Socio- Economic Implications of Agrarian Land Acquisition: A Case Study of Talwandi Sabo Power Limited, Mansa (Punjab)

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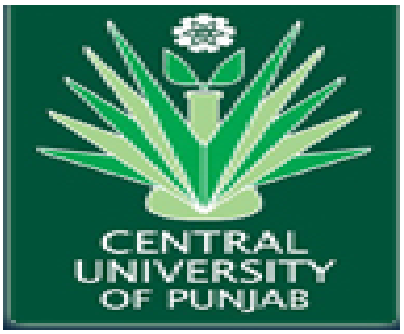
By
Jashanpreet Kaur

Supervisor
Dr. Sandeep Kaur Bhatia



Centre for Economic Studies

School of Social Sciences

Central University of Punjab, Bathinda

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CERTIFICATE

I declare that the dissertation entitled “SOCIO- ECONOMIC IMPLICATIONS OF AGRARIAN LAND ACQUISITION: A CASE STUDY OF TALWANDI SABO POWER LIMITED, MANSA (PUNJAB)” has been prepared by me under the guidance of Dr. Sandeep Kaur Bhatia, Assistant Professor, Centre for Economic Studies, School of Social Sciences, Central University of Punjab. No part of this dissertation has formed the basis for the award of any degree or fellowship previously.

Jashanpreet Kaur
Centre for Economic Studies
School of Social Sciences
Central University of Punjab,
Bathinda - 151001.
Date:

CERTIFICATE

I certify that JASHANPREET KAUR has prepared his dissertation entitled “SOCIO-ECONOMIC IMPLICATIONS OF AGRARIAN LAND ACQUISITION: A CASE STUDY OF TALWANDI SABO POWER LIMITED, MANSA (PUNJAB)” for the award of M.Phil. Degree of the Central University of Punjab, under my guidance. She has carried out this work at the Centre for Economic Studies, School of Social Sciences, and the Central University of Punjab.

Dr. Sandeep Kaur Bhatia
Assistant Professor
Centre for Economic Studies
School of Social Sciences
Central University of Punjab,
Bathinda - 151001.
Date:

ABSTRACT

Socio- Economic Implications of Agrarian Land Acquisition: A Case Study of Talwandi Sabo Power Limited, Mansa (Punjab)

Name of Student	:	Jashanpreet Kaur
Registration Number	:	CUPB/MPh/SSS/CES/2014–15/06
Degree for which submitted	:	Master of Philosophy
Name of Supervisor	:	Dr. Sandeep Kaur Bhatia
Name of Centre	:	Centre for Economic Studies
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India has been facing many problems for the acquisition of the land for the establishment of developmental projects. The agrarian land acquisition has become a serious issue for this. Most of the studies have tried to find out the immediate impact of the land acquisition. After the land acquisition, what type of problems being faced by the land dispossessors have been ignored by many studies. Therefore, the present study has tried to analyze the major requirements and problems faced by the people after the development of the thermal plant. The study also examines the pre and post struggle faced by the land dispossessors. The study concerns with the impact of the large-scale agrarian land acquisition in the context of economic conditions, environment, and health of the local livelihoods. It was in September 2008, the Government of Punjab inaugurated a thermal power plant of 1980 megawatt with three units 660 MW of each in the Banawala village in Mansa district. The 2100 acres agrarian land area was acquired by the State Government of Punjab for setting up thermal power plant from four villages named Banawala, Peron, Raipur and Talwandi Aklia in Mansa district. More than 80 percent landholding villagers were not in favour of the construction of thermal power plant on their land. In Banawala village, the total land is 2900 acre out of which 1450.375 acres was acquired under

TSPL, people have lost their half proportion of land in the process of land acquisition. Total 130 respondents were surveyed out of which 70 land dispossessors, 30 labourers through snowball sampling from purposively selected four villages and 30 employees were selected conveniently from the thermal plant. The majority of the people engaged in agricultural activities before and after land acquisition but the real income of farmers has decreased after land acquisition due to a reduction in the size of their agricultural land and also their engagement in the other allied activities. As a result size of land holdings, return from the crops, 'leased in' and 'leased out' activities, the number of diary animals, agricultural particulars also adversely affected. The average size of land holdings has declined after the land acquisition i.e. from 4.05 hectare to 2.46 hectare. Total owned land has decreased from 283.53 hectares to 120.39 hectares. The compensation amount given to the farmers ranged between from Rs. 9.40 lakhs per acre to Rs. 15.40 lakhs per acre, including displacement allowances, which was less than the announced amount. The study concludes that the problems of land acquisition are due to follow reasons: paying less compensation to the land owners, land acquired for the private projects in the name of public purpose, not providing the alternative source of income to the affected people and ignoring the agricultural labourers. The study suggests that the compensation amount being decided by the government should be based on the actual market price. It also suggests that the government should re-evaluate the existing land acquisition norms in India. The agricultural land acquired for the purpose of development projects will make the agricultural population unemployed due to the multiples externalities of the projects, which are unskilled to fetch other jobs apart from aggravating the problem of food security in future.

Jashanpreet Kaur Dr. Sandeep Kaur Bhatia

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Jashanpreet Kaur

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LIST OF ABBREVIATIONS

S.No.	Full form	Abbreviation
1.	Bhakhra Beas Management Board	BBMB
2.	Bharatiya Janta Party	BJP
3.	Bharatiya Kissan Union	BKU
4.	Environment Impact Assessment	EIA
5.	Greater Noida Industrial Authority	GNIDA
6.	Guru Gobind Singh Super Thermal Plant	GGSSTP
7.	Guru Hargobind Thermal Plant	GHTP
8.	Guru Nanak Dev Thermal Plant	GNDTP
9.	Health Impact Assessment	HIA
10.	Land Acquisition, Rehabilitation and Resettlement	LARR
11.	Land Acquisition Act	LAA
12.	Land Acquisition Amendment Act	LAAA
13.	Mega Watt	MW
14.	National Rehabilitation Policy	NRP
15.	National Democratic Alliance	NDA
16.	Public Private Partnership	PPP
17.	Punjab State Electricity Board	PSEB
18.	Punjab State Power Cooperation Limited	PSPCL
19.	Punjab Urban Planning & Development Authority	PUDA
20.	Special Economic Zone	SEZ
21.	Social Impact Assessment	SIA
22.	Talwandi Sabo Power Limited	TSPL
23.	Upper Bari Doaba Canal	UBDC
24.	Uttar Pradesh	UP

CHAPTER 1
INTRODUCTION

Since the liberalization reforms, India has attracted a large amount of investment as a result, it has initiated a large number of developmental projects. It includes the development of industries, urbanization, housing, tourism, Special Economic Zones (SEZs) and other infrastructures like road, electricity, and rail networks. In India, land acquisition is the major factor for the development of projects. The Land acquisition in India indicates the acquisition of land for a public purpose by the State and Central Government of India from individual landowners as authorized by the law. Public purpose includes investment in manufacturing, mining, defense, education, hospital entities, special economic zone, industrial corridors and others. The 'land acquisition' involves the process of acquiring land for various infrastructure and economic growth initiatives by the government or any government agency from landowners after paying compensation, as per fixed by the government, in cover of losses that may be suffered by the land owners due to surrendering of their land to the concerned government or government agency (Bedi, 2013).

India has focused on infrastructure and industrial development since 1950. To fulfill the requirement of electricity for the industrial sector, Central and State government has focused on the promotion of the energy sector. The first planning of India has focused on hydro and thermal electrical project. Electricity is a vital component of the economic development of the country. It has directly or indirectly impact on various aspects of society, such as employment, health, food preservation, education, and culture. The demand for electricity is continuously rising, In India, electricity production mainly depends on the coal base thermal power plants. Total capacity of energy in India from various sources like coal-based power plant 185,173 MW (62.1%),oil-based plant 994 MW (0.3%),Natural gas 24,509 MW (8.2 %),Nuclear power 5780 MW(1.9 %),and renewable energy contribution 42,783 MW(14.4%) (Ministry of Power, 2016).

The Land Acquisition in India was started with The Bengal Act (1824) which was enacted to promote British commercial interest in India. Finally, British fortified the Land Acquisition Act (1894) in India. After the independence, the Indian government adopted the 1894 Land Acquisition Act. Since Independence

Government of India (GOI) was following this act. But few amendments in this act were done in various years i.e.1919, 1921, 1923, 1933,1962,1967,1984 and 2007. According to LAA (1894), the land acquisition was done only for the public purpose. There were some provisions for this purpose, provision for the acquisition of land for village sites, and development of existing villages, provision for the acquisition for the town or rural or corporate development by state or center, provision for acquisition for the residential purpose for poor, landless people and people who were affected due to natural calamities or displacement by the government, provision for acquisition for any educational, housing, health, slum clearance scheme proposed by the government or any authority belong to the government, provision for acquisition for the construction of the government office or buildings (LAA, 1894).

The LAA 1894 was passed by the British government for the purpose to promote industrialization, it had provided cheap land to the entrepreneur for the development and formation of the project. Till 2013, the same act was adopted by Government of India. This act has undergone many faults and embraced all aspects such as acquisition, compensation and rehabilitation of the landowners. The public purpose was not much clear defined, due to lack of clarity various judgment on the land acquisition were against the landowners (Bagachi, 2012). LAA 1894 shows the acquisition of land for industrial purpose. Through industrialization leads to development and create employments for milliners. But this had not been observed in land acquisition. According to Act collector, has unlimited power, section 9 of LAA 1894, the claim of compensation, decision about the value of land (section 4), mode of compensation (section 11) came under his preview. Due to this power government misused power for the acquisition (Desai, 2011). The acquisition of land through this act did not only the loss of land for land dispossessors but also the loss of communities, culture and many other things for them. This act did not take care about all. According to LAA 1894, the compensation amount was paid only to legally recognized tenants, rather than other people who indirectly depended on the land like dependents, landless laborers, and others. Moreover, women were also ignored in this Displacement of artisans, fishers, folks, small traders were not considered. Section 17 of this act, known as urgency clause, which has given more power to the collector to take

possession of the land on an immediate basis. This clause was misused by the government. The compensation amount was much below the actual market rate. The other components such as standing crop, trees, building were not considered while the valuation of the market price, rather than land (Ghatak & Ghosh, 2011).

In view of criticism about the Land Acquisition Act 1894, Government of India has passed the Land Acquisition Amendment Act (LAAA) 2007 on 11th April 2007. The LAAA (2007) redefines the public purpose that includes: provision of land for the strategic purpose such as defense, provision of land for an infrastructure project, which must benefit the general public, provision of land for any other general purpose where 70 percent land has already purchased by private companies. Determination of compensation on the basis of current market value is to be done. While the valuation of the land the value of the tree, plant, standing crop must be included. According to the act, the compensation of damages must be paid within six months. This act established the land acquisition dispute settlement authority at center and state level. The dispute must settle within six months. According to section 3A of this act, whenever land acquisition effects physical displacement of 400 hundred families in the plain area and 200 hundred families in the hilly area, a Social Impact Assessment must be carried out in affected areas (LAAA, 2007). Social Impact Assessment (SIA) is a methodology to review the social effects of infrastructure projects and other development interventions. International Association of impact assessment describes social impact assessment (SIA) to include the process of evaluating, observing and dealing the proposed and unplanned social consequences, both positive and negative of planned interventions (policies, programs, plans, projects) and any social change processes invoked by those interventions. SIA makes the land acquisition process transparent, objective and fair. SIA lists the nature of land and its descriptions such as agricultural land irrigated or non - irrigated, forest land (Gill, 2015).

LAA 1894 created social unrest and many protests in various places like Sigur, Nandigram, Bhatta Parasol, Gobindpura. So LAA 1894 was felt to relook. Ministry of Rural Development Department presented Land Acquisition Rehabilitation and Resettlement Bill (LAAR) 2011 to Union cabinet in September 2011. The cabinet referred the bill to standing committee of the rural development. After various

amendments, the bill reintroduced in the union cabinet and cleared, with few amendments in December 2012. The bill tabled in the parliament and discussed among the both the houses of parliament in September 2013 and approved by both the houses.

The New name of the LAAR 2013 is given as “The Right to Fair Compensation and Transparency in Land Acquisition, Rehabilitation and Resettlement Act” 2013. The provision of this act relating to land acquisition, compensation, rehabilitation, and resettlement apply only for the public purpose. Public purpose includes project for the strategic purposes such as military, naval, air force, armed force, and other paramilitary services, project for infrastructure purpose such as agro-industries, cold storages, fisheries, dairies set up by the government, industrial corridors, mining activities, national investment manufacturing zones, project for water harvesting and conservation, educational institutions, hospital and others, project for the residential purpose for poor, landless people, the weaker section of society and people those are affected by natural calamity, project for sports, tourism, transportation and another purpose (Ministry of Law and Justice, 2013).

