

SOCIO-ECONOMIC STATUS OF FARMERS OF PATIALA AND SANGRUR DISTRICT

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(ECONOMICS)**

**BY
HARVINDER SINGH DHILLON
ROLL NO: 881201003**

Under the Guidance of:

Dr Rakesh Kumar Sharma
Assistant Professor
School of Behavioral Sciences and
Business Studies
Thapar University, Patiala

Dr (Ms) Ravi Kiran
Professor and Head
School of Behavioral Sciences and
Business Studies
Thapar University, Patiala



**SCHOOL OF BEHAVIORAL SCIENCES AND BUSINESS STUDIES
THAPAR UNIVERSITY,
PATIALA 147001(INDIA)**

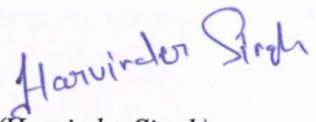
July 2013

DEDICATED TO
God,
My Father S. Surjit Singh
And my whole family

CERTIFICATE

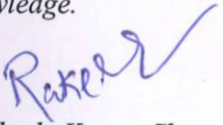
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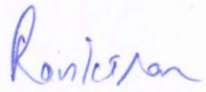
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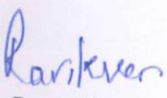
(Registration No. 881201003)


This is to certify that the above statement made by the candidate is correct to the best of my knowledge.


Dr Rakesh Kumar Sharma
(Supervisor)
Professor and Head
School of Behavioral Sciences and
Business Studies
Thapar University, Patiala


Dr (Ms) Ravi Kiran
(Supervisor)
Professor and Head
School of Behavioral Sciences and
Business Studies
Thapar University, Patiala

Countersigned by:


Dr (Ms) Ravi Kiran
Professor and Head,
School of Behavioral Sciences and Business Studies
Thapar University, Patiala


Dr. S. K. Mohapatra
Dean of Academic Affairs
Thapar University, Patiala

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HARVINDER SINGH

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ABSTRACT

The state of Punjab has earned the distinction of being the "Granary of India". Punjab is considered as a growing state of India. Development experience of Punjab economy since 1947 has remained quite impressive, though it has been marked by twists and turns. The economy of Punjab has experienced an accelerated economic growth and a steadily rising per capita income as compared to the growth experience of the Indian economy in general and the other states in particular. This remarkable achievement has been attributed to the planned development strategy adopted in Punjab. Punjab is a progressive state of India with an average growth rate of 8.9 per cent. It has evolved into a land of boundless opportunities for investment, industry and employment.

Punjab has twenty two districts, and Patiala district is one of important districts of the state of Punjab in North-West India. Districts of Punjab along with their headquarters Patiala District lies between 29° 49' and 30° 47' north latitude, 75° 58' and 76° 54' east longitude, in the southeast part of the state. It is surrounded by Fatehgarh Sahib, Rupnagar and Mohali to the north, Fatehgarh Sahib and Sangrur districts to the west, Ambala, Panchkula, Haryana to the North East and Kurukshetra districts of neighbouring Haryana state to the east, and Kaithal district of Haryana to the south west. The district Sangrur has been reorganized by making a new district Barnala out of it in the year 2006. From Administrative point of view, district Sangrur is divided into six tehsils: Sangrur; Sunam; Dhuri; Malerkotla; Lehra and Moonak. The district of Sangrur takes its name from its headquarters town, Sangrur. Sangrur is one of the southern districts of the state and lies between 29°-4' and 30°-42' north latitude and 75°-18' and 76°-13' east longitude.

The present study attempts to deal with a socio-economic status of farmers of two districts of Punjab, these are Sangrur and Patiala districts. These are two neighbour districts of Punjab. The present research is based on both the primary and secondary data. Primary data has been collected from 61 households of in the districts of Patiala and Sangrur. Socio- economic conditions depends on occupations, education, income wealth, and place of residence. Sociologists often use socio-economic status as a mean of predicting behaviour.

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CHAPTER -1

INTRODUCTION

Punjab, a state in northwest India, is a land of innovation and endeavour. The state of Punjab has earned the distinction of being the “Granary of India”. Punjab is considered as a growing state of India. Development experience of Punjab economy since 1947 has remained quite impressive, though it has been marked by twists and turns. The economy of Punjab has experienced an accelerated economic growth and a steadily rising per capita income as compared to the growth experience of the Indian economy in general and the other states in particular. This remarkable achievement has been attributed to the planned development strategy adopted in Punjab.

Punjab is a progressive state of India with an average growth rate of 8.9 per cent. It has evolved into a land of boundless opportunities for investment, industry and employment. The percentage share of Gross State Domestic Product (GSDP) of Punjab in Gross Domestic Product of India is 3.18 (Central Statistical Organisation, Delhi, 2006-07). Services held the largest share of 39 per cent in Punjab's SDP, followed by agriculture holding a share of 34.5 per cent. The share of industrial sector is relatively small, accounting for a meagre 22 per cent of the SDP. Tertiary sector contributes a significant share of around 42% in the GSDP followed by the secondary and primary sector at 29% and 28% respectively during FY2011. However, the share of agriculture has declined from around 32% in FY2005 to 28% in FY2011. While share of secondary sector has augmented from around 25% to 29% during the same period (PHD Chamber Research, 2011).

The state has been dominated by agricultural sector with a lower industrial output as compared to other states of India. Overwhelmed with Green Revolution successes such as those taking place in the Punjab, Bourlag triumphantly announced in his 1970 Nobel Prize speech that, “never before in the history of agriculture has a transplantation of high-yielding varieties coupled with an entirely new technology and strategy been achieved on such a massive scale, in so short a period of time, and with such great success.”

In terms of Poverty reduction, Punjab has done reasonably well to reduce its poverty, with only 8.4% of the population living below the poverty line (BPL) as against the national average of 27.5%. However, it is higher than that of hilly state of Jammu & Kashmir with 5.4% population living below the poverty line. (PHD chamber Research, 2011).

The State Government has given top priority to augment health infrastructure in terms of construction of new buildings, purchase of equipment and recruitment of the required manpower. A sum of Rs. 720 crore has been allocated for development of health infrastructure in the annual budget FY2011-12. Government of India in its 4th Common Review Mission Report has rated health infrastructure of the state as excellent and placed the state at number one position.

The Health infrastructure in the state comprises of 63 hospitals, 129 community health centres, 1309 dispensaries and 446 Primary Health Centres (PHC). Punjab has 529 Ayurvedic and Unani institutions and 107 Homeopathic institutions. There are 20375 beds in the government hospitals of the state. (PHD chamber Research, 2011).

The present study attempts to deal with a socio-economic status of farmers of two districts of Punjab, these are Sangrur and Patiala districts. These are two neighbour districts of Punjab. Socio- economic conditions depends on occupations, education, income, wealth, and place of residence. Sociologists often use socio-economic status as a mean of predicting behaviour.

1.1 PATIALA

Punjab has twenty two districts, and Patiala district in one of important districts of the state of Punjab in North-West India. Districts of Punjab along with their headquarters Patiala District lies between 29 49' and 30 47' north latitude, 75 58' and 76 54' east longitude, in the southeast part of the state. It is surrounded by Fatehgarh Sahib, Rupnagar and Mohali to the north, Fatehgarh Sahib and Sangrur districts to the west, Ambala, Panchkula, Haryana to the North East and Kurukshetra districts of neighbouring Haryana state to the east, and Kaithal district of Haryana to the south west.

Baba Ala Singh (1691–1765) a Sikh chieftain from village Rampura Phul in Bathinda District of Punjab, with his army of young brave men migrated to Barnala where Baba Ala Singh in 1722 set up his new state. Later Baba Ala Singh moved to a small village of Lehal where he built a new city on the village naming it as Patiala, he laid the foundations of a steady and stable state known as Phulkian Dynasty south to Sirhind. In and around Patiala District he founded many villages within his territory, and reconstructed many historical Gurdwaras relating to Sikh Religion.

It was from Baba Ala Singh time that Patiala District came into being as before the area was under the Sirhind Government, Baba Ala Singh made Sirhind, Tohana, Mansa, Bathinda, Sangrur and Barnala, Fatehabad District part of Patiala State.

In 1809 Patiala State came under British protection during the reign of Maharaja Sahib Singh (1773–1813) of Phulkian Dynasty, as he feared that Maharaja Ranjit Singh of Lahore would cross the Sutlej river and take the district and state so the Patiala rulers got the British to protect them from further invasion from 1809-1947 Patiala remained under British Protection. In 1948 Patiala Princely State was abolished by the Indian government.

Patiala District was further divided into Fatehgarh Sahib District on the 13 April 1992 Vaisakhi. Patiala district population mainly follows Sikhism with lesser number of Hindus and smaller numbers of Christians & Muslims. Patiala having a population of 1,895,686 is the 6th most populated district of the Punjab after Amritsar, Ludhiana, Gurdaspur, Sangrur and Jalandhar as per 2011 census. Sex Ratio is 891 females per 100 males. Literacy rate is 75.28.

The Climate in Patiala district is very hot in summer and cold in winter. The annual average rainfall is 688mm with monsoon lasts 3 months. Average maximum temperature during summer is recorded of 43.1°Celsius and minimum is of 2.1°Celsius.

Most of the area is plain in form of agricultural land. The river Ghaghar remains dry during most part of the year. However, during the rainy season, it often causes flooding the adjoining villages, which results in damage to the crops, livestock and the human lives. Other subsidiary rivers are Tangri Nadi, Patiala-Wali-Nadi, Sirhind Choe and the

Jhambowali Choe. Apart from the natural water lines, The Bhakra Main Line canal, the Nawana Branch, and the Ghaghar Link are the most important. These canals are the backbone of the irrigation system of the district.

1.2: SANGRUR

The district Sangrur has been reorganized by making a new district Barnala out of it in the year 2006. From Administrative point of view, district Sangrur is divided into six tehsils: Sangrur; Sunam; Dhuri; Malerkotla; Lehra and Moonak. The district of Sangrur takes its name from its headquarters town, Sangrur. Sangrur is one of the southern districts of the state and lies between 29°-4' and 30°-42' north latitude and 75°-18' and 76°-13' east longitude. It is bound by Ludhiana district in the north, by Barnala district in the west, by Patiala district in the east and by Jind district of Haryana state in the south. Sangrur, the headquarters of the district administration is directly linked by road and rail with state capital and all other major cities of the state.

The climate of the district is on the whole dry and is characterized by a short monsoon, a hot summer and a bracing cold winter. The year may be divided into four seasons. The cold season from November to March is followed by the hot season lasting up to the end of June. The period from July to mid-September constitutes the rainy season, of south-west monsoon, the second half of September and October may be termed the post-monsoon or transition period.

