CHAPTER-1

INTRODUCTION

1.1 Introduction

Peasantry in India is a subject of utmost importance. The present work is a modest addition to the voluminous and ever-increasing literature on peasant issues. Indeed, neglect of agriculture has its serious outcomes. During 1980s and 1990s Government was more interested in liberalization\(^1\) measures. Agriculture was liberalized through Agreement on Agriculture under the World Trade Organisation regime. As a result, the public investment in agriculture declined and this pushed agriculture sector in crisis. Farmer distress was witnessed and it was more in comparatively better off areas or in technology efficient states as more money was required to fulfill the needs of the cultivator who was using advanced machinery and inputs. All those states which had accepted capital intensive and cutting edge technology for boosting production were heavily burdened by the distress situation of farmers. It impacted a lot of the small and marginal farmers. Farmer distress was, and still it is, a serious growth retarding factor. A sizeable proportion of farmers have lost capacity to withstand financial shocks. The worst is that they are prepared to leave agriculture if other alternatives are available (Rao, 2001). Without high agricultural growth, there cannot be rural development\(^2\), as it is a necessary and sufficient condition for the prosperity\(^3\) of the nation in general and for the peasantry in particular. There is sufficient empirical evidence available in favour of this. Agriculture has become relatively an unrewarding and non-profitable activity due to

\(^{1}\) Moreover, new institutions have not been put in place to mitigate the risks generated by the changes in the policy regime. Without adequate intervention, the pace of change was allowed to have its full sway on the livelihood of the farmers, especially small holders. The institutional retardation had begun to happen just when the farming community lost its capacity to generate self-equilibrating response to macroeconomic changes.

\(^{2}\) There is no universally accepted definition of rural development. The term is used in different ways in vastly divergent contexts. As a concept, it connotes overall development of rural areas with a view to improve the quality of life of rural people. As a phenomenon, it is the result of various physical, technological, economic, socio-cultural and institutional factors. As a discipline, it is multi-disciplinary in nature representing an intersection of agricultural, social, behavioural and management of sciences.


\(^{3}\) “Prosperity” would come as a result of development that enables all human beings to live with their basic needs met, with their dignity acknowledged, and with abundant opportunity to pursue lives of satisfaction and happiness.
the unfavourable price regime, low value addition, lack of agricultural marketing facilities etc.

India is one of the world’s largest agrarian economies. The Indian peasantry, the largest surviving body of small farmers in the world, is currently facing situation of heavy indebtedness. For thousands of years farmers have depended on land to sustain their families. Now, in the 21st century, their survival, happiness and the well-being of their families is threatened by the menace of indebtedness. Indebtedness is strikingly a regional phenomenon; it is low in less developed states, particularly in hilly states and generally high in agriculturally developed states.

The agriculture sector in India has undergone a significant structural change in the form of decrease in the share of Gross Domestic Product (GDP) from 30% in 1990-91 to 14.5% in 2010-11. There is a continuous decline in its contribution towards the GDP and the agriculture sector is losing its sheen and anchor position in Indian economy. The state of Indian economy is indicating a shift from the traditional agrarian economy towards a service oriented one. The problems, with which the Indian agriculture is burdened at present, are many. But, this in no way undermines the importance of this sector and the role it can play in the overall inclusive growth of the country.

Agricultural development is important for the economic stability and growth. It contributes significantly to export earnings and is an important source of raw materials for many industries. Its revival is being taken on precedence through various interventions at different levels because of its potential in reducing poverty and food insecurity4. The global experience of growth and poverty reduction shows that GDP growth originating in agriculture is at least twice as effective in reducing poverty5 as GDP growth originating outside agriculture. Agriculture is and will continue to be the engine of growth and development. The Commission on Farmers Welfare stated that

4 Though India was successful in achieving self-sufficiency by increasing its food production and also improved its capacity to cope with year-to-year fluctuations in food production. But, a report titled Asian Food and Rural Income released by Credit Suisse says India is slowly losing out on self-sufficiency in food produces. Source: http://www.financialexpress.com/news/india-is-losing-selfsufficiency-in-food-produces/331515

5 The incidence of poverty is higher in the rural sector than in the urban sector. Data from National Sample Surveys (NSS) shows that the ratio urban to rural per capita consumption increased from 1.62 in 1993-94 to 1.76 in 1999-2000 and further to 1.91 in 2004-05, which suggests that the urban-rural divide is widening.
agriculture in India has been in an advanced stage of crisis. The extreme manifestation of the crisis is in the fatal path adopted by farmers in different parts of the country. This brings out that something is terribly wrong in the countryside (Ghosh, 2005).

The crisis in agriculture is deep-rooted and is pushing the peasantry towards poverty. Hence, it is posing a threat to prosperity of the individual, of the state and of the nation as well. The share of institutional credit\(^6\), which was a little over 7% in 1951, increased to over 68% in 2010, reflecting a remarkable decline in the share of non-institutional credit from around 93% to about 30% during the same period. However, the latest estimates of National Sample Survey Organisation (NSSO)\(^7\) reveal that the share of non-institutional credit has taken a reverse swing. It means that non-institutional credit is on the rise again, which is a cause of concern because it gives rise to indebtedness among farmers. As we all know, demand for credit cannot be delinked from production. If we want to increase production, the availability of credit is the necessary and basic condition for it. Thus, it should be recognized that borrowing is not a sign of weakness, but an important need of the cultivator to meet his expenditure. It is only when his repaying capacity is exhausted that he should be called indebted or in debt trap.

1.2 Agricultural Situation in India

An average Indian still spends half of his total income on food and roughly half of India’s workforce is still engaged in agriculture\(^8\) for its livelihood. The experience from BRICS\(^9\) countries indicates that one % growth in agriculture is at least two to three times more effective in reducing poverty than the same growth emanating from non-agriculture sectors. Infact, agriculture is not farming alone. It

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\(^6\) Institutional credit sources concentrate only on the big and medium farmers. Whereas, small and marginal farmers has been left out from the purview of institutional credit mechanism. In all, it is a politics and economics of negligence of rural economy for over a period of one decade that it is still one of the important causes of suicide by farmers. This demands an immediate attention towards agriculture in the policy domain to stop the distress act of suicides in the state.

\(^7\) 59\(^{th}\) round of NSSO(2003), report no. 501, All India Debt and Investment Survey

\(^8\) There is an increasing evidence that there cannot be rural development without high agricultural growth. Still, 68.84% population lives in rural India according to census 2011. Rural development is therefore, an absolute and urgent need in India now, and will continue to be so in future. Thus it is the sine qua non of development in India.

\(^9\) The BRIC [Brazil, Russia, India and China] idea was first conceived in 2001 by Goldman Sachs as part of an economic modeling exercise to forecast global economic trends over the next half century; the acronym BRIC was first used in 2001 by Goldman Sachs in their Global Economics Paper No. 66, "The World Needs Better Economic BRICs". Now, it is renamed as BRICS as South Africa also joined the group.

Source: http://www.bricsindia.in/about.html
would be more meaningful to have a holistic view towards it which consists of a value chain which includes so many activities like wholesaling, warehousing, processing, retailing etc. The last two five year plans clearly mentioned that for the economy to grow at 9%, it is important that agriculture should grow at least by 4% per annum. Achieving an 8-9% rate of growth in overall GDP may not deliver much in terms of poverty reduction unless there is growth in agriculture. The continuing high pressure of population on agriculture and the increasing fragmentation of land holdings lead to decreasing availability of cultivated land area per household. Under these circumstances, the agriculture sector alone would not be in a position to create additional employment opportunities to sustain the livelihood of the rural households. So, there is need to generate employment opportunities in other sectors which can employ the surplus labor engaged unproductively in agriculture.

The steps which were taken to revive agriculture since 2004, showed some improvement in the growth rate of agriculture sector from 2.4% in 10th Five Year Plan (FYP) to 3.5% in 11th FYP. The performance of agricultural sector in India has been quite volatile. The variation is likely to increase in the years to come in the wake of climate change. Structural change in the composition of agriculture leading to a diversification of Indian agriculture into horticulture, livestock and fisheries can prove helpful. Being highly perishable by nature, this segment requires rapid and better linkages between farms and firms in terms of logistics, processing and organised retailing. As a result, this would entail institutional changes that can incentivise entrepreneurs to invest in building efficient and faster value chains that reduce wastages and increase the income of farmers at the bottom of the chain (MoA, 2011-12). 80% of total investment in agriculture comes from the private sector. Another important factor is Gross Capital Formation (GCF) which plays a major role in

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10 The coefficient of variation during 2000-01 to 2010-2011 was 1.6 compared to 1.1 during 1992-93 to 1999-2000.

11 Agricultural development cannot be ensured by confining attention to the activities within the boundaries of agricultural fields. It should encompass activities fully or partially meant for agriculture such as production of fertilizers and pesticides, development of agricultural markets, rural roads and communication; augmentation of facilities for agricultural credit for small and marginal farmers, agricultural education, research and development of agricultural technology etc. which are the main source of increasing production under the limited availability of natural resources. For monitoring agricultural growth it is necessary to have a broader measure of agricultural capital formation that includes capital formation in all these activities, which can be called capital formation for agriculture in comparison with capital formation in agriculture.
driving agricultural growth. GCF in agriculture and allied sector as percentage of agriculture to GDP increased from 7% during the 1st FYP to 10.8% during 5th FYP after which it followed a declining trend upto 8th plan, when it came down to 8.8%. After this, during 9th FYP, reverse trend again set in due to the efforts of Government schemes and programmes which resulted in an increase in GCF to 13.9% of GDP (Agri) during the 10th FYP. Although the GCF as percentage of agricultural GDP has improved substantially, yet there has not been a commensurate improvement in the rate of growth of agriculture sector.

Another aspect which affects agricultural development relates to subsidies. The expenditure on subsidies depletes public investment on agricultural research, irrigation, rural roads and power. The biggest of all input subsidies is the fertilizer subsidy and there are clear indications that it had led to an imbalance use of N, P and K\textsuperscript{12} in states like Punjab and Haryana and has also contributed in deteriorating soil conditions. Irrigation remains the most important component in the overall investment in agriculture. In case of public investment in agriculture, more than 80% is accounted by major and medium irrigation schemes. Even in case of private investment in agriculture, almost half is made on irrigation. Without proper use of water, it is difficult to get good returns by using high yielding varieties of seeds. Water will remain a critical input for agriculture in the decades to come. It is for agricultural science to develop seeds that can thrive in dry climate. Ground water irrigation which is the biggest source of irrigation now a days, suffers from over exploitation in most of the states, particularly in the north-west where water table is going down drastically. Free or cheap power for irrigation has primarily contributed to this problem.

Seed is also seen as catalyst of change in agriculture and the Green Revolution in India during the late 1960s and 1970s bore witness to this truth. And lately during the decade of 2000s, Bt cotton seeds and hybrid maize seeds have shown spectacular results. The major difference in two is that earlier these high yielding seeds came from public institutions, but lately they are increasingly made available by private sector in selected crops. On the other side, the overall consumption of fertilizer has increased from 70 kg per hectare in 1991-92 to 144 kg per hectare by 2010-11. An

\textsuperscript{12} N= Nitrogen, P=Phosphorus and K= Potassium

\textit{Source: Report of the committee on Capital Formation in Agriculture, Department of Agriculture and Co-operation, Ministry of Agriculture (2003)}
An integrated nutrient management approach is required to enable a balanced use of fertilizers for optimum results.

In addition to the above mentioned factors, credit to buy modern inputs for farming operations is a facilitator to this change. It is a truism that credit is the life and blood of every business including agriculture. But, credit is available only where there are assets. If credit is obtained against assets, liabilities are bound to spring up. Every loan is a debt and accumulation of debt is indebtedness\(^{13}\). It is only if a person is not able to repay his debt, he can be called enmeshed in a debt trap. An interesting fact in this context is that the bigger the land-holding, the bigger would be the amount of loan. Still, what is more alarming is that the proportion of farmers under debt is increasing day by day\(^{14}\). Even very small and marginal farmers, who have very low income, find it difficult to cope with the situation of debt crisis. As a result they are forced to commit suicide. Farmers cash returns from agriculture are barely enough to service their debt. The Government has taken steps to reduce the rate of interest from 7% to 4% (4 % after taking into account the 3% subvention in interest for timely repayment of crop loans) but it has failed to bring desired results.

Yet, the biggest challenge manifests itself in terms of increasing access to credit, particularly for the bottom 40% of farmers. More innovative models are needed to reach this category of farmers as they rely largely on the informal sector\(^{15}\) for credit with high rates of interest. The land and credit markets are linked together and an improved marketability of land will definitely enhance access of farmers to institutional credit that requires the pledging of collaterals (MoA, 2011-2012). Various steps have been introduced by the Government in this context to restore the prosperity of the Indian farmers. But, proper implementation of any policy is the prerequisite for the development of this sector. Thus, a proper attention to address these problems is the need of the hour. This would go a long way to solve many basic problems of the Indian economy, especially of rural areas. Thus, all these inputs are

\(^{13}\) Indebted household is one which has any loan outstanding on the date of survey. Loans include borrowing in cash and / or in kind (including hire purchase) as well as credit purchase evaluated at local retail price prevailing in the market. It is only if his repaying capacity is exhausted then he should be called indebted, or in debt trap (NSSO, 50th round, 2003).