According to Section 10(2) of this act that no multi-cropped irrigated land had acquired. But in an exceptional case, if the multi-cropped land had to be acquired, an equivalent area of wasteland be developed for the agricultural purpose. But this provision did not apply to railway, irrigation, highways, and power projects. If the acquisition made for private companies, 80 percent landowner’s consent is required and for public-private partnership (PPP), 70 percent landowner consent is required. Before the acquisition of land, the government is required to consult from the Gram Panchayat, Municipalities, Municipal Corporation. Social Impact Assessment (SIA) is to be carried out. The SIA includes various provisions such as to serve the public purpose only to estimation of displaced families affected due to land acquisition, to stimulate for checking the alternate place for the project, if the possibility is to change the location, to estimate total cost of the project including rehabilitation and compensation, to access Environment Impact Assessment through SIA. The SIA report must be published in the local language and available in Gram Sabha, Municipalities and district headquarter and to be uploaded to a government website.

The government must ensure that Social Impact Assessment report would be evaluated by the expert group. The expert group must include two non-official scientists, two representatives from the panchayats, municipalities or Municipal Corporation, two experts on rehabilitation and a technical expert (Ministry of Law and Justice, 2013). If the acquired land does not utilize for five years, the landowners are liable to return their land. It is also possible that the state government to deposit unused land in the land bank for the future course of action. According to Section 40 of this Act, if the land is acquired under urgency provision the government may exempt social impact assessment study. In this case landowners would liable to receive additional 75 percent value of the market value of the land.

In the case of involuntary displacement of schedule tribe and schedule caste, a development plan should be prepared. The plan prepares in such a manner that such communities would get maximum satisfaction from the entire displacement. The development plan shall include alternate fuel, fodder, timber or other non-forest resources for the five years. The affected families of both communities scheduled caste and tribe would resettle in that area where the same ethnic, linguistic and cultural identity. They have the fishing rights in the rivers and ponds or dams that affected to the dwelling of the community (Ministry of Law and Justice, 2013). The Act has the provision that fair compensation should be paid, and there must be transparency in land acquisition. The value of compensation will be determined by the collector. The value of land determined by the market price that includes the value of trees, standing crops, building, and others. Market price in a rural area will be four times, and the urban area will be two times of market value. According to section 30 of LAAR 2013, the collector will be entitled to pay the compensation amount to affected families, and compensation should be paid in a bank account. If the compensation amount is not deposited before the possession, the government shall pay the amount with the interest of 9 percent per annum since possession date. If the compensation amount were not paid within one year, the interest rate would increase to fifteen percent (Ministry of Law and Justice, 2013).

It is clear that the LAAR Act 2013 has come up with various positive features such as the involvement of Gram Sabha, Municipalities, and involvement of local leaders during the acquisition of the land. But this act is not free from limitations. The LAAR Act 2013 explain that land acquisition is based on the consent of the land owners. But this act ignores the other persons who indirectly depend on upon the land for their livelihood. Provision of consent clause will not apply to various projects such as highways, ports, power projects, hospitals government educational institutions and others. So the government can misuse this provision while the acquisition of land (Ghathak & Ghosh, 2011). The overall compensation based on four times the market value in the rural area and two times market price in the urban area plus the value of the assets attached to the land. The minimum value of the land is determined by Indian Stamp Act, but in India, the stamp price of land differs from actual market price (Debroy, 2014). The act provides the job security to at least one person from each household or one-time payment of five lacks per household for their rehabilitation. But the act ignores other members of households whose livelihood indirectly depend on upon the disposed land. The choice of one-time payment will give more weightage rather than a job (Bose, 2013). The ICAR rating agency criticized the various grounds, firstly private companies, or public-private partnership companies can directly purchase the land from landowners. Direct negotiation with landowners would be a difficult task for companies. Secondly, Cost of real estate would go up due to huge compensation. The real estate developers would shift the cost to buyers. The ICAR agency also reported that eight of twenty projects in 2011-12 might be affected due to this acquisition act. The cost of these projects would likely increase due to change in the cost price of land (Sharad et al., 2013).

Many difficulties were being faced in the implementation of the LARR Act 2013. Difficulties in the acquisition of lands required for important national projects required to be eliminated. In order to remove them, certain amendments were made in the Act. The National Democratic Alliance (NDA) government promulgated, The Right to Fair Compensation and Transparency in Land Acquisition, Rehabilitation and Resettlement (Amendment) Ordinance 2014 on 31st December 2014 to change the various key points of LAAR act 2013. The LAAR Act (2013) exempted the 13 law such as National Highway Act 1956, The

Railway Act 1989 and others. However, this act brings this act under the preview of compensation, rehabilitation, and resettlement. The Ordinance creates five special categories of land use defense, rural infrastructure, affordable housing, industrial corridors, and infrastructure projects including public-private partnership (PPP) projects. The ordinance exempted provision of consent clause and social impact assessment for these five categories of land use. The ordinance removes the restrictions on the acquisition of irrigated multi-cropped land and another agricultural land, also eliminated the provision of unutilized land return policy. The LARR Act 2013 excluded the acquisition of land for private hospitals and private educational institutions but this ordinance removes this restriction. While the LARR Act 2013 was applicable for the acquisition of land for private companies, the Ordinance changes this to acquisition for private entities. A private entity is an entity other than a government entity, and could include a proprietorship, partnership, company, corporation, non-profit organization, or other entity under any other law (Ministry of Law and Justice, 2015). This ordinance has also certain limitations, five exempted categories are very broad particularly infrastructure and social – infrastructure. So all projects can be done without social impact assessment and take consent of land owners, so entire LARR – 2013 made invalid through these amendments. Without social impact assessment (SIA), local labourers, artisans, small traders will either get zero or very small relief package, even if their livelihood is lost because of industrial/infrastructure project. Private hospitals and educational institutions also can acquire land, but if they continue to charge high fees, then no real 'public-purpose' is served. The ordinance did not directly show that such private hospitals and educational institutions are exempted from social impact assessment, but it claims private hospitals and educational institutions is a social infrastructure. On 10 March 2015 the Amendment bill passed by Lok Sabha to replace the ordinance. Land Acquisition, Rehabilitation and Resettlement (Second Amendment) Bill, 2015 further to amend the Right to Fair Compensation and Transparency in Land Acquisition, Rehabilitation and Resettlement Act, 2013. The next stage for the land bill to become the Act will require it being successfully passing through the Rajya Sabha and then approval of the President. However, this bill has not passed by Rajya Sabha till now.

Land Acquisition in the Punjab

Industrialization has led to increasing the demand for energy exponentially in Punjab in the recent years. The Punjab State Electricity Board (PSEB) recently known as Punjab State Power Cooperation Limited (PSPCL) provides electricity to various categories like industrial, agriculture, domestic etc. Therefore, the land is being required for establishing new industries as well as for new thermal power plants and hydroelectricity plants to meet the energy demand of these industries. The major part of state's required energy is generated at State's own three Thermal Plants, five hydel power stations and State's share from a common pool of Bhakra Beas Management Board (BBMB). Three state-owned Thermal Plants in Punjab are Guru Nanak Dev Thermal Plant (GNDTP) at Bathinda, Guru Gobind Singh Super Thermal Plant (GGSSTP) at Ropar and Guru Hargobind Thermal Plant (GHTP) at Lehra Mohabbat. Five hydel power stations are Shanan Power House at Joginder Nagar (HP), Mukerian Hydel Project in Hoshiarpur District, Anandpur Sahib Hydel Project in Ropar District, Ranjit Sagar Project, Micro Hydel Projects and Upper Bari Doaba Canal (UBDC) Hydel Project (Punjab Development Report, 2014).

Three more private thermal power plants have been established at various places of Punjab to make the state self-sufficient in the power sector. The state government of Punjab acquired agricultural land for setting up theses thermal power plants. In 2008 for setting up the Talwandi Sabo Power Limited, 2100 acres of land had been acquired from four villages of Mansa district, 1070 acres for Goindwal Sahib thermal power plant in 2010, 1100 acres for Rajpura thermal power plant in 2008. These thermal power plants have established under Public Private Partnership (PPP). In 2011, the State government had acquired 880 acres of land for Gobindpura thermal plant, but due to farmer's protest against land acquisition, this project was canceled. In 2010, the state government also proposed to acquire 2432 acres land for Gidderbaha power plant, but this project was also withdrawn due to coal linkages was not allocated. Besides all these thermal power plant state government also acquire land for a solar power plant in Lambi (Muktsar) and in Awan village in Amritsar district.

Under such defective law, Punjab Government has started acquiring land from many places for their developmental projects. Farmers from such places are

compensated very less as compared to the market rates. In order to get the market rate compensation from the State government, farmers have been protesting against land acquisition in many places. In 2008, Punjab Government had acquired the 2100 acres of land for setting up Talwandi Sabo Thermal Power Plant at village Banawala in Mansa district, under The Land Acquisition Act, 1894. Punjab government made a New Land Purchase Policy 2006 amends to Land Acquisition Act 1894 to facilitate the acquisition of land in the state. Land Purchase Policy of the Punjab Government ensures that the acquisition and purchasing of land should be on the basis of the willingness of the landowner or the farmers for selling their land.

Scope and Significance of the Study

India has been facing many problems for the acquisition of the land for the establishment of developmental projects. The agrarian land acquisition has become a serious issue for this. Most of the studies tried to find out the immediate impact of the land acquisition. After the land acquisition, what type of problems being faced by the land dispossessors have been ignored by many studies. Therefore, the present study is somewhat, different from all of these studies as it has tried to analyze the major requirements and problems faced by the land dispossessors. The study also examines the pre-and post-struggle faced by the land dispossessors. The present study also concerns with the impact of the large-scale agrarian land acquisition in the context of economic conditions, environment, and health of the local livelihoods. The results of the present study will be useful for policy makers to improve the present system of land acquisition in India. The study is based on following objectives:

Objectives

1. To analyze the socio-economic implications of agrarian land acquisition.
2. To study the pre-and post-struggle faced by the land dispossessors.
3. To give some suggestions for improvement in the land acquisition process.

Chapter Organization

To achieve the objectives of the study, it has been divided into six chapters including the introduction. The introduction chapter introduces the theme of the study with objectives and limitation of the study. The second chapter reviews the studies related to the thermal power plant and land acquisition in India. The third chapter explains the database and methodology used in the study. The Chapter fourth discusses the socio-economic implications of agrarian land acquisition for a thermal power plant with data analysis of survey report while fifth chapter studies the pre-and post-struggle being faced by the land dispossessors. Lastly, sixth chapter summarizes the study with suggestions.

Limitations of the Study

The study has certain limitations. The major limitation is that the surveyed village respondents do not maintain the record properly. So the collected Information is based upon their memory and experience, though, every effort is made to obtain accurate information. The difficulty in obtaining adequate information about employment and supply of electricity from the thermal power plant is another limitation.

CHAPTER 2
REVIEW OF LITERATURE

A review of literature is a crucial part of any research work, the review gives the overview of the given research. The present chapter reviews the various studies on the current theme of the study.

Manohar et al. (1989) had conceded out the study on effects of thermal power plant discharges on special electrical constraints, as discharges from industrial heaps may not only cause environmental and health problems but also cause substantial deviation in the fair weather atmospheric electric parameters. Observations of the surface atmospheric electric field, point discharge current, and wind in the vicinity of a thermal power plant were found to be affected.

Asif (1999) in his article “Land Acquisition Act needs for an alternative paradigm” discussed the land acquisition act 1894. The study focused on the need to change the law. The study discussed the need to the alternative action to change the colonial law. The study was critically evaluating the LAA 1894 Act and need about the need immediate alternative policies for land owners. The study addressed the lack of participation of property owners in the decision making for compensation Rehabilitation. Author provoked a number of acquisition not for the public purpose it has transferred to private developers for the development of the project. The study concluded with the immediate need of change in existing land acquisition act.

Guha (2007) conducted a study on the socio-economic impact of the land acquisition on households whose agriculture land has been acquired for establishment of Tata Metallic Limited in Medinipur district west Bengal. The paper discussed that there were three risks of land acquisition namely landlessness, the impact of land acquisition and political effectiveness. The study reveals that land acquisition reduced the farm land which negatively impact on food security. The survey resulted that low compensation and delay payment was a major concern for the government. Due to low compensation, people were not keen to give up their land for industrial development. The household used their compensation

amount for construction of house, marriages so farm land size was reduced.

Iyer (2007) in his article “Towards a Just Displacement and Rehabilitation Policy” discussed the displacement in India due to land acquisition act 1894. The study was based on the primary survey by the author. The study discussed how the developmental projects like dams, industrial, infrastructure projects have displaced the people in India. The article narrates the rehabilitation and displacement in a broad term, demand the policies to reduce the effects of displacements. The study evaluated the National Rehabilitation Policy (NRP) 2006 did not satisfy the overall aspects of projects affected people (PAPs). Hence, another policy required reducing the impact of displacements. The author suggested that a National Environment policy 2006 should include with NRP 2006.