Sangrur is having a population of 1,655,169 as per 2011 census. Sex Ratio is 885 females per 100 males. Literacy rate is 67.9.

1.3 SOCIO-ECONOMIC SCENARIO

Economic activities in the state are showing structural change, over last few decades. Primary sector is experiencing a decline both in its share of state domestic product and share of workforce. This sector accounted for 49.13% of the share of SDP in 1980-81, which declined to 40.32% in 2001-02. The share of agriculture has declined from around 32% in FY2005 to 28% in FY2011. Still, the backbone of the rural economy continues to be agriculture and allied activities, mainly livestock.

When we talk of socio- economic status, the issue of farmers committing suicides takes a top priority. Farmers have been committing suicides increasing day by day in India over the last few years. Suicides by cultivators and agriculture labourers have been reported in Punjab since the mid 1980s. This is caused by a multi-dimensional crisis of the rural in the post-green revolution phase of agricultural development. Recently there has been an increase in the number of suicides in Punjab specially in Sangrur District (lehragagga). Suicide an act of terminating one's own life, or the 'wilful destruction of one's self interest may occur for a number of reasons. Some of these are: depression, shame, pain, financial, difficulties, etc. There are a number of Socio-economic risk factors which include high debt, crop failure due to natural calamities, decline in social position, burden of big fat weddings, drug addictions, dispute with someone, health problem etc. Thus this issue demands attention. The present study tries to understand the socio- economic status of farmers of Patiala and Sangrur districts to find the reasons for higher incidence of suicides, especially as reported in Sangrur district.

Along with these factors enhanced cost of production is also adding up to farmers woes. Global competitiveness Indian agriculture has to be of better quality and low priced. The situation worsened and in 1997 the debt burden of agriculture farmers of Punjab stood at Rs. 5700.19crores. Despite the record production the farmers are poor 85 percent of Punjab's farmers are reeling under heavy debt burden. Exorbitant rates by moneylenders in the state charge from 18 per cent to 30 per cent make in-fact impossible to return the money and resort to more indebtedness. In this study attempt has been made to access the main reasons of indebtedness in Patiala and Sangrur districts of Punjab.

Land holdings of farmers reduce productivity. According to a saying , "If you do cultivate your land as your forefathers, you will not get high output though you are hardworking but if you cultivate your land with new techniques you will get high output weather you are less hardworking." Thus technology helps to enhance productivity. The main reason of this indebtedness is small agriculture holdings in Patiala and Sangrur area. Small agriculture holdings resulted in low productivity because new techniques and machinery cannot be efficiently used in these small holdings. Lack of knowledge about new techniques, methods of production, Hybrid seeds, and supply of efficient agricultural inputs are also resulting in low productivity. The agricultural farmers in these areas are

backward and use old methods of production. All these reasons are responsible for increasing suicide in these areas. The present study focuses on analysing the socio-economic status of these two districts to understand whether the situation has improved or what steps are needed to improve it.

1.4 FARMER SUICIDES WORLDWIDE

Increased incidence of farmers' suicides is not only prevalent in India; it is a universal phenomenon, though its nature and rates vary from country to country. The United States of America faced the problem of suicide during the great depression of 1930's (Eugene and Learner, 1971). In the 1980's many farmers in United Kingdom committed suicide during Bovine Spongiform Encephalopathy (BSE), because of mental depression caused by the crisis and lost farming income. The study by Kelly et al. (1995) reported farmer suicides in the United Kingdom between 1979 and 1990 due to a series of difficulties developed over a period of time rather than a sudden response to an acute crisis. China has also experienced farmer suicides. Similarly Malaysia, Pakistan, Bangladesh have reported cases of farmer suicide. Sri Lanka reports the highest suicide rates especially among the farming communities (Eddleston, Sheriff and Hawton, 1998).

What makes farmer suicide in India more annoying are the reports highlighting indebtedness as a major cause of suicide? Debt burden refers to insufficient profitability of the farms, socio economic conditions of the farmers, credit system incapability to repay the debt which causes the debt to accumulate and become a burden. Increasing indebtedness has been cited as one of the important risk factors associated with farmers. (Bhalla et al., 1998, Dandekar et al., 2005, Deshpande,2002; Iyer and Manick,2000; Mishra, 2006, and Mohanty and Shroff,2004). While it makes some sense to attribute farmer suicide in Kerala, Karnataka and Andhra Pradesh to indebtedness in view of the widespread poverty, it is more difficult to consider this attribute in the context of Punjab which is known as a prosperous state. For this reasons, there is a need to analyse the situation among Patiala and Sangrur districts of Punjab.

1.5 MAGNITUDE OF PROBLEMS AND CAUSES OF SUICIDES

The numbers of farmers and agricultural labourers committing suicides has been growing in the recent past especially between 1994 and 1997 (Bhalla et al. ,1998). But it is very difficult to arrive at the exact estimate of suicide in the rural areas especially by the marginal farmers. Lack of reporting in police makes it impossible to access the magnitude of the problem. If reporting is done then non co-operative attitude of police increase the grievances further.

There is no holistic study in Punjab to arrive at accurate estimates of such suicide cases, although there are a number of important studies. One important study is by Gill (2005). According to this study there is a close relationship between economic hardship, indebtedness, and suicide. He found that poor economic conditions led to indebtedness and sometimes led to economic distress causing suicide. In 59.9 percent of cases, it was a quarrel between family members, primarily caused by indebtedness or economic hardship. The pressure of commission agents or banks for the return of loans and fear of loss of social status led to 21.6 percent of the suicides. Exorbitant rates on loans and diversion of loans for non-productive purposes or crop failure placed these farmers into a debt trap, inciting them to commit suicides.

Another study reporting indebtedness as the major factor for farmer suicides in Karnataka is by Nagesh (2005). According to this study 61.6 percent of farmer households in Karnataka were indebted compared to a national average of 48.6 percent. The study found that banks were a major source of loans (50 percent), followed by moneylenders (20 percent), co-operative societies (16.9 percent), relatives and friends (6.8 percent), and traders and government agencies (1.9 percent each). The study revealed astounding facts and reported that 34 percent of indebted farmer households borrowed from moneylenders. Thirty two percent took loans from banks and 23 percent from co-operatives. Seventy one percent farmers were unaware about the minimum support price scheme and 57 percent of farmers“ had no knowledge about the crop insurance scheme. Thus, though various schemes to assist farmers may be available, the farmers are ignorant and unaware of these.

Andhra Pradesh is another state persistently facing the crisis of farmers' suicides. Vidyasagar and Chandra (2004) reported that about 3,000 Andhra Pradesh farmers committed suicide in five years because of the debt trap, drought and crop failure. Vidyasagar and Chandra opine that farmer suicides aren't a personal problem, but rather are related to an agrarian crisis. Deshpande and Nageshprabhu (2005) also reported that the prevalence of indebtedness among farmers was seen to be highest in Andhra Pradesh (82%).

The studies by Gill (2005); Bhalla et al. (1990) bring out that the suicide cases among poor peasants and agricultural labourers are spread over all the three regions of Punjab i.e. Majha, Malwa and Doaba but there is high concentration of such cases in three the districts of Malwa. These districts are Sangrur, Mansa and Bathinda. These suicides are predominantly caused by economic distress and indebtedness. The highly commercialized form of agriculture accompanied by spirit of individualism and decline of traditional social support mechanism and non-existence of a formal safety system have pushed several rural poor into suicides when faced with acute economic hardship and indebtedness, along with social and family pressures associated with them.

1.6 ORGANIZATION OF STUDY

The thesis are organized is organised in five chapters

Chapter -1

Chapter 1 gives an overview of Punjab economy. It also provides the details of the two districts, viz. Patiala and Sangrur undertaken in the study. This chapter briefs the incidence of farmers suicides in India and in other countries of the world. The Chapter also provides the reasons of these suicides as reported by earlier studies.

Chapter 2

This Chapter reviews the previous research conducted on Socio-economic status of farmers in Punjab, along with studies on indebtedness of farmers.

Chapter 3

This Chapter provides the description of the study area, sampling procedure, presents the sources of data and identifies the methodologies utilized in this study.

Chapter 4

Chapter-4 presents the results of secondary data and the survey based results. This Chapter also compares the results for these two districts.

Chapter 5

It provides the summary and conclusions for the thesis and suggests appropriate policy implications and suggestions for future research

CHAPTER - 2

REVIEW OF LITERATURE

This chapter provides a brief overview of research done in this area. A review of study lends a proper shape and direction to the research. This chapter presents results from different empirical studies about socio-economic status of farmers in India and Punjab. The review helps to know emphasis and direction of research being done, the time periods of the studies, the scope and limitations of studies conducted, the conclusions drawn from these studies and objectives fulfilled and benefits accrued. Thus, it helps to identify the gaps in the earlier studies to avoid duplication of results and focus emphasis on the right direction. Section 2.1 covers the review of literature on socio-economic status of farmers in India and various countries of the globe. Section 2.2 covers the gaps in literature.

2.1 REVIEW OF LITERATURE ON SOCIO-ECONOMIC STATUS OF FARMERS

The issue of indebtedness is not a recent phenomenon. According to Singh and Grewal (1961) the main problem confronting the burden the farmer has been farm indebtedness. The study was carried out in the Sangrur district of Punjab state. Reserve bank included this district in its all India rural debt and investments survey of 1961-62, which made the data available for carrying the current study on indebtedness in the pre-green revolution period. Two development blocks, viz Malerkotla and Ahmedgarh from within the district were selected for the study since the impact of green revolution here was more noticeable, compared to other parts of the district because of better irrigation facilities. Three villages were selected at random from each of the blocks and operational holdings in these villages were classified into three groups viz, small, medium and large 20% farmers each size category with a minimum of two cultivators from each village were studied. The total sample comprised of 109 farmers of which 36 were small, 49 medium and 24 were large farmers. This period was taken with a view to represent the green revolution period as by this time the new technology had become fairly stabilized. Data for pre-green revolution period could not be ascertained from the cultivators. This gap was filled by using information already available in the all India rural dept and investment survey 1991-92, which was taken to represent the period of pre-technological transformation in agriculture.

The data obtained from the cultivators covered the aspects of money borrowed, repaid over dues and investments made etc.