\(^{14}\) State of Indian Agriculture(2011-12), Department of Agriculture and Co-operation, Ministry of Agriculture(Annual Report)

\(^{15}\) The demand for loans from money-lenders with higher rates of interest usually comes from borrowers with no other option. They either had no access to the services of formal financial institutions or they lacked information.
required to bring back the prosperity of agricultural sector in general and of farmers in particular. The role of agricultural credit in the development of a country cannot be denied since times immemorial. Easy availability of agricultural credit showed its importance in bringing prosperity among farmers.

1.3 History of Rural Credit

Till the end of the nineteenth century, land was considered to be a community property. The money-lender could not grab it against debt default and the cultivator could return the debt whenever he had surplus output. But, after annexation (1901), the land settlement resulted in individual proprietary rights and the influence of community was considerably reduced. Secondly, the prosperity following the restoration of peace and order and opening of canal development projects undertaken by the British administration, the land owning class became used to an extravagant way of life. Large sums were borrowed for marriages and other occasions. Rise of prices of agricultural produce had naturally resulted in the rise of price of land and the land owners started borrowing more freely and had more temptation to sell or mortgage a part of their land to get money or to pay the debt incurred because of heavy interest (Darling, 1926).

The inadequacy of rural credit continued to engage the attention of the Reserve Bank of India and the Government throughout the 1950s and 1960s. In India, prior to the year 1951, agriculture was a thoroughly neglected sector and no deliberate effort was made by the Government to uplift the cultivators from their deteriorating plight of impoverishment and indebtedness. The heavy debt burden was first traced out very concretely and comprehensively by All India Rural Credit Survey (AIRCS)

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16 The Co-operative movement in India owes its origin to agriculture and allied sectors. Towards the end of the 19th century, the problems of rural indebtedness and the consequent conditions of farmers created an environment for the chit funds and Co-operative societies. The farmers generally found the Co-operative movement an attractive mechanism for pooling their meagre resources for solving common problems relating to credit, supplies of inputs and marketing of an agricultural produce. The experience gained in the working of Co-operatives led to the enactment of Co-operative Credit Societies Act, 1904. Subsequently, a more comprehensive legislation called the Co-operative Societies Act was enacted. This Act, inter alia, provided for the creation of the post of registrar of Co-operative societies and registration of Co-operative societies for various purposes and audit. Under the Montague-Chelmsford Reforms of 1919, co-operation became a provincial subject and the provinces were authorised to make their own Co-operative laws. Under the Government of India Act, 1935, Co-operatives were treated as a provincial subject. The item "Co-operative Societies" is a State Subject under entry No.32 of the State List of the Constitution of India.

Source: http://pib.nic.in/feature/fe0299/fl202992.html
of 1951-52. In 1961-62, the non institutional credit agencies accounted for nearly 81.6% of the debt of the cultivators, as per All India Debt and Investment Survey (AIDIS). Data reveals that the debt burden of the cultivators owed to the non-institutional agencies was to the tune of 68.3%. This issue will be taken into consideration as the study proceeds. Moreover, with the advent of Green Revolution, cash needs in agriculture have increased manifold. But, majority of cultivators cannot meet such increased cash needs out of their own savings. It has rightly been pointed out, the farmer in underdeveloped or developing countries cannot expect their capital needs to be fulfilled from savings alone, because their income from farm operations is barely sufficient to provide them with bare necessities of life (FAO, 1985).

The Green Revolution (mid 1960s) resulted in an increase in agricultural production where modern agricultural techniques were employed including irrigation methods, new varieties of seeds and expansion of farming areas in the countryside (Manikandan, 1990; Sidhu, 2001; Pederson and Tokar, 2004). But, on the other hand, the virtually endless need for new equipments and inputs buried farmers in unsustainable long-term indebtedness (Sidhu, 2001). The New Agricultural Strategy created islands of prosperity amidst mass of poverty (Patnaik, 1994). Green Revolution period witnessed a wider use of technology and its impact is different on different categories of farmers. Many of the productive activities like motor burnouts, tubewell deepening and electric connection activation cost a lot of money. But, there was hardly any institutional credit available for these and these have been categorized as unproductive expenses by some analysts (Singh, 2006). The inadequacy of rural credit continued to hold the attention of the Reserve Bank and the Government throughout the period of 1950s and 1960s. The Agricultural Refinance Corporation

17 The All-India Rural Credit Survey Committee Report, 1954 recommended an integrated approach to Co-operative credit and emphasised the need for viable credit Co-operative societies by expanding their area of operation, encouraging rural savings and diversifying business. The Committee also recommended for Government participation in the share capital of the Co-operatives. Showing the significance of development of rural India, AIRCS had said, “India is essentially Rural India and Rural India is virtually the cultivator, the village handicraftsman and the agricultural labourer.”

18 The term “Green Revolution” was first used by the then administrator of the USAID, William S. Gaud on 8th March, 1968 in Washington, D.C. when he addressed the society for International Development on the subject “Green Revolution—accomplishments and apprehensions”. Green Revolution period faces a wider use of technology and the impact is variant on all farmers. Those having command on resources get benefitted and farmers with limited resources suffers losses. Land reforms failed to bring about any radical re-distribution of land and the introduction of new technology sharpened the differentiation among peasantry by opening up more favourable situations to the rich peasantry. Unlike heavy farm based technology, the HYV technology did not create an entry bar for small and marginal farmers.
(ARC) was set up by the Reserve Bank in 1963 to provide funds by way of refinance, but Co-operatives still did not function too well (RBI, 2004).

The changes produced by Green Revolution generated interesting debate among the scholars. The new package had opened new channels of choices, opportunities, preferences and living standard etc. for all the three main social categories: maliks (landlord), kisans (the working peasants) and mazdoors (the labourers). Revolution pushed agriculture towards mechanization. It introduced new technology for irrigation and farmers fully utilized these technologies and these resulted in depletion\(^9\) of aquifers. Technological innovation increased the production and changed the pattern of production. The spectacular gains in income were realized by farmers who were able to use the new seeds. It widened the gaps in living standards between them and those who were still using traditional husbandry practices (Brown, 1970). Dependence on market for buying inputs and for selling output (produce) increased. The uncertain production and costly inputs forced farmers to fall into the trap of debt. A significant section of owner-cultivators (farmers) became vulnerable to poverty due to the promotion of capital-intensive agriculture (Kumar, 2003).

The shift from indigenous varieties of seeds to the Green Revolution (high yielding and hybrid seed varieties)\(^20\) also involved a shift from a farming system controlled by peasants to one controlled by agro-chemical and seed corporations and international agricultural research centers. This shift also implied that from being a free resource reproduced on the farm, seeds were changed into a costly input to be purchased. Countries started taking international loans to disperse the new seeds. On the other hand, farmers had also to take credit from banks to use them. International agricultural centers provided these hybrid seeds to the underdeveloped or developing nations, which were earlier reproduced and multiplied at the national level (Shiva et al., 2000). Still this is happening in India.

\(^9\) India has only 4% of world’s water resources and over 17% share in population. The National Commission for integrated water resource development plan has projected that by 2050 the requirement for irrigation water in India would grow by more than 50%.

\(^20\) Hybrid seeds are the first generation seeds (F1) produced from crossing two genetically dissimilar parent species. The progeny of these seeds cannot economically be saved or replanted, as the next generations will give much lower yields. Though these seeds can be saved by farmers, they are non-sustainable due to vulnerability to diseases and pests and therefore need to be replaced after one or two crops.
The widening gap between the owned capital and the required capital has necessitated more and more borrowing. It has necessitated the institutional agencies like Co-operative and Commercial Banks to play a big role in providing credit because expanding credit needs can no longer be adequately met by traditional money-lenders. With the increasing institutionalization of agricultural credit, the problem of farm indebtedness has achieved a new dimension. Institutional credit agencies very often try to distribute their loanable funds in such a way as to minimize their risks. In this, they always prefer big farmers to the smaller ones. Thus, there is more inflow of institutional credit to large size of farms keeping the smaller ones always under the mercy of private agencies. Due to this tendency of small farmers they continue to suffer from chronic indebtedness as they have to borrow from private sources at high rate of interest.21

As in the most colonial countries, the rural credit policies in India also have been influenced by policies set up during the pre-independence period. Colonial credit policies were directed mainly towards agricultural credit as the economy of the country was rural based and those policies were a measure to expand institutional credit to rural areas. The Reserve Bank of India (RBI) and the National Bank for Agriculture and Rural Development (NABARD) both played a very significant role in shaping the rural credit policies in India, and in building and strengthening its rural economy through institutional credit.

In India, agricultural credit is disbursed through a multi-agency network comprising of Commercial Banks (CBs), Regional Rural Banks (RRBs) and Cooperatives. The Co-operative credit institutions, both in short and long-term structure are the main institutional mechanism for dispensation of agricultural credit as these cover almost all the villages in the country. These also reach to the remotest part of

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21 When a borrower (debtor) and a lender (creditor) enter into a contract, the borrower receives funds at the present time from the lender in exchange for paying the funds back at a later time. In essence, the borrower has gained control of the use of money that is owned by the lender. This includes the opportunity to invest this money for the purpose of earning income for the borrower. The lender is willing to enter into such a contract because income for the lender is involved. The borrower agrees to pay back money in addition to the amount of money borrowed in order to compensate the lender for providing this service. The amount of funds borrowed is called principal. The amount in addition to the principal that the borrower agrees to pay to compensate the lender is called interest.

22 Rural credit is an important instrument for promoting agricultural development. Agriculture is important for the economic stability and growth, especially for the developing countries like India. Thus, credit acts as a catalyst for development.
the country. As per annual report of the Department of Economic and Co-operation, 2011-12 there are 1,06,384 Primary Agricultural Credit Societies, 370 District Central Co-operative Banks with 12991 branches and 30 State Co-operative Banks with 962 branches providing mainly short-term and medium-term agricultural credit in the country. The long-term Co-operative structure consists of 19 State Co-operative Agriculture and Rural Development Banks. Of this, 7 are of unitary structure with 750 branches and 12 are of federal structure with 703 Primary Agricultural and Rural Development Banks with 1132 branches.

As per the All-India Debt and Investment Survey (AIDIS) in 2002 the share of non-institutional sources in the debt of cultivator households increased from 30.6% in 1991 to 38.6% in 2002, reversing some of the positive achievements made during 1980s (Report of the Expert Group on Agricultural Indebtedness, 2007). A more worrying feature of the trend was the increase in the share of money-lenders in the total debt of cultivators from 17.5% to 26.8% during the same period. Also, this report observed that there was an inverse relationship between land-size and the share of debt from informal sources. In addition to it, a considerable proportion of the debt from informal sources was taken at a fairly high rate of interest. About 36% of the debt of farmers from informal sources had interest ranging from 20 to 25% per annum. Another 38% of loans had been borrowed at an even higher rate of 30% per annum and above, indicating the excessive interest burden of such debt on small and marginal farmers. Table 1.1 shows relative share of borrowing of cultivator household from different sources since 1951.

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A major cause of concern in this regard is the declining share of institutional sources after 1991. Thereafter, the Government tried to reverse this trend and somehow it succeeded in increasing the share of credit to farmers through institutional sources. The Indian agricultural development is taking place at the cost of farmers, the main architect of the food security of the nation. The problem of indebtedness continues to engage the attention of researchers and policy makers alike. Given the grave situation, Agricultural Debt Waiver and Debt Relief Scheme (ADWRS) in 2008 was introduced by the central Government to give some relief to the indebted farmers. In 2009, the Ministry of Finance set up a Task Force to examine the issue of debt taken by a large number of farmers from the private money-lenders. Earlier these farmers were not covered under the Agriculture Debt Waiver and Debt Relief Scheme (2008). So, the problem of mounting debts of farmers is on the national agenda once again. We intend to study this problem with reference to Punjab- A little big state of India. It is ‘little’ because the Punjab occupies only around 1.5 % of the geographical area of the country and alternatively it is ‘big’ because around two-third of the foodgrains procured annually in the country come from this state. Punjab’s agricultural sector grew at 1.6 % during the 11th FYP against the national average of 3.41 % of growth in this sector. The growth is tardy owing to near saturation in productivity levels. The rural debt in Punjab is estimated to be around ₹ 35,000 crore, according to NSSO estimates. The number of rural households under debt in Punjab is around 66 %. Punjab is third in the country, only after Andhra Pradesh and Tamil Nadu in the list of indebtedness of rural households.

1.4 Background of the Study Area

Punjab24 is located in the northwestern part of the subcontinent, surrounded by states of Haryana (to the south and southeast), Rajasthan (to the southwest), J&K (to 23

The rehabilitation package was aimed at establishing a sustainable and viable farming and livelihood support system through debt relief to farmers, improved supply of institutional credit, crop-centric approach to agriculture, assured irrigation facilities, watershed management, better extension and farming support services, and subsidiary income opportunities through horticulture, livestock, dairying, fisheries and so on (Singh, 2009). However, the Performance Audit report of the Comptroller and Auditor General (CAG) on the debt waiver and debt relief scheme 2008 has found number of shortcomings in the implementation of the Rs 52,000 crore farm debt waiver scheme pointing out that thousands of beneficiaries were not eligible while those eligible were denied the benefits.


