic Profile of Sampled Villages-II (as per 2001)

<table>
<thead>
<tr>
<th>S. No.</th>
<th>District</th>
<th>Sub-division</th>
<th>Village</th>
<th>Total Population</th>
<th>Literacy Rate</th>
<th>Proportion of main workers</th>
<th>Work Participation Rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Bathinda</td>
<td>Bathinda</td>
<td>Lehra Khana</td>
<td>2063</td>
<td>59.50</td>
<td>48.60</td>
<td>53.30</td>
</tr>
<tr>
<td>2.</td>
<td>Bathinda</td>
<td>Talwandi Sabo</td>
<td>Malwala</td>
<td>2394</td>
<td>42.20</td>
<td>36.50</td>
<td>49.20</td>
</tr>
<tr>
<td>3.</td>
<td>Bathinda</td>
<td>Rampura Phul</td>
<td>Dyalpura Bhaika</td>
<td>4554</td>
<td>53.50</td>
<td>26.70</td>
<td>33.90</td>
</tr>
<tr>
<td>4.</td>
<td>Jalandhar</td>
<td>Jalandhar-II</td>
<td>Sarai Khas</td>
<td>7055</td>
<td>83.50</td>
<td>47.20</td>
<td>48.10</td>
</tr>
<tr>
<td>5.</td>
<td>Jalandhar</td>
<td>Nakodar</td>
<td>Bir Baloki</td>
<td>1448</td>
<td>70.40</td>
<td>52.60</td>
<td>52.70</td>
</tr>
<tr>
<td>6.</td>
<td>Jalandhar</td>
<td>Phillaur</td>
<td>Bilga</td>
<td>9821</td>
<td>74.30</td>
<td>27.80</td>
<td>34.00</td>
</tr>
<tr>
<td>7.</td>
<td>Jalandhar</td>
<td>Jalandhar-I</td>
<td>Patara</td>
<td>2450</td>
<td>82.10</td>
<td>25.40</td>
<td>31.50</td>
</tr>
<tr>
<td>8.</td>
<td>Jalandhar</td>
<td>Shahkot</td>
<td>Kang Kalan</td>
<td>1255</td>
<td>67.30</td>
<td>30.40</td>
<td>32.50</td>
</tr>
</tbody>
</table>

## Table 1.5: Number of Sampled Households

<table>
<thead>
<tr>
<th>S. No.</th>
<th>District</th>
<th>Sub-division</th>
<th>Village</th>
<th>No. of A.L.Hs.* (as per 1991)</th>
<th>No. of W.A.L.H.** (till 2005)</th>
<th>No. of Sampled Households (10 per cent of the total W.A.L.Hs.)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Bathinda</td>
<td>Bathinda</td>
<td>Lehra Khana</td>
<td>208</td>
<td>174 (83.65)</td>
<td>18</td>
</tr>
<tr>
<td>2.</td>
<td>Bathinda</td>
<td>Talwandi Sabo</td>
<td>Malwala</td>
<td>308</td>
<td>250 (81.16)</td>
<td>25</td>
</tr>
<tr>
<td>3.</td>
<td>Bathinda</td>
<td>Rampura Phul</td>
<td>Dyalpura Bhaika</td>
<td>455</td>
<td>328 (72.08)</td>
<td>33</td>
</tr>
<tr>
<td>4.</td>
<td>Jalandhar</td>
<td>Jalandhar-II</td>
<td>Sarai Khas</td>
<td>314</td>
<td>305 (97.13)</td>
<td>31</td>
</tr>
<tr>
<td>5.</td>
<td>Jalandhar</td>
<td>Nakodar</td>
<td>Bir Baloki</td>
<td>185</td>
<td>177 (95.67)</td>
<td>18</td>
</tr>
<tr>
<td>6.</td>
<td>Jalandhar</td>
<td>Phillaur</td>
<td>Bilga</td>
<td>790</td>
<td>755 (95.56)</td>
<td>76</td>
</tr>
<tr>
<td>7.</td>
<td>Jalandhar</td>
<td>Jalandhar-I</td>
<td>Patara</td>
<td>380</td>
<td>358 (94.21)</td>
<td>36</td>
</tr>
<tr>
<td>8.</td>
<td>Jalandhar</td>
<td>Shahkot</td>
<td>Kang Kalan</td>
<td>167</td>
<td>145 (86.82)</td>
<td>15</td>
</tr>
<tr>
<td></td>
<td><strong>Total</strong></td>
<td></td>
<td></td>
<td>2807</td>
<td>2492 (88.77)</td>
<td>252</td>
</tr>
</tbody>
</table>

* Stands for agricultural labour households.

** Means withdrawn agricultural labour households and data given in the brackets indicate percentage of WALHs to the total agricultural labour households as per 1991.

Source: Primary Survey
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