Sardana (2008) in his discussion notes “Land Acquisition Issues” discussed the various conflicts of land acquisition like Singur and Nandigram. The author said the conflicts have happened due to a reduction in trust deficit exists among peasantry because of poor compensation, rehabilitation, and resettlement policy. Hence, the author praises the government of India new Land Acquisition and Rehabilitation Bill 2007.The study suggested this bill will reduce the conflicts as the bill provides the benefit to both parties such as landowners and project authorities.

Labo and Kumar (2009) examined the rehabilitation process of land and impact on families due to land acquisition for projects like water, industries, transport and others in Gujarat during 1947 to 2004. Almost nearly 2.5 million of people almost 5 percent of the population was displaced due to these projects. The study said that increased urbanization caused the degradation of the environment. In many acquisitions, the compensation was not paid to the landowners. The inadequate compensation and delayed payment were negatively affected the displaced people. They complain that they were not received the job which was promised by the government. The result shows that land acquisition leads to negative impact on society as well environment, women, tribal, Dalit’s were also affected due to displacement.

Bardhan (2011) in his study entitled “An uneven field” explained the voluntary transactions as a means of land transfer in his article entitled “An Uneven Field”. The study argued that the buyers and sellers will typically ignore the third party effects resulting from their transaction and it can be a source of serious concern. When agricultural land was used for another non-agricultural end, it affects a large number of non-owners – sharecroppers, agriculture workers, artisans, etc. and these people have to lose their primary source of livelihood altogether. On the other hand, the voluntary transaction between the buyers of land and the owner farmers will ignore the other third party effects, which create a huge disparity between these classes. The Land Acquisition, ‘Rehabilitation and Resettlement Bill’ introduced in Lok Sabha in India on 7 September 2011 for the Land acquisition reforms and rehabilitation and for the development projects in India. It will be central legislation in India for the rehabilitation and resettlement of families, which affected by land acquisitions. The Land Acquisition, Rehabilitation, and Resettlement, 2011 Bill’ is also known as ‘LARR Bill 2011’.

Desai (2011) reported in his study “Land Acquisition Law and the Proposed Changes” about the many loopholes in this LARR Bill 2011. The bill had not defined the public purpose, only money had been included in compensation amount. Therefore, the bill was favoring the industrialists. The LARR Bill was sent for review and suggestion to parliament standing committee.

Mpogole et al. (2011) described in his article about the negative externalities of land acquisition on local communities in Tanjania. The study work as the field survey and discussed the matter of the negative impoverishment of local people. The survey conducted while land acquisition occurred for the power project. The respondents were so illiterate, hence, they were not aware the acquisition procedures and policies of the government. The major consequence of land acquisition was a loss of livelihood, impact on economic activities of the communities, environmental impact, low payment of compensation, low-level migration policies and inadequate policies and program to permanent settlement of the individuals.

Sato (2011) explained in his study entitled “Land Acquisition Issues in Noida District: Background to ‘Land Wars’ in India” about the problem of land acquisition in Noida. Which might be unique to Noida or UP state, but it remained one of the examples of such major issues as economic development & redistribution after 2002 in the name of improving infrastructure on the name of public purpose for the development of mines, dams, steel works, power generation plants & SEZs as well as for residential areas & highways. In May 2009, the UP state Government confronted farmers over land acquisition for constructing highways in Noida (Bhatta Parsaul Village) & four farmers were reported dead. Other farmers started a protest movement against the government & making the turmoil more serious & farmers of village Shahbari got back their agricultural land & developer & builders to reimburse the amount plus interest to flat buyers by the order of Supreme Court of India.

EPW Report (2012) declared that the parliament committee headed by Sumitra Mahajan presented their report on May 17, 2012 on the table of parliament, in which the committee recommended that the government define the public sector, not acquire the agriculture land and government stay far away from the land acquisitions process done by private sector. Many controversies related to land acquisitions had enforced the government for the drafting of Land Acquisition Rehabilitation and Resettlement bill (LARR-2011). According to this new bill, acquisition of land for use by private companies or public-private partnerships, consent of 80 per cent of the displaced people will be required. Purchase of large pieces of land by private companies will require the provision of rehabilitation and resettlement. In the case of Public-Private Partnership project 70% displaced people have given consent but in the case of a government project, there is no need for any consent. The UPA2 government intended to pass this bill during the monsoon session of 2013.

Goswami (2012) illustrated the land that it was mainly acquired by the UP state as a part of the Greater Noida’s Industrial Development Plan, pursuant to the emergency clause (Article 17) stipulated in the 1894 Land Acquisition Act. Whereby procedures for residents’ objections (Article 5A) were dispensed with in the entire Greater Noida total land, which was 2000 hectares (mostly farmland)

including Shahberi village, acquired by the UP government in 2009. By this land acquisition, 16 nearby villages were also affected. The land was acquired at 850 rupees per square meter from farmers & resold the land at 10,000 to 12,000 rupees to private developers for the planned construction of residential buildings (250,000 flats) in the area by Grater Noida Industrial Development Authority (GNIDA). However, following this case, former landowners in other villages filed 220 writ petitions in the Allahabad High Court to quash the land acquisition.

Kumbhar (2012) described that the Tribal Commission had reiterated its old stand that no land should be acquired without the consent of the local gram sabha, better known as Palli sabha in Odisha in his article entitled **"**No Land for Sale: Development Displacement and Protests in Odisha". It was felt that ultra-left extremism was growing exclusively in the tribal belt because the area had remained underdeveloped for many generations. The massacre of 15 tribal at Kalinga Nagar in Odisha's Jajpur district on 2nd January 2006 was the continuation of the State Government's use of physical force. It was an opposition against unlawful and forceful displacement and demand for just rehabilitation and compensation. Opposition to displacement had become very common immediately after the Kalinga Nagar. Six people were injured during a protest against the police at Karol in December 2004, which was widely seen as an attempt to suppress resistance against the proposed bauxite mining and alumina plant. The protest against huge projects in Odisha was still going on.

Pokale (2012) in his study titled "Effects of Thermal Power Plant on Environment. Thermal power plants had impacted on ecological sections of the adjoining region very badly. Environmental deterioration was attributed to the emission of a large amount of Sox, NOx & SPM & RSPM which disperse over 25 Kms radius and cause respiratory and related ailments to human beings and animal kingdom. It also affects photosynthesis process, the balance of minerals & micro and major nutrients in the plants, soil strata, structures & buildings got affected due to corrosive reactions.

Singh (2012) study entitled "Inefficiency and Abuse of Compulsory Land Acquisition: An Enquiry into the Way Forward" argued that in reality, the market

value was determined on the basis of “circle rates” and/or the sale deed of a similar property. The study found that the problem was raised due to unreasonable restrictions imposed by the change in land use regulations and the market price of agricultural land was acutely suppressed. Moreover, to save on stamp duty charges, the price reported in a sale deed was generally much lower than the actual transaction price. The states had decided the circle rates, which were always out-of-date and well below the market rates. Therefore, both sale deeds and circle rates under-represent the true market value of the land; between the two, circle rates were even lower. So that for the improvement of this mismatch the judiciary has held that the market value should be determined based on the circle rate or the registered sale deed rates of similar pro parties, whichever was higher for Nonetheless and the land acquisition collectors (LACs) routinely award compensation based on circle rates. For that reason, the inadequacy of government provided compensation and associated disputes.

Singh (2013) in his unpublished research work focused the issue of land acquisition conflicts with farmers and police. According to the authors, the government acquired the land for the purpose of thermal power plant, but farmers did not agree to leave their land. The government was tried to acquire the land forcefully. The study said government acquired irrigated land for the establishment of thermal power. The issues of agitation happen due to low compensation, forcefully acquisition, lose of livelihood due to the acquisition, and illegal cases put by police on the local people. The whole study was based on author field survey. During the conflicts women, students, Kisan union, political parties was in the conflict participated.

Wahi (2013) discussed in his article “Land Acquisition, Development and Constitution” about the need of change in the constitution. The study described the constitution, land acquisition and development interrelated to each others. Constitution had given the rights to the holding the land for the individual purpose, but acquisition policy provides the authority to the government to acquire the land for public use. Hence, both are related to a development of the economy. The authors determined the SEZ policy require the land for the development of the economy. Same as article 46 of the Constitution requires the state to promote the

educational and economic status of the weaker section of society, hence for the enhanced the economic status of society land is the primary requirement.

Chitra (2014) in her work discussed the social and ecological changes due to developmental projects in Kerala. The study discussed the land acquisition leads to losing livelihood and displacement. The study was based on the field survey of the two sites namely Nedumbarrey airport and Vallaraodam International terminal. The objective of the study was to evaluate land acquisition mechanism as well socio and environmental issues due to land acquisition. The study concluded that land required for the foundation of the industries but not necessary the projects always positively impacts on the society. In this study land acquisition leads to negative impact on the society, environment and ecology balance of the state. Policy makers require to change the policies and reduced the environmental loss due to developmental projects.

Sathe (2014) examined in his article under, “Vicissitudes in the Acquisition of Land: A case study” the case of Mann village in Maharashtra. This study shows the story of Maan village in three stages. In the first stage, landed people were not unhappy with the compensation amount, but they were hoping for more in terms of employment and so on. In the next stage, landowners understood the value and importance of their land and it’s made them unhappy. They demanded Rs. 1 crore per acre instead of Rs. 40 lakh as compensation amount. At the last stage, they come up with the idea of developing the land themselves and earning a rent from it.

Ahmad et al. (2015) in his study “Impact of the coal based thermal power plant on the environment and its mitigation measure” described coal used in a thermal plant of India is of poor quality, with very high ash contented and low Calorific value. Coal based thermal power plants considered to be one of the major sources of pollution affecting the environment in terms of land use, health hazards and air, soil and water in particular and thus leads to environmental dangers. So, the disposable management of fly ash from the thermal power plant is necessary to protect our environment. It is advisable to explore all possible application for fly ash utilization. Several efforts are needed to utilize fly ash for making bricks, in the

manufacture of cement, ceramics etc. Various governmental and nongovernmental bodies working in the field of utilization of fly ash for the construction of road/road dam.

Bhattacharya (2015) published article in Live Mint ”Land Acquisition, Growth Miracle, and the role of State” discussed the industrial friendly land acquisition policy help the country to fast economic growth. The study was taken an example of the Singaporean state where natural land acquisition policy facilitate the state to develop very rapidly. According to the author in Malaysia most of the land owned by the government and 85 percent of housing facilities provided by the state government. The study discussed the East Asian countries developed in 1950 series due to the minimum restriction of government on the economy.

Gill (2015) in his article “Land Bill: Assessing Social Impact is a must” about the social impact assessment reports. SIA report should share with most affected people will decrease misperception and create some confidence among them with respect to the government. This will reduce struggle and bring down pressure in society. Social impact assessment makes the land acquisition process transparent, objective and fair. SIA lists the nature of land and its descriptions such as agricultural land irrigated or non-irrigated, forest land.

Pradyumna (2015) in his study “Health Aspects of the Environmental Impact Assessment Process in India” analyzed two environmental impact assessments reports. The evaluation was piloted on the EIA notification 2006, one EIA report from 2005 and another from 2008. This study examined the adequacy of the EIA process in India from a health perception. The existence of numerous unfavorably polluted areas in India is an indicator of the fact that there are large gaps in both the EIA and pollution monitoring processes. Health is one of the most important considerations in an impact assessment process, and therefore should be the focus area to make the process comprehensive. There should be a need to map the EIA governance system in India and its adequacy with regards to HIA. There is also a need to explore the desirability of having a separate HIA law or whether it is adequate to include health within the EIA law.

Parkesh (2015) in his unpublished work on “Land Acquisition: A case study of Charanka Solar Park, Gujarat” analyzed how solar power plant positively or negatively affected the villages and study also compare the Land Acquisition Act with Gujarat land acquisition policy. Solar power plant enhances the facilities of drinking water, electricity, communication and road network service in the village. The solar power plant enhanced the job opportunity for villagers. Respondents were directly or indirectly benefited from the plant. On the other side, respondents were still facing the problems like sanitation, transportation facilities and others.

Sathe (2015) in his article titled, “Implications of Land Acquisition for Dalits” attempted a case study of Maan village in Maharashtra. The land was acquired by the Maharashtra Industrial Development Corporation for establishing the modern, capital intensive and skill intensive industries under the Rajiv Gandhi Infotech Park (RGIT). This article has evaluated the externalities arising out from the land acquisition in the context of the benefit accrued. The opportunities for self-employment grow more to the non-dalits than dalits due to non dalits’s better economic, social and cultural capital. Dalits were mainly involved in polluting jobs like sweeping and toilet cleaning in modern sector to a large extent. The economic dependence of dalits on upper class had decreased due to the development of the acquired land, however, the negative aspect was that they remain stuck in an earlier identity.