Source:http://www.britannica.com/EBchecked/topic/483563/Punjab
the north), Himachal Pradesh (to the northeast), and by the neighbouring country Pakistan (in the west). The present Punjab came into existence on November 1, 1966. On that very day, the most of its predominantly Hindi speaking areas were separated to form the new state of Haryana. The city beautiful, called Chandigarh, became a union territory—the joint capital of both the states i.e. Punjab and Haryana. The word ‘Punjab’ is a composed of two Persian words, panj (five) and aab (water), thus signifying the land of five waters or rivers (the Beas, the Chenab, the Jhelum, the Ravi, and the Sutlej). The word PUNJAB’s origin can perhaps be traced to panch nada, Sanskrit word for “five rivers” and the name of a region mentioned in the ancient epic the Mahabharata. However, it is a misnomer to the present Indian state of Punjab because since the partition of India in 1947, only two of these rivers i.e. the Sutlej and the Beas lie within Punjab’s territory, whereas the Ravi flows only along its western border.

According to M. L. Darling, the most impressive fact about India is that her soil is rich but her people are poor. Punjab state, with only 1.5% of geographical area of the country, produced 20% of Wheat, 9% of Rice and 14% of Cotton of the total produce in the country. Punjab is 1st in average per hectare yield of Rice, Wheat and Cotton. During the year 2010-11, the total production of foodgrains touched 278.46 lakh tonnes, a matter of great pride for any state and its people. Punjab state which has earned the rare distinction of being called “Food Bowl of India” & “Granary of India” has been contributing 40-50 % of Rice & 60-70 % of Wheat to the central pool for the last two decades. The phenomenal growth of Punjab’s agriculture helped India to overcome its food shortages and also it enhanced prosperity in the state. But, now Punjab’s economy is trapped in a crisis. This is reflected in stagnation in the productivity of principal crops, namely, wheat and rice; declining returns from agriculture; a declining rate of growth; and the degradation of environmental resources etc. And this is a major threat for the food security of the nation. Punjab contributed significantly to the central pool towards strengthening India’s self sufficiency. But, now its declining share is posing a threat to the food security of the nation. This is so because poor performance of agricultural sector has serious implications for availability of foodgrains.

Darling’s work on Punjab peasant embodied the results of years of first-hand investigation and study, and not only threw new light on the problem of increasing prosperity of Indian ryot, but also made extremely fascinating reading. Source: Darling, Malcolm Lyall (1928). “The Punjab Peasant In prosperity and Debt”, 2nd edition, forwarded by Maclagan, Sir Edward, Oxford University Press.
At constant prices (2004-05), the Gross State Domestic Product (GSDP) has increased to ₹ 138629 crore (P) in 2009-10 from ₹ 130431 crore (R) in 2008-09. Quick estimates of GSDP at Constant prices for 2010-11 is ₹ 148069 crore. At constant prices the GSDP from primary sector (which comprises mainly of agriculture and livestock activities) has decreased from ₹ 34805 crore (R) in 2008-09 to ₹ 34694 crore (P) during 2009-10, registering a growth rate of (-) 0.32 % (P) as compared to 2.05 % (R) in 2008-09. It increased further to ₹ 35740 crore in 2010-11 showing a growth rate of 3.01 % (Q).

### Table 1.2

<table>
<thead>
<tr>
<th>Item</th>
<th>2006-07 (R)</th>
<th>2007-08 (R)</th>
<th>2008-09 (R)</th>
<th>2009-10 (P)</th>
<th>2010-2011 (Q)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Primary</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Agriculture</td>
<td>2.85</td>
<td>3.84</td>
<td>2.05</td>
<td>-0.32</td>
<td>3.01</td>
</tr>
<tr>
<td>Agriculture(Proper)</td>
<td>2.36</td>
<td>4.95</td>
<td>2.69</td>
<td>-0.32</td>
<td>3.72</td>
</tr>
<tr>
<td>Livestock</td>
<td>3.87</td>
<td>2.19</td>
<td>0.32</td>
<td>-1.08</td>
<td>1.50</td>
</tr>
<tr>
<td><strong>Secondary</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Manufacturing</td>
<td>21.44</td>
<td>16.61</td>
<td>4.22</td>
<td>8.79</td>
<td>6.93</td>
</tr>
<tr>
<td>Electricity, Gas &amp; Water Supply</td>
<td>9.40</td>
<td>15.10</td>
<td>2.38</td>
<td>0.56</td>
<td>3.98</td>
</tr>
<tr>
<td>Construction</td>
<td>20.34</td>
<td>8.99</td>
<td>7.69</td>
<td>4.24</td>
<td>5.68</td>
</tr>
<tr>
<td><strong>Tertiary</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Trade, Hotels &amp; Restaurants</td>
<td>8.69</td>
<td>7.52</td>
<td>9.57</td>
<td>8.62</td>
<td>8.88</td>
</tr>
<tr>
<td>Transport, Storage &amp; Communication</td>
<td>9.55</td>
<td>9.61</td>
<td>7.61</td>
<td>7.43</td>
<td>8.83</td>
</tr>
<tr>
<td>Banking and Insurance</td>
<td>25.29</td>
<td>13.13</td>
<td>13.54</td>
<td>15.77</td>
<td>19.60</td>
</tr>
<tr>
<td><strong>Total GSDP</strong></td>
<td>10.18</td>
<td>9.05</td>
<td>5.85</td>
<td>6.23</td>
<td>6.81</td>
</tr>
</tbody>
</table>

Source: Economic Survey 2011-12, ESO, Government of Punjab

At constant prices, the GSDP from the secondary sector (which covers the manufacturing, power and construction sectors) has increased from
र 39303 करोड़ (R) in 2008-09 to र 42758 करोड़ (P) in 2009-10 showing a growth rate of 8.79% (P) as compared to 4.22 % (R) in 2008-09. Its share in 2010-11(Q) was र 45721 करोड़, registering a growth rate of 6.93 %. Sectoral growth rates are depicted in Table 1.2 which shows deceleration in agricultural growth rate till 2009-10. However, the quick estimates of 2010-11, show the improvement over the earlier periods. Lower growth rate of agriculture sector is a cause of concern as Punjab’s economy basically is an agricultural economy. Along with this, as per the census 2011, still Punjab has 62.51 % of rural population. As Punjab is predominantly an agrarian state, the Government is making all out efforts to develop and boost the agro-based industry in the state which is probably the key sector for industrial growth. Through Green Revolution in the 1960s, Punjab took a major stride in increasing its productivity of foodgrains. In the year 2010-11, wheat with a yield of 46.93 Qtls. per hectare and rice with a yield of 38.28 Qtls. per hectare has contributed to the central pool significantly towards strengthening India's self sufficiency. During 2010-11, 45.4% wheat and 25.3% rice to the central pool came from Punjab. However, Punjab’s contribution of Wheat and Rice (Table 1.3) to the central pool shows a declining trend in recent times, which is a major cause of concern. It is sad to note that, with the passage of time, the growth rate of agriculture in Punjab’s GSDP has been declining.

Table 1.3

<table>
<thead>
<tr>
<th>Year</th>
<th>Total Contribution (Lakh tonne)</th>
<th>percentage share to central pool</th>
<th>Total Contribution (Lakh tonne)</th>
<th>percentage share to central pool</th>
</tr>
</thead>
<tbody>
<tr>
<td>1990-91</td>
<td>67.4</td>
<td>60.9</td>
<td>48.2</td>
<td>41.0</td>
</tr>
<tr>
<td>2001-02</td>
<td>105.6</td>
<td>51.2</td>
<td>72.8</td>
<td>32.9</td>
</tr>
<tr>
<td>2007-2008</td>
<td>67.8</td>
<td>60.9</td>
<td>79.8</td>
<td>27.8</td>
</tr>
<tr>
<td>2008-2009</td>
<td>99.4</td>
<td>43.8</td>
<td>85.5</td>
<td>25.1</td>
</tr>
<tr>
<td>2009-2010 (R)</td>
<td>107.3</td>
<td>42.2</td>
<td>92.8</td>
<td>28.9</td>
</tr>
<tr>
<td>2010-2011 (P)</td>
<td>102.1</td>
<td>45.4</td>
<td>86.3</td>
<td>25.3</td>
</tr>
<tr>
<td>2011-2012 (P)</td>
<td>109.6</td>
<td>38.7</td>
<td>77.3</td>
<td>22.1</td>
</tr>
<tr>
<td>2012-2013 (P)</td>
<td>128.3</td>
<td>33.6</td>
<td>85.6</td>
<td>41.9</td>
</tr>
</tbody>
</table>

Source: Ministry of Consumers Affairs, GOI; Economic Survey 2011-12. Govt. of Punjab
As per quick estimates, agriculture (proper) has contributed 19.49% to GSDP at constant prices (1999-2000) during 2008-09 and as per the 2001 census, around 39% of the working population of the state is employed in this sector. According to census 2011, still the percentage of rural to urban population in Punjab is in majority i.e. 62.51%. Contribution of primary sector, which comprises mainly agriculture and allied activity, in the GDP of state is continuously declining since 2004-05 when it stood at 32.67%. It has come down to 24.14% in 2010-11 (quick estimates). Punjab contributed significantly to the central pool towards strengthening India’s self sufficiency. But, now its declining share is posing a threat to the food security of the nation. Poor performance of agricultural sector has its serious implications in availability of foodgrains. At present, Punjab is not even able to compete with the growth levels of national average in case of primary sector. The overall average of primary sector growth during 11th FYP for Punjab is 1.67% as compared to national average of 3.32 %. Even, 2.40 % growth target set by planning commission has gone out of reach due to declining productivity of Punjab soils. Also, the growth is much lesser as compared to the growth of its neighbouring state ‘Haryana’ which was once a part of Punjab. Now, it is far ahead in many spheres. According to the latest estimates, Punjab’s per capita income (PCI) is much lower than that of Haryana, as Punjab’s PCI at constant prices is ₹ 48,496 as against Haryana’s at ₹ 66,410\textsuperscript{26} for 2012-13.

If we compare the growth rate of population with the per capita availability of foodgrains in the country, the situation becomes alarming. Also low growth of domestic production and large fluctuations clearly raises a problem of food availability at national level. We all know that food security is the foundation of economic security and economic security leads to national security and other forms of social security to nationals. Also, productivity gains are key to food security in countries with foreign exchange shortage or limited infrastructure to import food. In addition to it, food must not only be available and accessible but also be of right quality in terms of energy and micronutrients. In India the rate of growth of population is much higher than the rate of growth of foodgrains. Table 1.4 and Figure 1.1, clearly show this phenomenon.

\textsuperscript{26} The Haryana State has highest per capita income amongst the large States in the Country. The per capita income of the State has always remained much higher than all India level in the past. Source:http://esaharyana.gov.in/Data/Economic\%20Survey\%20of\%20Haryana/2012-13.pdf
Table 1.4

<table>
<thead>
<tr>
<th>Year</th>
<th>Population</th>
<th>Decadal Growth (%)</th>
<th>Per Capita Availability of Foodgrains</th>
<th>Decadal Growth (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1951</td>
<td>361088090</td>
<td>13.31</td>
<td>395</td>
<td></td>
</tr>
<tr>
<td>1961</td>
<td>439234771</td>
<td>21.64</td>
<td>469</td>
<td>18.73</td>
</tr>
<tr>
<td>1971</td>
<td>548159652</td>
<td>24.8</td>
<td>469</td>
<td>0</td>
</tr>
<tr>
<td>1981</td>
<td>683329097</td>
<td>24.66</td>
<td>455</td>
<td>-2.99</td>
</tr>
<tr>
<td>1991</td>
<td>846421039</td>
<td>23.87</td>
<td>510</td>
<td>12.09</td>
</tr>
<tr>
<td>2001</td>
<td>1028737436</td>
<td>21.54</td>
<td>416</td>
<td>-18.43</td>
</tr>
<tr>
<td>2011</td>
<td>1210193422</td>
<td>17.64</td>
<td>439</td>
<td>5.53</td>
</tr>
</tbody>
</table>

Source: Census 2011, GoI; State of Indian Agriculture 2012-13, Ministry of Agriculture

Both tell us about the declining growth of per capita availability of foodgrains in India. It is now widely known that the celebrated Green Revolution of Punjab has run into a major crisis. The crisis is deep-rooted, multi-dimensional and inherent in the specific structure of capitalist development of agriculture in Punjab. Farmers are burdened by voluminous debts that contribute to their problems in the agriculture...
sector. This phase of indebtedness showed serious impact on Punjab’s economy. The Economic Survey (2012-13) too points out to the woes of Punjab’s farmer. According to it, productivity has stagnated in the absence of new breakthroughs in high yielding varieties of seed. There is thrust on intensive farming, one has to pay heavily because of depleted water table and degradation of the soil. The pattern of wheat-paddy cycle is not sustainable and efforts to shift area under paddy to alternate crops, is the need of the hour. At 242 kg per hectare, Punjab’s fertiliser consumption is one of the highest in the country.

The problem of debt among the Punjab peasantry is not new. It was highlighted by Sir Malcolm Darling in his monumental work “The Punjab Peasant in Prosperity and Debt” way back in 1925. At that time, he observed that Punjab is the most prosperous province in the country and also the most indebted. In the mid 1960s, Punjab was one among those states which were chosen for the Green Revolution and thus, Punjab adopted capital intensive technology for enhancing productivity. Expenditure on these inputs, no doubt, enhanced productivity, as well as, income of the farmers. But, also it increased their cost of cultivation. The farmers became more dependent on these high cost inputs and gradually got trapped in debt crisis.

