CHAPTER - 1

INTRODUCTION AND REVIEW OF LITERATURE

Although agriculture is the backbone of the Indian economy, yet it has always been a way of life rather than a business in India (Kumar, 1993). No doubt, the urban population has been increasing rapidly, but still 73.55 per cent of our population is rural (GoI, 2011). Agricultural performance except in the First Five Year Plan was very poor in our country right up to the mid-sixties since farming was done through traditional methods, practices and tools.

The state of Punjab contributes significantly in the agricultural economy of India. Despite having only a small geographical area of 1.5 per cent and agricultural area of 3.0 per cent to its credit, the state leads all other states of the country to contribute maximum production of wheat and rice in the central pool. It contributed 43.82 per cent of wheat and 25.39 per cent of rice to central pool in 2008-09. The total contribution of wheat and rice to the central pool has increased from 115.6 lakh tones in 1990-91 to 184.92 lakh tones during 2008-09 consisting of 99.39 lakh tones of wheat and 85.53 lakh tones of rice (GoI, 2009-10).

During the last three decades, the state of Punjab while contributing towards agricultural growth has not only set an example in India but in the whole world. The state produces one per cent of rice, two per cent of wheat and cotton each of the world (GoP, 2010). Growth in Punjab has been closely associated with the well-known “Green Revolution” which saw the development and adoption of
new high-yielding varieties of seeds, assured irrigation, use of chemical fertilizers, insecticides, pesticides, herbicides, machinery and modern agricultural practices. It has helped in raising the income level of the farmers as well as total food grain production. The adoption of the new agricultural technology has helped in transforming the subsistence agriculture into the commercial agriculture. But it cannot be denied that modern technology is expensive and consequently expenditure on crop production has also increased. It has also been found that since the early 1990s, the yield of major agricultural crops has been experiencing stagnation. The additional increments in yield are rising at a very high marginal cost. As a consequence, the per hectare net return is declining and this is the real crisis of Punjab agriculture. The annual trend growth rate of per hectare return, over variable costs, from wheat and paddy (combined) was -2.18 per cent during the 1990s. In the case of cotton, it was -14.24 per cent per annum during the same period (Ghuman, 2001). The ever-rising cost of cultivation and declining net return has resulted in the heavy indebtedness of farmers (Ghuman, 2008).

Population of India is increasing alarmingly and according to 2011 Census the population level reached at 121.02 crores (GoI, 2011). Increase in population has caused more sub-division of landholdings, which has further increased the number of marginal and small farmers. The benefits of new agricultural technology in agriculture are mainly confined to the farmers with larger holdings and those with smaller holdings still continue to have traditional methods of cultivation, because they are unable to make heavy investment for better irrigation
facilities, seeds, fertilizers and machinery. It is evident that the benefits of Green Revolution have not been reaped equally by all the farmers, the marginal and small farmers left to their plight of having almost the same level of living. This has pushed them into more poverty and indebtedness.

The marginal and small farmers are still in the clutches of poverty and indebtedness. This manifestation of the agrarian crisis in the form of suicides has reached dangerous levels in the state of Punjab. The gravity of the problem as well as its causes pointed out that most of the suicide victims were cultivators and belong to the category of small and marginal farmers. Suicides were attributed to a number of reasons, ranging from poverty to crop failure, indebtedness, marital discord and alcoholism, but in our view it was mainly due to the economic crisis that the peasantry, in the state of Punjab, in general, is facing and which has led them to borrow heavily. The heat has been felt more by the small and marginal farmers (Gill and Singh, 2006).

**Review of Literature**

After the mid-sixties, a large number of studies have been conducted in India to evaluate whether the gains of new agricultural technology have trickled down to all the sections of the farming community. Most of the studies concentrated on evaluating the impact of new agricultural technology on the level of poverty, indebtedness, income, consumption expenditure, etc. of the marginal and small farmers. A brief review of these studies is given as under:
Duraiswami (1950) made an attempt to examine the problem of low income or sub-marginal farmers of Bapatla village in Guntur district of Andhra Pradesh. It covered ten farmers who owned up to 2.5 acres of land. The amount of family expenditure per annum ranges from Rs. 380 to Rs. 2,050 among the selected sub-marginal farmers. On the other hand, total land income ranges from Rs. 260 to Rs. 1,350 among the sub-marginal farmers. The income from land and the expenditure by family are directly related but income was less than the family expenditure. Every sub-marginal farmer has deficit family budget ranging from Rs. 40 to Rs. 700. The study also revealed that there is a scope for increasing income of the sub-marginal farmers by financing them to maintain livestock.

Misra (1961) conducted a study to analyse the distribution of income among farmers in Orissa. The sample consisted of 240 farm families from 50 villages in Puri district. As many as 26.7 per cent of the families were landless, 10 per cent owned less than one acre, about 32 per cent had 1 to 3 acres, and about 14 per cent had 3 to 5 acres and rest of the families owned above 5 acres. The study revealed that the crop incomes of majority of the families were low as their landholdings were very small. The study also revealed that the poverty of the people in these areas was quite visible. The causes of the poverty were the low man-land ratio, lack of facilities for double and multiple cropping and lack of subsidiary occupations.

Shah (1961) made an attempt to examine the position of the small cultivators with regard to borrowing from co-operatives in 1957-58. The study
showed that there was a direct relationship between average size of cultivated holdings and percentage of borrowing families from co-operatives to total borrowing families. Districts in which the coverage of the small farmers by co-operatives exceeds 20 per cent were Sorath and Jullundar, where the size of holdings for the small farmers average at 8.4 and 6.0 acres respectively. On the other hand, in Nizamabad district, average size of holdings for the small farmers was 0.6 acres and only one per cent of the small farmers were covered by co-operatives. The major proportion of borrowing was utilised in meeting family expenditure by the small farmers. The repayment capacity was also poor in the small farmers belonging to these districts. In eight districts out of twelve, the repayment capacity was below 20 per cent of the debt. More than 75 per cent of debt borrowed by the small farmers, from private agencies was at the interest rate of 12 per cent or more in three districts. Private agencies charged high rate of interest for covering the risk of non-payment. It was difficult to substitute the co-operatives credit to credit from private agencies.

Shastri (1963) made an attempt to examine the levels of living of cultivating families of three districts of Bihar state. From each district, only one village was selected. The study was based on the analysis of 27 families. In each village, 3 families were selected from each of the three size groups, i.e., small (below 2.5 acres), medium (2.5 to 5 acres) and large (above 5 acres). The study revealed that expenditure of per family and expenditure of per adult male unit increases with increase in farm-size. The expenditure of per family of small,
medium and large size group was Rs. 1,034, Rs. 1,504 and Rs. 1,816 respectively. Expenditure of per adult male unit was Rs. 206, Rs. 224 and Rs. 290 for the small, medium and large size groups respectively. The percentage for food expenditure was the highest being 77.8 in the small size group and only 57.2 per cent in the large size group. On an average, it comes to 67 per cent of the total family expenditure. The study also highlighted the fact that major proportion of income was spent on only food items.