Most of the studies have tried to find out the immediate impact of the land acquisition. After the land acquisition what type of problems being faced by the land dispossessors have been ignored by many studies. Very few studies are found the issues of agrarian land acquisition for a thermal plant. There is no research on the land acquisition of Talwandi Sabo Thermal Plant. The present study would analyze the socio–economic implications of agrarian land acquisition for the setting up of thermal plant.

CHAPTER 3

DATA BASE AND METHODOLOGY

This study is to analyze the socio-economic implications of agrarian Land acquisition for the establishment of Thermal Power Plant. The present chapter seeks to report the various methodological aspects of the study, viz. primary survey, selection of area, a collection of data, variables used for the study.

Selection of Area

In 2008, Talwandi Sabo Power Limited is established in village Banawala at Mansa-Talwandi Sabo Road, district Mansa of Punjab in India. In the Mansa district, there are total 240 villages and 5 towns. For setting up this thermal plant, the State Government of Punjab has acquired 2100 acres land area from four villages named Banawala, Peron, Raipur, and Talwandi Aklia in Mansa district. The survey is conducted from these four villages of Mansa district. The following table shows a demographic picture of these villages.

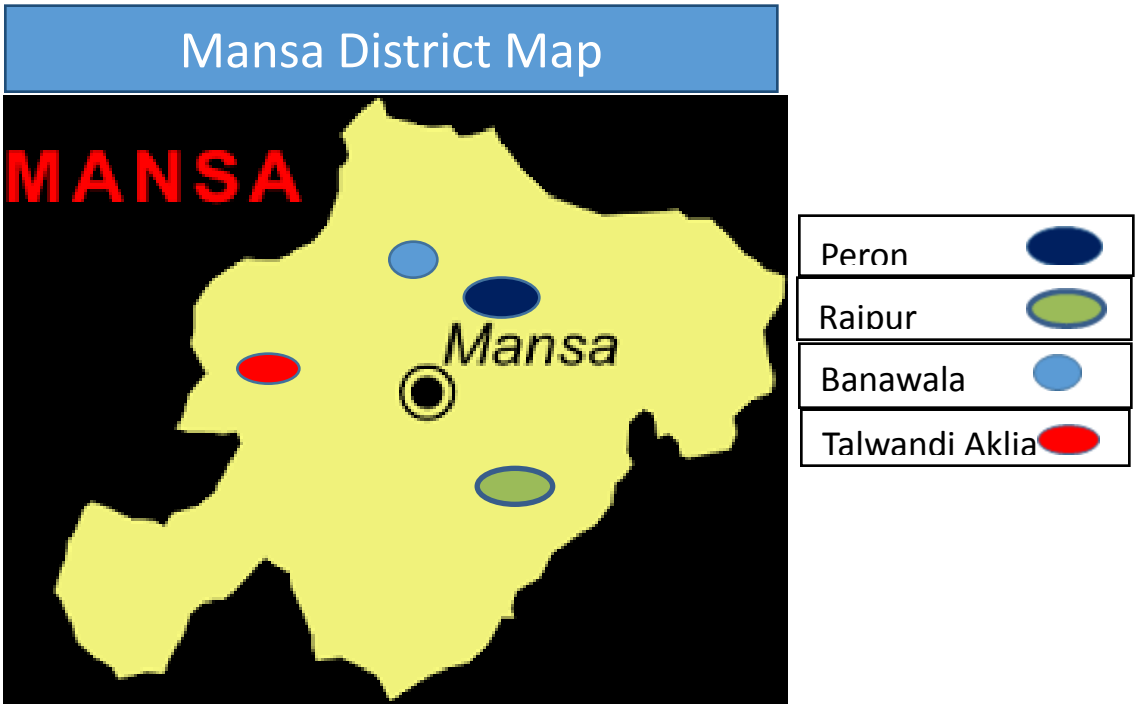
Table 3.1: Demographic Picture of Surveyed Villages

Census2011	Banawala	%	Peron	%	Raipur	%	Talwandi Aklia	%
Total population	2857	100	2026	100	5883	100	1594	100
Male population	2074	72.59	1057	52.17	3149	53.53	829	52.00
Female population	783	27.41	969	47.83	2734	46.47	765	48.00
Literate population	1503	52.61	984	48.57	3237	55.02	810	50.82
Literate males	1148	76.38	568	57.72	1870	57.77	453	55.93
Literate females	355	23.62	416	42.28	1367	42.23	357	44.07

Sources: Census of India, 2011

The total population of Banawala village is 2,8,57 persons out of which 72.59 percent male population and only 27.41 female population. Total literacy rate in this village is 52.61percent in which female literacy rate is 23.62 percent and male literacy is 76.38 percent. Similarly in the Peron village total literacy rate is 48.57 percent out of which 57.72 percent male literacy rate and 42.28 percent female literacy rate, with Raipur village total literacy rate is 55.02 out of which male literacy rate is 57.77 percent and female literacy rate is 42.23 percent and the total population of village Talwandi Aklia is 1594 persons in which 52 percent male population and 48 percent female population, total literacy rate of this village is 50.82 percent out of which 55.93 percent male population and 44.07 percent female population. Out of these four villages, Raipur village is the most populated and literate.

Fig 3.1: Map of Mansa District



Source: Modified from Google Earth Map

Collection of the data

This study is based on the both primary survey data and secondary sources. Primary data was collected through personal interview method using pre-tested schedule and it was done during the months of October-November of 2015. The filled schedules were processed and all information was entered in excel. From excel, a number of specific tables were a framed, for the preparation of analytical chapters. Secondary sources have been used to collect information such as official websites of Government Data, Articles, research papers, newspapers and web sources. The survey was conducted from four villages from where land was acquired for the setting up of the thermal power plant. From each of the sampled village, the number of households is proportionately selected from 20 percent to 25 percent of the total affected population by land acquisition. Survey of household is based on snowball sampling method. The Employees' survey based on the convenient sampling method was also done to study the views regarding local employment. Employee Interview conducted on the availability of time and appointment of the employee. The total sample size is 130 respondents out of which 70 land dispossessed farmers, 30 labourers of surveyed villages and 30 employees of the thermal plant are interviewed. The 40 farmers and 15 labourers from village Banawala, 15 farmers and 8 labourers from Peron, 10 farmers, and 5 labourers from village Raipur and from the village Talwandi Aklia 5 farmers and 2 labourers are surveyed.

The structured schedules were prepared in order to record respondents' observations and their perceptions about the project. These schedules were framed in the light of socio-economic implication of agrarian land acquisition, living standards of the people and problems faced by the land dispossessors. The survey was firstly conducted by personally interviewing the sample respondents with the help of pre-tested schedule (Appendix-A). In order to conduct the interview, firstly the respondents were made comfortable by explaining the significance of the study so that genuine replies can be obtained. The schedule was in english language but the questions from respondents were asked in Punjabi so as to make them easily understandable.

The schedule of villages covers the demographic and general information, land details, income and agricultural details of the sample respondents. Land details include the facts of the area of land owned, leased in and out by respondents. Income details include annual income of respondents, which is the total income from all sources in one year including agricultural income, income from allied activities (dairying, poultry, beef keeping etc.). Agriculture details include area cultivated by respondents under different crops, agricultural assets owned by them and also other assets used for irrigation. Compensation details include compensation amount given to respondents and their utilization by them. Details of the struggle faced by them, Social and environmental issues are also recorded by the survey.

The schedule of employees(Appendix-B) of the thermal plant covers personal profile of employees includes their name, qualification, designation in TSPL, district & state, date of joining in TSPL etc.. The Job profile includes salary, work experience, incentives etc. Details about facilities provide by TSPL to their employees and views about the development of nearest areas due to TSPL. Details about environmental issues, health problems, and measures taken by TSPL to control environmental problems are also asked.

Classification of Farmers

The surveyed farmers are divided into five groups marginal, small, semi-medium, medium and large farmers according to NABARD (2014). The following table shows this classification:

Table 3.2: Division of Farmers According to the Size of Land Holdings

Category of Farmers	Size of Landholdings
Marginal Farmers	Below 1 hectare
Small Farmers	1 to 2 hectare
Semi-medium	2 to 4 hectare
Medium Farmers	4 to 10 hectare
Large Farmers	10 hectare and above

Source: NABARD (2014)

Analysis of Data

Primary survey is followed by data analysis. Data collected in this study has been analyzed by using appropriate statistical tools and methods, such as averages, percentage, divisions, standard deviation, Index number and Likert scale. The most commonly used average is the arithmetic mean. The mean is used to calculate the average age of the respondents, average land holdings, average leased 'in and out' land, average annual income, etc. Standard deviation is also used in find out variations in various variables used in the study such as the age of the respondent.

Real returns of agricultural crops and real income of farmers are calculated by using wholesale price index (WPI) of various crops of the financial year 2007- 08 (before acquisition) and 2013 -14 (after acquisition) on the base year 2004-05 (Ministry of commerce and Industry, 2015).

$$\text{Real Returns} = \frac{\text{Nominal Returns}}{\text{WPI(Agri.crops)}} \times 100$$

Likert Scale is a psychometric scale commonly used in questionnaires. The respondents are interviewed to identify the level they agreed or disagreed with the given statements on a Likert scale as given below.

Table 3.3: Likert Scale

Strongly Agree	1
Agree	2
Undecided	3
Disagree	4
Strongly Disagree	5

Source: Kothari, 2014.

CHAPTER 4

SOCIO - ECONOMIC IMPLICATIONS OF AGRARIAN LAND ACQUISITION

The large scale land acquisition for thermal plant cause irreversible changes in the lives of the general public as whole and, local communities in particular whose source of livelihood is snatched by the land acquisition process. In addition, it gives rise to severe social, economic, political and ecological changes. The present chapter is an attempt to analyze the socio-economic implications of agrarian land acquisition for the establishment the thermal power plant.

In September 2008, the Government of Punjab inaugurated a thermal power plant of 1980 Megawatt with three units 660 MW of each in the Banawala village in Mansa district. Talwandi Sabo Power Limited a 100 percent subsidiary of Vedanta Limited is the largest private sector investment in the state of Punjab. This power plant has signed an agreement for 100 percent supply of electricity production to Punjab State Power Corporation Limited (PSPCL) for 25 years. TSPL is known as the largest Integrated Greenfield Power Project in Punjab, because of its environment-friendly technologies. The approximate cost of this project was Rs. 11,000 crore. For the power plant, coal comes from Mahanadi Coalfields Limited in Odisha, 1700 miles away from TSPL. Out of three units of 660 MW each, two units are already operational. The first unit started in July 2014 and the second unit started in November 2015. The annual production of the plant varies from year to year because the 100 percent power purchase agreement is with Punjab Government and production is based on PSPCL requirement (TSPL, 2015). For the provisions for ash disposal, TSPL has tied up with cement industries ACC, Ambuja, Ultratech and also tied up with small scale cement manufacturing companies and has established ash brick manufacturing unit in the village along with community and district administration. Moreover water corridor from Kotla branch of Jagga canal for the supply of water. Railway line connectivity in TSPL is from rail corridor from Sadda Singh Wala railway station. The coal linkage for the plant necessitated the laying of rail tracks. This has proved a boon for residents of the Sadda Singh Wala village. The

2100 acres land area was acquired by the State Government of Punjab for setting up thermal power plant from four villages named Banawala, Peron, Raipur and Talwandi Aklia in Mansa district. Regarding the land acquisition, Government of Punjab issued three notices during October 2007 to March 2008. As per these three notices, a major part of the land was acquired from Banawala and Peron. Also from neighbouring villages such as Raipur and Talwandi Aklia some portion of land was acquired for thermal power plant. Table 4.1 indicates the acquired land acres from different villages. Banawala village's total land area is 3000 acres, out of which 1450.375 acres of land was acquired. Similarly, 512.625 acres was acquired from Peron, 110.5 acres from Raipur and 26.5 acres from Talwandi Aklia.

Table 4.1: Total Acquired Land under TSPL

Name of Village	Acres
Banawala	1450.375
Peron	512.625
Raipur	110.5
Talwandi Aklia	26.5
Total	**2100**

Source: Sample Survey

In this area except agriculture, no other sector significantly developed since a long time. Agriculture is the mainstay of the people of this area because of their low educational status. Fertile and multi- crop yielding land was acquired from these villages, more than 80 percent villagers were not in favour of the construction of thermal power plant on their land. It is evident from the rigorous confrontation by the land owners.