This indebtedness has been acknowledged as one of the stumbling blocks in the way of rural prosperity. It lowers agricultural production, disturbs social psyche, arrests social progress, misdirects social efforts and aggravates inequalities in the distribution of socio economic opportunities and benefits (Mitra et al., 1986). Due to these effects, farmers are leaving their prime occupation i.e. agriculture. No doubt, Punjab’s prosperity has been so fascinating that it attracted the attention of intellectuals from time to time. Although, in general, an increase in the agricultural indebtedness of a country is usually a sign of prosperity (Jesse Pope, 1914), yet in some grave situations, it can put farmers under debt which is more detrimental.

In Punjab, agriculture is a way of living. Among the Indian states, Punjab holds place of pride for its outstanding achievements in agricultural development. Punjab was the first Indian State to use agricultural technology to engineer “Green Revolution” and as a result recorded the highest growth rate in food production. Rural areas of Punjab experienced a general spurt in their prosperity after the Green Revolution in the mid 1960s. The potentials of Green Revolution technology began to
be exhausted in the 1980s generating pressure of economic stress on the poor strata of peasantry and agricultural labourers. Following the Green Revolution, Punjab had the most rapid and sustained growth in both agricultural and non-agricultural productivity among the major Indian states. In addition, growth in the state was ‘unusually pro-poor’ during this period. Analysis through cross-state empirical work indicates that this was primarily due to the higher growth in farm yields and non-farm output and the high trend growth rate of developmental expenditure in Punjab. Also, the growth-poverty elasticity in Punjab was particularly high and it resulted in lowering poverty levels, reflecting its superior initial conditions, in terms of the relatively equitable land distribution, low rural-urban disparity and high levels of human development in the early 1960s. Punjabi’s love for land and the high value they attached to the practice of self-cultivation played an important role in making the Green Revolution a success story in the region and also at the national level. After two decades of growth, the Green Revolution began to lose its charm and was followed by the series of crisis. Beginning with the early 1980s, the word crisis became the dominant mode of representing Punjab.

Since Green Revolution agriculture progressed in Punjab and it continues to be so, with the high investment made by the farmers for developing soil and water. But, development has been at the cost of over-exploitation of its natural resources. Punjab now has the highest percentage of groundwater exploitation in the country and also has the largest percentage of over-exploited and dark blocks. Extensive use of nitrogenous fertilizers and pesticides has led to increasing nitrate concentration and accumulation of pesticide residues in food, water, soil, feed and other agricultural products, often above tolerable limits. Industrial growth has remained largely between 5 to 6.5% during the last decade and half, considerably below the performance of some of the more industrialized states in India. Punjab’s share in India’s total foreign investment is a meagre 0.7% and the state has clearly lagged behind other high income states in creating a healthy investment climate (World Bank, 2004).

The state led Green Revolution in Punjab based on assured market and remunerative prices of agricultural production in the early Green Revolution period has considerably increased the income of the farmers irrespective of farm size. Stagnation of the Green Revolution technology, rise in the cost of living, lack of alternative employment opportunities and near freeze in the minimum support prices has generated a crisis of unprecedented scale.

Source: Anita Gill and Lakhwinder Singh (2005): Governance And Policy Spaces (G/PS) Project; Centre for Economic and Social Studies; Working Paper 5; Nizamiah Observatory Campus, Begumpet; Hyderabad - 500 016, Andhra Pradesh, India.
During 1990s farm business income showed quite insignificant growth and thus increased farm indebtedness. Poverty coupled with unequal distribution of economic resources breeds indebtedness. As a result of this, farmers started losing their interest in agriculture and began to move towards other professions or occupations. They have even resorted to the informal sources of credit viz. money-lenders and middle-men so as to get loans and credits at exorbitant rate of interest. Because of exorbitant rate of interest their debt accumulates and at one point of time it becomes intolerable for a farmer to bear the burden of debt. The rising cost of production has made the farmers depend on informal sources of credit since the transaction costs are too high to receive formal credit along with the problem of moral hazards. Figure 1.2 shows how indebtedness among farmers has increased over a period of time since 1990s. Indebtedness is a kind of vicious circle which is a great curse. In the way of economic development, indebtedness is the biggest hurdle. It contributes to poverty through loss of income and loss of productivity. The most worrisome feature of Punjab economy today is the drop in its annual growth rate, from 5.3% during 1980-81 to 1990-91 to 4.7% during 1991-92 to 1997-98. A revival in its growth was witnessed during 11th FYP (6.74%), but still it was lesser than growth rates of other major states.  

Figure 1.2: Growing Indebtedness Since 1990s

<table>
<thead>
<tr>
<th>Removal of the Lending Facilities</th>
<th>Rise in Prices of Agricultural Inputs</th>
</tr>
</thead>
<tbody>
<tr>
<td>and Concessions of Banks during</td>
<td>During the Decades of 1990s and</td>
</tr>
<tr>
<td>the Post-Reform Period</td>
<td>2000s</td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Farm Business Income Showed quite Insignificant Growth and thus**  
**Farm Indebtedness**

Source: Author’s own Creation

28 Average growth rate of major states during 11th plan is as follows: Bihar (12.11%), Utradhand (11.56%), Gujarat (9.59%), Maharashtra (9.42%), Haryana (9.07%), Madhya Pradesh (8.93%), Chhattisgarh (8.44%), Andhra Pradesh (8.33%), Tamil Nadu (8.32%), Odisha (8.23%), Himachal Pradesh (8.10%), Kerala (8.04%), Karnataka (8.04%), West Bengal (7.32%), Jharkhand (7.27%), UP (6.90%), Assam (6.86%).
Although the Green Revolution brought initial financial rewards to many farmers, especially to the larger ones or the more prosperous ones, yet those rewards were strongly linked to high subsidies and price support. Such subsidies could not be continued indefinitely and farmers in the Punjab are now facing a situation of increasing indebtedness. Certainly there is evidence of a decline in farmers’ real income per hectare from 1978-79 onwards. Small farmers, who make up nearly half of the farming population, have been badly hit. Initially, Government provided subsidies and financial rewards, but later on reduction in subsidies also led farmers towards indebtedness (Gill, 2005). Historically, Punjab region has witnessed phases of fast development and prosperity followed by a crisis leading to disruptions in the development process or slowdown in economic activity (Gill, 2005). Agriculture brought prosperity to Punjab, but now it is responsible for many of its miseries (World Bank, 2004).

The demand for credit is directly related with production. In the wake of this, the need for institutional credit agencies had arisen. As a result, there was a huge increase in the number of these credit agencies to provide a helping hand to the farmers. The institutional credit agencies in Punjab not only encouraged adoption of Green Revolution technology, but also weaned away the farmers from money-lenders by making credit available to farmers adequately at lower rate of interest. The institutional finance for agricultural development in Punjab had shown a substantial increase after the period of 1971-72 (Satish, 2006). Studies showed that the growth in agricultural credit in Punjab since 1970-71 can be described as exponential but the period from 1980-81 to 1989-90 represents the period of decline as far as agricultural credit growth in Punjab is concerned. According to one study, the supply of production credit doubled and that of investment credit increased, by about 80% during the period 2001-02 to 2003-04. It took more than 15 years to double the supply of production credit from 1984-85 to 2000-01. In terms of short-term institutional credit, the demand-supply situation has undergone a change over time. Initially

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21 Any activity that results in production of goods and services that adds value to national product is considered as economic activity. Such activities include production of all goods and services for market, i.e., production for pay or profit and the production of primary commodities for own consumption and own account production of fixed assets, among the non-market activities.
demand exceeded supply by 49% in 1995-96, but later on the supply was found exceeding demand by 122% in the year 2005-06 (Sidhu et al., 2008).

Punjab’s rural sector in general and agriculture in particular urgently demand a comprehensive strategy to address its major concerns of sustainability, growth, indebtedness, development, infrastructure, employment, problems of small farmers and so on. All these concerns are interlinked and require a multipronged approach. Time has come when we have to rethink about the farmers and their welfare. This work intends to study the problem of indebtedness among farmers in the Punjab state. It has been done with the help of composite development index for various districts of Punjab and then selecting one highly developed and one least developed district for the survey in terms of agricultural and rural development indicators. The study has tried to delineate the causes which are responsible for the debt situation of farmers in Punjab.

1.5 Review of Literature

The review of literature in a research study serves several purposes. It is used to frame the problem in the introduction to the study. It also includes a substantial amount of literature at the beginning of the study to provide directions for the research questions or hypotheses. The domain of peasant studies is very extensive, spanned over number of academic disciplines including history, sociology, political science and economics. Thus, from all over the world researchers from various fields have tried to analyse the problem of indebtedness among farmers. For an individual, it will be impossible to include all the studies. Therefore, we have chosen limited number of studies which are directly related to our subject matter. Different studies showed different results with some level of difference.

Indebtedness is a general feature of the Asian rural economy. A very large section of agriculturalists are inextricably steeped in debt; they are born in debt, live in debt, die in debt and bequeath debt and the vicious circle goes on. The debt has increased beyond their paying capacity. Further, their ability to repay debts is limited by the inefficiency of agricultural tillage and technique, vagaries of rainfall, uneconomic holdings, deterioration in the quality of the cattle, epidemics etc. (Tiwari, 1943). The average size of operational holdings in India has diminished gradually.
from 2.28 hectare in 1970-71 to 1.55 hectare in 1990-91 to 1.23 hectare in 2005-06 and it is declining day by day due to increasing population pressure on land. As per Agricultural Census 2005-06, the proportion of marginal holdings i.e. area less than 1 hectare, has increased from 61.6 % in 1995-96 to 64.8 % in the year 2005-06. Further, there are about 18 % small holdings (1-2 hectare), about 16 % medium holdings (more than 2 to less than 10 hectare) and about less than 1 % large holdings (10 hectare and above). With the passage of time average holding in India has reduced to 1.23 hectare from 2.28 hectare.

Professor Carver points out that small holdings invariably mean small incomes and in a country where expenditure is less determined by income than dictated by custom and necessity, small incomes sooner or later means debt. Small land-holders are hopelessly involved in debts, they are overcharged for their loans, underpaid for their produce and they are too impoverished to develop their land. Farmers can get credit from institutional sources against land and those who are having less land can avail very small amount of credit. It is very hard for small land-holders to avail the credit. The institutional credit mechanism is expected to play a vital role in agricultural development. But the share of the same, which was little over 7 % in 1951, had increased manifold to over 66 % in the year 1991. Thereafter, it decelerated again. The Co-operatives are specially meant for the supply of credit to the small and marginal farmers. But, the share of this sector has stagnated at around 22 % since 2005-06.

Undoubtedly, indebtedness is prevalent among rural community everywhere in the world. From time to time respective Governments have tried to ease the situation. To analyse and to have a clear picture of debt situation of farmers we tried to review the literature at three different levels. Various researchers have tried to explain the level, impact and incidence of indebtedness among farmers with reference to various time periods. Different studies showed different results with some level of difference. Three different levels at which we reviewed the literature are as follows:

(i) Studies related to indebtedness among farmers at Global level
(ii) Studies related to indebtedness among farmers at National level
(iii) Studies related to indebtedness among farmers at Regional level
Farm debt issue is not specific to one district, one state or one nation. Throughout the world, there have been signs of indebtedness among farmers from time to time. It is very true that economic development is unsustainable if it increases vulnerability to crisis (WCED, 1987). In country after country farmers are said to be in ‘crisis’, a word that raises hue and cry among intellectuals around the world. Since farmers and farm workers are the economic linchpins of their communities, entire rural economies are on a decline. Various scholars showed their concern for them. They studied this grave situation of farmers at different levels. Literature review of few studies is as follows, which shows that this problem is not only confined to one particular nation:

Zvi & Sedik (2008) showed that the farm debt issue is not strictly a transition economy phenomenon. He examined the major reasons for accumulation of farm debt in Tajikistan by describing the experience of other countries that had to contend with farm debt overhangs in the 1980s and the 1990s. The countries mentioned in the report are five CIS transition countries (Belarus, Kazakhstan, Moldova, Russia, and Ukraine) and one market economy (Israel). The debt of cotton farmers to private investors increased steadily and continuously from less than $50 million in 1999 to $400 million in the end of 2007. If the state pursues policies directed towards the expansion of farm production without paying attention to the creditworthiness of the farmers, then this problem can occur in market economies as well. The basic reasons that led to debt accumulation in CIS and in Israel are equally applicable elsewhere also. The policy solutions implemented in these countries are significant for Tajikistan. Major issues related to accumulation of farm debt that have clear parallels

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30 Commonwealth of Independent States (CIS), community of independent nations established by a treaty signed at Minsk, Belarus, on Dec. 8, 1991, by the heads of state of Russia, Belarus, and Ukraine. Between Dec. 8 and Dec. 21, the three original signatories were joined by Armenia, Azerbaijan (its parliament, however, rejected ratifying its membership until 1993), Kazakhstan, Kyrgyzstan, Moldova, Tajikistan, Turkmenistan, and Uzbekistan. When Georgia joined in 1993 all of the former republics of the USSR except the Baltic states had become members of the CIS. Georgia withdrew in 2008 (finalized 2009) following its conflict with Russia over South Ossetia. In 2003, Belarus, Kazakhstan, Russia, and Ukraine agreed to form a Single Economic Space; the treaty was ratified the following year, but subsequent tensions between Russia and Ukraine led the latter not to participate in the agreement (2009) led to a customs union in 2010 and a common economic space in 2012. In 2011, Armenia, Belarus, Kazakhstan, Kyrgyzstan, Moldova, Russia, Tajikistan, and Ukraine signed a free-trade pact. Source: http://www.infoplease.com/encyclopedia/history/commonwealth-independent-states.html
in the experience of other countries identified by the author are: insufficient profitability of the farms; inappropriate organisational structure of the farms; pervasive Government intervention in financing decisions leading to soft budget constraints and moral hazard; lack of transparency in accounting for outstanding debt and accrued interest charges. The debt crisis in Tajikistan’s agriculture has been caused by a combination of two factors typical of such situations in many countries: (a) the inability of the farms to make a profit under current conditions and (b) continued lending by the banks to cotton producers regardless of reduced payment capacity and lack of creditworthiness.