According to the researchers Indian agriculture has so far not been able to make the desired progress mainly due to heavy indebtedness of the cultivators. The mounting burden of farm debts resulted primarily from the low productivity of the agriculture sector and unfavourable products. The situation changed after the mid sixties as there occurred a major break-through in agricultural production in some parts of the country, triggered by the introduction of high yield varieties seeds. As a result the agriculture situation started improving in several regions of the country including Punjab. Increase in incomes, helped in substantial improvements of farmers by helping them in creating farm assets viz. pumping sets, tube wells, tractors. This also resulted in farmers spending more on socio-religious ceremonies, education of their children and living in better houses.

Chattopadhyay and Sen Gupta (1988) stress on the availability of irrigation resources as a factor that increase efficiency for both owners and tenants. While several attempts have been made to explain the inefficiencies of sharecropping systems found in developing economies they have been marked by certain definitional flaws. A more rigorous analysis of sharecropping that incorporate size class differences among owners and tenants thus becomes necessary. Earlier studies had also stressed on land productivity and intensity of farm resources utilization as indicators of efficiency, but they are seen as measures of relative efficiency only under restrictive assumptions.

Singh and Mann (1988) looked into the pattern of regional distribution of national agricultural credit vis-a-vis the regional growth of agriculture. The study has revealed that on the whole, the distribution of agriculture credit is not based on the parameters of agriculture growth. It found that the states in the low growth rates zone, total advances were not on account of total cropped area , gross and net irrigated area. In most of the cases there were states, which were agriculturally more advanced , and the farmers might be financing their farm needs from their savings. As the commercial banks were getting experience in dealing with the agricultural sector , the distribution if all kinds of agricultural credit advanced by the commercial banks has tended to be more egalitarian. This is a healthy and favourable trend from the point of view of rural development

Sidhu (1989) examines the finance gap literature relating to farmers in general and specially in India. The study reviews the financial provision and investigates the lendings policies of financial institutions. The study investigates the relationship between education, level of income, social class and the relationship between farmers and financial institutions. The study investigates the relationship between farmers and financial institutions. The results show that credit limits adversely impact the efficiency of smaller farmers. Information asymmetry and under development of financial markets for small farmers leads to financial exclusion and negatively impact economic development.

Prabhu (1989) on the basis of empirical evidence tries to analyse the actual costs of the farmers adopting high yielding varieties of seeds (HYVs) and the resulting benefits. An attempt has been made in this research to determine viable and potential units and to suggest a strategy for adopting the HYVs through which the farmers while minimizing the increase in costs, gets substantial gains to induce him to continue cultivating the HYVs, a computer model of the villages was made an experienced upon to study the consequences in terms of additional costs and returns of the various changes made. The results of the experiment showed conclusively that an immediate complete switch over to the HYVs will result in huge increase in small farmer's working capital requirements. Making a trade off between additional costs and additional benefits, the adaption of HYVs in one of the two seasons would be ideal at the present stage. Co-operative farming will get the small farmers gains not only in terms of revenue but also solve the problems of getting Institutional recognitions.

Shah and Aggarwal (1989) attempt to view the disparities in the levels of income, consumption and investment of progressive farmers in relation to the less progressive ones and also between the different size in each category. It is hypothetical that inequalities in income distribution have widened due to the impact of the new technology and these are likely to increase further with the advanced of a new technology. The results depict that with the introduction of a new technology the income levels of progressive farmers have considerably increased in the different size groups of holding; a significant difference in the income levels of progressive farmers in different size groups of holdings; a significant proportion of the gross income of progressive farmers is ploughed back into agriculture by the use of new inputs as HYVs seeds, fertilizers and irrigation. There are variations in the investment between progressive and less progressive farmers and also on different size

groups of holdings. This analysis as is evident from the variations between the incomes of the progressive and less progressive farmers and also in the form of inequalities emerging on the basis of pattern of working expenditures in new inputs and capital investments by these farmers.

The study by Chakravarty and Pattnaik (1989) indicate that the absolute income level of households or its income trends is more significant in determining its consumption and investment pattern in:

- i. Expenditure on durable consumer goods, luxury goods, and valuable assets such as gold, jewellery. As it represents the saving side of the household beyond the essential consumption expenditure; the income elasticity of this particular item may be quite high.
- ii. Increase or decrease in the net burden of indebtedness of the households.

It follows from the foregoing analysis of income level and income trends that investment has stronger relation with the income trend than with the income level. In the upper income class cultivators may spend a large amount on investment, but in percentage terms it hardly exceeds investments in the lower income group. But with increasing income, a cultivator raises his investment not only in absolute terms but also as a percentage of income. The expenditure on durable consumer goods and luxury goods has strong with the both the income level and income trend. Thus cultivator goes on adding to his investment so long as it is also increasing. Borrowing and sale of assets have also a stronger relation with income trend than with income level.

Prasad (1981) attempts to study the socio-economic characteristics of the different categories of small farmers , viz, pure tenants, pure owners and part owners, culturally in an agriculturally progressive area of Kapile-swarapuram and Vrayavaram blocks in the East Godavari district of Andhra Pradesh. The data relates to 59 households collected in 1971-72. The results highlight that in agriculturally progressive area, the small farmers have a more diversified economic activity. Those who have more labour power, limited occupation diversification but have little or no land take up cultivation on leased land, since agriculture in a progressive area is a profitable occupation. The small farmers have more intensity of cropping. They also depend on activities allied to agriculture like dairying, poultry, etc. This is more the case with pure tenants and part owners. They raise

commercial crops to the extent possible. Live stock, more particularly milk cattle, occupies a prominent place in their agricultural assets. In order to better the economic conditions they have a willingness to work hard save more. The only drug that is holding them below the poverty line is the low proportion of workers to non-workers made up of children

Sale and Yadav (1991) examine the employment, income and expenditure pattern of tribal farm families in Jalgaon district of Maharashtra. The study reveals that the extent of unemployment in case of both male and female workers of the large farm, small farm and farm labour families was substantially large. The expenditure exceeded the income in all these families forcing them to borrow money from the money lenders. Ways of increasing income levels are indicated that would help the tribals' along with technical know how, to derive additional returns, enabling them to enjoy a higher level of living. The study concludes that the present occupations of tribals' are in capable of providing adequate employment and income opportunities. On the other hand, the consumption expenditure of the tribal families exceeded the family income and tribal families had deficits in their economy. This deficit is the result of the traditional nature of production activities and absence of gainful employment. To sustain this deficit, the tribals' helplessly opted mostly for the private money-lenders even in the face of exorbitant rates of interest and thus they were heavily indebted. The vast illiteracy among the tribals further helped their own exploitation, due to lack of knowledge about money transactions and new developments in science and technology. The improvements in employment opportunities coupled with knowledge of better management and allied activities will help the tribals' to derive additional income and thereby enjoy a higher level of living.

Pandey *et al.* (1992) study the effect of increase in income owing to the adoption of new technology of agriculture by the different categories of cultivators on the magnitude and patterns of savings and investments in the rural areas of Eastern Uttar Pradesh. The net savings of an economic unit during an accounting period is defined as the difference between current disposable income and current consumption. The results of the analysis highlights that the income of the cultivator is affected by the total saving of the family and by the pattern of investment. The agricultural income differential between two different districts (progressive and less progressive ones) and by the size group of holdings in each category was significant. The consumption level per farmer of the progressive area was

higher than that of the less progressive one by type and by size group of cultivators. Moreover the study reports that there were dis-savings on the smaller farmers and savings were positive for the progressive and less progressive medium and large farmers. The marginal propensity to consume was negatively correlated with the disposable income and marginal propensity to save was positively correlated. The marginal propensity to save was higher in the progressive area than in the less progressive area.

Moorthy (1993) suggests relief package for the six districts affected by farmer's suicides in the Vidarbha region of Maharashtra, which was finally announced by Prime Minister Manmohan Singh on July 1, 2006. Similarly a package was proposed to be announced for Karnataka, Andhra Pradesh and Kerala soon. While the total package appears to be large, it is not going to provide any immediate relief to the farmers. The core problems of unremunerative prices and indebtedness underlying farmers suicides and ground realities are still ignored. This package the total amount of the relief package is Rs 3750 crore which include waivers of Rs 712 crore of over due interest and Rs 2177 crore for irrigation under the accelerated irrigation benefit programme. The rest is going to be spent on water shed programmes, for a seed replacement programme, on attending the problems, in orange cultivations and for cattle and fisheries development. In additions to this, the center will also ensure and additional credit flow of Rs 1275 crore for the six drought hit districts of Vidarbha. While arguing why this package would not stop farmer's suicide, the study makes an attempt to suggest short and long term measures to solve farmers' distress.

Dev and Rao (2000) analyse various problems faced by the food processing sector in Andhra Pradesh especially case instance of contract farming, with a focus on oil palm and gherkin. While contract farming has largely solved the problem of supply of quality raw material, cultivators of both the crops have their own needs. Oil palm growers, for instance, are keen on an assured minimum price while gherkin growers are totally dependent on export demand. Processors have also neglected the smaller farmers. Hence, some form of government invention to ensure contracts should be enforced and complied with. This is the urgent need of the hour.

Dhaliwal (2008) has pointed out that almost freezing of the minimum support price of wheat and paddy from 2000-01 to 2004-05 was one of the reasons of increase in agony of

farmers. The official report on suicide by farmers may put the SAD-BJP government in an awkward situation at the political level in the state. The report which has enlisted 2990 cases of suicide by farmers and farm labour starting from 2000 to 2008 in Bathinda and Sangrur district, was recently submitted by Government by Punjab Agriculture University (PAU) Ludhiana. The government had asked the university to pursue the study.

Already, the level of debt is highest in Punjab. Further the share of non-institutional debt rate is higher and the rate of interest on these is very high and is around 57%. Various studies conducted by the PAU have estimated the level of debt to be around Rs 24,000 crore in 2006, out of which Rs 12,000 crore was from institutional source. The recovery methods of non-Institutional-sources of credit are considered coercive in nature, causing psychological and social distress.

Interestingly, the number of cases of suicides came down following a good increase in the MSP in 2005. However, it increased in 2008. In Bathinda district 85 farmers committed suicides in 2000, 84 in 2001, 92 in 02, 63 in 2006, 76 in 2007 and 109 in 2008. In Sangrur district 134 farmers committed suicide in 2000, 123 in 2001, 81 in 2005, 82 in 2006, 105 in 2007 and 118 in 2008. Of the 2,990 cases of suicide, 1,757 were farmers and 1,113 farm labourers and reason for suicide in case of 1,288 farmers and 671 labourers was indebtedness and rest of the cases other reasons such as family conflict, marital discord, drug addiction and long illness, etc.