Gupta (1963) conducted a study in 36 villages of Budaun district in Uttar Pradesh. As many as 320 families were selected and grouped under five categories, viz. up to 1, 1 to 2.5, 2.5 to 5, 5 to 10 and 10 acres and above size-groups. The study relates to the year 1959. It revealed that cereals and pulses occupy the most important place in the diet of agricultural families in Budaun district. Consumption of pulses in all the size-groups of holdings was high, but consumption of superior foodgrains increases with the increase in the size of holdings. The average calorie intake of families in different size-groups varies from 2,151 in up to one acre group to 3,011 in more than ten acres size-groups. There seems to be a direct relationship between the farm-size and the calorie intake of the families. The study also revealed that there are more variations in consumption of sugar, milk, oil, ghee and vegetables of the different size-groups.

Tewari (1965) analysed the demand peculiarities and the factors influencing borrowing based on the data of Reserve Bank of India. The author observed that the proportion of indebted families in areas which had a fairly well developed
economy was higher than the districts which were predominantly foodgrain producing. Areas with predominance of food crops had proportionately inferior repaying capacity than that of the areas with cash crops. The large proportion of total debt among the big and large cultivators was contracted for agricultural purposes, whereas among the medium and small cultivators it was higher for consumption purposes.

Patil (1967) made an attempt to study the position of repayment and the causes of non-repayment of crop loans in Kolaba district of Maharashtra state during 1964-65. While selecting members, two groups were formed. The first group consisted of defaulters who did not pay crop loan during 1964-65 and the second consisted of non-defaulters who paid crop loan during this period. Out of the total number of defaulters and non-defaulters from each randomly selected society, 50 per cent defaulters and 50 per cent non-defaulters were randomly selected. The study highlighted that the defaulters constituted only 27 per cent in large holdings as against 63 per cent from small holdings. Medium size of holdings had equal number of defaulters and non-defaulters, i.e., 50 per cent. This shows that larger is the size of holding, greater will be the capacity for repaying loan. The total annual income earned per family in the defaulter group was relatively less than that in the non-defaulter group in the case of small and large size-groups of holdings while it was more in the case of medium size defaulter group as compared to the corresponding non-defaulter group. Majority of the defaulters were unable to repay the loans mainly because of adverse crop season, higher domestic expenditure and maintaining a big size of the family.
Tewari (1969) made an attempt to examine the agricultural indebtedness in hilly farms of Almora district of Uttar Pradesh in 1962-63. As many as 100 farm households were selected and grouped under five categories, viz. 0.50-1.50, 1.50-2.50, 2.50-3.50, 3.50-5.00 and 5 acres and above size-groups. The study revealed that 60 per cent of the farming households were under debt. In the case of source of credit, money-lenders were providing 70.63 per cent of the total debt. In the large farm-size, more than 57 per cent of credit requirements were met by the government, while only 15.80 per cent by the local money-lenders. On an average, 46.15 per cent of the total loan was taken for productive purposes, while 53.85 per cent for unproductive purposes. The average debt per family and per indebted family was Rs. 305.40 and Rs. 469.27 respectively. The study also brought out the fact that as the size of holding increases the percentage of loan taken for productive purposes increases.

Vyas et al. (1969) made an attempt to examine the viability of the small and medium farmers in Gujarat. The study revealed that for the small farmers whether adopters or non-adopters of the new agricultural technology, farm business income was insufficient to meet the customary household consumption requirement and hence these farms may be termed as non-viable. Non-adopter medium farmers were also non-viable. In all, 55 per cent of the sampled farmers were non-adopters. The study also revealed that household consumption requirements are likely to vary from farmer to farmer.
Chowdhary (1970) made an attempt to examine disparity in income in context of HYV. The author concluded that the new agricultural technology widens the income inequality among the different sections of farming population and provides proportionately large benefits to the big farmers as compared to the small farmers, because small farmers are slow to accept the new technology. This is due to lack of credit, availability of inputs, control over irrigation input and so on, on the part of the small farmers compared with large farmers.

Galgalikar et al. (1970) conducted a study to examine the pattern of income distribution, saving and expenditure in village Jalalpur of Parbhani district. The study revealed that average size of holding in the village was 20 acres. About one-third of the families, i.e., 30 per cent had land less than 10 acres, accounting only 6.35 per cent of the total land in the village. In small farm-size holdings, wages formed a substantial portion of gross income and exceeded net income from crop production. Net income per acre decreased with the increase in the size of holding. In regard to consumption, the low income and middle income groups had resorted to borrowing to meet their consumption expenditure. The higher income group spent proportionately less on foodgrains. The middle income group spent proportionately more on ceremonies. The study also revealed that the bulk of the co-operative finance was availed by the high income group.

Garg et al. (1970) conducted a study in ten villages of Kalayanpur block (Kanpur district). As many as 50 cultivators using high yielding variety crops were selected and grouped under four categories, viz. 0-2, 2-4, 4-6 and 6 hectares and
above size-groups. The study was conducted by survey method during the period 1966-69. The study concluded that there was an overall increase in the area under high yielding varieties in almost all farm-size groups. It was much higher on larger farm-size. On an average, per hectare values of input, output and net income were higher in 1968-69 as compared to 1966-67. In 1968-69 the per hectare values of input, output and net income showed an increasing trend with the increase in the size of farms. The study also brought out that on an average, out of the total gross income, 39.61 per cent was invested in crop production, 5.29 per cent on farm assets and the balance of 55.10 per cent either utilized for home consumption or saving during 1968-69. The study highlights that in both the years, irrigation structure formed a major part of the investment. On an average, it accountant for 45.11 per cent in 1967-68 and 46.50 per cent in 1968-69 of the total investment. This type of investment, in general, was higher on large farms as compared to small farms. The investment made by the small farmers was mainly on livestock or irrigation structure. The adoption of high yielding varieties had helped in increasing the income in all the size-groups.

Shah and Singh (1970) made an attempt to analyse the increasing income disparities due to the new technology of agriculture in North-West part of Uttar Pradesh state. As many as 245 progressive farmers in three size-groups of holdings, viz. small, medium and large were randomly selected with probability proportion. The study highlighted that income inequalities have risen due to variations in the size of holdings, accessibility and timely availability of inputs to
farmers, credit availability and technical know-how. The large farmers were the most rational and efficient in the use of resources followed by the medium, whereas the resources were used irrationally on the small farmers. As the medium and large farmers move to the economic optima, the magnitudes of these income inequalities are likely to increase.

Sisodia and Agarkar (1970) carried out a study in Madhya Pradesh on the effects of increase in income owing to the adoption of new technology of agriculture. The average annual income of the small and medium cultivators of modern farms is almost twice as compared to the same category of farmers on traditional farms and that of large farmers in the modern farms is thrice to their counterpart in the traditional group. The new investment as percentage of total agricultural investment for modern farms is 23 per cent as against only eight per cent for traditional farms. The pattern of investment in the modern farms is dominated by purchased inputs, which accounted for 70 per cent of the total non-durable capital investment. The study also revealed that the per capita savings of progressive farmers are eight times greater than the less progressive ones.