Tahir (2005) argued that despite economic reforms and trade liberalisation policies over time, domestic policies in Pakistan had failed to improve domestic supply conditions aimed at promoting agricultural export performance. Over time policies had not only failed to boost exports, but had also failed to alleviate poverty, unemployment and backwardness in the country. This along with food insecurity problem had rather augmented the problem of farm debt. He conducted a survey in cotton/wheat and citrus/sugarcane areas to investigate the implications of Government policies on the lives of farmers. The situation in both agro-ecological zones confirmed that with the exception of a few farmers, most of the farmers in these areas had suffered badly at the hands of Government policies over time. According to the author, one of the most common problems being faced by the farming communities was debt burden. Many farmers had resorted to bank loans in order to improve/mechanise their agricultural activity. But, due to some obvious reasons, they fell into a severe debt trap. Some farmers had to sell their farm machinery and agricultural land to clear the debts. Still, many of them were in struggling situation of paying the debt dues. Similarly, due to costly agricultural inputs, poor farmers including marginal and small farmers usually purchased inputs from retailers/ middlemen on credit. The payback conditions were so stringent that

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31 Creditworthiness means an assessment of the likelihood that a borrower will default on their debt obligations. It is based upon factors, such as their history of repayment and their credit score. Lending institutions also consider the availability of assets and extent of liabilities to determine the probability of default.

hardly any farmer made profit from his harvest. Farmers, who took loans either from banks or retailers/middlemen sooner or later, fell into a debt trap.

Saragih (2005) discussed the deprived situation of peasant farmers in different parts of the world i.e South and Central America, Asia and Africa. The author calls this as ‘Crime Against Humanity’ because of a large number of fatalities. Author analysed that market assisted land reforms created millions of peasant farmers living without land and suffered more because of their debts and loss of their land. These peasant farmers without land (as land being the main source of their income) fought for their better livelihood; faced violence, murder, shooting, torture and prison. In Brazil, 19 farmers were shot dead by the army while they were defending their land. This is commemorated each year on April 17 as the World Day of Peasant Farmer Struggle. 44% of the population of Honduras lives as peasant farmers but without adequate farmland to provide a decent livelihood. Women in particular have suffered because of the agrarian reform program. From 1962 to 1991 the reform gave only 4% of the land to women. In case of India, without any weapons of mass destruction or terror bombing blasts, 10,000 farmers had been reported to have committed suicide because of their despair in not being able to pay their debts after Government liberalised its agricultural policies. The peasant farmers and farmers in developing countries had also suffered because of the decline in prices.

Catherine (2004) observed that the establishment of local saving banks, credit Co-operatives, the organisation of agricultural societies and economic expansion, in general, provided a basis for growing prosperity in the agricultural sector in the 1860s and early 1870s. Rural land values increased rapidly, spurred both by increases in the prices for foodstuffs and by speculation. With the advent of an agricultural crisis in the 1880s however, many farmers found that their debts exceeded their assets and they were forced to be defaulters on their loans. In response, saving banks and credit Co-operatives began to withdraw from the rural lending market. By the early twentieth century, again the expansion of the credit system took place. The rise in prices made it easier for farmers and other debtors to obtain and repay loans. Small town saving banks faced competition for both deposits and good-quality loans not only from credit Co-operatives but also from a range of other local institutions, including district agricultural credit Co-operatives, Kampelicky, the post office.
savings bank (established in 1883) and branch offices of Commercial Banks located in Prague. With the founding of the Czechoslovak Republic in 1918, the Agrarian Party sponsored the adoption of an extensive program of land reform which had a combined social and national intent. Although the land hunger of Czech peasants was satisfied, high mortgage debt and lack of access to appropriate forms of rural credit were continued to be the serious problems. All these initiatives led to the growing political and economic integration of the peasantry into the Czech national life.

Sjah et al. (2003) analysed the performance of credit in terms of agricultural production, farmers earnings, credit repayment and also explained factors contributing to its performance in Lombok, Indonesia. He concluded that credit had little impact in terms of substantially increasing agricultural production and farmers’ net income. The greater role for credit, which was frequently cited by farmers, was helping poor farmers to sustain their farm production and thus their livelihood. In case of credit repayment, three interrelated factors must exist namely; financial capability, positive character of borrowers and positive motivation. The first factor explains when there is financial capability then repayment is possible. Otherwise, borrowers have little chance of repaying their debt when they are in the difficult times of financial incapability. If financial capability exists, the second factor is required for repayment to occur. Although agricultural credit has been in high demand, it has had little impact in increasing agricultural production for individual users in the survey area (estimated at just over 10 % on an average). The impact of credit on farmers’ net income was very meagre (estimated to be about five %). To some extent, agricultural credit enabled farmers to implement better husbandry practices by applying more agricultural inputs (seeds, fertilizers, pesticides, crop maintenance) and also by timely husbandry application. About half of the farmers reported that credit did not help and the other half experienced a small positive impact through the use of credit. Also, four respondents reported no production differences, explaining this in terms of the small-size of their farms and the fact that they were always in debt. Thus, according to this study credit does not always show better results. It can have only little impact on agricultural production and as well as on farmers net income. The increase in production was not always followed by income improvement, because farmers tried to increase production by raising loans which were obtained at an extra cost. So, the
increase in production was nullified by the cost of raising loan and the payment of interest on the amount raised thereafter.

Paul et al. (2003) argued that significant economies of scale exist in modern agriculture. Also farmers economic welfare is determined by various factors such as economies of scale, diversification, off-farm employment i.e. service sector employment, innovative adoption and other farm and farmer characteristics etc. In addition to it, they argued that technological reality is putting critical pressure on the small family farm. Diversification is a significant factor explaining differences in the level and variability of income between higher and lower performing small farms. Those small farms which are financially successful tend to be more diversified. Off-farm employment was another form of expansion in the scope of revenue producing farm operations that is especially feasible in urban-influenced areas. Farm and farmer characteristics include farmer’s age, education, debt/asset ratio and the proportions of land rented to others and devoted to Genetically Modified crops. They found that operators of small farms tend to be the oldest, with the least education, but had the lowest debt-asset ratios and the least rented land. Also these operators had the second highest (after residential) ratio of off-farm to farm business income. They found that not only the scale of production, but also output diversification (expanding the portfolio of commodities produced and particularly increasing the amount of livestock production) contributed to the performance of US farms, which enhanced their development as well.

Gorelick (2000) showed the effect of heavy burden of input cost on farmers and also illustrated the vulnerable situation of small farmers because of globalization particularly in US. According to his research, today’s economic ‘winners’ include investors who scour the planet for the highest return; corporate middlemen who make use of subsidies, currency swings, and ‘free trade’ agreements to profit by transporting everyday needs including food to thousands of miles away; moving capital from country to country at electronic speed; and transnational corporations that are situated where they are offered tax breaks, low-priced labour and lax environmental and workplace rules or conditions. But, they move on to another place when a better deal is offered. Contrary to it, farmers cannot do the same. Once they are hooked into the global economy, they are easily victimised by an economic and
technological juggernaut that systematically destroys the small and the most localised enterprises. For the small farmer, the very structure of today’s global economy is fatal. Massive inputs of chemicals, pesticides, and herbicides have to be deployed to keep unstable monocultures. Along with their environmental and human health effects, these off-farm inputs drain off a large portion of the farmers’ income. Meanwhile, the global economy’s emphasis on ‘free trade’ often forces farmers into competition with producers in countries where costs are lower due to more favourable climate, topography, lower labour costs or less stringent environmental standards. Dependence on international export markets also leave farmers vulnerable to losses from exchange rate fluctuations and economic slowdowns in distant parts of the world. In the context of globalization, a farmer in South America or Africa can easily be destroyed by a recession in Europe or a bigger than expected harvest in Asia — events over which they have absolutely no control. In the meantime, an increasing proportion of the newly ‘modernised’ farmers proceeds must be used to pay for equipment and inputs, so that they can be placed on the technological treadmill for better production. The smallest, least capitalised farmers cannot afford those inputs and are eventually pushed out of agriculture altogether and burdened heavily with debt. Thus, in this way the author showed the impact of increased cost of modern inputs like fertilizers and technology on the farmers, without which production is not possible these days along with effects of globalization.

Calomiris et al. (1986) through analysing state level panel data of US farms, observed that disruptions in agricultural credit markets can have real effects on farm output. They argued that credit markets played a significant role in the propagation of shocks in the farm sector. A central message was that localized customer borrowing relationships had more significance in agricultural finance rather than the use of impersonal debt and equity markets. Deflationary shocks had a tendency to disturb the balance-sheets of both borrowers and lenders, and these could encompass real effects through fluctuations in credit availability. During the 1980s farm prices declined and dollar appreciated. As a result, exports fell sharply. Accordingly, farm incomes and with them farmland values declined at rates unprecedented in the post-war period. This sharp decline in incomes coupled with the high levels of debt acquired during the expansion of the 1970s, resulted in a sharp decline in the ability of farmers to meet
their debt obligations. According to this study, reductions in farm output because of credit restrictions was thus likely to result in lower farm incomes. This is how they showed the ultimate role of credit markets in fluctuating farm incomes.

Hunt (1959) showed unscrupulous behaviour of landlords and explained the ways through which they exploited the farmers. Between 1788 and 1812 in UK, the agricultural rent had increased first at a fairly modest rate, but later after 1805 at a very rapid rate. The higher interest rates were responsible for their unpaid debts. The close correlation between rents and output prices showed that the landlord was quick to participate in the 'uneearned' increase in farmers incomes. During the period of rapidly rising prices, the landlord ensured his share in the growing prosperity of agriculture in two ways. First, some farmers were required to pay high rents when their lease deeds were renewed in anticipation of further price rises. Secondly, others were forced to accept tenancies-at-will which were subject to frequent changes in rent.

Mayer (1955) found positive association between credit and indebtedness among Fiji farmers of Indian origin. He illustrated that different degrees of credit were available for different classes of farmers and extent of debt among them varies with the extent of credit. Mayer divided the farming population into three main classes: (i) the cultivators, primarily of sugar cane, who leased land from the Colonial Sugar Refining Company (CSR); (ii) the farmers, primarily cultivating cane, who held land under other kinds of tenure; (iii) the cultivators of mixed crops (maize, tobacco, paddy), none of whom were CSR tenants. Also, each of these categories had different terms and degrees of credit and debt. He analysed these categories of farmers with two criteria of distinction viz. the type of crop grown by them and the type of land tenure system. Both these criteria had been taken for the comparison. It was noted that varying amounts of credit were given to farmers. Cane growers might purchase £150 worth of goods before they were paid by the CSR. Cultivators of mixed crops were seldom allowed credit of more than £20 or £30. Young men who had not negotiated a lease and who lived mainly on agricultural wages, were not even allowed this much credit, their accumulated debts seldom rising above £4-5. Thus, with this, the author tried to prove his point that those for whom credit was easily available were more indebted. One type of debtor, were the men with extravagant and lazy
habits and the other type, the men of sober and hard-working habits. Both had an access to large debts. So, the volume of debt was dependent on the availability of credit to them. Easy availability of credit induced the individuals to take bigger and bigger loans and its repayment was again dependent on the attitude of the farmer towards their work.

Nuwara (1950) examined that the rapid growth of indebtedness in Asia resulted in the eviction of many agriculturalists out of the cultivable land. It forced them to work as tenants or to become floating landless labourers or to seek alternative employment. Credit facilities available in the rural areas were operating in such a way as to drive the rural population down the farming ladder, continuously increasing the number of those seeking supplementary or alternative employment. In this way, the problem of tenure merges into the problem of finance and debt. To tackle this situation, author suggested a twofold attack on this problem i.e. by guaranteeing minimum prices along with control of rural credit. To correct the situation various policies like, interest restriction and licensing of money-lenders could be adopted, which could prove beneficial for the farming community. Co-operative banks had also been promoted to finance individual agriculturists on the security of landed property.

Ladejinsky (1940) drew attention to the precarious margin between income and necessary expenditure as a cause of indebtedness in Thailand. He argued that since the income of the farmer is too low, hardly he had a surplus that would provide a basis for the accumulation of capital. The farmer was left with little or no cash savings to surge over difficult years. Since the peasant was unable to fall back on his own resources in times of distress, credit was the only solution and the result was the heavy burden of indebtedness upon them. In case of borrowers, he observed that borrowers did not understand the economic meaning of interest; far less did they understand compound interest. So, debts mounted and theoretically it was far above the selling value of their farms. Then they either became the tenants of their creditors paying them half their crop as rent or migrated to some less populated district. There they could take up new land and go through the same cycle all over again.