Kaur (2010) highlights that as the surviving families of farmers who commit suicide are predominantly female, the issue further creates more complications and the situation worsens further. Women often become the sole supporters of families. These women, who previously managed the domestic sphere and perhaps engaged in light fieldwork, now find themselves playing the new role of breadwinner and sustaining their families amidst extreme outstanding debt. Given the traditional Punjabi gender dynamic, women are even less likely to be formally educated than men and are unable to find alternative sources of employment.

2.2 GAPS IN LITERATURE

Although there are many studies on socio- economic status done for India in general and Punjab in specific, yet there are many gray areas which need attention. The present study covers the socio- economic status of farmers in Sangrur and Patiala districts. The study tries to compare these two districts to find out the difference in the socio- economic status of farmers in these two districts to analyse the reasons for enhanced suicide rates in Sangrur compared to Patiala district. Thus this study attempts to find reasons for the same, with the implications of improving the status of farmers in the area of the study.

CHAPTER -3

DESIGN AND METHODOLOGY

In the preceding chapter, an attempt has been made to review some of important existing studies pertaining to the socio-economic status of farmers and other factors, which are influencing the farming practices and farm productivity in Punjab. This chapter covers the data sources, the scope of the study and describes the research tools and techniques to be applied so as to achieve the objectives of the study. The aim of this chapter is to clarify the methodology of the research as well as to outline the logic and methodology in undertaking the study for the achievement of the research goals. The present research is based on both the primary and secondary data. Primary data has been collected from 61 households of in the districts of Patiala and Sangrur.

3.1 OBJECTIVE OF THIS STUDY

1. To compare the socio- economic conditions of the farmers Patiala and Sangrur district.
2. To identify which factors are responsible behind the low standard of the farmers.
3. To identify which factors are responsible behind the suicides of farmers.

3.2 RESEARCH DESIGN

Research design is the conceptual structure within which research is conducted. “A research design is the arrangement of condition for collecting and analysis of data in a manner that aims to combine relevance to the research purpose with economy in procedure”. With this as a base Description Research Design ,which includes survey and fact finding , the major purpose of descriptive research is for the description of the state of affairs , as if exists at present.

3.3 DATA

The study is based on survey method to find out the difference in socio- economic status of farmers in two districts of Punjab, Patiala and Sangrur. The data for the study will be primarily collected through Primary Data, but secondary data has also been used.

3.4 RESERCH METHODS

- Mean
- Standard deviation
- Chi- Square
- Growth Rates

Methodology is considered to be an important parameter of empirical study such as ours in that it constitutes the ultimate yardstick of ascertaining if a research project has succeeded or otherwise, in exploring the various issues it sought to addresses to. It however needs to be pointed out that every empirical research effort has to evolve its own methodology.

It is in tune with these considerations that in the present study, the analysis of socio-economic status of farmers has been studied with the help of some statistical and economic tools and procedures generally employed in this regard. In precise terms, our search kit in the present study, comprises the following: growth rates has been calculated as:

$$Y = ab^T$$

$$\text{Log } Y = \text{log } a + T \text{ log } b$$

The study uses Chi-square, factor analysis and step-wise regression technique for analysis. A Data was analyzed with the help of SPSS (Statistical Package for Social Sciences) package. Chi-square (χ^2) test is popularly known as test of independence of two categories and test of goodness of fit for the reason that enables us to ascertain how appropriate the distributions from the sample data empirical. Moreover the test is good and strongly recommended for demographic variables (such as age, gender, marital status, educational

level and income) measured on nominal scale. The test of concordance (goodness of fit) can be made just by inspection of the sample data, but such a test is obviously inadequate. Hence chi-square (χ^2) test was used to get the precision. The formula for the chi square is:

$$\chi^2 = \sum \frac{(\text{Observed Frequency} - \text{Expected Frequency})^2}{\text{Expected Frequency}}$$

Where O refers to the observed frequencies

E refers to the expected frequencies.

Factor analysis is a very useful method of reducing data complexity by reducing the number of variables being studied. Factor analysis seeks to resolve a large set of measured variables in terms of a relatively few categories, which are known as factors. In other words, the factor analysis emphasizes on investigating the interrelationships among all the relevant variables. In simple words it is a technique whose purpose often consists of data reduction and summarization. Broadly speaking, it addresses the problem of analyzing the structure of the inter relationships among a large number of variables (e.g. test scores, test items, questionnaire responses) by defining a set of common underlying dimensions known as factors.

This technique has a great utility in summing and simplifying a large number of factors. At the same time one of the fundamental aims is to classify similar factors together. In the present study the second and third part of the questionnaire is analysed with the help of factor analysis.

3.5 SCOPE OF THE STUDY

The findings of the study would be helpful for policy makers and help to understand the socio economic conditions of the farmers of the two neighbour districts.

The results of the study will also unravel the various problems faced by farmers in Punjab so that adequate steps can be taken to solve them and thus improve the status of farmers in Punjab.

CHAPTER -4

RESULTS AND INTERPRETATION

A brief introduction of Punjab economy and statistics of Patiala and Sangrur are essential before proceeding with the survey results. Section 4.1 covers the Current scenario of Punjab along with statistics of Patiala and Sangrur districts. Section 4.2 covers the Socio-Economic Status of Farmers of Patiala and Sangrur districts

4.1. CURRENT SCENARIO OF PUNJAB

4.1.1: Population of major districts of Punjab

Table 4.1 highlights the populations of major districts of Punjab. Ludhiana has the highest population, followed by Amritsar. Compared to Sangrur, Patiala has higher population. The population statistics are depicted through figure 4.1.

Table 4.1: Population of major districts of Punjab

Districts	Population	Male	Female
Ludhiana	3,498,739	1,867,816	1,630,923
Amritsar	2,490,656	1,318,408	1,172,248
Gurdaspur	2,298,323	1,212,617	1,085,706
Jalandhar	2,193,590	1,145,211	1,048,379
Firozpur	2,029,074	1,071,637	957,437
Patiala	1,895,686	1,002,522	893,164
Sangrur	1,655,169	878,029	777,140
Hoshiarpur	1,586,625	809,057	777,568
Bathinda	1,388,525	743,197	645,328
Tarn Taran	1,119,627	589,369	530,258

Source: India stat Database

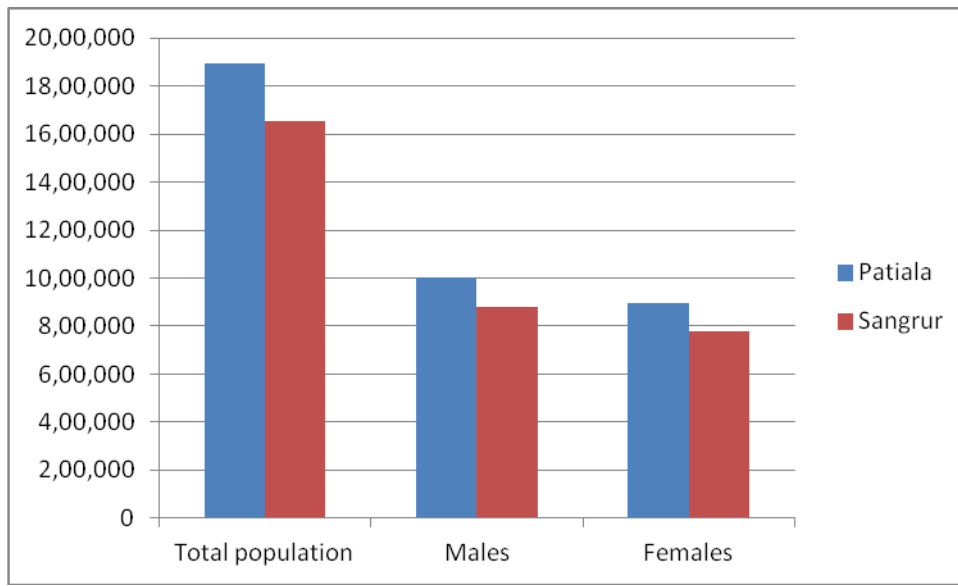


Figure I: Population statistics of Patiala and Sangrur

4.1.2 Socio-Economic Status of Punjab vis-à-vis other States

As depicted through table 4.2 out of total 2282 suicides due to poverty, maximum (1252) were in Andhra Pradesh. Punjab is at Sixth rank with 66 suicides in the state. In case of Professional/Career Problem West Bengal had the highest number of suicides, followed by Maharashtra. Punjab had only 10 persons falling in this range. In both the cases the no of males outnumbered the number of females, committing suicide.

Table 4.2: State-wise Number of Suicides (Poverty and Professional/Career Problem) in India (2011)

States/UTs	Poverty				Professional/Career Problem			
	Male	Fe- male	Total	% Share to Total	Male	Fe- male	Total	% Share to Total
Andhra Pradesh	951	301	1252	8.3	77	11	88	0.6
Assam	173	95	268	9.8	6	0	6	0.2
Bihar	1	2	3	0.4	2	0	2	0.3
Chhattisgarh	5	1	6	0.1	9	0	9	0.1
Delhi	21	2	23	1.3	3	2	5	0.3
Goa	4	0	4	1.4	2	0	2	0.7
Gujarat	72	29	101	1.6	76	5	81	1.3
Haryana	11	0	11	0.3	93	23	116	3.6
Himachal Pradesh	0	0	0	0.0	0	0	0	0.0
Jammu and Kashmir	3	0	3	1.0	2	0	2	0.7
Jharkhand	9	3	12	1.0	11	5	16	1.3
Karnataka	154	52	206	1.6	43	7	50	0.4
Kerala	0	0	0	0.0	42	8	50	0.6
Madhya Pradesh	14	5	19	0.2	113	1	114	1.2
Maharashtra	140	20	160	1.0	166	17	183	1.1
Manipur	0	0	0	0.0	0	0	0	0.0
Meghalaya	0	0	0	0.0	0	0	0	0.0
Odisha	13	4	17	0.3	18	18	36	0.7
Punjab	61	5	66	6.8	9	1	10	1.0
Rajasthan	6	2	8	0.2	56	0	56	1.3
Sikkim	0	0	0	0.0	0	0	0	0.0
Tamil Nadu	63	18	81	0.5	57	36	93	0.6
Uttar Pradesh	19	11	30	0.6	36	3	39	0.8
Uttarakhand	6	0	6	1.9	1	0	1	0.3
West Bengal	4	0	4	0.0	170	17	187	1.1
India	1732	550	2282	1.7	1004	156	1160	0.9

Source: Indiatat database

The results are also depicted graphically through Figure II.