The involuntary acquisition of agrarian land had an unfavorable impact on those farmers who had specific marginal land and such farmers who become landless after the land acquisition. The twenty-one, families became landless and more families are left with very small land holdings. Moreover, some small farmers become marginal farmers, semi-medium farmers were shifted into small farmers, and medium farmers

become semi medium and large farmers become medium farmers after the acquisition. The total compensation package given to land dispossessed people for their land acquisition was very less ranging from Rs. 9.40 lakhs to Rs. 15.40 lakhs per acre; including displacement allowances. Before October 2007, the prevailing price was Rs. 5 lakhs per acre for unirrigated land and Rs. 8 lakhs per acre for irrigated land in this area. It does not go with the earlier promises of the local leaders who promised to pay Rs. 25 lakhs per acre as the compensation amount and promised to give employment to affected families in the thermal plant. During that time, land prices in the neighboring villages increased to Rs. 20 lakhs per acre and the persons displaced due to this project were unable to buy good land with the received amount of compensation.

Age Group and Social Categories

For the present study, it becomes significant to analyze the demographic features of the villagers. The study found that all respondents are males there are no female respondents. The dominance of male respondents in the village has a vital role to play in the socio- economic situation of the village. Whereas most of the women in the village are housewives yet they have the adequate knowledge regarding such matters as land acquisition, compensation, land prices and others. The information from 100 sample respondents was collected out of which 30 sample respondents belong to schedule caste and work as labourers. Other 70 respondents belong to farming class out of whom 5 respondents are belong to carpenter class, 3 are Nai Sikh and 62 are Jatt Sikh by caste. The age of these villagers is shown in Table 4.2. The following table depicts that twenty-three percent of sample respondents lies in the age group of up to 35 years. It was analyzed that majority of the sample respondents are in the age group of 36 years to 55 years and the overall average age of this group is 46 years. It was seen that the respondents above 55 years are only 17 percent of the sample. The average age of the whole sample is 44.77 years.

Table 4.2: Age of the Respondents

Age of Villagers	No. of Villagers	Mean	Standard Deviation
Up to 35	23	29	5.28
36 to 55	60	46	5.7
Above 55	17	61.52	5.2
Total	**100**	**44.77**	**11.7**

Source: Sample Survey

Educational Pattern

Education is another significant factor regarding the villagers because through the educational process desired changes in the behavior of an individual can be brought. Many studies have shown the changes in attitude and character of respondents through education. The educational status of the villagers is presented in Table 4.3. It can be cleared that more than one-third villagers do not have any kind of formal education, 16 percent of them have only primary education, 18 percent studied up to middle, 12 percent have matriculation, 10 percent have completed their intermediate education where only 5 percent respondents have completed graduation and there are no one respondents having post-graduation. This shows that low literacy rates hamper them to understand the ongoing market development and make quick farm level adjustment at their individual levels.

Table 4.3: Education Level of the Respondents

Education	Number of Persons
No education	39
Primary Education (up to 5^{th})	16
Middle (up to 8^{th})	18
Matriculation (up to10^{th})	12
Intermediate(up to12^{th})	10
Graduate /degree	5
Total	**100**

Source: Sample Survey

Nature of Family

It is crucial to know about what type of families are living in these four villages. So that villagers were asked to categorize their nature of family i.e. single or joint. The single-family system means the family having an only husband, wife, and children. The joint family means a family where in addition to the children and parents, the wife's or husband's parents, sisters or brothers of husband or wife also live with them. The family system reflects the nature of family bondage, also helps in calculating their economic conditions. The study found that 25 percent of the respondents have joint family system while 75 percent belong to the single family. Due to the technological advancement, the requirements of more persons in agriculture have reduced. As a result, the trend of joint family culture has also been reducing. After the land acquisition, many conflicts have emerged between the joint family members, which are also responsible for the single families in surveyed villages.

Employment Status

The study has also examined the nature of work of respondents during pre-and post-acquisition. Table 4.4 indicates the economic activities in which the land dispossessors are engaged. It can be seen that the majority of the people are engaged in agricultural activities. It was noticed that before acquisition 84.2 percent of the respondents were working as farmers. Moreover, rest of the respondents were government servants, small business persons, and others. These categories were comprised of 15.81 percent of the total surveyed land dispossessors, out of which 5.71 percent depend on upon government services, 4.2 percent are lied in the category of retired/ very old, and both small business and individual services have done by 2.85 percent. There is no major change in the economic activities after establishing the thermal plant. Table 4.4 reveals that after setting up a thermal plant there is a slight decrease in employment under farming from 84.2 percent people to 81.42 people. In other such as government services, individual services, small business and retired/ very old remained the same status as before establishing Talwandi Sabo Power Limited. However, 2.85 percent of people are unemployed after acquisition because their all land was acquired and they purchased land in other

villages namely Nathana and Kot Shamir that is near about 40 km and 30 km respectively. Due to the long distance from their home, they lease out their land. It is a matter of great anger and frustration among villagers that in spite of earlier promises, hardly any job had been given to them.

Table 4.4: Distribution of Landholding Respondents Based on Employment

Pre-Land Acquisition			Post-Land Acquisition		
Employment	**No. of Villagers**	**%**	**Employment**	**No. of Villagers**	**%**
Farming	59	84.2	Farming	57	81.42
Govt. Services	4	5.71	Govt. Services	4	5.71
Individual services	2	2.85	Individual services	2	2.85
Small business	2	2.85	Small business	2	2.85
Retired/ very old	3	4.2	Retired/ very old	3	4.2
Unemployed	---	---	Unemployed	2	2.85
Total	**70**	**100**	**Total**	**70**	**100**

Source: Sample Survey

Impact on Landholdings

The government of Punjab has acquired 2100 acres of land for the thermal power plant in the private sector. Villagers have lost a major part of their land in the process of land acquisition. In Banawala village, the total land is 2900 acres out of which 1450.375 acres was acquired under TSPL. The people of Banawala village have lost their half portion of land in the process of land acquisition. Table 4.5 indicates the impact of land acquisition on the size of land holdings. The study further revealed that before acquisition 70 families belonged to the farming class and out of which 2.85 percent were marginal farmers. After the land acquisition, the number of marginal farmers has increased to 10.2 percent because this land acquisition has resulted in the loss of landed property of the small farmers and thereby has pushed them to the category of marginal farmers. Similarly, the number of small farmers also increased

after land acquisition from 14.28 percent to 40.81 percent due to land acquisition the loss of land of the semi medium and medium farmers and thereby pushed them to the category of small farmers. However, the number of semi medium farmers has reduced from 35.71 percent to 30.61 percent. Likewise, the percentage of medium farmers also declined after acquisition from 44.28 per cent to 18.36 per cent. As well as the large farmers also pushed into the category of medium farmers after the acquisition. It is evident from the data that the total number of farmers has reduced from 70 to 49 after the land acquisition. The major share of the land holdings remains with the semi medium and medium farmers even after the land acquisition. The semi medium and medium farmers own 88.63 hectares of land while the small and marginal farmers possess merely 31.76 hectares of land. The average land holdings per family have also declined after the land acquisition i.e. from 4.05 hectares to 2.46 hectares. Thus, total owned land has decreased from 283.53 hectares to 120.39 hectares.

Table 4.5: Impact on Size of Land Holdings

Pre-Acquisition				
Category of Farmers	**No. of Farmers**	**Percent**	**Land Hectare**	**Avg.**
Marginal farmers (below 1 hectare)	2	2.85	1.32	0.658
Small farmers (1 to 2 hectare)	10	14.28	15.32	1.53
Semi-medium farmers (2 to 4 hectare)	25	35.71	72.44	2.89
Medium farmers (4 to 10 hectare)	31	44.28	166.12	5.36
Large farmers (10 hectares and above)	2	2.85	28.33	14.16
Total	**70**	**100**	**283.53**	**4.046**
Post-Acquisition				
Category of Farmers	**No. of Farmers**	**Percent**	**Land Hectare**	**Avg.**
Marginal farmers (below 1 hectare)	5	10.2	3.74	0.75

Contd…

Post-Acquisition				
Category of Farmers	**No. of Farmers**	**Percent**	**Land Hectare**	**Avg.**
Small farmers (1 to 2 hectare)	20	40.81	28.02	1.4
Semi-medium farmers (2 to 4 hectare)	15	30.61	39.66	2.64
Medium farmers (4 to 10 hectare)	9	18.36	48.97	5.44
Large farmers (10 hectares and above)	---	---	---	---
Total	**49**	**100**	**120.39**	**2.46**

Source: Sample Survey

Size of New Land Holdings

Land dispossessed farmers purchased new land in other sites with compensation amount. Table 4.6 indicates the size of land holdings after purchasing new land by compensation amount received by the farmers. In the process of land acquisition, 21 villagers become landless. Out of which, 20 villagers purchased new land in other sites with the help of received compensation amount. If the size of land holdings after purchasing new land compare with the size of land holdings before land acquisition the number of marginal farmers have increased from 2.85 percent to 10.14 percent because small farmers have lost their land and pushed into the category of marginal farmers due to land acquisition. While also the number of small farmers increased from 14.28 percent to 27.54 percent because semi-medium farmers pushed into the category of small farmers after losing their land in land acquisition. Similarly, the number of semi-medium farmers also increased from 35.71 percent to 46.37 percent. However, the number of medium farmers declined from 44.28 percent to 13.04 due to lose of land in the process of land acquisition. They pushed into the category of semi-medium farmers and small farmers. The share of land holdings decreased significantly with the medium farmers from 166.12 hectares to 51.5 hectares. In contrast, the share of land holdings with large farmers has little increased from 28.33 hectares to 28.73 hectare and average share has increased from 14.16 hectare to

14.37 hectare. The Overall average land holdings per family declined after the land acquisition from 4.046 hectares to 3.00 hectare.

Thus total owned land has decreased from 283.53 hectares to 207.15 hectares including the land of 86.75 hectares in other villages which are purchased with the compensation amount. Whereas in the land acquisition process 76.38 hectares land was lost by the 70 farmers.

Table 4.6: Size of New Land Holdings

Category of Farmers	No. of Farmers	Percent	Land Hectare	Avg.
Marginal farmers (below 1 hectare)	7	10.14	4.86	0.69
Small farmers (1 to 2 hectare)	19	27.54	27.65	1.46
Semi-medium farmers (2 to 4 hectare)	32	46.37	94.41	2.95
Medium farmers (4 to 10 hectare)	9	13.04	51.5	5.72
Large farmers (10 hectares and above)	2	2.89	28.73	14.37
Total	**69**	**100**	**207.15**	**3.00**

Source: Sample Survey

Note: - Size of new land holdings including purchased land with compensation.

Impact on Land Leased Activities 'in and out'

In Punjab, during the 1950s, the small owners mostly 'leased in' land to supplement their operational holdings as large owners were unable to cultivate their land, so they were indulged in leasing out. Nowadays the medium owners 'lease in' land and small owners lease out their land. Many marginal and small farmers with low-income level are in search of job outside agriculture. As and when they find an alternative source of employment they move out of agriculture leasing out their land. Consequently a dominant form of tenancy **,** generally unrecorded is the leasing in land by middle and big cultivators from small and marginal owners, often

referred to as reverse tenancy. However in these four villages named Banawala, Perron, Talwandi Aklia and Raipur, the mixed picture has been observed. Large farmers, as well as small farmers, lease out their land. After the land acquisition, there is a decline in land ownership have an adverse impact on land 'leased in' activities. However, the study found that village Banawala and Peron impacted by the land acquisition in case of land 'lease in' activities because a major part of the land was acquired from these two villages 1450.37acres and 512.62 acres respectively. In village Talwandi Aklia and Raipur, there is no impact on land 'lease in' activities due to less part of the land was acquired from the people of these two villages as compared to Banawala and Peron. Table 4.7 depicts the picture of 'lease in' land activities of Banawala and Peron village. It can be inferred that from the Table, 19 farmers leased in 41.68 hectares of land before land acquisition. The highest 'leased in' land is amongst the small and semi-medium farmers' i.e. 31.56 hectares land out of 41.68 hectares. Three medium farmers involved in 'leased in' land (5.67 hectares) and two marginal farmers (4.45 hectares).

Table 4.7: Impact on 'Leased in' Land Activities

Leased in	**Pre-Land Acquisition**			**Post-Land Acquisition**		
Category of Farmers	**No. of Farmers**	**Hectare**	**Avg.**	**No. of Farmers**	**Hectare**	**Avg.**
Marginal Farmers	2	4.45	2.23	2	3.24	1.62
Small Farmers	6	16.59	2.76	3	5.26	1.75
Semi Medium Farmers	8	14.97	1.87	4	8.49	2.12
Medium Farmers	3	5.67	1.89	1	2.83	2.83
Large Farmers	---	--	--	--	--	--
Total	**19**	**41.68**	**2.19**	**10**	**19.82**	**1.98**

Source: Sample Survey

On the other hand, after the land acquisition, the ‘leased in’ process has reduced to 19.82 hectares from 41.68 hectares. Only 10 families have taken land on the lease after land acquisition, out of which 5 belong to marginal and small farmers, 4 belong to semi medium farmers and only one medium farmer. After paying the rent of land, the small and marginal farmers usually take land on lease, which is another source of their income but due to the land acquisition, the many farmers lost their own land, therefore, they are not ready to cultivate on leased land also.