Thus, so far, we have seen that this problem of indebtedness prevails globally among farming community because of various reasons as explained by various researchers. Some highlighted the problem of indebtedness and some also gave
solutions to tackle this grave situation. Thus, farmers all over the world, in some way or the other, are in miserable situation of debt. Different countries are having different geographical characteristics and different climatic conditions. But, one thing common among all, is the farm debt. There is high risk factor involved in agri-business and it has a deep impact on the lives of peasants. In India, more than 50% of its population is still dependent on agriculture, but they too are deep in debt. Now, the literature concerning this problem of indebtedness at national level reviewed with the help of those studies which are directly related to subject matter of the present study.

(ii) Studies Related to Indebtedness Among Farmers at National Level

Indian Government is focusing on achieving the goals of inclusive development in 12th FYP (2012-2017). Its main target to achieve “Faster, Sustainable, and More Inclusive Growth”, will be next to impossible without improving the situation of farmers because around 52% of India’s population still depends on agriculture. In recent years, apprehensions have been expressed about the growing indebtedness amongst the farmers and possible adverse effects of this indebtedness of farmers on the growth of agriculture. In case of credit delivery to the agriculture sector, it still continues to be inadequate. Farmers are burdened by voluminous debts that contribute to the problems in the agriculture sector. Indebtedness among farmers in India today is a manifestation of an underlying crisis in agriculture which is a result of marginalisation of agrarian economy in national policy since the economic reforms of the 1990s. Many scholars and Government agencies have voiced a serious concern over this issue. Many writers tend to depict the debt burden as a goose round the neck of the Indian farmer. Weight of debt is becoming heavier over the time. Review of some of the studies which analysed indebtedness among farmers at an all India level is as follows:

Banerjee (2009) observed that falling of real product prices received by primary commodity producers has been one of the central causes for escalating farm indebtedness in West Bengal and Andhra Pradesh. An analysis of household level farm production data from two states revealed that the pattern of income showed a declining trend and as a result of it indebtedness increased in rural areas. The harmful implications that these processes have for future agrarian development are the call for effective price stabilisation operations and a comprehensive debt relief policy. He
analysed that the period of economic reforms has witnessed the re-emergence of indebtedness as a grave problem for the Indian peasantry. Two central macroeconomic processes that have caused the emergence of high rural indebtedness under the new economic regime are increasing volatility of output prices of primary products following trade liberalisation and the gradual shrinkage of formal credit in rural areas as part of the financial liberalization. Those farmers who have shifted to commercial crops are adversely affected because of opening up of an economy. De-regulation of input markets under the neo-liberal economic regime has pushed up prices of seeds and chemical inputs significantly. As far as credit institutions are concerned, systematic erosion of institutional banking services in rural areas and unfavourable returns from cultivation have worked in tandem in several parts of the country to enhance manifold the vulnerability of rural households to local money-lenders. In this way all the factors worked in such a manner that farmers are caught up in deep debt with the passage of time. The policies of the Government since the period of liberalization were against the interest of the farming community.

The Report of the Expert Group on Agricultural Indebtedness (Gol, 2007b) has highlighted the twin dimensions of the widespread agricultural crisis namely, agricultural development crisis and agrarian crisis. The neglect of agriculture in designing development programmes and ineffective implementation of agricultural programmes at the micro level are the main causes behind agricultural development crisis. On the other hand, the agrarian crisis is characterized by the high dependence of rural population on farm incomes which are too meagre to withstand price shocks and are also vulnerable to technological risks. Besides, low growth and declining productivity, the failure of supposed trickledown effect of growth in creating adequate productive employment outside agriculture underlines the agrarian crisis. Report suggested that there is huge scope for institutional agencies to expand the credit base of farm households further. There should be increased institutional credit availability to agriculture. Excluded sections of the farmer households should also be brought into its ambit and a qualitative improvement in the credit delivery arrangements be brought about. Dependence of a farmer on informal sources of credit should be reduced by formalising it through transferring the informal debt to formal institutions. The Expert Group underlines the need for mitigating the burden of farmers
indebtedness to money-lenders and also it recommends a one-time measure of providing long-term loans by banks to farmers to enable them to repay their debts to the money-lenders. Along with this, Panchayat Raj Institutions (PRIs), civil society organisations like farmers collectives and Non-Governmental Organisations (NGOs) should be involved in arriving at negotiated settlements with the money-lenders. The objective of financial inclusion can be achieved with these steps. The modalities of the scheme may be worked out by the National Bank for Agriculture and Rural Development (NABARD) for early implementation.

Mitra et al. (2007) examined rural indebtedness among tribal community in the North Lakhimpur subdivision, Assam. They found that indebtedness is not an isolated problem in various fields like sociological, economic or political; it is a serious and crucial problem that has its roots in the socio-political and economic texture of the society. According to them, indebtedness in the Indian rural context must be resonant with: unproductive usage of loan; usurious ensnaring (to catch in a trap); captivation of the productive resources; exercise of coercive and exploitative economic and social powers by the lender; compulsion, plight, misery and feeling of guilt and helplessness; erosion of social status of the borrower etc. Indebtedness among rural community is an obstacle in the development process and also it has an economic, social and psychological impact on the farmer. Further, poverty coupled with unequal distribution of economic resources breeds indebtedness, which in turn consolidates the cause of poverty and distributional injustice. In this way, this study showed the demoralising effect along with combination of all other factors which breed indebtedness.

Reddy et al. (2006) tried to identify the main drivers of the agrarian crisis that pushed the farmers into distress. They argued that the cumulative effect of a number of factors is responsible for the present agrarian crisis. All these factors can be categorised as technological, ecological, social, cultural and policy-related etc. As far as technology is concerned it is both a bane as well as boon. For example, introduction of technology in late 1960s had increased productivity but after two decades it showed signs of reduction. With technological advancement, input intensity has increased many times to maintain the productivity levels in the degraded and marginal lands. As a result, it enhanced the input cost of the farmers leading them into
debt. Ecological factors include mainly the declining quality of land and water resources. Irrational and excessive use of inputs, both organic and inorganic, has led to decline in soil quality. The decline in soil quality is often compensated through further use of chemical fertilizers. The advent of bore-well technologies has facilitated the over exploitation of groundwater resources in many regions. The capital intensive and lumpy nature of these investments coupled with well failure (depletion of water table) is one of the main reasons for indebtedness among farm community. The ecological crisis is also the result of an intense use of chemicals along with hybrid seeds which causes the erosion of soil fertility and increases crop-susceptibility to pests and diseases. Along with this, the cost of survival has gone up substantially. They examined that these costs are over and above the standard expenses on lifecycle events like marriage, death, etc. But, returns to agriculture have stagnated due to technological and ecological constraints. The mismatch between the earnings and expenditure is reflected in the decline in the celebration of lifecycle events and food consumption as well. While unable to control these expenses, they always try to experiment with new seeds, inputs and in new areas in order to enhance their incomes. In the process, they are getting entrapped in debt. Thus, all these factors become responsible for the indebtedness among farm community and authors suggested to switchover to cost effective and ecologically sustainable input compositions to bestow relief to farmers from debt. These practices can be expanded only through policy support.

Meeta & Rajivlochan (2006) studied Yavatmal district of Maharashtra and re-visited some of the families which were earlier analysed by two reports (Mishra and Dandekar et.al., 2005). They criticised the authors of these reports for not doing a good job in compiling the victims’ circumstances meticulously. The authors believe that many reports in the past have exaggerated the connection between debt and suicides whereas in reality a lot of other reasons, including harsh environment, a variety of other reasons and absence of basic health services also play an equally important role. According to this study, debt burden of the farmers who committed suicide was not uniform. It varied between ₹ 5000 to ₹ 50000. Many of them had borrowed loan on short-term basis. Heavy indebtedness led to the economic crisis and also people complained about lack of information on various Government sponsored
schemes. There was little knowledge about institutional mechanisms like the minimum support price (MSP) that would improve marketing further. Technical knowledge was low and there were no reliable sources from where such knowledge and advice could be accessed. Most farmers were not informed about crop insurance. Chronic alcoholism and drug abuse were found among rural population. Loan from a rapacious relative rather than a bank or money-lender was often the cause of economic distress for the victim. Most of the victims of this epidemic (suicides) were men, mostly in the age group 30 to 50, married and educated with more social responsibilities especially in the form of unmarried daughters or sisters. They have found two things in common among the suicide victims. One, a feeling of hopelessness in being unable to resolve problems and dilemmas of personal life; and in the face of an inability to find funds for various activities or repay loans. Two, the absence of any person, group or institution to whom to turn to in order to seek reliable advice: whether for agricultural operations or for seeking funds or for handling private and personal issues. Thus, this study proves that other than indebtedness there are so many reasons which are responsible for farmers distress but indebtedness among them also plays a significant role.

Rao & Suri (2006) examined the situation of the agrarian crisis in the state of Andhra Pradesh. They argued that rising cost of cultivation is found to be the main reason of indebtedness in the state of Andhra Pradesh. During the period of 1992-2002 seed prices and input prices increased by 400% which was the highest as compared to other states in the country. But, the output prices did not increase in proportion to input prices. Due to the lack of extension services, farmers mostly depend on the seller for the knowledge and the information about the uses of chemical inputs. Seller or trader suggests them to use heavy doses of fertilizers so that they will get higher production and thereby increase the income of sellers as well because they purchase those inputs from these sellers. Farmers use Bt Cotton seeds but the variety is not free from pests other than bollworms. Hence, the number of sprays has increased substantially and as a result cost of production has also increased. An imperfect structure of agriculture market with heavy influence of middlemen and commission agents keep no role or marginal role for farmers in the price determination. Hence, they get low price for the produce. It results into unrewarding
nature of the agriculture. Due to poor economic conditions of farmers, they need money for personal consumption and also for cultivation. So, they are in a hurry to sell their entire produce at the available price in the market. Traders are aware of their neediness and so that offer farmers lower price. Government announces Minimum Support Price (MSP) for different crops which do not cover the cost of cultivation. Increasing cost of cultivation, decreasing returns and lack of institutional credit facilities forced farmers to borrow from the private money-lenders at high rates of interest ranging between 36 to 120 % per annum for consumption and production purposes. Apart from these factors, urban based economic and developmental policy of the state Government also created problems for farming community and rural economy of the state. The gap between urban and rural per capita income has increased in the state of Andhra Pradesh particularly during the post reform period. Data reveals that conditions of the wage labourers are far better than the cultivators. Farmers are ready to sell their land due to unrewarding state of the business. But nobody is ready to purchase it. It projects the overall economic and psychological conditions of the rural people in the state. The rising cost of cultivation, imperfect market structure, laxity by the Government is found to be the reasons for crisis. Thus, the study suggests the Government to draft a policy in which rural economy should be at the center stage of entire economic development process. Policy makers must make policies meticulously so that it can have a positive effect on farmers so that, they can spend their lives with dignity without having any fear of burden of debt.

Government of India (2005) NSSO’s AIDIS 59th round report no. 498 deals with the indebtedness situation of farmer households according to source or purpose of loan and their distribution over different social and economic parameters such as social groups, marginal per capita expenditure, source of income, size-class of land possessed etc. in different states and UT’s. According to this report, at all-India level, estimated number of rural households was 147.90 million, of whom 60.4% were farmer households. Out of 89.35 million farmer households, 43.42 million (48.6%) were reported to be indebted. Estimated prevalence of indebtedness among farmer households was highest in Andhra Pradesh (82.0%), followed by Tamil Nadu (74.5%) and Punjab (65.4%). Estimated number of indebted farmer households was highest in Uttar Pradesh (6.9 million), followed by Andhra Pradesh (4.9 million) and
Maharashtra (3.6 million). Going by principal source of income, 57% farmer households were cultivators. Among them 48% were indebted. Households with 1 hectare or less land accounted for 66% of all farmer households. About 45% of them were indebted. The incidence of indebtedness was 36.3% for scheduled tribes, 50.2% for scheduled castes, 51.4% for other backward classes and 49.4% for others. The average amount of outstanding debt was ₹ 5,506 for scheduled tribes, ₹ 7,167 for scheduled castes, ₹ 13,489 for other backward classes and ₹ 18,118 for others. The incidence of indebtedness as well as average amount of debt was the lowest for the most deprived group viz. scheduled tribes. In the case of other groups, the incidence of indebtedness was closer to that of all-India (48.6%). Average outstanding debt was also lower for scheduled castes. More than 50% of indebted farmer households had taken loan for the purpose of capital or current expenditure in farm business. Such loans accounted for ₹ 584 out of every 1000 ₹ of outstanding loan. The social ceremonies like marriages, birth of a son accounted for ₹ 111 per ₹ 1000 of outstanding loans of farmer households. Among all the states the proportion was highest in Bihar (₹ 229 per ₹ 1000), followed by Rajasthan (₹ 176 per ₹ 1000). The most important source of loan in terms of percentage of outstanding loan amount was banks (36%) followed by money-lenders (26%). In case of average outstanding loan per farmer household, it was the highest in the state of Punjab, followed by Kerala, Haryana, Andhra Pradesh and Tamil Nadu.