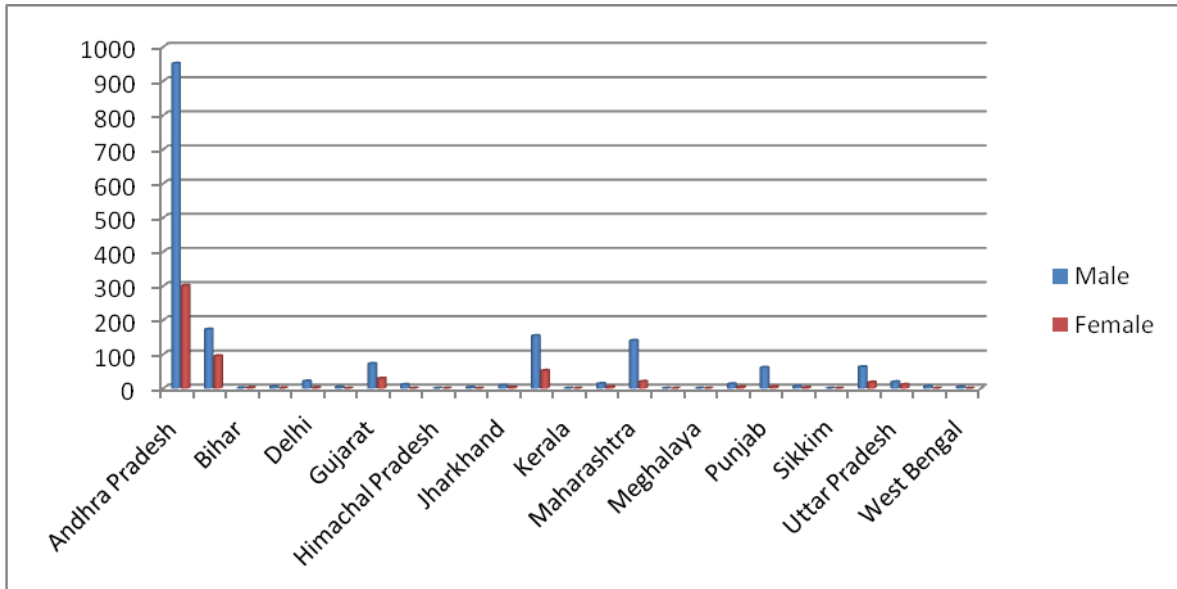


Figure II: State-wise Number of Suicides

Literacy rates are also included to find out the educational level of population in these states. Table 4.3 depicts the Literacy rates in Major Districts of Punjab. This is specifically done to understand the inter district literacy differentials. Gender gap is also calculated to depict the differences in male- female literacy rates.

4.3 Literacy rates in Major Districts of Punjab

Districts Name	Male	Female	Total	Rank	Gender Gap
Amritsar	81.2	72.8	77.2	10	8.40
Barnala	73.1	64.1	68.9	17.5	9.00
Bathinda	75.3	62.9	69.6	15	12.40
Faridkot	75.9	64.8	70.6	13	11.10
Fagehgarh Sahib	84.5	75.5	80.3	7.5	9.00
Ferozepur	76.7	62.2	69.8	14	14.50
Gurdaspur	85.9	75.7	81.1	6	10.20
Hoshiarpur	89.9	80.8	85.4	1	9.10
Jalandhar	86.1	78.3	82.4	5	7.80
Kapurthala	84.6	75.4	80.2	9	9.20
Ludhiana	86.3	78.2	82.7	4	8.10
Mansa	68.4	56.4	62.8	20	12.00
Moga	75.3	67.4	71.6	12	7.90
S.A.S. Nagar	89.2	80.0	84.9	2	9.20
Muktsar	72.9	60.0	66.6	19	12.90
S.B.S. Nagar	86.2	74.3	80.3	7.5	11.90
Patiala	81.4	70.5	76.3	11	10.90
Roopnagar	88.9	77.2	83.3	3	11.70
Sangrur	74.2	62.9	68.9	17.5	11.30
Tarn Taran	75.4	62.9	69.4	16	12.50
Punjab	81.5	71.3	76.7		10.20

As depicted in Punjab highest male literacy rate is in Hoshiarpur with 84.6, this is followed by S.A.S. Nagar is 89.2. In case of Female literacy rate , again Hoshiarpur tops with 80.8, and S.A.S. Nagar is at second rank with 89.2. In total literacy also the first two ranks are shared by Hoshiarpur and S.A.S. Nagar.

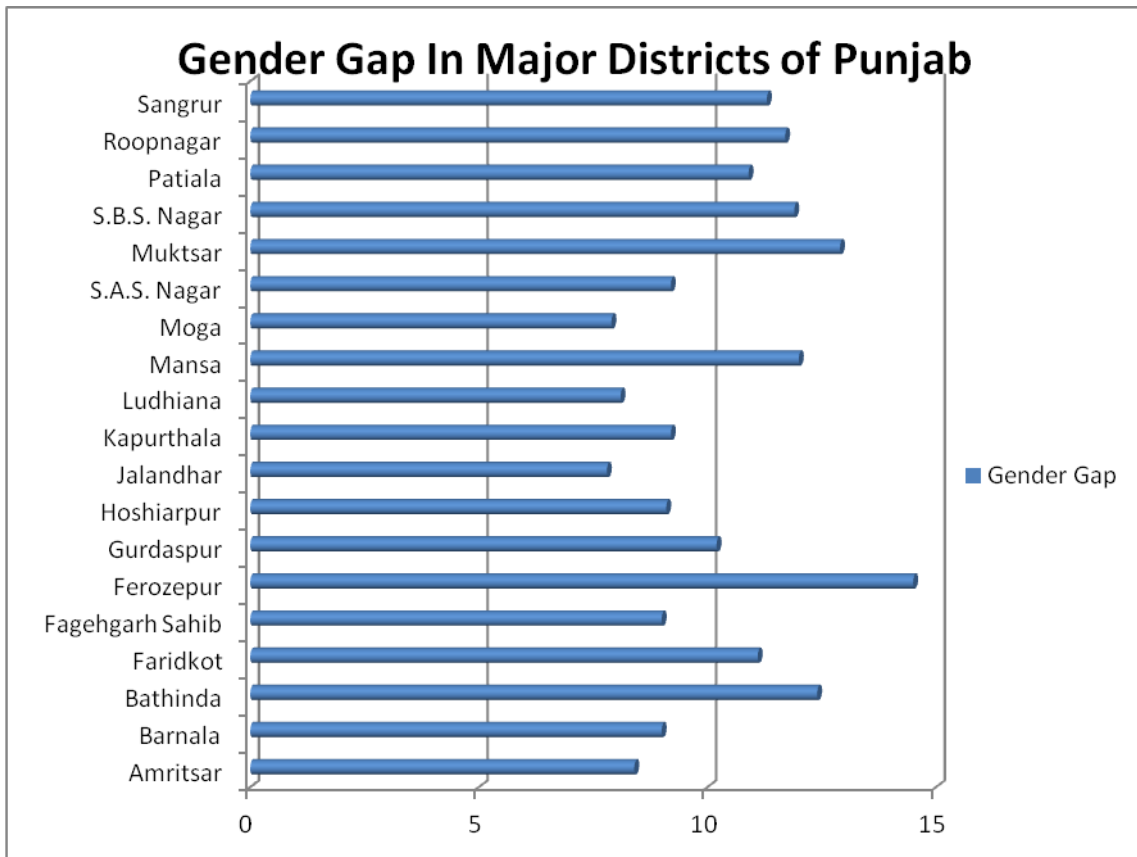


Figure III Gender Gap in Major Districts of Punjab

Regarding literacy rates of Patiala and Sangrur, Patiala is leading with higher literacy rate for both also for males and females. Regarding total literacy Patiala has 76.3 and Sangrur has 68.9. Patiala is at 11 rank while Sangrur has 17.5 rank and thus is a relatively backward state in case of Literacy. Gender Gap of Sangrur is higher than that of Patiala.

Table 4.4: Infant Mortality Rates of Patiala and Sangrur District in Punjab (1991 to 2001)

District	Infant Mortality Rate (1991)			Infant Mortality Rate (2001)		
	Total	Male	Female	Total	Male	Female
Patiala	56	51	61	42	42	43
Sangrur	67	65	68	58	57	58

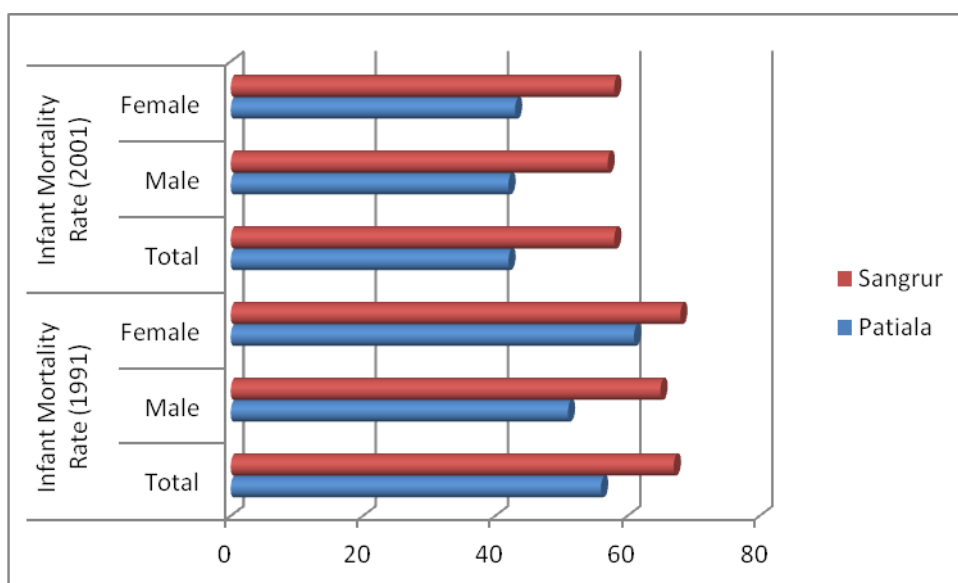


Figure IV: Infant mortality rate of Patiala and Sangrur

In case of Infant mortality rate as depicted through table 4.4 and Figure IV, Sangrur district has higher mortality for males, females as well as for total. Thus in terms of health indicators as well Sangrur is lagging behind Patiala.

4.2 SURVEY BASED ANALYSIS

4.2.1 Profile of the Farmers of Punjab (District-Patiala and Sangrur)

- i. **Type of House:** Type of house is an indicator of standard of living of farmers. In the sample all farmers have their own house, 94% of respondents live in pakka houses and 6% have Kachha houses. Most respondents have their own house, and the percentage living in Kachha houses is less.