Aggarwal (1971) conducted a study to examine the impact of Green Revolution on landless labour. The study highlighted that as a result of success of Green Revolution, large landowning farmers were becoming prosperous with the help of government agencies, banks and co-operative societies. They were investing in capital-intensive equipment in order to enhance their direct control over agriculture. On the other hand, the small cultivators and the landless
labourers are losing out in several ways, because the demand for their traditional services has decreased, availability of land crop-sharing basis is reduced and alternate employment opportunities have lagged behind needs. Consequently, the two classes are becoming polarised and increasingly antagonistic to each other.

Saha and Dutta (1971) conducted a study to examine the HYV programme and problems of finance for the small farms in Goalpara district of Assam state. The sample consisted of 72 households including 24 households of the small farmers (2.50 to 5 acres) and 48 households of the marginal farmers (1 to 2.49 acres) from eight villages under four community development blocks in Goalpara district. The study showed that the average per household and per capita income of the two groups together came to about Rs. 1,800 and Rs. 300 respectively. If a sum of Rs. 300 was taken as the minimum per capita income for subsistence living, 58.33 per cent of the small farmers and 53.46 per cent of the marginal farmers were below the poverty line. The traditional sources of credit are so exploitative in nature that it was not possible for the small farmers to come out of the vicious circle of low production, low investment and income by adopting better and improved technology.

Subramanian et al. (1971) conducted a study to know the requirement, supply and shortfall of farm credit in Tamil Nadu state. The study revealed that on an average, 40 per cent of farm expenses were met by borrowed funds. The total requirement of credit increases with an increase in the farm-size. The widest credit gap was observed in the smaller holdings. The credit from co-operatives accounted
for 61.73 per cent of the total credit supply. Commercial banks have a share of about 13 per cent in the total supply of credit. The money-lenders and other private agencies supplied the balance. The co-operatives helped only large farmers. The small farmers, who require large credit in relation to farm expenses, were able to get least benefit from the organized sector.

Jodha (1971) has attempted to highlight the lending policies of the existing agencies that provide long-term farm finance. The small farmer is not an attractive client for commercial banks. The study revealed that the availability of long-term finance of the small farmers in the context of lending policies of the Gujarat State Co-operative Land Development Bank which is one of the most successful LDBs in the country. The study also revealed that after the credit policies have been rationalised, injecting permissible flexibility in credit policy, a large number of small farmers would remain unaffected.

Rao (1971) made an attempt to study the agricultural financing of small farmers. Chinnatadakam village in Coimbatore district of Tamil Nadu state was selected for investigation. The village consisted of 207 cultivators of whom 86 per cent may be categorised as the small farmers. The average area cultivated by these 18 farmers is 4.39 acres. The study highlighted that the average indebtedness per holding for the 18 farmers was Rs. 4,372. The average indebtedness per holding was Rs. 400 in the smallest size-group and rose to Rs. 6,500 in the size-group of 7.50 to less than 10.50 acres. The smallest size-group depended entirely on money-lenders, those in the higher size-groups depended mostly upon land
development banks, co-operative societies and state banks. The total cash expenditure on cultivation revealed that the small farmers in the smallest size-group did not apply fertilizer or pesticides unlike those in the higher size-groups. The data reveal that the farmers operating land less than 2.50 acres are indigent and too poor to invest in wells and pump-sets.

Nandal (1972) made an attempt to examine the extent of disparities in income and savings of progressive farmers of Haryana state. The study showed that average increase in income in 1969-70 over 1968-69 was 41.19 per cent, 41.69 per cent and 61.87 per cent on small, medium and large farms respectively. The net saving-income ratios showed that the average saving-income ratios increased with the increase in farm-size. It was also observed that the gains of Green Revolution had been distributed among all the categories of farmers. Absolute and relative gains have tended to increase with the increase in the size of holding, level of mechanisation, formal education of the head of the family and number of earners in the family. This variation in socio-economic factors seemed to accentuate inter-regional and intra-regional income imbalances.

Singh and Mehrotra (1973) conducted a study to examine the problem of credit and indebtedness with the small and marginal farmers and agricultural labourers. The data collected from one of the relatively less developed districts, i.e., Ballia of Eastern part of Uttar Pradesh state. The sample consisted of 20 villages of Rasra Tehsil, the Marginal Farmers and Agricultural Labourers Development Agency’s project area, from where 98 households from the
marginal, 49 from the small, 21 from the medium, 6 from the large farmers and 35 from the landless were randomly selected with probability proportion. The study revealed that the highest among the landless as much as 60 per cent of their households were in debt as compared to 58.2 per cent of the marginal, 57.1 per cent of the small, 42.8 per cent of the medium and 33.3 per cent of the large farmers. The amount of debt per household varies from Rs. 173.42, as in the case of landless, to Rs. 833.33 as in the case of large farmers. The study also revealed that 86.3 per cent of total borrowings of the landless, 79.8 per cent of that of the marginal and 85.0 per cent of the small farmers came from the village money-lenders alone as compared to 51.8 per cent of the medium and only 4.3 per cent of the large farmers. The interest rates paid on the borrowings by different groups vary from 9 per cent to as high as 72 per cent. Only 14.7 per cent of the total credit has been borrowed at an interest rate of 9 per cent and 21.2 per cent of the credit at 20 per cent. The landless labourers and the marginal farmers pay relatively much higher interest rates than the rest in as much as about 90 per cent and about 64 per cent of their respective total borrowings carry an interest rate of 25 per cent, whereas only about 41 per cent of the small and 20 per cent of the medium farmers’ total borrowings come under this range of interest.

Thakur (1973) made an attempt to examine the prevailing conditions of the small farmers and co-operatives credit and co-operative overdues of Sangli district of Maharashtra state. The study revealed that the amount of loan per acre advanced to the small farmers (Rs. 347) was the highest as compared to the
medium (Rs. 177) and big (Rs. 236) farmers. The co-operative society was biased towards the small farmers in advancing loans. The position of the small farmers from the overdues point of view was also worse than the medium farmers and not very much comfortable as compared to the big farmers. Overdues per acre in the case of small farmers (Rs. 114) were quite large as compared to the medium farmers (Rs. 60) and only little less as compared to the big farmers (Rs. 153). It was a common experience of those working with agricultural credit that the poor small farmer often secretly mortgages or even sells his holding to the professional money-lenders to pay back the amount of previous loan and to obtain the fresh loan from the co-operative societies on the same piece of land. This ultimately turns such the smallholders into agricultural labourers to the benefit neither of the smallholder, nor the co-operative society.

Pawar and Gayakwad (1974) conducted a study to analyse the employment, income and expenditure of the small farmers in Maharashtra state. The study was based on information obtained from the two samples of small farmers separately for the years 1964-65 and 1971-72. The study revealed that the workers in the families of the small farmers do not get sufficient work on their own farms and therefore, they are forced to seek employment outside the farm. The wage rates had increased only by about 58 to 60 per cent during the period, while the family expenditure had increased almost by 103 per cent. Because of increase in the incomes from other sources the family income has shown an increase of about 101 per cent during the period. During both the years the family expenditure exceeded
the family income. The study indicated that the condition of small farmers has not changed at all during the study period.