Table 4.8 shows the picture of land ‘leased out’ activities during pre-and post-land acquisition. Likewise, land ‘leased in’ activities there is no considerable change in the village Talwandi Aklia and Raipur in the case of land ‘leased out’ activities. However in the Banawala, there is a significant change in ‘leased out’ activities, followed by the Peron village. Before the land acquisition, 11 farmers leased out 26.71 hectares of land. The study shows that 5 medium farmers leased out 13.35 hectares of land, 5 small and semi-medium farmers leased out 9.72 hectares of land and one large farmer leased out 3.64 hectares of land. The medium farmers leased out the highest amount of land before land acquisition. By contrast, the pattern of leased out activities has changed after the acquisition. The number of leased out farmers increased from 11 to 33. The study found the reason behind this after land acquisition farmers purchased land with compensation amount in other villages such as Nathana, Kot Shamir, Jodhpur, Sandhoha, Sengon, Ablkhurana etc. Due to the long distance from their village farmers leased out purchased land to the people of other villages. As a result, the income of the people reduced because they have less land for cultivation. After land acquisition leased out the land was increased from 26.71 hectares to 67.36 hectares. Out of 67.36 hectares of land 6.67, hectares leased out within the village and remaining 60.68 hectares of land was leased out in other villages which are purchased by villagers. After the land acquisition, 11 marginal and small farmers leased out 13.55 hectares of land while 14 semi medium farmers and 6 medium farmers leased out 25.36 and 15.9 hectares of land respectively and 2 large farmers leased out 12.55 hectares of land. Presently out of 207.15 hectares of owned land, 67.36 hectares of land has been leasing out.

Table 4.8: Impact on 'Leased out' Land Activities

Leased out	Pre- Land Acquisition			Post-Land Acquisition				
Category of Farmers	**No. of Farmers**	**Ha.**	**Avg.**	**No. of Farmers**	**(1) Ha.**	**Ha.* (2)**	**Total (1+2)**	**Avg.**
Marginal Farmers	---	---	---	2	--	1.21	1.21	0.61
Small Farmers	2	2.43	1.21	9	2.63	9.71	12.34	1.37
Semi Medium Farmers	3	7.29	2.42	14	--	25.36	25.36	1.81
Medium Farmers	5	13.35	2.67	6	4.046	11.85	15.9	2.65
Large Farmers	1	3.64	3.64	2	---	12.55	12.55	6.27
Total	**11**	**26.71**	**2.43**	**33**	**6.67**	**60.68**	**67.36**	**2.04**

Source: Sample Survey

*indicates the leased out land of other areas which was purchased after acquisition by villagers.

Cropping Pattern

The whole state is progressing towards a rice-wheat mono-cropping system from the multi - crop husbandry practices. Table 4.9 shows the impact on cropping pattern during pre-and post-land acquisition. Before the acquisition, the main crops grown in this area are wheat, cotton, and mustard. However after the acquisition in the village Peron and Talwandi Aklia paddy is also grown along with these crops. Land Acquisition process has reduced the area of agricultural land in Banawala, Raipur, Peron and Talwandi Aklia. It can be seen from the table the land under wheat has reduced from 224.85 hectare to 113.63 hectare due to the acquisition of land. A similar tendency has been seen in other crops excluding rice. The area under cotton has reduced from 250.95 hectares of land to 109.47 hectares, in the case of mustard the area under cultivation was 26.10 hectares which have come down to 19.32

hectares. Due to the reduction in area under wheat, the gross returns of wheat reduced by Rs. 25.26 lakh after land acquisition. By contrast, the gross returns of cotton and mustard increased after land acquisition because the productivity of cotton increased from 11.63 quintile per hectare to 26.77 quintile per hectare due to the use of high-quality seeds while the gross returns of mustard increased due to increase in the price of mustard. But due to the land acquisition, the real returns of these crops had declined due to the reduction of area under cultivation. The fodder is also grown by farmers for the food of their tamed animals. Its area has also reduced from 19.83 hectares to 12.88 hectares of land at present. It shows the resultant reduction in the agrarian land under different crops due to the process of land acquisition.

Table 4.9: Impact on Cropping Pattern

	Pre-Land Acquisition				**Post-Land Acquisition**			
Crops	**Ha.**	**Yield qt. /ha.**	**Price (Rs.) (Per qt.)**	**Gross Returns (Lakhs)**	**Ha.**	**Yield (qt./ha)**	**Price (Rs.) (Per qt.)**	**Gross Returns (Lakhs)**
Wheat	224.85	38.41	1000	86.36	113.63	38.41	1400	61.10
Paddy	---	---	---	--	23.49	66.69	1345	21.07
Cotton	250.95	11.63	3000	87.56	109.47	26.77	3950	115.76
Mustard	26.10	11.86	1800	5.57	19.32	11.76	3050	6.93

Source: Sample Survey

The study finds out the real returns by deflating prices with the use of wholesale price index of the financial year 2007-08 (Before acquisition) and 2013 -14 (after acquisition) on the base year 2004-05. Table 4.10 depicts the net change in real returns of crops due to land acquisition. The real returns of wheat reduced more than half after acquisition from Rs. 64.32 lakhs to Rs. 28.79 lakhs. A similar tendency has been seen in other crops except paddy. Real returns of the cotton and mustard were declined by nearly Rs. 29.38 lakhs and Rs. 1.05 lakh respectively.

Table 4.10: Impact on Real Returns of Crops

Crops	Real Returns (Lakhs)		
	Pre-Acquisition	Post-Acquisition	Net Change
Wheat	64.32	28.79	-35.53
Cotton	78.32	48.94	-29.38
Mustard	4.72	3.66	-1.05
Paddy	--	9.31	--

Source: Sample Survey and Govt. of India, Ministry of commerce & Industry

Share of Allied Activities

In addition to agriculture, people of Punjab state indulge in other allied activities for the growth of their economy. It has become necessary for the farmers to do other allied activities along with agriculture because of rising prices of the entire livelihood items. But most of the people are not engaged in allied agricultural activities like bee keeping, dairy farming, fishery etc. The data collected from the survey of 70 farming families in the village Banawala, Peron, Raipur and Talwandi Aklia pinpoints that these people are not involved in other allied activities such as bee keeping, fishery, poultry etc. Table 4.11 shows the involvement of farmers in dairy farming during pre- and post-land acquisition. People of these villages keep few buffaloes and cows for the production of milk for sale and to use in their homes. However, nobody is involved in a dairy farm or large scale production of milk in the village. The total number of buffalos is more than cows in villages. Semi-medium farmers keep the highest number of dairy animals before and after land acquisition 159 and 92 respectively. The study finds that the number of animals has also been reduced after land acquisition. There were 388 dairy animals which have now reduced to 195 after land acquisition. Because of land acquisition, the land previously used for growing the fodder for these animals has also been reduced.

Table 4.11: Impact on Dairy Farming

Category of Farmers	Pre- Land Acquisition			Post -Land Acquisition		
	No. of Buffaloes and cows		**Total**	No. of Buffaloes and cows		**Total**
Marginal Farmers	Buffaloes	12	19	Buffaloes	13	18
	Cows	7		Cows	5	
Small Farmers	Buffaloes	64	72	Buffaloes	47	55
	Cows	8		Cows	8	
Semi Medium Farmers	Buffaloes	142	159	Buffaloes	79	92
	Cows	17		Cows	13	
Medium Farmers	Buffaloes	110	123	Buffaloes	27	30
	Cows	13		Cows	3	
Large Farmers	Buffaloes	12	15	Buffaloes	--	--
	Cows	3		Cows	--	
		Total	**388**	**Total**		**195**

Source: Sample Survey

Impact on Agricultural Income

It is found in the survey that agriculture is the main occupation of respondents. The overall income of the respondents during one year earned from all agriculture sources is known as his/her annual income. It reflects not only the economic conditions of the respondents but also describes their living style. The study considered only agricultural income because agrarian land acquisition influences only agricultural income. Income from other services is excluded which are not affected by the agrarian land acquisition.

The data regarding this aspect is presented in Table 4.12. Table 4.12 represents that the annual income of 9 families had been Rs. 50,000 before the acquisition of land. Among these 9 families, 2 belonged to marginal farmers and 7 belonged to small farmers. The other 22 families, out of which 3 were small farmers, 15 were semi

medium farmers and 4 medium farmers had the annual income ranging between Rs. 50,000 to 1 lakh; 24 families had the annual income of Rs. 1 lakh to 2 lakhs; out of which 8 were semi medium farmers and 16 medium farmers. 11 medium farmer families and 2 semi medium had the income of Rs. 2 lakhs to 4 lakhs. While one large farmer had the income of Rs. 4 lakhs to 6 lakhs and the second large farmer had the income of above 8 lakhs. However after land acquisition, six marginal farmers had the annual income of up to Rs. 50,000. There are six farmers having Rs. 50,000 to 1 lakh an average annual income after the acquisition of land, out of which only one marginal farmer and five are small farmers. 25 families are having an average annual income of Rs. 1 lakh to 2 lakhs, out of which 14 belong to small farmers and 11 belong to semi medium farmers. Other 21 semi medium farmers had an average annual income amounted to Rs. 2 lakhs to 4 lakhs, six medium farmers having an annual income of Rs. 4 lakhs to 6 lakhs and other 3 medium farmers had an annual income of Rs. 6 lakhs to 8 lakhs. The two large farmer families have an average annual income above 8 lakhs. Data shows that an average annual income of farmers has increased after land acquisition, due to the time gap, prices of various crops have increased. The productivity of cotton has increased from 2007-08 to 2013-14 due to a good quality of seeds. The productivity of cotton has increased from 11.63 quintiles per hectare to 26.77 quintiles per hectare during 2007-08 to 2013-14. Prices of wheat, cotton, and mustard crops have increased from 2007-08 to 2013- 14 by 40 percent, 31.67 percent, and 69.44 percent respectively, since money income of the farmers has increased. Data shows the average annual income of all category of farmers was increased.

Table 4.12*:* Farmer's Average Annual Income

Category of farmers	Marginal farmers	Small farmers	Semi-medium farmers	Medium farmers	Large farmers	Total
Pre-acquisition						
Up to 50,000	2	7				9
50,000 to 1 lakh		3	15	4		22
1 to 2 lakhs			8	16		24
2 to 4 lakhs			2	11		13
4 to 6 lakhs					1	1
above 8 lakhs					1	1
Total	2	10	25	31	2	70
Average income	32,030	46,902.85	1,05,481.9	1,80,478.9	7,06,180	1,45,390.6
Post-acquisition						
Up to 50,000	6					6
50,000 to 1 lakh	1	5				6
1 to 2 lakhs		14	11			25
2 to 4 lakhs			21			21
4 to 6 lakhs				6		6
6 to 8 lakhs				3		3
Above 8 lakhs					2	2
Total	7	19	32	9	2	69
Average income	45,661.57	1,12,021	2,23,903.7	4,19,931.6	11,55877	2,32,110.2
Net change	+13631.57	+65118.2	+118421.8	+239452.7	+449697	+86719.6

Source: Sample Survey

To find out the impact of land acquisition on farmer's income the study finds the real income of farmers by using the price index of crops. Table 4.13 represents an average real income of the farmers before and after land acquisition. Before the acquisition, two marginal farmers had real income up to Rs. 50,000 and after land

acquisition, seven marginal farmers have real income up to Rs. 50,000. Before acquisition nine small farmers having real income Rs. 50,000 to 1 lakh and after acquisition number of farmers increased to 13 having the same income. Before acquisition 21 farmers had real income Rs. 1 to 2 lakhs (one small farmer, 18 semi medium farmer, and 2 medium farmers) after the acquisition, 29 farmers belong to this income group (6 small farmers, 21 semi medium farmers, and 2 medium farmers). The 30 farmers having a real income of Rs. 2 to 4 lakhs out of which 7 semi medium farmers and 23 medium farmers. After acquisition 18 farmers belong real income Rs. 2 to 4 lakhs out of which 11 semi medium farmers and 7 medium farmers. Before the acquisition, 6 medium farmers have a real income of Rs. 4 to 6 lakhs and 2 large farmers having an income of above 8 lakhs. After acquisition 2 large farmers have also their real income of above 8 lakhs. According to study, the real income of all categories of farmers has reduced after land acquisition due to a reduction in the size of their agricultural land & also their engagement in the other allied activities.