- ii. **Land Holding Pattern:** Land holding pattern in this study shows a shocking picture. The farmers are classified on the basis of land holding. The percentage of land holding on the basis of size is given below:
 Small farmers- 1<5 hectare (1.6%) in Patiala and 27.9% in Sangrur
 Large farmers- 5-10 hectare (49.2% in Patiala and 21.3% in Sangrur
- iii. **Cropping Pattern:** The study depicts that mostly all farmers produce wheat and paddy as is otherwise prevalent in entire Punjab.
- iv. **Credit borrowing:** 10 respondents of Patiala district had taken loan from co-operative banks. In Sangrur district 25 respondents have taken loan from co-operative banks, six had taken loan from other banks, only 4% in Sangrur had taken loan from money lenders. Aggregative analysis depicts that 65.71 respondents had chosen co-operative banks for loan.
- v. **Rate of Interest:** Rate of interest is very high. This interest pushes the farmers into the debt trap. The rate of interest on loan of farmers is 11-15%.
- vi. **Means of Agriculture:** 92% respondents have their own means of agriculture. Means of agriculture included tractor, harvesting machine. It means that these farmers do not pay any rent on these implements. 8% of have tractor and harvesting machines.
- vii. **Cause of borrowings:** 8 respondents in Patiala district loan taken for house construction/marriages only taken for agriculture investment. Out of 25 24 respondents answer this question 7 respondents had taken loan for marriages/house, 10 had taken loan for education, while 6 had taken for agriculture investment.

4.2.2. Sample Size:

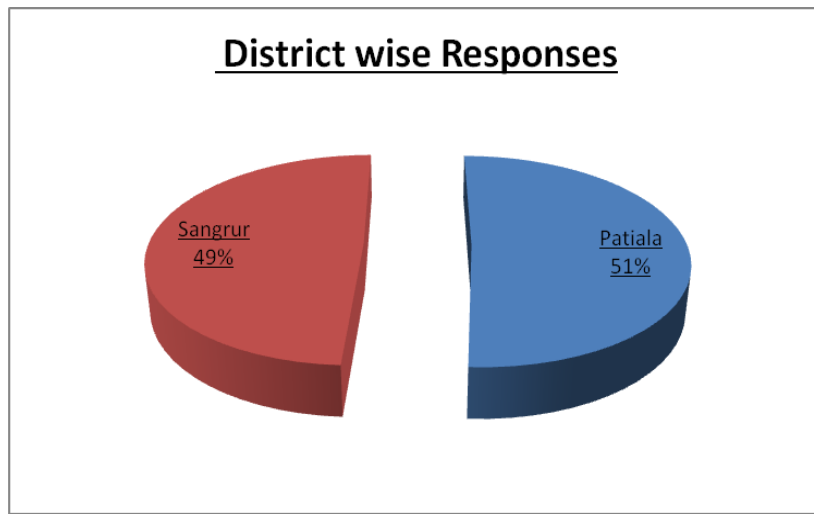


Figure V: District wise responses

Table 4.2.3: Land Holdings

Land Holdings	Frequency	Percent
2.00 Vigha	18	29.5
4.00 Acre	43	70.5
Total	61	100.0

As shown in table 4.2.3, 18 respondents have small farms consistent of land holding in vighas and 43 respondents have large farms considering of land holding in acres.

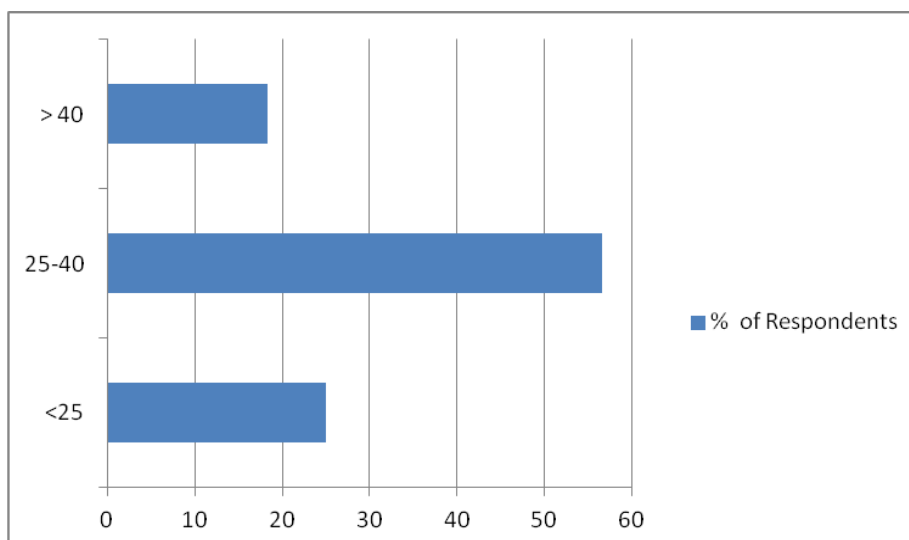


Figure VI: Age-wise Profile of Respondents

From the sixty respondents 18.33% were below 25 years. Majority of them were in the category of 25-40 (56.67 %). In the category above 40 there were 15 respondents with 25 %.

Table 4.2.4 : District-wise land holdings

		Land Holdings		Total	
		Less than 5 acre	More than 5 acre		
District	Patiala	Count	1	30	Pearson Chi-Square 20.932 df: 1 P<.001
		% within VAR00001	3.2%	96.8%	
		% of Total	1.6%	49.2%	
		Count	17	13	
Sangrur		% within VAR00001	56.7%	43.3%	
		% of Total	27.9%	21.3%	
		Count	18	43	
	Total	% within VAR00001	29.5%	70.5%	
	% of Total	29.5%	70.5%	100.0%	

As shown in table 4.2.4 Patiala ha only one respondent with land holding having less than 5 acre while in Sangrur 17 out of 18 possess less than 5 acre. In Patiala district 30 out of 31 had more than 5 acre while in Sangrur 13 out of 30 had had more than 5 acre land holdings.

Pearson’s Chi square test is significant at .001 %.

So the table shows that Patiala is comparatively having prosperous farmers as compare to Sangrur district. In the samples undertaken in the present study all the respondents have hired labour.

Table 4.2.5 : District –wise access to Kerosene/ Electricity/ Generator/ Inverter

District * El/ Gen/ Inv Cross tabulation

		El/ Gen/ Inv				Total	
		1.00	2.00	3.00	4.00		
District	Count	0	29	2	0	31	Pearson Chi-Square 37.389 df: 3 p<.001
	1.00 % within District	0.0%	93.5%	6.5%	0.0%	100.0%	
	% of Total	0.0%	47.5%	3.3%	0.0%	50.8%	
	Count	1	5	9	15	30	
2.00 % within District	3.3%	16.7%	30.0%	50.0%	100.0%		
% of Total	1.6%	8.2%	14.8%	24.6%	49.2%		
Total	Count	1	34	11	15	61	
% within District	1.6%	55.7%	18.0%	24.6%	100.0%		
% of Total	1.6%	55.7%	18.0%	24.6%	100.0%		

As shown in table 4.2.5 Sangrur district 30% respondents having generators, 50% respondents having invertors. While in Patiala only 6.6 have generator facility .Thus the relied on the electricity supplied by the district administration. This gives reflects probably Sangrur district having more power cuts. So another important aspect is that all the marginal farmers access to electricity. So the Pearson’s Chi square is significant at .01 %.

Table 4.2.6: District-wise Sources of loan taken

		Bank/ Coop Banks/ Private money lender				Total	
		1.00	2.00	3.00	4.00		
District	Count	0	10	0	0	10	Pearson Chi-Square 7.304 Df:3 P= .063
	1.00 % within District	0.0%	100.0%	0.0%	0.0%	100.0%	
	% of Total	0.0%	28.6%	0.0%	0.0%	28.6%	
District	Count	6	13	4	2	25	
	2.00 % within District	24.0%	52.0%	16.0%	8.0%	100.0%	
	% of Total	17.1%	37.1%	11.4%	5.7%	71.4%	
Total	Count	6	23	4	2	35	
	% within District	17.1%	65.7%	11.4%	5.7%	100.0%	
	% of Total	17.1%	65.7%	11.4%	5.7%	100.0%	

As reflected from table 4.2.6 the 10 respondents of Patiala district had taken loan from co-operative banks. In Sangrur district 25 respondents have taken loan from co-operative banks, six had taken loan from other banks, only4% in Sangrur had taken loan from money lenders. Aggregative analysis depicts that 65.71 respondents had to choose co-operatives as a source of loan. This shows that co-operative banks are still preferable sources of loan.

Pearson’s Chi-square test is not significant which shows that there isn’t any association between the district and source of loan.

Table 4.2.7: District-wise Cause of Borrowing

		Cause of Borrowing				Total	
		2.00	3.00	4.00	5.00		
District	Count	2	0	8	0	10	Pearson Chi- Square 8.793 Df:3 p= .032
	% within District	20.0%	0.0%	80.0%	0.0%	100.0%	
	% of Total	5.9%	0.0%	23.5%	0.0%	29.4%	
2.00	Count	6	10	7	1	24	
	% within District	25.0%	41.7%	29.2%	4.2%	100.0%	
	% of Total	17.6%	29.4%	20.6%	2.9%	70.6%	
Total	Count	8	10	15	1	34	
	% within District	23.5%	29.4%	44.1%	2.9%	100.0%	
	% of Total	23.5%	29.4%	44.1%	2.9%	100.0%	

As shown in table 4.2.7, 80 % respondents in Patiala district have loan taken for education and 20 % have taken for agriculture investment.

29.2 % respondents in Sangrur district have loan taken for education and 25 % have taken for agriculture investment, and 4.2 % have taken loan for house construction/ marriage purpose.

Comparative study both the district highlights there are more persons in Sangrur who have opted loan for agriculture investment.

Pearson's Chi square is significant at 5% level. This shows an association between the district as cause of borrowing.