Ghosh (1974) made an attempt to examine the problems and prospects of the marginal farmers and agricultural labourers in West Bengal state. The per household and per capita incomes of the marginal farmers were Rs. 2,610 and Rs. 380 respectively. Cultivation of land provided only 54 per cent of their total income. More than 70 per cent of the households were under debt and about 50 per cent of the total borrowings were spent for consumption purposes. The share of institutional loans was very low in their case. The study also revealed that the condition of agricultural labourers was worse than that of the marginal farmers. The solution to the problems of marginal farmers lies in improving the technology of cultivation and holdings are consolidated into one large block or a number of compact blocks and encourage them to form a co-operative farming society.

Saikia and Bora (1975) examined the impact of modern agricultural technology on the small farmers in Sibsagar district of Assam state. Out of the 50 small farm families of a village, 25 were selected by random sampling method for the analysis. In the village, about 70 per cent of selected households have land between 0.67 hectare to 1.62 hectare. The study highlighted that the whole cropped area was devoted for growing food crops only. The adoption of new agricultural technology had created awareness among the small farmers to increase their standard of living. Out of 25 selected farm households, 70 per cent have been using fertilizers. The annual average income from agriculture was Rs. 2,737 per
family in 1972 and after the adoption of new agricultural technology it was measured at Rs. 4,018 per family in 1974. An increase of 46 per cent was recorded in annual average income.

Chawla et al. (1975) made an attempt to examine the income and expenditure patterns of the small farmers in Amritsar district of Punjab state. The study covered 80 small farmers composed of 15 marginal, 25 lower small and 40 upper small farmers selected randomly. The average annual income of the small farmers amounted to Rs. 7265.35. The average annual income of the marginal, lower small and upper small farmers was Rs. 3763.04, Rs. 6402.53 and Rs. 11631.49 respectively. It was highlighted that the income from farm production varied positively with farm-size. The average expenditure on household requirements per family amounted to Rs. 7337.50 on the small farms. The per family expenditure of the marginal, lower small and upper small farmers stood at Rs. 4385.22, Rs. 6813.38 and Rs. 10812.12 respectively. It also revealed that the expenditure on food items varied inversely with the farm-size. The expenses on clothing, light, medicine and education were positively related to the farm-size.

Rao (1975) conducted a study of three villages of Visakhapatnam district of Andhra Pradesh state to examine the asset structure and borrowing of the small farmers. The study found that the number of farmers borrowing from the co-operatives was high in the case of big farmers. The co-operative finance was more accessible to the big farmers and small farmers were under perpetual obligation to the money-lenders. The study also found that the small farmers were not in a
position to invest more on land to produce any surplus, with the result that they were handicapped in building up the asset structure.

Saini (1976) conducted a study to examine the impact of Green Revolution on the distribution of farm incomes in the districts of Ferozepur and Muzaffarnagar of Punjab and Uttar Pradesh states respectively. The study revealed that during the pre-Green Revolution period the small farmers, with their relative abundance of family labour could attain a relatively higher intensity of cultivation and also claim a relatively higher productivity per unit of land through increased input of human labour in farming. The small farmers were able to some extent, to reduce the inequalities in income arising out of unequal distribution of land among cultivating households. But new HYVs technology seems to have shifted the advantage of productivity per acre in favour of the big farmers. They have not only a relatively easy access to new technology, but can also make rational use of it because of the favourable farm-size. The gap between the big and small farmers has widened.

Bhattacharya and Majid (1976) made an endeavour to examine the impact of Green Revolution on output, cost and income of the small and big farmers in Punjab state. The present study was conducted in the state of Punjab, which comprises of twelve districts. From each district, only one village was picked up for the study. In each village, 10 small (up to 7 acres), 3 big farmers (above 10 acres) and 10 landless agricultural labour households were selected purposively. The study revealed that in the case of every major crop except the local varieties
of wheat, the average yield per acre was higher on the big farms. The difference ranges between 11 per cent in the case of maize to 25 per cent in case of gram. The gross output and net income per acre was higher on the large farms than on the small farms. As far as total input costs per farm were concerned, it was quite natural that these were very high on the big farms as compared to the small farms. Income per farm on the big farms was 7.6 times the gross per farm on the small farms because the average cultivated area on big farms was 6.77 times the average area on the small farms. The big farms were generating more output per acre (Rs. 1,285) than the small farms (Rs. 1,152). Net farm business income per acre was also higher on the big farms (Rs. 476) than on the small farms (Rs. 456).

Singh et al. (1977) made an attempt to examine the impact of integrated crop and milk production on the small farms in Punjab state. The study revealed that integrated dairy and crop farming can play an important role in increasing income and employment of the small farmers and thereby decreasing the requirement of short-term credit as a result of income from the sale of milk. But the integration of dairying with crop farming might need more capital and cash to purchase new technology and milch animals.

An attempt has been made by Pandey et al. (1977) to study the nutritional level of the farm households of eastern part of Uttar Pradesh state. The study concluded that the per capita per day consumption of all the food items by the households on the large farms was considerably higher than that by the households
on the medium and small farms. The nutritional problem among the farm families was not one of the protein deficiencies but that of deficient calorie intake.

Dhawan and Kahlon (1978) conducted a study in Ferozepur district in the Punjab state to examine the adequacy and productivity of credit on the small farms. The authors observed that out of the total credit supplied to the farmers, the share of commission agents was the highest (36.56 per cent) followed by co-operative societies (34.38 per cent). The contribution of the government taccavi loans was 19.06 per cent, whereas professional money-lenders advanced only 10 per cent of the total amount. The overall functional analysis brought out that the small farmers were rational in making investments on machinery and implements, milch animals and seeds plus manures and fertilizers as the ratio of MVPs of these resources to their costs were significantly greater than unity.

Raju (1978) made an attempt to examine the level and changes in the use of credit by the small farmers adopting new farm technology and by non-adopters in West Godavari district of Andhra Pradesh state during the years 1967-68 and 1970-71. In the selected stratified multi-stage random sample of 400 farmers in each year, the number of small farmers was 177 in 1967-68 and 170 in 1970-71. As both farm productivity and volume of credit were significantly and positively affected by the level of investment on different farm inputs by the adopters, it could be inferred that they were conscious of using the credit in the right direction. The rate of adoption of new technology by the small farmers increased from 1967-68 to 1970-71 and the small farmers who adopted new technology were
economically better off as compared to the non-adopters. But before advocating the adoption of the new technology, the provision of irrigation, fertilizers, improved seeds, timely and adequate availability of credit should be assured especially for the small farmers.

To examine the class structure and indebtedness of peasantry, Sivakumar (1978) conducted a study of two villages in Tamil Nadu state. This study brought out that in these villages the big peasants were most dominant. The medium, petty and landless peasants were net borrowers. The petty and landless peasants incurred more debt for consumption purposes. The medium peasants took loans for ritual purposes, seasonal agricultural expenses and purchase of fixed capital. The big peasants have taken loans for purchase and repair of fixed capital.