Table 4.13: Impact on Farmer's Average Real Income

Category of farmers	Marginal farmers	Small farmers	Semi-medium farmers	Medium farmers	Large farmers	Total
Pre-acquisition						
Up to 50,000	2					2
50,000 to 1 lakh		9				9
1 to 2 lakhs		1	18	2		21
2 to 4 lakhs			7	23		30
4 to 6 lakhs				6		6
above 8 lakhs					2	2
Total	2	10	25	31	2	70
Average real income	43607.71	81438.05	169478.3	305655.5	1038219	238433.02

Contd…

Category of farmers	Marginal farmers	Small farmers	Semi-medium farmers	Medium farmers	Large farmers	Total
Post-acquisition						
Up to 50,000	7					7
50,000 to 1 lakh		13				13
1 to 2 lakhs		6	21	2		29
2 to 4 lakhs			11	7		18
4 to 6 lakhs						
Above 8 lakhs					2	2
Total	7	19	32	9	2	69
Average real income	29837.71	58588.05	151471.2	285955.5	1023372	221563.02
Net change	-13770	-22850	-18007.1	-19700	-14847	-16870

Source: Sample Survey and Ministry of commerce & Industry

Impact on Agricultural Particulars

After the land acquisition, the agricultural machinery has also been reduced. Table 4.14 shows the data about agricultural particulars such as tractor, trolley, plough and reaper owned by 70 families. The data shows that before land acquisition there were 71 tractors, 59 trolleys, 59 ploughs and 2 reapers being owned by the farmers. In the whole village, there is only one medium and one large farmer having its own reaper, this is used for self-agriculture and business purpose and harvesting combine is not found in the whole village. After the land acquisition, the number of tractors remained 43 out of 71 while Trolleys 30 out of 59 and ploughs remained 36 out of 59, after land acquisition reaper has not been sold or purchased. It is found in the survey that no family in the village has purchased any agricultural machinery with the compensation amount.

Table 4.14: Impact on Agricultural Particulars

Category of Farmers	Tractor		Trolley		Plough		Reaper	
	Pre	Post	Pre	Post	Pre	Post	Pre	Post
Marginal Farmers	2	4	2	2	1	--	--	--
Small Farmers	9	10	7	6	8	10	--	--
Semi Medium Farmers	25	18	23	11	21	15	--	--
Medium Farmers	31	9	24	9	27	9	1	1
Large Farmers	4	2	3	2	2	2	1	1
Total	**71**	**43**	**59**	**30**	**59**	**36**	**2**	**2**

Source: Sample Survey

Impact on Irrigation Sources

As other inputs like seeds, fertilizers, agricultural machinery is important for the development of agriculture, Irrigation sources are also considered as important input for it. Only tube wells and canal water are two important sources of Irrigation for farmers of the Banawala, Peron, Talwandi Aklia and Raipur. Table 4.15 indicates a total number of tube wells in the villages for the purpose of irrigation before and after land acquisition. After the land acquisition, a total number of tube wells reduced from 91 to 61. Before acquisition medium, farmers had the highest tube wells (42 out of 91) which reduced to 13 after land acquisition and followed by semi medium farmers with 30 tube wells before acquisition decreased to 25 after land acquisition. With large farmers, it declined from 7 to 4. However, Marginal farmers have 2 tube wells before acquisition after acquisition it was increased to 5. With small farmers, these increased from 10 to14 due to increasing in the number of marginal and small farmers after land acquisition.

Table 4.15: Impact on Sources of Irrigation

Category of Farmers	Pre-Acquisition	Post-Acquisition
	Number of Tube Wells	Number of Tube Wells
Marginal Farmers	2	5
Small Farmers	10	14
Semi Medium Farmers	30	25
Medium Farmers	42	13
Large Farmers	7	4
Total	**91**	**61**

Source: Sample Survey

The irrigation facility has hampered due to the land acquisition process. Talwandi Sabo Power Limited has acquired total 2100 acres of land of the village. Many tube wells situated in these villages have gone under the acquired land. Canal water is another main source of irrigation for tube wells, which also got affected due to the same land acquisition procedure. Because of the canal distribution which is needed for the thermal plant, there is less availability of water for the farmers. People of the Banawala village claimed that canal water is halted by the thermal plant it leads to less availability of water for agriculture use.

Land Acquisition Procedure

According to Land Acquisition Act 2013, 80 percent people must be willing for land acquisition for the setting up of the private project, 70 percent people must be willing for land acquisition by the Public Private Partnership. In Banawala Talwandi Sabo Thermal Plant is established under the private project. In the four villages, most of the people are against the land acquisition procedure of thermal power plant. Table 4.16 reveals that only 20 percent farmers gave a positive response about the land acquisition process. However, 80 percent farmers are against this process. Out of 80 percent, 62.85 percent farmers have given land under pressure while remaining 17.14 percent of the farmers claim that land has been taken forcefully from them.

Table 4.16: Land Acquisition Procedure

Statement	Frequency	Percent
Given at own will	14	20
Given under pressure	44	62.85
Forcefully taken over with police help	12	17.14
Total	**70**	**100**

Source: Sample Survey

Compensation for Land

The compensation amount received by the farmers of four surveyed villages is very less than the earlier promised amount by the authority. According to the farmers, the promised compensation amount was Rs. 25 lakhs per acre. However at the time of land acquisition, the compensation package given to land dispossessed people for their acquired land was very less that is Rs. 9.40 lakhs per acre for unirrigated land and Rs. 15.40 lakhs per acre for irrigated land, including displacement allowances. Before the acquisition, the market price of land was Rs. 5 lakhs per acre for unirrigated land and Rs. 8 lakhs per acre for irrigated land in this area. According to Land Acquisition Act, 2013 compensation amount must be 4 times the market price in rural areas along with providing employment with education for their children and other social facilities like Hospitals, and educational institutions. Out of 70 farmers' families, 40 families claimed that at the time of acquisition village accountant shows their irrigated land as unirrigated, so they got compensation of unirrigated land instead of irrigated land. Theses 40 families attempted a joint case in court for which they pay the cost of 3 lakhs. During that time, land prices in the neighboring villages increased to Rs. 20 lakhs per acre and the persons displaced due to this project were unable to buy good land with the amount of compensation they received.

Table 4.17: Farmer's Views about Compensation Amount

Statements	Mean	Standard Deviation
The amount is too low, cannot be used as a purchase for new agrarian land.	1.96	1.13
It is just ok.	3.29	0.82
I received average amount	3.21	0.87
The received amount is low, more money can be generated on that land annually.	4.19	1.094

Source: Sample Survey (Likert-type scale)

No incentives have been given to them, it has created a very insufficient situation in the village. Five points Likert-type scale has been employed for grading each of the operations and respondents' weighted mean scores have also determined. The farmers are interviewed to identify the level they agreed or disagreed with the given statements on a Likert scale as given below: Strongly agree------1, Agree----2, Undecided------3, Disagree-----4, strongly disagree------5.

Table 4.17 depicts the attitude of different land dispossessions about the compensation amount. Most of the persons are strongly agreed to the option no.1 i.e. 'the amount is too low, cannot be used as a purchase for new agrarian land', as its mean is equal to 1.96 and its standard deviation is 1.13. Most of the persons disagreed with the second statement i.e. 'the compensation amount is just ok' as its mean is equal to 3.29 and its standard deviation is 0.82, showing fewer variations in farmers perceptions with this statement. For the statement, 'I received average amount', has to mean equal to 3.21 and its standard deviation is 0.87 showing that farmers are disagreed with this statement and also, fewer variations in farmers' perceptions with this statement have been found. The similar type of trend has been found for another statement i.e. 'The received amount is low, more money can be generated on that land annually', but there is a strong disagreement for this by the farmers.

Use of Compensation

Use of compensation is one of the major concerns in resettlement and rehabilitation. Therefore, it becomes important to know how the compensation amount received by the people is utilized by them. People affected by the acquisition of land in villages Banawala, Peron, Raipur and Talwandi Aklia are being enquired for the same. They have not kept proper account of such amount. They can roughly estimate the amount spent on different purposes, they are telling to narrate how to spend it.

Table 4.18 indicates utilization of compensation amount by land dispossessed. The study shows that 68.57 percent farmers have utilized the some part of their compensation amount on purchase of new agrarian land. Some of these farmers have purchased land, which is not as much fertile as the earlier land was fertile. Moreover, 2.85 percent people have used compensation amount for starting a new business. However, farmers spend the remaining part of compensation amount on unproductive purposes such as the construction of a furnished house, purchase of car/ motorcycle, social ceremonies and payment of old debt. The study reveals that 51.42 per cent farmers of the sample have used their compensation amount in the construction of a furnished house, 57.14 per cent farmers have purchased new car or motorcycle. While 11.42 per cent people have used their compensation amount in social ceremonies like a marriage ceremony. Furthermore, 12.85 per cent farmers utilized the compensation amount as a payment of old debt. The data presented in the table is shown the percentage of respondents, who spend their compensation amount for more than one purpose.

Table 4.18: Utilization of Compensation Amount

Productive Purpose	**Number of Farmers**	**%**	**Unproductive Purpose**	**Number of Farmers**	**%**
Purchase of new agrarian land	48	68.57	Construction of a furnished house	36	51.42
Start new business	2	2.85	Purchase of car/motorcycle	40	57.14
--	--	--	Social ceremonies	8	11.42
--	--	--	Payment of old debt	9	12.85

Source: Sample Survey

The overall study intends that sampled villages in Mansa district do not have much educated people. Most of the people depend on agriculture for their living. After the land acquisition, the very less agrarian land has been left. As a result, it has poorly affected all categories of the farmers as well as the labourers. They are even not much engaged in allied activities except dairying, on which a negative impact is observed. Due to the low compensation and less value of land, these people were not capable of buying new land.

CHAPTER 5
PRE AND POST STRUGGLE OF LAND DISPOSSESSORS

The establishment of a developmental project does not affect the people economically only but also it has a political, social, and environmental impact on them. The present chapter is an attempt to explain these impacts recorded from the survey.

Land purchase policy of the Punjab Government ensures that the acquisition and purchasing of land should be on the basis of the willingness of the landowner. But in the surveyed villages 80 percent people were not in willing to give their land to the thermal power plant. The policy provides acquisition of land through tenders and bids at a fixed price by the landowner himself for his land. It is also viewed that the policy will eliminate the scope for litigation and save both farmers as well as the government from wasting their time and money in various courts of law. However, if we see the provisions of the Land Acquisition Law, it is organized that it is entirely opposite to the provisions while acquiring the land from the owners. According to the land acquisition amendments 2007 under the land acquisition act 1894 the Punjab government promised to give Rs. 25 lakh per acre (including displacement allowances) compensation amount to land dispossessors. But farmers received from Rs. 9.40 lakhs per acre to Rs. 15.40 lakhs per acre as compensation amount. According to Amendment Act 2007, a social impact assessment study must be conducted. Under SIA, the agricultural laborers are also eligible for compensation but they did not get compensation. According to law, after the compensation amount is determined, the collector must ensure that payment occurs within 60 days, Possession of land shall not be taken unless full compensation is paid or tendered to the land owner. But in this case, most of the farmers claimed they did not get compensation at the time. As per the act, Punjab government has promised to give employment to land dispossessed families, but the government did not fulfill their promises. Due to these reasons people has faced political, social, environmental and employment struggle.

Political Struggle against Land Acquisition

Land dispossessors are not in favour of land acquisition. They involved in agitation during land acquisition in the village Banawala. There were many reasons for their agitation against land acquisition. Firstly, the received compensation amount in place of their acquired land is very less; people are unable to buy another agricultural land with the received amount. The second reason is that many landowners did not agree with the land acquisition because they never want to give their land for the establishment of the thermal power plant. Agriculture land is the main source of their livelihood. Thirdly, the government could not provide any alternative job as a source of income for these people. Fourthly, a large number of labourers dependent upon the agricultural land were also affected but they did not get any compensation or other benefits, the fifth reason is that the establishment of the thermal plant on acquired agrarian land leads to environmental problems and health problems.

The villagers protested on the Talwandi Sabo – Mansa road and blocked the traffic. Farmers and Mazdoor organizations of Punjab joined the agitation against land acquisition in Banawala. The Punjab Kissan Union, Mazdoor Mukti Morcha, and Kissan Struggle formed a joint struggle committee under the leadership of the Punjab Kisan Union against the government's campaign to acquire land at a very low price for setting up a thermal plant. In this struggle, the level of participation by the farmers and agricultural labourers of four villages Banawala, Talwandi Aklia, Peron, and Raipur as well as the workers of the different Kissan and Mazdoor Unions is very high. The women and students of these villages also participated in the movement.

In this struggle land dispossessors demanded reasonable price of the acquired land, tube wells, and common paths. Labourers who lost their source of livelihood also demanded compensation. Punjab Kisan union raised the demand of employment to the affected families and also demand to withdraw all illegal cases against farmers and protesters.