4.3 FACTORS INFLUENCING SOCIO-ECONOMIC STATUS OF FARMERS

Factor analysis was conducted for the study to understand the factors influencing Socio-economic status of Farmers. The results reveal that there are three factors, viz. Basic Facilities, Govt. support and Agricultural mode. These three factors explain 61.465 percentage of variance. These factors along with their Eigen values, percentage of variance and item loadings have been explained below:

Table 4.2.8: Results of Factor Analysis

S No	Rotation Sum of Squared Loadings		
	Eigen Value	% of Variance	Cumulative %
1	2.944	30.84	30.84
2	1.964	20.76	51.60
3	1.502	16.77	68.37
	6.41		

- i. **Economic Factors:** This is the most important factor which explains the maximum percentage of variance 30.84 with Eigen value of 2.944. Economic Factors cover (i) the type land holding (0.908), (ii) Means of agriculture (0.818); and (iii) the tenancy status (0.767).
- ii. **Social Factors:** This factor explains 20.76 percentage of variance. The three components of this factor are: (i) Reasons for loans (0.876); ii) alternate sources of Employment (0.815); iii) Level of literacy (0.789) and (iii) Marital status (0.768).
- iii. **Other Factors:** These have 1.502 Eigen value and explain 16.77% of Variation. The items in this factor include: i) Alternate sources of income (0.755); ii) source of irrigation (0.708); and iii) Cultural heritage (0.678).

Table 4.2.9 Factor Names and Factors Components

S. No	Factor Name	Factors components	Eigen Values	% of Var.	Item loading
1	Economic Factors	i. Size of land holding	2.944	30.84	0.908
		ii. Means of agriculture			0.818
		iii. Tenancy status			0.767
2	Social Factors	i. Reasons for loans	1.964	20.76	0.876
		ii. Alternate sources of Employment			0.815
		iii. Level of literacy			0.789
		iv. Marital status			0.768
3	Other factors	i. Alternate sources of income	1.502	16.77	0.755
		ii. Sources of irrigation			0.708
		iii. Cultural heritage			0.678
Cumulative Variance				68.37	

Thus in this chapter analyses has been done on the basis of secondary data and survey data. The main findings and conclusions are reported in the following chapter.

CHAPTER 5

SUMMARY FINDINGS AND CONCLUSION

The findings of the study will help to know the socio –economic conditions of the farmers in two districts. The study uses both primary data and secondary data for analyzing the living standard of farmers. The study examines the scenario of Sangrur and Patiala district.

5.1 MAJOR FINDINGS OF THE STUDY

- i. Regarding literacy rates of Patiala and Sangrur, Patiala is leading with higher literacy rate for both also for males and females. Regarding total literacy Patiala has 76.3 and Sangrur has 68.9. Patiala is at 11 rank while Sangrur has 17.5 rank and thus is a relatively backward state in case of Literacy.
- ii. Gender Gap in literacy is higher for Sangrur compared to that of Patiala.
- iii. In case of Infant mortality rate, Sangrur district has higher mortality for males, females as well as for total. Thus in terms of health indicators as well Sangrur is lagging behind Patiala.
- iv. Farmers in Sangrur district have smaller land holdings than Patiala.
- v. Farmers in Sangrur district have taken more loan as compared to Patiala.
- vi. 80 % respondents in Patiala district have taken loan for education and 20 % have taken for agriculture investment.
- vii. 29.2 % respondents in Sangrur district have loan taken for education and 25 % have taken for agriculture investment, and 4.2 % have taken loan for house construction/ marriage purpose.
- viii. Moreover they have opted for loan for agriculture and education purpose.
- ix. The preferred source of financing the loan is Co-operative banks.
- x. Farmers in both the districts have access to electricity.
- xi. 92% of sample respondents have their own means of agriculture.

5. 2 REVISITING THE OBJECTIVES

The First objective of the study is:

1. *To compare the socio-economic conditions of the farmers Patiala and Sangrur district.*
 - i. Land holdings of sample respondents is indicative of the fact that in Patiala only one respondent had land holding less than 5 acre while in Sangrur 17 out of 18 possessed less than 5 acre. The results indicate that Patiala is comparatively having prosperous farmers as compare to Sangrur district. In the samples undertaken in the present study all the respondents have hired labour. In literacy Patiala has 76.3 and Sangrur has 68.9 % literates and has 11th rank, while Sangrur has 17.5 rank. Thus Sangrur is lagging behind Patiala in case of literacy as well as Gender Gap. Sangrur is educationally backward. There is big gap between urban-rural and male-female literacy rates. In terms of health indicators as well Sangrur is lagging behind Patiala. Sangrur has to focus on improving its socio-economic status.

The next objective of the study was:

2. *To identify which factors are responsible behind the low standard of the farmers.*

Sangrur district is having more power cuts and the farmers have to rely on generators. This is causing the farmers excessive cost as well as increased difficulty of watering paddy fields. Another factor is excessive loans taken by Sangrur Farmers for agriculture purpose. Comparative study of both the districts highlights there are more persons in Sangrur who have opted loan for agriculture investment.

3. *To identify which factors are responsible behind the suicides of farmers.*

Finding reasons responsible behind the suicides of farmers, the study conducted factor analysis. The results report that the three major factors, viz. i) Economic Factors; ii) Social Factors and other factors explained 68.37% of variation in the model. Economic Factors emerge as important factor covering three items, viz. (i)

the type land holding (0.908), (ii) Means of agriculture (0.818); and (iii) the tenancy status (0.767).

Social Factors explains 20.76% the percentage of variance. The three components of this factor are: (i) Reasons for loans (0.876); ii) alternate sources of Employment (0.815); iii) Level of literacy (0.789) and (iii) Marital status (0.768).

Other Factors explain 16.77% of Variation. The items in this factor include: i) Alternate sources of income (0.755); ii) source of irrigation (0.708); and iii) Cultural heritage (0.678).

Thus there is a need to improve economic factors, followed by social and other factors.

5.3 POLICY IMPLICATIONS

Keeping in view the results of the sample survey of Patiala and Sangrur district, the present recommends the following steps to improve the socio-economic status of farmers.

As is evident, farmers in India are under debt trap and Punjab is no exception. To alleviate them from debt-burden, banks should give soft loans to these farmers to help them pursue their agriculture activities with easy terms and conditions. When loan to these farmers' will be available at low rates, they will be able to use better seeds, better fertilizers, better techniques of production. These will boost agricultural productivity and hence agricultural income.

The study suggests that co-operative banks still emerge as an important source of financing loans. Steps should be taken to improve their efficiency. Gramin banks and mortgage bank should also prefer to provide loan to farmers on easy terms and conditions.

The study suggests that farmers should adopt allied activities as dairying, piggery, poultry farms, vegetables garden and other commercial crops so that they can supplement their

income. The farmers of these two districts are still relying only on paddy and wheat and alternative sources.

The farmers should avail the opportunity of MNREGA (Mahatama Gandhi National Rural Employment Guarantee Act). Another problem prevalent in Punjab is drug addiction. Steps should be taken to uproot it. Education is the best step to solve all problems. More focus needs to be given to education to both males and females. We know that education is the key to development and development leads to prosperity. Gender gap is more in Sangrur compared to Patiala. Steps can be initiated to enhance female literacy in both the districts with special emphasis in Sangrur district.

Reliance of agriculture is still on natural rain. Some-times rain, storm, hail storms and natural calamities play havoc with their ripened crops. Such distressed farmers bear huge losses. The governments should reserve money in their pool to help such farmers so that they can pursue agriculture activities for the next crop and maintain their house-holds activities and give their loans taken from the bank.

Government should take steps to give subsidies on fertilizer, seeds, implements, irrigation system, dairying, poultry farms. Spurious seeds and fertilizers should be checked by the government. Small and Illiterate farmers should make use of the subsidies which the Government announces from time to time.

There is a need for minimum support prices to be maintained. While fixing minimum support prices, total costs of agriculture and benefit to farmer should be taken in to account. Although India is poor country and gives subsidies on food, it should not forget the interest of farmers while fixing minimum support price.

For a vast majority of farmers, there seems to be genuine case for help. The government, no doubt, has launched special programmes like SFEDA and MFALA for the upliftment of petty farmers, but this is not enough. The other down-trodden groups like the scheduled castes and backward classes get several special privileges from the government. This is due to the fact that they are socially and economically handicapped. Such socially under privileged groups do deserve some special concessions. But there is a case for extending, at least, some concessions to farmers as well.

5.4 LIMITATIONS OF THE STUDY

The main limitations of the study are regarding the selection of the sample area. The results of this study does not applicable to other parts of the country because different regions having different problems and different solutions needed to solve these problems.

5.5 SCOPE FOR FURTHER RESEARCH

There is scope for further research in this field. Large sample can be used by randomly choosing and the samples from various districts of Punjab. In addition, an all India study on the above mentioned topic can be made and a comparative study can be done by taking socio-economic status of farmers on different states.

REFERENCES

- Aggarwal, R.C. and Shah, S.L (1989) 'Impact Of New Technology on the Levels of Income, Patterns of Income Distribution and Savings of Farmers in Central Uttar Pradesh' Indian Journal of Agriculture Economics.
- Anupreet, Josi (1990) 'Farm Household Income Investment and Consumption' Economic and Political Weekly Vol 39 No 4.
- Bagchi, B and Sain, K (1989) 'Commercialization and Small Farms' Indian Journal of Agricultural Economics.
- Bathaiah, D. and Rao, Krishna Y.V (1995) 'Income, Consumption and Saving Behavior of Tribal Farmers of Andhra Pradesh' Agricultural Situation in India.
- Bhalla, G. S.; Chadha, G. K. , Kashyap, S. P. and Sharma, R. K. (1990). Agricultural Growth and Structural Changes in the Punjab: An Input-Output Analysis. Research Report 82. Washington, D.C.: International Food Policy Research Institute.
- Bhullar, A.S., Sidhu, R.S. and Singh, Sukhpal.(2011), "Farmers' Suicides in Punjab: A Census Survey of the Two Most Affected Districts," Vol - XLVI No. 26-27, June 25.
- Bourlag, Norman. "Nobel Lecture." 11 December 1970.
http://www.nobelprize.org/nobel_prizes/peace/laureates/1970/borlaug-lecture.html
- Chand, Ramesh (1990) 'Minimum Support Price In Agriculture' Economic and Political Weekly Vol XXXVIII No 29.
- Deshpande, R.S. (2002) 'Agrarian Distress and Possible Alleviatory steps' Economic and Political Weekly Vol XXXVII No 26.
- Dhaliwal, Sarjit (latest) 'Farm Suicides Can Trouble SAD-BJP' the Tribune April 23, 2009.
- Dhaliwal, Sarjit (latest) "Farm Suicides Can Trouble SAD-BJP" the Tribune April 23,2009.
- Dogra, Bharat (1992) 'land For the Poorest' Economic and Political Weekly VOL XXXVI No 49
- Dua, Parminder Kaur and Ghuman, Ranjit Singh (2008) 'Nrega And Rural Employment In Punjab: An Evaluate Study Of Hoshiarpur District' Yahoo.com.
- Garg, J.S. (1990) 'Impact of High-Yielding Varieties of Crops on Patterns of Income Distribution' Indian Journal of Agricultural Economics.