Garg et al. (1978) conducted a study to examine the availability of credit and estimated the credit requirements of a sample of 50 farmers (30 marginal farmers and 20 small farmers) selected randomly from ten villages in NainiDanda block of Pauri Garhwal district in the hill region of Uttar Pradesh state. The study revealed that credit requirements increase with an increase in the size of holdings and with the higher level of technology. The short-term credit requirements were estimated at Rs. 463.12 and Rs. 758.13 for the marginal and small farmers respectively with an average of Rs. 610.63. Out of the selected sample farmers, 21 marginal and 18 small farmers in the study area obtained loan from the co-operatives, government agencies and private agencies for meeting their requirements of fertilizers, seeds and irrigation. The government agencies
advanced loans amounting to Rs. 2,588.51 to eight marginal farmers and Rs. 2,503.12 to two small farmers. The co-operatives disbursed loans amounting to Rs. 1,164.38 and Rs. 2,441.93 to 11 marginal farmers and 13 small farmers respectively. The magnitude of credit disbursed by private agencies was very meagre.

Bakshi (1978) conducted a study to analyse the credit requirements of the small farmers in a predominantly rice growing district of Raipur. The present study is based on the analysis of 40 small farms in Raipur district of Madhya Pradesh state. The study concluded that about 60 per cent of the small farmers resorted to borrowings. The major source was the money-lender supplying 62.5 per cent of the farmers an average amount of Rs. 860, with the co-operatives faring badly. About 70 per cent of the farmers reported that they wanted more credit, one third of them wanting more than Rs. 1000. This scarcity of working capital, even according to their own view, resulted in poor resource use and poorer returns.

An attempt has been made by Singh and Dhawan (1979) to analyse the sources, utilisation and productivity of agricultural credit in Ludhiana district of Punjab state. The study revealed that the share of institutional credit in financing the medium and large farmers was higher as compared to the small farmers. The small and medium farmers borrowed mainly for installation of irrigation equipments or purchase of milch cattle and the large farmers mainly for purchase of tractors and tractor drawn implements. The study also indicated that there was a
greater diversion of short-term credit to consumption as compared to medium and long-term credit and the proportion of credit diverted was inversely related to size of holding.

Dingar and Singh (1980) conducted a study to examine the income viability of the small and marginal farmers, participating in the various schemes of the SFDA project in the Fatehpur district of Uttar Pradesh state, for the year 1978-79. A viable farmer has been considered as one whose agricultural income, i.e., net farm income and income received from subsidiary occupations is sufficient to maintain himself and his family. The findings of the study showed that the amount borrowed made and subsidies given to farmers were higher on the small farms (1-2 hectares) than on the marginal farms (0-1 hectares) on per hectare basis because of larger size of farm business. The study brought out that higher consumption expenditure on the small farms in comparison to the marginal farms within the participant group was due to the large size of family and higher incomes.

Rajput et al. (1980) conducted a study in Agra district of Uttar Pradesh state to find out the extent of credit and its use at the cultivators level. The study concluded that in the case of small farm-size group, the average borrowing per family was comparatively higher than other farm size-groups. The non-institutional agencies were still financing the agriculture sector and they dominate particularly in the case of small and marginal farmers. The overall pattern of utilisation showed that about 70 per cent of credit was used for productive
purposes. In the case of marginal and small farmers, the investment concentration was inclined towards unproductive purposes.

Bhalla and Chadha (1982) conducted a study to evaluate the impact of Green Revolution on income distribution and to examine the level of poverty among cultivating households in Punjab state. The study concluded that all the categories of cultivators have been able to record substantial increase in their output and income through the adoption of new technology. The marginal and small farmers are unable to earn adequate per capita income from crop production because of their small land base. It is indeed disquieting feature of the Indian agrarian situation that even in the heartland of Green Revolution about one-third of the marginal farmers and about one-fourth of the small farmers are living below the poverty line.

Fahimuddin (1983) carried out a study to examine the indebtedness in tribal community of Umru Kalan village of Khatima development block of Nainital district of Uttar Pradesh. As many as 50 persons were interviewed personally by adopting stratified sampling method during the year 1981-82. The position of the landless agricultural labourers and marginal and small farmers was very dismal as up to 66.67 per cent of their households are under debt. Average amount of debt per household for landless labourers, marginal, small, medium and big farmers were found to the extent of Rs. 371.43, Rs. 666.37, Rs. 820.80, Rs. 1,525 and Rs. 4,377.78 respectively. The share of non-financial institutions in the total credit was 17.1 per cent, while financial institutions were contributing 82.9 per cent to the
total credit. Despite the success of financial institutions in tribal credit market, the requirements of the masses of the community were still met with the non-financial institutions.

Sharma et al. (1983) conducted a study to analyse the credit studies of the small farmers of different caste communities. A stratified random sampling technique was used. The list of the small farmers’ borrowers from 4 villages of Achanera block of Agra district of Uttar Pradesh, was prepared and out of this list after categorisation on the basis of castes, viz. general caste, backward caste and scheduled caste, 60 small farmers were selected randomly on the basis of probability proportion to the number of farmers in each community. The small farmers take loan from both institutional and non-institutional agencies. Although institutional credit is increasing yet non-institutional credit still dominates. This credit is used for farming besides the domestic needs by all the caste communities, although the bulk of it is utilised for farming. The repayment of loan is more in institutional credit organisation by the general caste and non-institutional by the lower caste communities.

Balishter and Naresh (1984) conducted a study to examine the extent of indebtedness among farming households and share of different financial agencies in total credit. Two villages of Agra district of Uttar Pradesh were chosen for the study over the period 1981-82. A sample of 33 farmers consisting of 13 small, 11 medium and 9 large farmers was selected randomly and data regarding indebtedness was collected through personal interviews for the said period.
study revealed that in all about 91 per cent of the farming households were under
debt. The proportion of households under debt was the highest in the case of small
farmers and the lowest in the case of large farmers. The average debt per
household was Rs. 3,423.07, Rs. 3,018.18 and Rs. 2,788 respectively for the small,
medium and large farmers; and the average debt per indebted household was Rs.
3,426.67 as against the average debt per household Rs. 3,115.15. About 80 per
cent of the total debt was owed to the institutional sources and the remaining 20
per cent to the non-institutional sources. Institutional agencies charged rate of
interest ranging from 10 to 20 per cent, whereas non-institutional agencies charged
exorbitant rate of interest ranging from 20 to 40 per cent. The study also brought
out that 72 per cent of the total debt was utilised for productive purposes and 28
per cent for non-productive purposes. The extent of utilisation of debt for non-
productive purpose was significantly higher in the case of small farmers as
compared to the medium and large farmers.

Misra and Mitra (1984) conducted a study on the problems of the marginal
and small farmers in Ganjam district of Orissa state. The sample consisted of 412
marginal and 323 small farm households in two development blocks of Ganjam
district. Nearly 87 per cent of the farmers in this district are either marginal or
small. The study conducted that the per capita gross income was estimated at Rs.
525 for the marginal and Rs. 614 for the small farmers. It is estimated that nearly
15 per cent of these families are reported to be having negative net income.
Inadequate availability HYV seeds, fertilizers and pesticides substantially deterred these households to take advantage of new farm technology.

Balishter and Singh (1985) conducted a study in the state of Uttar Pradesh to examine the extent of credit available and the credit gap in the case of different categories of farmers. The study revealed that in areas where commercial banks have extended their operations they constitute the major source of financing agriculture in the case of marginal and small farmers, while in the case of medium and large farmers both the commercial banks and co-operatives finance the equal proportion. The gap between the required and available credit was almost negligible in the case of marginal farmers. It was about 11 per cent in the case of small farmers, 24 per cent and over 40 per cent in the case of medium and large farmers respectively.