Gautam (2001) observed that lack of Co-operative credit infrastructure and the failure of development schemes under successive Governments were responsible for the behaviour of borrowing of farm community from informal sources as compared to formal sources. The higher incidence of borrowings for productive purposes from informal sources and unfamiliar unproductive loans (for construction of residential building, buying motorcycle, etc) from institutional credit agencies had contributed a fair bit to the recent quantum jump in rural indebtedness of Assam. The Co-operative credit infrastructure had been found to be miserably poor and almost on the verge of withering away. Their recovery ratio was abysmally low and they hardly had any working capital for extending further advances. The revamping of the Co-operatives in this region was found to be the urgent need of the hour so as to replace the dominant position of the informal sources in the rural scene of the state of Assam. The
author gave importance to Co-operatives and recommended to re-structure these institutions in such a way that maximum farm households come under their net. Then only the situation of indebtedness among farmers can be controlled somewhat.

RBI report (2000) found that indebtedness of farmers in India is as diverse and heterogeneous as are the agrarian conditions. There are wide regional, cultural, institutional, class, caste and community differences in the nature and magnitude of farmers indebtedness. The incidence of indebtedness across different categories of farmers is around 45.3% for near landless (< 0.01 hectare), 44.4 % for lower marginal (0.01-0.40 hectare), 45.6 % for upper marginal (0.41-1.00 hectare), 51.0% for medium (4.01-10 hectare) and 66.4% for large (>10 hectare). Thus, this report indicated positive association between debt and farm size. As the farm size increases, the incidence of debt also increases along with that. Average outstanding debt per farmer household across size class of landholding is nearly ₹ 6121 for landless, ₹ 6545 for lower marginal, ₹ 8623 for upper marginal and for small farmers ₹ 13762. For semi-medium farmers, it is ₹ 23456, for medium farmers it is ₹ 42532 and for large farmers it is ₹ 76232. Thus, this study shows strong association between indebtedness and farm size.

Panikar (1963) suggested that availability of more credit is required in order to adopt more effective technology to increase production. According to this study, with the increasing commercialization and monetization of agriculture, reliance on credit must increase as credit lubricates the engine of production and heightens its efficiency. But it was found almost missing in Indian agriculture at that time. The low income of the farmers or low productivity in agriculture was the main culprit behind the dismal situation of Indian farmers. He observed that every successive enquiry revealed an increase in total debt (geometrically). On the other side, expenditure on so called unproductive purposes was not a unique custom of Indian farmers. Accordingly, he stated that even in advanced societies whose cultural pattern was oriented to utilitarianism, their customs and conventions obligated individuals to spend money on the so called unproductive purposes. Thus, he concluded that the salvation of the Indian peasant did not lie in a change of his borrowing habits, but in a change of his technique of production which could happen with the help of advanced technology only. More credit was required for the application of those techniques and
hence external finance assumed corresponding importance in financing of current and
capital expenditure needs of farmers.

Thus, all the above studies found indebtedness among farmers as a major
reason for farm distress which occurred because of various socio, economic, cultural,
technological, institutional, regional and ecological factors. Each of the state has a
different characteristic of the phenomena. Debt is not a burden for them, it is like a
facilitator for the working capital. Instead it is accumulated debt which dampens their
morale. Majority of the researchers blamed price fluctuations to be the major reason
behind the present distress situation of farmers. The cost of cultivation has increased
over a period of time. Contrary to it, their incomes did not increase accordingly. The
cultivators in our country are deeply involved in debt. The demand for loans from
money-lenders with higher rates of interest usually comes from borrowers with no
other option. Heavy dependence on high cost inputs, market vagaries, lack of
remunerative prices, indebtedness, neglect of agriculture on policy front, decline in
public investment, break-up of joint families, individualisation of agricultural
operations etc. have also been equally responsible for the farm distress. All the states
which have embraced capital intensive and 'cutting edge' technology in the name of
boosting agricultural productivity levels. In areas where traditional agricultural
practices and organic farming are prevalent in states like Orissa, Jharkhand, Bihar,
Chhattisgarh, indebtedness among farmers is unheard of. Agrarian distress,
particularly, due to indebtedness forcing farmers to earn their livelihood from other
non-farm sources of income rather than farming alone. According to census reports
(2001), nearly 2 lakh marginal and small farmers gave up agriculture between 1991 &
2001 in Punjab. This is an alarming call for an agricultural state like Punjab. The
study attempts to explore this aspect of agrarian crisis.

(iii) Studies Related to Indebtedness Among Farmers at Regional Level

Punjab’s prosperity has been acknowledged by various researchers and
scholars. Indebtedness among farmers in this prosper region is a common
phenomenon. A combination of economic factors like failure of crops, unemployment
and indebtedness, have pushed the farmers into a situation of distress and grief. Rural
areas of Punjab experienced a general spurt in their prosperity after the Green
Revolution in the mid 1960s. The potentials of Green Revolution technology began to
be exhausted in the 1980s exerting pressure of economic stress among the poor strata of peasantry and agricultural labourers. The present state of agrarian structure shows that marginal and small-size farmers (though very large in number), are fast becoming unviable. Through adoption of modern technologies and use of capital inputs, there is an effort to increase production. But, it is still unable to deliver because the marginal and small farmers are unable to keep pace with the rapid technological advances in crop production. The scarcity of employment opportunities in the non-farm sector and increasing indebtedness due to increase in cost of inputs, have made the survival of small and marginal farmers difficult. Researchers viewed this issue as a major area of concern as Punjab’s contribution towards food security of India is invaluable. Let’s have a look on various studies related to indebtedness among farmers in Punjab.

Association for Democratic Rights (2011) surveyed Patiala, Mansa, Sangrur and Bathinda districts of Punjab and found that the debt on holdings ranging from two to four acres has climbed from ₹ 60,000 to ₹ 1, 50,000 in 1998-2000. It further increased to ₹ 2 to 4 lakh in 2001. Ninety % of this debt is non-institutional debt. It is not possible for a small farmer to repay a debt of this magnitude. The payments currently made are sufficient only to repay the interest on the loan and principal amount stands where it was. In approximately 80 % of the cases of non-institutional debt, land has been mortgaged in one way or another to the money-lenders, since farmers have nothing else to hypothecate.

The most comprehensive work on indebtedness till now has been done by Shergill (2010). His survey, with reference year 1997 showed that total farm debt had gone up five times in the preceding decade (1997-2008) and debt per family had gone up six times over the same period. He estimated that total short-term loans taken by Punjab farmers in the study period amounted to ₹ 3,119.33 crore. Out of these 61.31% were advanced by commission agents, 33.98% were advanced by Primary Cooperative Agricultural Credit Societies and only 4.71% were advanced by commercial and regional rural banks (RRBs). 27.53% of surveyed farmers had taken long-term loans for productive purposes such as purchase of tractors and other heavy machinery. 14 % of annual farm income of the state is eaten up by the burden of interest payments. Study reveals that the total amount of farm debt (at current prices) has gone up five times within a period of 10 years, from ₹ 5700.91 crore in 1997 to ₹ 30394.12
crore in 2008. Even in real terms (i.e. at 1997 constant prices of farm products) total amount of farm debt has more than doubled from ₹ 5700.91 crore in 1997 to ₹13829.32 crore in 2008. Among different regions of the state, the highest amount of debt of ₹ 48154 per operated acre was found to be there in the Northern Malwa region, and the lowest of ₹ 16095 in the Foot Hills region. About four fifths (79.13%) of total farm debt of the state is owed by farmers of the Malwa region.

Singh (2010) observed that credit which was sought for agricultural production was used up for other purposes which were mostly unproductive like consumption of liquor, social/religious ceremonies etc resulting in accumulation of the debt burden on the farmers. The rural people, who suffer from diseases like tuberculosis, cancer, liver dysfunctioning (due to nutritional imbalance, lack of proper sanitation facilities and residual effect of agro-chemicals) etc. are left with no other option but to avail the services of private medical practitioners, which are quite costly. The poor rural people have to pay from their own sources which are quite inadequate, sometimes forcing them to borrow at an exorbitant rate of interest, thereby, increasing the debt burden on them. He found that nearly 11% marginal and 9.4% of small farmers who suffered from serious ailments needed immediate medical assistance. But due to lack of funds, they were unable to avail the same.

According to Punjab Agricultural University (PAU) report (2007) in Sangrur district, around 738 farmers who took the fatal path to escape growing indebtedness, had an average outstanding debt of ₹ 3.36 lakh per individual. For another lot of 246 farmers, who committed suicide on account of other reasons, the average outstanding amount of debt standing against their names was ₹ 79,935. So far as farm labourers are concerned, the average debt was ₹ 70,036. Particularly in Bathinda district, the average outstanding amount due against farmers who couldn’t sustain the growing indebtedness was ₹ 2.94 lakh and as many as 550 farmers belonged to this category. For another lot of 223 farmers who committed suicide but for other reasons the average outstanding debt was ₹ 85,825. For the workers the outstanding amount of debt against their names was ₹ 47,347 on an average. Report shows that as many as 89 % of Punjab farm households are reeling under debt. The family debt per farm stands at a staggering figure of ₹ 1, 78,934. In other words, for every hectare of landholding, the outstanding debt is ₹ 50,140.
Sidhu et al. (2008) examined situation of demand and supply of credit under different situations for the years 1995-96 and 2005-06. They examined temporal shifts under the environment of deceleration in output growth, stagnation in technological changes and increase in credit supply, especially after the year 2004. Findings of the study corroborate two phenomena. First, due to higher demand of credit than the supply, the share of non-institutional sources in the total debt increased during 1990s. Secondly, in recent years, there has been over-supply of production credit in the state under the influence of over-enthusiastic policy of increasing institutional agricultural loans, irrespective of the fact whether demand was there or not. It resulted into the problem of growing indebtedness. The demand-supply gap in the institutional agricultural credit has, however, undergone changes in recent years due to the current credit policy of enhancing flow of agricultural credit. Consequently, increase in the supply of institutional credit occurred at a higher rate than increase in demand for credit due to which supply exceeded demand. The excessive supply seemed to have gone to unproductive activities leading to indebtedness. A simultaneous (four) equation model had been used to estimate the contribution of institutional credit towards the use of agricultural inputs, private investments and agricultural growth. The study had revealed that supply of production credit had doubled and that of investment credit increased by about 80% during the period from 2001-02 to 2003-04 and this increase is remarkable. It took more than 15 years to double the supply of production credit from 1984-85 to 2000-01. A highly significant relationship had been found between the use of variable inputs and production credit disbursement.

Newman (2007) examined three critical issues which are responsible for the growing distress among farm community. These three issues are increasing rates of rural inequality, ecological collapse both in soil and water systems and skyrocketing levels of debt among Punjabi farmers. Financial indebtedness and farmer suicide have become critical issues amongst both groups of people. The rural majority i.e. small and marginal Punjabi farmers are the most indebted and they are unable to stay afloat amidst economic reforms. Almost the whole of large scale cotton farming in Punjab is done using the input-intensive techniques resulting in increased cost of cultivation. A situation had also arisen in some communities- the higher the land more indebted a person will be. If we talk about Green Revolution, it has been widely argued that for
Green Revolution strategists, the “best” farmers were simply the ones with enough capital to purchase the expensive and necessary inputs of industrial farming. Not surprisingly, these “best” farmers were the state’s largest farmers. Small farmers, even if they wanted to participate or contribute in bringing the Green Revolution, had very little or no access to the kind of fixed or working capital needed to do so. This economic discrimination inherent in the pattern laid the foundation for the unequal distribution of debt seen in rural Punjab today. Marginal and small farmers, unable to keep up with the Green Revolution and/or deeply under debt had to sell or mortgage their land. This led to an overall decline in Punjab’s operational holdings.

Jayappa (2006) investigated factors related to farmer indebtedness in Punjab. He observed that agricultural debt burden was the major cause for indebtedness. However, this is not the primary cause. It is manifested in various secondary factors like failure of crops, non-remunerative prices for their produce etc. The debt burden becomes a debt trap with the swelling of debt amount due to high rate of interest. The Indian farmer is caught up in the bog because commercial farming has forced the farming community to invest more by taking higher risk in anticipation of higher returns. But, with intervening factors like drought, failure of water sources, crop failure and low prices, debt keeps increasing. Meanwhile there are social obligations for farmers like any other member of society. These include medical expenses, social expenditures and education among others. The debt trap is interwoven with losses from farm activities resulting in a decline in repayment capacity. In this study, the extent of indebtedness and pattern of capital use were considered to understand the liability position, overdue position and sources and patterns of capital use by indebted and non-indebted farmers. The liability position of indebted farmers shows that the total amount borrowed by indebted farmers is much higher and also their borrowing was scattered from many sources (formal and non-formal institutions). The debt burden of indebted cases showed that 71% of farmers borrowed from commission agents that are non-institutional sources of lending. This clearly shows that the farmers in the rural areas depend on commission agents for their financial needs. This shows a low share of public institutional debt. Statistically, farm financial ratio analysis considered three financial ratios. The first is the net capital ratio which is an indicator of the long-term liquidity position of farm business. This ratio was less than...
one which indicated a poor solvency position of the farms for indebted cases. Second, the debt to asset ratio for indebted farms indicated that debt was higher in relation to the asset position of farmers. A very high debt to equity ratio indicates a greater degree of dependence on borrowing. Third, the cost-return profiles of major crops were calculated and these indicated the causes for distress in the farming community. Farmers paid heavily for the inputs from borrowed funds. On the other hand, they received less in terms of prices for their produce and in between they had other commitments towards their families. These factors together put the farm business in a negative cash flow balance. To make up for the negative balance, they borrowed from both public and private sources. When the debt burden went beyond their material capacity, they faced a threat of losing their land, which is the best source of security for them.