- Ghosh, D.N. (1993) 'A Police Approach for Agricultural Lending' Economic and Political Weekly Vol XL No 2.
- Gill Sucha , Singh and R.S. Ghuman (2001) "Changing Agrarian Relations in India" Some Reflections from Recent Data. Indian Journal of Labour Economics, Vol.44, No 4.
- Gill Sucha ,Singh "Economic Distress and Farmer Suicide in Rural Punjab "
- Gill Sucha Singh (2005) "Economics Distress and Farmer Suicides In Rural Punjab" Journal Punjab Studies , Vol.12 No 2, pp 221-331
- Gill Sucha Singh (2006) "A Futuristic View" www.india-seminar.com/2006/567/567
- Gill, Sucha Singh (2000) 'Economic co-operation Between Two Punjab' Yahoo.com.
- Gill, Sucha Singh (2001) 'Economic Distress and Farmer Suicides In Rural Punjab' Yahoo.com.
<http://fletcher.tufts.edu/Praxis/Archives/~media/DD8E2DF1EA6C47028EB789DCD7ED5D37.pdf>
- Kaur, Mallika (2012), "The Paradox of India's Bread Basket:Farmer Suicides in Punjab," PRAXIS The Fletcher Journal of Human Security , VOLUME 25, pp 39-60.
- Kunjukunju, Benson (2004) 'The Impact of Credit on Income of the Rural Borrowers-A Study in Kerala' Indian Cooperative Review.
- Laxminarayan, H (1992) 'Inter Size Group and Inter State Variations in Distribution of Agricultural Assets' Economic and Political Weekly.
- Narayanamoorthy, A (1993) 'Relief Package for Farmers: Can It Stop Suicides?' Economic and Political Weekly Vol XLI No 31.
- Narayanamoorthy, A (2006) 'Agriculture in Agricultural Growth and Technology Fatigue Or Policy Fatigue?' Economic and Political Weekly VOL XLI No 25.
- Parsad, A.G(1981) "Socio –Economic Characteristics of Small Farmers in an Agriculturally Progressive Area" Indian journal of Agricultural Economics, Jan 1981, Vol. 11, No. 1-2, 1981, pp247 -254.
- Prabhu, P.L.N. (1989) 'Small Farmers and High Yielding Varieties- A Simulation Experiment' Indian Journal of Agricultural Economics.
- Prasad, A.G. (1981) 'Socio-Economic Characteristics of Small Farmers in an Agriculturally Progressive Area' Indian Journal of Agricultural Economics.
- Sai, St Y.V, David, G Shourie (1998) 'Bt Cotton: Farmers' Reactions Economic and Political Weekly Vol XXXVII No 46.
- Sandhu, Navjot (1989) 'Finance Gap amongst Smaller Farmers in India, Punjab' Google.com.

- SenGupta ,Atanu and Chattopadhyay,Manabendu(1989) “Tenancy Inefficiency A Study Based on West Bengal Agriculture ” Economic and Political weekly Vol XXXVI Nos5 and 6 pp497-502.
- Sengupta, Atanu and Chattopadhyay, Manabendu (1989) ‘Tenancy Inefficiency A Study Based on West Bengal Agriculture’ Economic and Political Weekly Vol XXXVI Nos 5 and 6.
- Shah, S.L. and Agarwal, R.C. (1989) ‘Impact of New Technology on the Levels of Income, Patterns of Income Distribution and Savings of Farmers in Central Uttar Pradesh’ Indian Journal of Agricultural Economics.
- Shah, S.L. and Aggarwal, R.C.(1989) “Impact of new Technology on the Levels of Income, Patterns of Income Distribution and Savings of Farmers in Central Uttar Pradesh” Indian Journal of Agricultural economics Vol 25 pp 110-115.
- Sharma, R.K and Tewari, S.C (1981) ‘Modern Technology in Kangra Farms’ Points Of View.
- Sidhu, D.S and Grewal, S.S (1961) “Farm incomes in Punjab: Myths and Realities” Economic affairs, vol 21(6)pp 4601-4602.
- Singh , Rajinder and Grewal , S.S. (1961) “Impact of Green Revolution on the Debt Position Of Punjab Farmers” Financing Agriculture,Vol21 pp73-75.
- Singh, Rajinder and Grewal, S.S. (1961) ‘Impact of Green Revolution on the Debt Position of Punjab Farmers’ Financing Agriculture.
- Sinha, Siddhartha (2000) ‘Agriculture Insurance In India’ Economic And Political Weekly Vol 39 No 25
- Suryaprakash, S and Banakar, Basavaraj (1988) ‘Borrowing and Utilization Pattern of Crop Production Credit in Karnataka: A Case Study’ Indian Journal of Agricultural Economics.
- Tewari, L and Birthal, P. Gulati.A, and Joshi, P.K (1995) ‘Agriculture Diversification In South Asia’ Economic and Political Weekly Vol 39, No 24.
- Vasavi, A (1998) ‘Agrarian Distress in Bidar Market, State and Suicides’ Economic and Political Weekly Vol 37, No. 12.
- Yadav, D.R, Chaudhary, S.M and Sale, D.L (1991) ‘Employment, Income and Expenditure Pattern of Tribal Farm Families’ Social Change: June 1991: Vol 21 No 2.

Socio-Economic Status of Farmers of Sangrur and Patiala District

Household Survey Questionnaire

Name of the Investigator Mr Harvinder Singh Dhillon (M.Phil Economics,Thapar University Patiala)

Name of Village

Date:

Name of Block

Name of District.....

1 . Identification Particular

a) Name of village.....

b) Name of the person

c) Name of the Head of the Household

d) Age

e) Relation with Head.....

f) Address.....

g) Date.....

h) District

i) Name of Block.....

j) Religion and caste.....

k) Tenancy status of the household: Owner Cultivator/Tenant Cultivator/Agriculture Labourers/landless.

2. Details of Family members

Name	Relation with	Sex	Age	Marital	Edu	Skill
Current Income						
Household	Head of Family			Status		Comp
Farm non Farm						

1

2

3

.....

3. Land Holdings

1. Amount of land in Possession (in Biswa/Vigha/Sq Feet/ Acre)

2. Owned Land Agri, Non Agri, Irri, Non Irri Net Income Generted (Rs. Per annum)

3. In cultivating land type of labour used: Own Labour/ Family Labour/ Hired Labour

4. Do you Cultivate any government / Public Land y/n

5. If yes please state: Area (acres)

4. Cropping patterns and crop yield for total land cultivated:

Crops	Area Under crops in acre	Yield rate	Total	Amount	Sold
Rate(rs)					
Grown		qtl/acre	(in Qtls)	(in Qtls)	(in
Qtls/per year)					

Paddy

Pulses

Vegetables

Cotton

Wheat

Fodder (Chara)

Other Crops

(b) Expenditure Related to Agriculture

5 Unemployment and employment particulars

Particulars about educated unemployed / Non working Persons (18-45)

1 No of male members unemployed.

2 No of female members unemployed.

3 How many days per person get unemployed in Agricultural activities?

Person	No of Days employed / year
--------	----------------------------

Before	After
--------	-------

6. Housing Details: Area (Biswa/vigha/sq feet / acres)

1 Do you own a House ? Yes/ No, If Yes, no of rooms

2 Type of house Pakka /Kachhha/Thatched /Azbestos/tyles

7 Housing Facilities

1 Separate kitchen Y/N

2 Bathroom with in house Y/N

3 Source of lightining
kerosene/electricity/generator/invertor

4 Source of water supply Courtyard/outside

8 Possession of Material Assets (in numbers)

Tv Radio Refrigrator cycle Motor cycle Four wheelers stove cooking gas
others

9 Details of Credit facilities;

a) Have you borrowed money? Y/N

- b) If yes, then where from you borrowed: Bank/co-operatives/private money lenders/others (specify)
- c) Cause of borrowing
 1 agricultural investment 2 Business 3 House construction 4 Marriages 5 Education/others.

10 Details of income and expenditure particulars 1)income particulars

S.No. (in Rs)	Source of income	No of persons Engaged	Per Annum Income
------------------	------------------	-----------------------	------------------

- a) Agriculture
- b) Livestock
- c) Diary
- d) Services
- e) Business
- f) Labour

Expenditure particulars (in quantity/rupees)

a) Monthly expenditure on food:
 Rice.....Flour/Atta.....Pulses.....Veg.....

- b) Monthly expenditures on education.....
- c) Monthly expenditure on medical.....
- d) Annual expenditures on clothing.....
- e) Annual expenditure on social ceremonies.....
- f) Annual expenditure on housing activities.....
- g) Annual expenditure on lighting and cooking

11 Is there any increase in income in previous year: Yes/No

12 source of irrigation

- a) Tube wells
- b) Canals
- c) Others

13 Use of fertilizers per acre

- 14 Productivity of crop per acre
- 15 Any subsidies they got
- 16 Road Communications
- 17 Supply of electricity or power they are getting per day
- 18 Where you are selling
- In own village.....
 - Any other place.....
- 19 What is the support price ?
- 20 Do you satisfied with minimum support price
- 21 Saving from agriculture Income per year
- 22 Name of the bank from which loan is borrowed
- SBI PNB Corporate Bank RRB Any other
- 23 Rate of interest on loan
- 1-5 % per month
 - 6-10%.....
 - 11-15%.....
 - Above 16%
- 24 Which activity is started with loan?
- Dairy farm
 - Cattle
 - Any other
- 25 How many instalments have been paid taking loan
- 26 How much time has passed after taking loan?
- 1 yr
 - 2 yr
 - 3 yr
 - 4 yr
 - 5 and above
- 28 Means of agriculture
- Tractor
 - Harvesting machines
 - Oxen
 - Any other

29 Do you think that your status or income are changed

20 Regarding farming/Agriculture that kind of personal and problems you generally face. State in detail

- a)
- b)
- c)
- d)
- e)

30 Rate the following factors on a scale of 1 to 5 on how they influence the socio-economic status of Farmers with 1 for least preference and 5 for highest preference

i. Size of land holding	1	2	3	4	5
ii. Means of agriculture	1	2	3	4	5
iii. Tenancy status	1	2	3	4	5
iv. Reasons for loans	1	2	3	4	5
v. Alternate Employment opportunities	1	2	3	4	5
vi. Level of literacy	1	2	3	4	5
vii. Marital status	1	2	3	4	5
viii. Alternate sources of income	1	2	3	4	5
ix. Sources of irrigation	1	2	3	4	5
x. Cultural heritage	1	2	3	4	5

Thanks for your valuable time