Pandey and Prasad (1985) made an attempt to examine the impact of co-operative bank’s financing on poverty of the small and marginal farmers in Itawa development block of Basti district in Eastern part of Uttar Pradesh. Data was collected for the pre-loaning period (July1976-June1977) and the post-loaning period (July1980-June1981). The study revealed that about 60 per cent of the small farmers and 69 per cent of the marginal farmers were living below poverty line in the area of study in 1976-77. In post-loaning period proportion of population living below the poverty line was about 46 per cent and about 54 per cent of the small and marginal farm households respectively. The study also revealed that the proportion of population living below the poverty line in both the
size-groups of farm households decreased in 1980-81 as compared to 1976-77. The total annual income was higher in the case of small farm households as compared to the total annual income of the marginal farm households in both the periods. There was significant gain in incomes to the farmers after they started getting loans from co-operative bank for use of inputs in agriculture since 1976-77. This was supported by an increase in farm income obtained by farmers in 1980-81, the area of study conforming to the fact that financing by co-operatives was helping in reducing the poverty of farmers in the area.

Singh (1986) conducted a study in the rural areas of Punjab state to examine the levels of living of agricultural labourers and marginal farmers. The study concluded that on an average the agricultural labour households earned annually about Rs. 5817 and the marginal farm households earned annually about Rs. 5023.17. In the case of agricultural labour households, the main source of income was from agricultural wages supplemented by income from subsidiary activities. The major source of income of the marginal farmers was found to be farming, supplemented by income from subsidiary activities. The per capita income levels of the agricultural labourers and the marginal farmers were positively correlated with the income categories. On an average, the annual consumption expenditure of the agricultural labour and marginal farm households was about Rs. 6583 and Rs. 6385 respectively. Households of both the categories spent a major proportion of their income on foodgrains, followed by milk and milk products, clothes, etc. The average propensity to consume for the agricultural
labourers and marginal farmers was uniformly reported to be more than unity in respect of all the income categories. The study further revealed that the economic conditions of the agricultural labourers are relatively better than the marginal farmers.

Prihar and Singh (1988), in their study, highlighted the different sources of agricultural finance available and the extent of agriculture loans obtained by different categories of farmers. The authors found that a higher percentage of the medium and large farmers obtained crop loans and tractor loans as compared to the small farmers from different credit agencies in Punjab state. However, a higher percentage of the small farmers obtained loans from non-institutional agencies. With the increase in farm-size, the percentage of farmers getting credit also increased. Among the factors affecting borrowings the share of institutional credit in total investment on farms, fixed cost per hectare, per capita consumption expenditure and share of non-institutional credit in total investment were found to be relatively more important.

To estimate the historical development of institutional credit in India, Dandekar and Wadia (1989) examined the reports of different committees constituted by the Reserve Bank of India and the Government of India from time to time. The study traced the history of institutional credit from 1793 (when taccavi loans were introduced) to the Eighth Five Year Plan. The share of agricultural institutional credit in the total credit increased from 7.3 per cent in 1951-52 to 40 per cent in 1986-87. The quantum of institutional credit through
Primary Agricultural Credit Societies (PACS) has increased from Rs. 24 crore in 1951-52 to Rs. 3700 crore in 1986-87. New institutes have not helped satisfactorily the small farmers, the marginal farmers and the landless labourers for whom these were primarily set up. These societies are more beneficial to the big farmers. The small and marginal cultivators continue to depend on the money-lenders to a great extent.

Paul (1990) conducted a study to examine temporal changes in absolute poverty among farm families in Haryana state during the period 1969/70-1982/83. Four measures of poverty, viz. family count ratio, head-count ratio, poverty-gap ratio and the Sen Index have been estimated using the cross section data for each year. The study revealed that there has been an increase in the level of poverty among farmers during the seventies. Incidence of poverty has been the highest among the small farmers and the second highest among the medium farmers. Poverty does not prevail among the big farmers. The study also revealed that poverty is inversely related to the level of irrigation in the region.

Shankar (1990) conducted a study to assess land ownership, asset structure and income distribution in three villages of eastern Uttar Pradesh. The study revealed that sub-marginal farmers’ income from owned land accounted for merely 26 per cent of the household income, while wage income accounted for 15 per cent. The share of income from services and remittances was 30 per cent and 10 per cent respectively. In the case of marginal farmers, the share of agriculture was substantially higher at 40 per cent, followed by services (18 per cent) and
remittances income (11 per cent), wage income (8 per cent). The share of agriculture in the income of the small farmers was 58 per cent and share of wage income declined to 0.04 per cent. The share of income from services and remittances was 11 per cent and 15 per cent respectively.

Kaur et al. (1991) made an attempt to examine the pattern of assets and consumption expenditure among rural poor households in Haryana. In all, 230 respondents comprising 95 landless labourers, 50 rural artisans and 85 small farmers were selected. The data pertained to the agricultural year 1983-84. The study revealed that 54.78 per cent of the households were below poverty line. The maximum number of households from the category of landless labourers (65.27 per cent) were below poverty line, followed by the rural artisans (56 per cent) and the small farmers (42.35 per cent). The maximum level of consumption expenditure was found in the case of small farmers (Rs. 10594) followed by the rural artisans (Rs. 8777) and the landless labourers (Rs. 7442). The study revealed that an average annual family income came out to be Rs. 8377, which was maximum in the case of small farmers (Rs. 9763) followed by the rural artisans (Rs. 7955) and the agricultural labourers (Rs. 7360). The small farmers were found to be relatively better off economically as compared to the other two categories.

Goyal et al. (1993) attempted to analyse the repayment capacity of defaulter and non-defaulter borrowers of co-operative societies in Hisar district of Haryana state. A sample of 115 borrowers was taken randomly from the primary
agricultural co-operative societies. All the sampled borrowers were divided into three groups based on the size of their operational holding, i.e., up to 4 hectares (small farmers), 4-8 hectares (medium farmers) and above 8 hectares (large farmers). All the sampled borrowers were divided into the categories of defaulters and non-defaulters. The defaulter borrowers utilised a relatively larger proportion of their total earnings on consumption purposes and thereby leaving less for investment in production process. Average annual household expenditure was Rs. 13902 and Rs. 15182 for defaulter and non-defaulter households respectively.

Singh (1996) conducted a study to examine the poverty and indebtedness among agricultural labourers, marginal farmers and small farmers in the rural Punjab during the year 1990-91. It covered 450 weaker section households composed of 244 agricultural labourers, 91 marginal farmers and 115 small farmers selected randomly. The study showed that average annual income of the agricultural labourers, marginal farmers and small farmers was Rs. 10922.66, Rs. 8617.41 and Rs. 17601.17 respectively. The main source of income was agricultural wages in the case of agricultural labourers. Major source of income of the marginal farmers and small farmers was found to be farming. The annual consumption expenditure of an average weaker section household was Rs. 14745.71. It was Rs. 13421.44, Rs. 11132.39 and Rs. 20414.86 in the case of agricultural labourers, marginal and small farm households respectively. The proportion of persons living below the poverty line in all the weaker sections was 24.44 on the basis of per capita distribution of income. On the basis of per capita
distribution of consumption corresponding figure was 9.11 per cent. The study also showed that 67.56 per cent of the weaker section households in the Punjab state were under debt. The percentage of indebted households of the agricultural labourers was 71.72, while the percentages were 69.23 and 57.39 in the case of marginal and small farmers respectively.