Satish (2006) examined levels of rural indebtedness along with availability of institutional credit in Punjab. He observed that as such indebtedness does not flow as a corollary to lack of institutional credit flow but is an outcome of various factors including excessive consumption expenditure and plateauing of returns from agriculture. Indebtedness is a function of availability of credit in relation to its demand along with the ability of the recipient to service it. Farm indebtedness per se is not an issue. If properly serviced through income generated from farm operations, debt would not turn into a burden. The servicing ability of the recipient is related to his ability to generate sufficient returns from the activity in which the credit is deployed. In Punjab, for long-term productive credit 79.21 % farmers preferred institutional agencies, i.e. Commercial Banks and Co-operative credit institutions. Only about 20.79 % preferred commission agents and professional money-lenders. Out of the two institutional agencies, Commercial Banks were clearly the choice of the highest proportion. 59.32 % of surveyed farmers revealed their preference for Commercial Banks for getting long-term productive loans. For long-term unproductive purposes, the reverse was the case – as high as 85.89 % preferred traditional credit agencies (commission agents, money-lenders, etc) and only 14.11 % showed their preference for institutional agencies. The problems of indebtedness as well as suicides are the symptoms of a larger malaise which has to be contextualised in the light of stagnation of agricultural growth, rising levels of rural unemployment,
dissipation of economic and social infrastructure and structural retrogression in the
social fabric in the state. Its solution lies in looking holistically at these issues rather
than suggesting simplistic and ephemeral solutions like across the board loan waivers
or relief packages to suicide victims’ families.

Malhi (2005) observed that stagnant agriculture pushed farmers into debt trap. The
general increase in the domestic expenditure by the farmers eventually led to
more economic burden. In order to meet these household expenses the farmer is most
likely to take loans and thus can be entrapped in the vicious circle of loans and debts.
In addition to this, he chooses to buy materialistic things that add to his personal
prestige in the society or potential show off. Finding agricultural income inadequate,
he tries to earn money through other sectors such as dairy farming and poultry. Thus,
this trend of increase can be seen as a result of improved alternative incomes apart
from agriculture. In other words, stagnating agriculture can be seen as a blessing in
disguise for these farmers because some of the small farmers had actually tried to
move out of agriculture by aligning themselves with other secondary activities.
Consequently, they started receiving some kind of secondary income. In a way this
trend is encouraging for the farmers and farming of the state. He analysed various
reasons for which farmers sell their land, 30 % of the farmers said that they had to sell
their land due to social obligations like arranging dowry for marriages, maintaining
status in the society etc. Another 30 % of the farmers pointed indebtedness as the
main reason for selling their land. They sold land in order to repay their debts or to
keep their land as security with rich landlords in order to obtain more loans. Rest 40
% of the farmers who sold their land had varied reasons to justify their actions as
majority of them used the money collected by selling their land to migrate abroad in
search of Greener pastures. The changes in lifestyle which demands a certain level of
standard to be maintained in the society, irrespective of the income contributes to over
spending. In majority of the cases, farmers either sell their land or go in for loans and
eventually, end up in the vicious circle of debts.

Singh et al. (2005) observed unproductive use of loans as the main cause of
indebtedness among the farmers. Punjab peasantry, especially small farmers could not
afford farm investment from their own savings to transform traditional agriculture
into scientific farming. The loans obtained for investment in machinery, irrigation
structure, fertilizers and agro chemicals were partly spent for their bare subsistence and for fulfillment of their social obligations. Consequently, they got fresh loans from non-institutional agencies at a higher rate of interest to pay back the old dues. As a result the burden of their debt continued to accumulate. The rural capital market has been still dominated by money-lenders in the shape of commission agents. In addition to it, economic factors like declining productivity, falling rate of profit and the social factors like heavy expenditure on social ceremonies, consumerism etc. have pushed the farmers into debt trap and forced some of them to commit suicide.

Gill (2005) examined that the rising cost of production and commercialisation has made Punjab agriculture costly, risk sensitive and vulnerable to crop failure. The falling income, along with occasional crop failure, accompanied by high consumption standards (determined by peak income levels) and inflated aspirations demonstrated by ostentatious expenditure on celebrations has brought various sections of the peasantry under mounting debt. The non-institutional source of credit has been the largest source of credit. The high interest rate charged on loans and diversion of loans for non-productive purposes or crop failure had placed them into a situation of debt trap. The highly commercialised form of agriculture accompanied by spirit of individualism and decline of traditional social support mechanism and non-existence of a formal safety system has pushed several rural poor into suicides when faced with acute economic hardship and indebtedness along with social and family pressures associated with them. He concluded that economic hardship/poor economic condition led to indebtedness and this indebtedness (because of high interest rate) led them towards economic distress. Failure to pay back loans indebted them further, entrapping them in a debt trap. Harassment by lenders, threat of arrest, and then the public shame accompanying the impending compulsion to forsake their most prized asset, the land, proved to be the last nail in their coffins. Specifically, addressing the problem of credit, there are no two views that once again it is the middleman-the commission agent- who is exploiting the farmers the maximum and pushing them into a debt trap. The remedy lies in the provision of institutional credit at cheaper rates of interest and more importantly, at levels commensurate with the demand for credit. The solution to indebtedness will go a long way in solving the problems of the entire agrarian crisis. Among other measures, it is always suggested that formal institutions
would do well to shift to crop as collateral, instead of insisting on land ownership, especially for long-term loans. This would ensure the credit to be need based. Farmers should also be provided crop insurance at par with what is available to industry, as agriculture is the most vulnerable sector to the vagaries of nature i.e. an unexpected and inexplicable change in weather. Crop failure almost always renders the farmers incapable of paying back the loan installment and if crop fails for two or more consecutive seasons, farmers invariably find themselves in a debt trap.

Another study by Iyer and Manick (2000) surveyed Sangrur district and found that 67.50% of debt is exclusively from commission agents and 81.25% accounted for debt from commission agents and other sources, while 51.61% of loans were used for unproductive purposes. This research observed that indebtedness among the farmers and farm labourers in Punjab had reached at epidemic proportions. Almost all landless agricultural labourers, small and marginal farmers were more vulnerable than large farmers. Large farmers were able to sell portions of their holdings to pay off their debts, which acted as a buffer for them. The major thrust of the small and semi­medium farmers was to borrow primarily for agriculture and marriage purposes. The lending agencies not only pressurised the farmers to clear the outstanding loans but also humiliated them for not repaying their debts on time. They experienced loss of prestige and were forced to commit suicide.

Shiva et al. (2000) argued that indebtedness and crop failure were the inevitable outcomes of the corporate model of industrial agriculture being introduced in India through globalisation. Agriculture driven by MNCs is capital intensive and creates heavy debt for purchase of costly inputs such as seeds and agro-chemicals. Farmer sinks in the marsh of indebtedness and gets spiraled in the loans due to initial liberal policies of seed and pesticide merchants. Ecologically also it is vulnerable, since it is based on monoculture of introduced varieties and on non-sustainable practices of chemically intensive farming. The increase in the prices of inputs and labour has pushed the cost of production up during the last three decades (6 times for wheat, 7 times for cotton and 10 times for paddy). The increased cost of production has led to increased indebtedness among farmers all over the country including Punjab. Today 90 % farmers of Punjab are in the mesh of debt. The liberalisation of seed sector is an epidemic leading to suicides and high debt for purchase of seeds,
agro-chemicals and pesticides. The freedom of growing their own seeds and freedom of organic farming are simultaneously a resistance against monopolies of corporation like Monsanto and a regeneration of agriculture that brings fertility to the soils and prosperity to the farmers.

Report of Institute for Development and Communication (1998) estimated that 89.29% of farmers in Punjab were found to be taking short-term loans from different credit agencies to carry out their crop production operations. % of borrowers did not differ much among different sized land-holdings. 63.85% of farmers were taking crop loans from commission agents, 51.35% from Co-operative credit societies and 8.85% from commercial and regional rural banks. 54.22% of farmers were found to be borrowing from more than one of these credit agencies. Amount borrowed (of short-term loans) per operated acre was the highest among small farmers (₹ 4536) and the lowest among large farmers (₹ 2488). For all farmers taken together the average amount borrowed per operated acre comes out to be ₹ 3590. Amount borrowed per acre declined as farm size increased. The outstanding amount of long-term loans (productive as well as non-productive) did not directly indicate farmers’ failure to repay those loans as is the case in short-term loans; because the repayment of long-term loans is expected to occur over a fairly long period through installments. The amount of outstanding long-term loans (productive and non-productive) however, does indicate the amount of live debt that needs to be repaid and on which interest has to be paid.

Thus, researchers expressed their deep concern regarding the distress situation of prosperous state like Punjab and they have sympathy with the distressed farmers. The most worrisome feature of Punjab economy today is the drop in its annual growth rate. Due to adoption of advanced technology, there is increased cost of cultivation and as a result profitability has fallen. Farm incomes continue to dwindle. As per NSSO estimates for 2003-04, the average monthly income for a farm family in Punjab does not exceed ₹ 3,400 and as such younger generation is refusing to take up farming as a profession. Today, Punjab’s agriculture is engulfed in a severe debt trap. This makes a case for the present study to take up the issue of indebtedness among farmers in Punjab state. Though this state is considered as a prosperous state, yet the farmers of this state are deep into debts. According to NSSO estimates surveyed farmers were
in debt and an increase in credit from non-institutional sources was a major cause of concern as it directly affected the prosperity of farmers. Mr. Prakash Singh Badal, the present Chief Minister of Punjab, had once said, “Agriculture for the most has become a pain in the neck. It is not profitable at all except for those cultivators who own ten acres or more… Small and marginal farmers increasingly find it hard to stay in agriculture and are moving to other occupations” (The Tribune, May 15th, 1998).

1.6 Research Gaps

A large number of researchers have analysed the causes, nature and impact of indebtedness. However, gaps remain in our knowledge regarding association between prosperity and indebtedness among Punjab peasantry. In reality two conditions which mostly lead to debt are insecurity of harvest and prosperity and out of the two; prosperity has the greater effect. During late 1920s, Darling showed strong association between prosperity and debt. Does this relationship still hold? What is its relevance in the contemporary period? What type of relationship is there between these two? How different categories of farm households are affected in this process? The proposed study is an attempt to answer all these questions.

1.7 Objectives of the Study

Indebtedness among the farmers continues to be a serious problem. This study aims at finding different objectives which will reveal the debt situation of farmers and also its association with prosperity. In this context the present study is designed to throw light on the following problems:

1. How far incidence of debt has changed over time?
2. How far the sources of borrowings have undergone a change over different categories of farms/farmers over time?
3. What are the characteristics of indebted farm households?
4. What is the degree of association between prosperity and indebtedness among Punjab Peasantry? Alternatively, how far the Darling’s thesis of strong association between prosperity and indebtedness of Punjab peasantry is valid today.
1.8 **Hypotheses**

To fulfill the above said objectives, the study formulated the following hypotheses on the basis of available literature:

1. Incidence of indebtedness of cultivators has increased over time.
2. There is a positive association between agricultural prosperity/development and indebtedness of peasantry.
3. Size of the holdings and indebtedness are positively related.
4. Mechanisation of farms and indebtedness of peasantry are positively associated.
5. Farmers having large asset base are more indebted as compared to the farmers having small asset base.
6. Borrowings from informal sources have increased over time.

1.9 **Chapter Scheme**

1. Introductory chapter provides the significance of agriculture sector in India along with the history of rural credit availability to the farm community and explains the reasons for selecting Punjab state for analysing the debt situation of farmers. Review of literature has been done at three different levels i.e. indebtedness among farmers at global, national and regional level. The research questions are posed along with objectives, hypotheses and chapter scheme of the study.

2. The second chapter provides information on the study area, methodology and sources of data. In this chapter, a composite development index would be formulated for the selection of the districts. By using taxonomic methodology, the ranking of all the districts would be done and out of that a highly developed and a least developed district will be chosen. Then a moderately developed block will be chosen from each district for the survey.

3. In chapter three, the relation between prosperity and indebtedness at the aggregative level, in comparison with all other states of India has been studied. For this, the findings of the different rounds of NSSO would be used which
covers the period from 1951 to 2003. Thus, this chapter would reveal the macro picture of debt situation of farm community in India.

(4) In chapter four, the relationship between prosperity and indebtedness will be studied at the farming household level with the help of the findings of the survey of 300 farm households which will tell us about the debt levels of farmers in the Punjab state. The situation will be analysed for different categories of farmers on the basis of their land-holdings. Thus, this chapter would give us the micro picture of debt situation of farm community in one of the states of India, which is known to be the food bowl of India i.e. Punjab.

(5) In chapter five an attempt would be made to delineate the characteristics of indebted farm households and to find how far Darling’s thesis is still applicable in the contemporary period. Does the relationship of strong association of prosperity and debt still hold? An attempt would be made in this chapter to answer all these questions which are directly related with the farm community.

(6) The study would be concluded in chapter six, which would provide summary, conclusions and policy implications of the study.