In the context of reports on suicides by farmers due to crop failure and indebtedness in some states, Singh (1998) made a study to analyse the issue of agricultural credit. The study is based on the estimates generated from the data collected during 1996-97 through a survey of 115 households of six villages spread over three districts of Punjab state. The study revealed that the landholding size has a strong and positive relationship with the amount of credit and the relative share in loans. Per acre capital requirements are fulfilled by the marginal, small and medium farmers mainly through credit. A large majority of the farmers fulfil their credit requirement from non-institutional agencies. The cost of credit is relatively low for the big farmers and relatively high for the marginal and small farmers.

Chandel and Perrault (1999) made an attempt to examine the incidence of poverty among the marginal and small farmers, who represent 32 per cent and 19 per cent of the rural population respectively, is around 45 per cent and 27 per cent. The medium and large-scale farmers, who represent only 16 per cent of the rural households, face a much lower incidence of poverty, i.e., between 11 per cent and 16 per cent. Poverty is strongly related to land ownership. The marginal and
small farmers command 32.3 per cent of the farmed area, this is not a significant land resource and its mobilisation for agricultural development may be challenging.

Mishra (2001) conducted a study to analyse the incidence of poverty in the backward district of Kalahandi of Orissa state. The study revealed that the percentage of BPL families in the rural areas of Kalahandi district reduced to 62.71 per cent in 1997 as against 85.77 per cent in 1992. Of these poor families of the district, 19.59 per cent of the households were small farmers, 41.51 per cent agricultural labourers, 23.95 per cent marginal farmers, 1.80 per cent artisans and the remaining 13.15 per cent were of other categories. The study also revealed that the slow rate of occupational diversification coupled with a high workforce dependency on agricultural sector is one indicator of economic backwardness and stagnation.

Kaur et al. (2002) carried out a study to examine the role of various sources of agricultural credit, based on data collected from a random sample of 100 farmers from four villages in two selected development blocks in Sangrur district of Punjab state. The study revealed that the small farmers were leading in acquiring per hectare credit (Rs. 98,404), followed by the medium (Rs.39,006) and large (Rs.23,388) farmers. As a percentage contribution from institutional sources, the medium farmers were leading with a share of 48.99 per cent, followed by the small (45.97 per cent) and large (42.06 per cent) farmers. In the case of non-institutional sources, the large farmers accounted for 57.94 per cent, followed by
the small (54.03 per cent) and medium (51.11 per cent) farmers. The study also revealed that 19.86 per cent of institutional loans and 13.22 per cent of non-institutional loans were diverted from specific purpose to other uses.

Singh et al. (2004) made an attempt to analyse the socio-economic status of the small holders of Punjab. The total sample of 270 farmers (127 marginal and 143 small) from nine villages form three districts of Punjab state for the study was selected. As many as 96 per cent and 81 per cent of the marginal and small farmers respectively have one to three family members engaged in farming. The study also revealed that the small farmers possessed comparatively more machinery than the marginal farmers. The indebtedness of the marginal and small farmers was to the extent of Rs. 9450 per acre and Rs. 9600 per acre respectively.

Singh et al. (2004) conducted a study in Sangrur district of Punjab state to examine the extent and sources of farm loans. The total sample consisted of 120 farmers in two development blocks of Sangrur district of Punjab state. The study revealed that the average amount borrowed was Rs. 189750, Rs. 252162, Rs. 317632 and Rs. 396200 for the marginal, small, medium and large farmers respectively. The overall results brought out that there is a high level of credit prevalence among the Punjab farmers. Easy availability of credit and ignorance of its long-term negative consequences among farmers can be attributed to the high level of credit. The study also revealed that the average amount of outstanding loans increased with the increase in farm-size, whereas on a per acre basis there was an inverse relationship. Majority of the respondents, i.e., 42.50 per cent could
not repay their loans because of the high cost of agricultural inputs, while insufficient income generation, high rate of interest, uneconomical size of landholdings were the other reasons responsible for the non-repayment of loans in time.

Shah and Sah (2004) conducted a study to examine changes in poverty and poverty related factors in South-West part of Madhya Pradesh state. The study revealed that parts of the rural community, particularly the landless and the small-marginal farmers, remain unaffected by even a moderately faster growth rate. The findings indicate that there is a need for establishing basic infrastructure especially for health and education and the crop productivity and market support do not develop at a sufficient rate to impact on the reduction of chronic poverty.

Singh and Toor (2005) made an attempt to examine the agrarian crisis with special reference to indebtedness among the Punjab farmers. In all, 250 respondents comprising, 52 marginal, 60 small, 70 semi-medium, 48 medium and 20 large farmers were selected. The data pertained to the agricultural year 2002-03. The study revealed that 78.40 per cent of farm households in Punjab state were under debt. The percentage of indebted households was the highest (88.57 per cent) in the case of semi-medium farmers and the lowest (45.00 per cent) in large farmers. Further, these proportions were 76.92, 80.00 and 77.08 in the case of marginal, small and medium farmers respectively. The amount of debt of the sampled households was Rs. 92,394 and Rs. 1,17,849 for an average indebted household in the state. The amount of debt of the sampled average household was
the highest (Rs. 1,75,206) in the case of medium farmers and the lowest in marginal farmers (Rs. 23,602). The study also revealed that an average farm household in the state has Rs. 53,710 (58.13 per cent) of debt from non-institutional credit agencies, while the debt was Rs. 38,684 (41.87 per cent) from institutional credit agencies. An average farm household in the state incurred a debt of Rs. 37,913 (41.03 per cent) and Rs. 54,481 (58.97 per cent) for productive and unproductive purposes respectively.

Jayachandra and Naidu (2006) made an attempt to examine the impact of dairy co-operatives on income employment and creation of assets of the marginal and small farmers. The present study covers 60 families (small and marginal farmers) in Rangampet village of Chandragiri Mandalam in Chittoor district of Andhra Pradesh state. The study revealed that the two categories of farmers have registered an increase in their net income through dairying, but the increase is higher in the case of marginal farmers (25.50 per cent) when compared to that of the small farmers (22.98 per cent). The value of assets has also increased through dairying in both the categories, but the increase is higher in the case of marginal farmers (15.00 per cent) when compared to that of the small farmers (12.50 per cent). Dairying offers a vast scope for increasing the income employment opportunities and assets value of the marginal and small farmers whose marginal and average productivity is low.

Kaur and Singh (2006a) made an attempt to examine the incidence of poverty among the small and marginal farmers in Bathinda district of Punjab state.
The sample consisted of 80 small farmers and 60 marginal farmers in eight development blocks of Bathinda district. By using Head-Count Measure, proportion of persons below the poverty line in all the small and marginal farmers taken together are 19.28 per cent. By using 50 per cent of PCI of the state method, 90 per cent of the marginal farmers and 80 per cent of the small farmers live below the poverty line. By taking 40 per cent of PCI of the state method, 81.66 per cent of the marginal farmers and 67.50 per cent of the small farmers live below the poverty line. According to fourth measure of poverty, i.e., $1 per day, proportion of population living below the poverty line was 91.66 per cent and 82.50 per cent of the marginal and small farm-size categories respectively. All the measures of poverty establish an inverse relationship between the population below the poverty line and farm-size.

Kaur and Singh (2006b), in their study examined the extent and nature of indebtedness among the small and marginal farmers in Bathinda district of Punjab state. The total sample consisting of 140 farmers (80 small and 60 marginal farmers) was selected for the study. The study concluded that 95 per cent of the small and marginal farming households are under debt. The study also revealed that 44.74 per cent of the total debt was spent on agriculture and purchase of machinery by an average small and marginal farming household, followed by the purchase of animals (22.57 per cent). In the case of source of credit, institutional agencies are providing 60.98 per cent of the total debt and 62.32 per cent and 58.24 per cent for the small and marginal farmers respectively. The institutional
agencies are having upper hand in providing loans to the small and marginal farming households.

Jeromi (2007) made an attempt to examine the extent of the farm crisis, the rise in indebtedness and various dimensions of suicides of farmers in Kerala state. The study revealed that when the landholding size was less than one acre, cultivation was marginally profitable and loss in the case of landholding above one acre, because of hiring of labour. Agricultural crisis was the reason in the case of 38.90 per cent farmers who committed suicide. A majority of farmers nearly 60 per cent who committed suicide had less than one acre land. The study also revealed that the incidence of indebtedness in the rural areas of Kerala state was higher than the national average.

Singh et al. (2008) made an attempt to examine the indebtedness among farmers in Punjab state. The study revealed that the average gross income for the state as a whole was Rs. 2,80,694 per sampled farm household. The relative share of livestock to gross family income was 20.60 per cent. It was 40.80 per cent on the marginal holdings and declined consistently to 16.40 per cent on the large holdings. Non-farm income was an important source of relative income for the marginal and small holdings, where it had a contribution of 28.50 per cent and 22.00 per cent respectively to the total family income. The study also revealed that the proportion of indebted farm households was found to be 88.83 per cent in Punjab state. The percentage of indebted households was the highest (93.23 per cent) in the case of large farmers and this percentage was the lowest (80.37 per
cent) in marginal farmers. Further, these proportions were 88.67, 90.85 and 91.95 per cent in the case of small, semi-medium and medium farmers respectively. This shows that there was a direct relationship between the percentage of indebted farmers and size of the farm. An average farm household in the state has 61.94 per cent of debt from the institutional credit agencies, while that from the non-institutional sources it was 38.06 per cent. An average farm household in the state incurred Rs. 1,33,858 (74.80 per cent) and Rs. 45,076 (25.20 per cent) on productive and unproductive purposes respectively.

Vatta et al. (2008) conducted a study to examine the rural employment and income variations in Punjab. In all, 315 respondents comprising, 142 non-cultivating, 41 marginal, 44 small, 57 medium and 31 large farmers were selected. The study revealed that the ownership of land was positively related to the incidence of self-employment or regular employment and negatively related to casual employment. All cultivating and 44.40 per cent of non-cultivating households were found to derive income from farming. Agricultural labour was the source of income for 38.70 per cent of non-cultivating households, around 10.00 per cent of the marginal and 15.00 per cent of the small cultivator households. The proportion of cultivating households deriving income from the rural non-farm sources declined from 43.9 per cent and 45.5 per cent for the marginal and small cultivators to 32 per cent for the large cultivators. The study also revealed that the significance of rural non-farm sources of income in the total household income varied inversely with the size of landholding.
Singh et al. (2009a) made an attempt to examine the factors influencing economic viability of the marginal and small farmers in Punjab state. Out of the total 240 sampled farmers, the number of viable farmers was 165 (68.75 per cent) and of non-viable farmers was 75 (31.25 per cent). In the case of marginal farmers, total fixed investment on crops and dairy, off-farm income, value productivity of crops and net income from dairy were calculated to be significant discriminating factors, accounting for 13.72 per cent, 39.71 per cent, 1.27 per cent and 35.52 per cent contributions respectively towards total distance between viable and non-viable farms. However, in the case of small farmers, farm-size, off-farm income and net income from dairy were the significant discriminating factors with 36.60 per cent, 27.83 per cent and 21.70 per cent contributions respectively towards the discriminating distance between viable and non-viable small farmers in the state.

Singh et al. (2009b) made an attempt to examine the inadequacies of institutional agricultural credit system in Punjab state. The study was based on a random sample of 600 farm households covering 11 districts of Punjab state, comprising 107 marginal, 150 small, 153 semi-medium, 87 medium and 103 large farmers and pertains to the year 2005-06. The study revealed that the total loan per farmer household in the state was Rs. 178934, comprising Rs. 110828 (61.90 per cent) from institutional sources and Rs. 68106 (38.10 per cent) from non-institutional sources. The small and large farmers got 65 per cent of their loans from institutional sources and the semi-medium and medium farmers got less than
60 per cent of their loans from institutional sources. The study also revealed that an average farm household in the state incurred Rs. 1,33,858 (74.80 per cent) on productive and Rs. 45,076 (25.20 per cent) on unproductive purposes.

Singh (2010) conducted a study to estimate the levels of credit taken for healthcare purposes by the marginal and small farmers. The present study was conducted in selected villages of Amritsar and Gurdaspur districts of Punjab state in 2008-09. The study revealed that the total annual incomes were estimated to be Rs. 56,428 and Rs. 1,05,680 for the marginal and small farmers respectively. Their average annual expenditure were estimated to be Rs. 79,769 and Rs. 1,46,378 for the marginal and small farmers respectively. The annual income of both categories of farmers fell short of their annual total expenditure by 41.40 per cent and 38.50 per cent in the case of marginal and small farmers respectively. The study also revealed that the amount of debt per household is found to be more in the case of small farm-size category standing at Rs. 70,502 as against the amount of Rs. 44,635 for the marginal farm-size category. As many as 46.40 per cent and 40.90 per cent of the total credit for the marginal and small farmers was acquired for the purchase of agricultural inputs followed by healthcare purposes with the percentages of 20.00 and 23.20 for the marginal and small farmers respectively.

The Present Study

The present study concentrates on the following objectives:

1. To estimate the levels and pattern of income of the marginal and small farmers;
2. To estimate the levels and pattern of consumption expenditure of the marginal and small farmers;

3. To estimate the extent and nature of poverty among the marginal and small farmers; and

4. To estimate the extent and nature of indebtedness among the marginal and small farmers.

**Chapter Scheme**

The present study is organised into the following eight chapters:

Introduction and review of literature is given in the first chapter. Methodology, concepts and definitions are discussed in the second chapter. Chapter third deals with socio-economic profile of sampled households in the rural Punjab. Chapter fourth is devoted to the analysis of levels and pattern of income of different farm-size categories in the rural Punjab. Their levels and pattern of consumption are contained in chapter fifth. Chapter sixth is devoted to the analysis of extent of poverty. Chapter seventh focuses on the magnitude, nature and determinants of indebtedness. Summary of conclusions and policy implications are concentrated in the last chapter.
References


Government of Punjab, http:\Punjabgovt.nic.in