Cases of Struggle

Various newspapers covered the various incidents of the struggle against this land acquisition. The newspapers documented the incident differently. The very first incident took place on 8th January 2008. The Tribune, Bathinda covered the story of this day under the headline “Land Acquisition, Farmers Stage Dharna in Mansa”. The newspaper stated that on 8th January 2008 a joint struggle committee of farmers and the Mazdoor Mukti Morcha, Punjab stages a dharna in front of the deputy commissioner’s office at Mansa. The State President of Punjab Kisan Union, State Secretary of Mazdoor Mukti Morcha, and President of the joint struggle committee of farmers addressed the dharna. On the dharna, the speakers stated that they know that establishment of industry was important for the development of a country but the government should give reasonable prices to the farmers, whose land had been acquired, and that the youths of the concerned areas should be provided employment in the industry (The tribune, 2008).

On 10 January 2008 a dharna organized to demand reasonable price of the acquired land for establishing the thermal plant. Labourers and youth from Mansa district participated in the dharna. Raj Singh Jatana and Kirpal Singh said that when they were going to be landless and homeless, then employment of their children should be ensured. Some people, who came from other parts of the district, said that this was claimed that their land would come under the effect of the project because of a canal distributary and a railway line, which would be needed for the plant. This story was covered by The Tribune, 10 January 2008, Mansa under the title “Land Acquisition, Dharna lifted in Mansa” (The tribune, 2008).

On 18 January 2008, farmers from Banawala and other villages of Mansa district block the traffic on Talwandi Sabo – Mansa road. In this rally state president of the Punjab Kisan Union blamed the state government for exploiting the farmers and the labourers in the name of development. Rajvinder Singh Rana criticised the Akali and the Congress leaders for not supporting the farmers. State secretary of Mazdoor Mukti Morcha, demanded jobs for labourers, as after acquiring the land, labourers would be rendered jobless. The day story covered by The Tribune, 18 January 2008,

Mansa, entitled, “Land Acquisition, Farmer block traffic, hold a rally in protest” (The tribune, 2008).

Participation and Harassment in Struggle

At the beginning of the agitation, the whole village was involved in it, but after some time, some people had to leave the agitation due to the pressure by the state authorities. According to the survey, out of 100 respondents, 82 respondents participated in village dharna and 74 villagers participated at the time of dharna in the city. The police arrested many villagers at the time of these dharnas as demonstrated in the survey, 41 respondents were arrested by police and 29 respondents were sent to jail also. 16 persons were jailed for 17 days whereas the other 13 remained in prison for more than six months.

Table 5.1: Type of Participation and Harassment in Struggle

Type of Participation	Village Dharna	Dharna in City	Arrested by Police	Jail
No. of Respondents	82	74	41	29
Type of Harassment	Lathi Charge	Police Case	Economically Weaken during Struggle	--
No. of Respondents	40	29	52	--

Source: Sample Survey

The authorities employed different types of ‘Harassment’ strategies, such as lathi charge, police case, punishment in jail, etc. to stop these dharna’s or agitations. According to the survey, 40 respondents were victims of police lathi charge, 29 respondents were charged with police cases during the agitation for which they were sent to jail. Due to all these harassment processes, which continued for more than six months many people suffered economically as well. It is depicted in the survey that 52 respondents had accepted the fact that the struggle left them economically weaker. During the time of agitation, farmers could not get enough time for farming which resulted in the less production of these crops.

Role of Social and Political Organizations

Different social and political organizations played their respective role during the time of struggle. The following table 5.2 explains the positive and negative roles played by these organizations in this struggle. According to the survey, 87 respondents opined that the Kissan and Mazdoor Unions played a very positive role at the time of struggle because these Unions were always in favour of protestors and against the authorities. At the same time, 13 respondents who were close to village Sarpanch and Panchayat viewed that the Kissan Union played a negative role. Out of hundred, 92 respondents rejected any positive role of political parties in these movements. The 15 respondents claimed that the present Akali Government also played a positive role during the struggle while the other 85 respondents did not agree on this point. Rather they blamed that the State government along with village Panchayat for played a negative role by favouring the thermal plant authorities. Among these respondents, only 15 respondents gave the positive response while 85 respondents refuted such views. All the 100 respondents from different families were of the unified view that the police always played a negative role during agitation times.

Table 5.2: Role of Different Organizations in the Struggle

Organization	Positive/Supportive	Negative	No Role
Kissan /Mazdoor Unions	87	13	-
Political Parties	08	--	92
Government	15	85	-
Role of Panchayat	15	85	-
Role of Police	-	100	-

Source: Sample Survey

Social Struggle

In India, agriculture is an important source of income of people. More than the half proportion of Indian population directly depends on agriculture for their survival. Therefore, they are not only attached traditionally and culturally to it but also emotionally. Therefore with the acquiring of agricultural land, the social structure of the villages disturbed totally. All these types of disturbances have been witnessed in

surveyed villages i.e. Banawala, Talwandi Aklia, Peron and Raipur also. This process of land acquisition at these villages has disturbed the social structure completely. The whole village is divided into two groups. One group favours the Kissan Union against the land acquisition and another group supports the village Panchayat in favour of land acquisition. In both of these groups, differences have increased at such a level that both of these groups have stopped to attend social ceremonies of each other like marriages etc. Due to land acquisition, the social life of villagers has disturbed severely. With the process of land acquisition, the family system has also affected in the village. Different sorts of disputes have come up among different families in the same village. The study shows that 48.57 percent families indulge in such disputes after land acquisition. The main reasons for these disputes are connected with the distribution and utilization of compensation amount among the family members. According to 64.28 percent villagers, an increase in the number of young drug addictors has been observed in land acquired families, because they got big cash in hand in a short period as compensation amount. Land acquisition has an impact on the marriage ceremonies of the village. The 61.43 percent respondents have told that it would affect the future marriage plans. The considerable implication withdrawn from this issue is that land still plays a significant role in the marriage of Jats because land is the source of income as well as a symbol of social status for them. The response of 58.57 percent villagers shows that land acquisition leads to emotional disturbance of people because they are emotionally attached to their land (Table 5.3).

Table 5.3: Social Issues due to Land Acquisition

Statement	Percent	Reason
Family Dispute	48.57	Distribution of Compensation Amount
Addiction of Drug	64.28	Increase Cash in Hand due to Compensation Amount
Delay in Marriage in Future	61.43	Land is very Important in Jats Family
Emotional Disturbance	58.57	Emotionally Attachment with their Land

Source: Sample Survey

Trends in Migration

The survey further finds that migration is another social impact related to the land acquisition process. After the land acquisition, the level of human migration or displacement has increased very rapidly. The people of the surveyed villages depend on agriculture land for their livelihood. However, the sources of income of villagers have hampered due to land acquisition. Therefore, they have started moving to some other places in the search of employment. Table 5.4 reveals that migration pattern of villagers after land acquisition. Total 20 farmers have migrated from village Banawala and Perron to other villages or cities in the country. From the total sampled households 12.86 percent migrated belong to medium farmers, 10 percent small farmers and 5.71 percent semi –medium farmers. Some other families are also thinking about migrating in near future.

Table 5.4: Inter- State Migration Pattern after Land Acquisition

Type of Farmers	No. of Farmers	Percent
Small Farmers	7	10
Semi-medium Farmers	4	5.71
Medium Farmers	9	12.86

Source: Sample Survey

Environmental Struggle

The struggle of villagers after setting up of the plant has not come to an end because the thermal power plant has a significant environmental impact that has serious implications for the local ecology and public health as well as for global warming. Consumption of a large amount of coal in the thermal power plant has created several adverse effects on environment leading to global climate change. Coal based thermal power plants are considered to be one of the major sources of pollution affecting the environment in terms of land use, health hazards and air, soil and water in particular and thus leads to environmental dangers. Carbon emissions from coal-based thermal power plants in India are rising and will continue to go up in the near future (Ahmad, 2015). India has the world's third-largest coal reserves. The daily

consumption of thousands of tons coal, heavily pollutes the air of the surrounding areas. Burning coal also releases massive amounts of toxic mercury. Coal is considered a heavily polluting fuel in terms of black carbon, sulphates, and other gaseous pollutants primarily due to incomplete and inefficient combustion. Black carbon due to thermal power plant produces changes in the monsoon (rainfall) patterns and abnormal heating of the atmosphere as Black Carbon is strongly absorbing in nature. So_2 causes a number of health problems, including respiratory disorders (Pokale, 2012). Water slurry is used to take the ash from the power plant to the ash pond for disposal. The exposure of employees to high noise levels is more in the thermal power plant.

Table 5.5: Environmental Problems

Problems	Frequency	Percent
Fly Ash	65	65
Global warming	57	57
Pond water Polluted	55	55
Breathing Problems	63	63

Source: Sample Survey

Table 5.5 reveals that data about environmental problems faced by villagers due to thermal plant. Both farmer families and labourers were surveyed out in the case of environmental issues. According to 65 per cent villagers, TSPL leads to fly ash problems and 57 percent villagers told TSPL encourages global warming problems. While the 55 people from Banawala village claimed that due to the thermal plant the water of the village pond is polluted. Because there is no sewerage system in the village, the pipes of toilets of TSPL are put into the pond of the village Banawala. Consequently, pond water is polluted badly, and even the water is not able to drink for stray animals. Moreover according to 63 per cent villagers, thermal plant owes to breathing problems. The distance between thermal plant and sampled villages from where the land was acquired is very less, it lies between 0.5 km to 3 km. Less distance from thermal plant to villages shows local people are suffering from

environmental problems and health problems and also suffer in the future. Before the establishment of the thermal power plant, state government promised to give monetary help Rs. 1.85 lakh per land dispossessed family. However, people claimed that they did not get any monetary help from Government and TSPL administration for their health problems. There is no special medical facility such as dispensary and hospital provided to the villagers.

According to the survey of the TSPL employees, the environmental issues of this plant is less as compared to other old plants in the same region such as Guru Nanak Dev Thermal Plant (GNDTP) at Bathinda and Guru Hargobind Thermal Plant (GHTP) at Lehra Mohabbat because this plant has used environment-friendly technology. Some measures have been taken by the administration of TSPL such as plantation trees in around 550 acres of area, using the modern eco-friendly equipment. For the provisions for ash disposal, TSPL has tied up with big cement industries Associated Cement Companies (ACC), Ambuja, Ultratech and also with small cement manufacturing companies. Ash moves to pond in the form of a slurry and then movement to the industries. In addition, checks are done by Punjab Pollution Control Board to curb the environmental pollution like uploading data of environmental parameters on the website and checking of pollution through various machines.

Employment Struggle

As per the Land acquisition act, Punjab government has promised to give employment at least one person from each land dispossessed household or a one-time payment of five lacks per household for their rehabilitation. There is a matter of great anger and frustration among villagers that in spite of earlier promises, hardly any job had been given to them. There seem to be two main reasons for this. The first one is regarding the type of employment available in the thermal plant. The TSPL directly employs only high skilled workers. For relatively unskilled and low skilled jobs such as cleaning, security guard, catering, and gardening, contracts are handed over to outside agencies. Since the latter parties are not involved in the land acquisition process, no employment conditions can be imposed on them. Second, the villagers claim that the companies do not want to hire local people as they are more

demanding and get into arguments. So they prefer migrant labour. The people felt that the jobs available to them are not of good quality and low paid contractual nature. The PSEB Engineers Association has been criticizing the Talwandi Sabo thermal plant for not employing local people. It is a hard fact that only Chinese and Japanese are getting employment and no engineering graduate from Punjab is being employed in TSPL. On the other hand, state-owned thermal plants at Bathinda, Lehra and Ropar have given jobs to hundreds of Punjab engineers (The Tribune, 2013)

Employee's survey record shows that TSPL has 240 permanent employees out of which no one is from the local area who has paid the price for development by giving their land. The contractor companies have approximate 960 employees including a supervisor, security guard, labourers etc. are on contract base. Out of 960 employees, 210 security guards, out of which 115 are retired army officers. The 85 percent of army officers are from Punjab and remaining from other nearby states. Remaining 105 guards are the local youth of Mansa and Bathinda. Without security department, in other contractual services, out of 750 employees 35 percent employees from Punjab. However, from the village Banawala, only two persons are employed as security guard although the major part of the land was acquired from this village. Some security guard, security supervisor, data entry operator, and some other employees were surveyed during the visit of TSPL. The study found that the salary of a security guard lies between Rs. 6500/- per month to Rs. 9600/- per month which is not enough to serve the family.

In addition, employees on contract base deprived from the medical insurance policy, health facilities, transportation facilities, and housing facilities. Only permanent employees have got transportation, health and housing facilities. Without security department the major part of employment from other states such as Bihar, Odisha, Kerala, Maharashtra, Himachal, UP and Haryana. The people of Punjab involve only in the housekeeping services, caterings services and security services. In these services, income received by them is low which is not enough to serve their family. On the other hand, in the case of self-employment opportunities study found that only two small hotels providing lunch and dinner, one tea shop in near TSPL and two

canteens inside the TSPL. In spite of these opportunities, construction works also available to the people.

Employment of Landless Labourers

The landless people have been traditionally working as agricultural labourers on the land of the other people. Hence, when people lost their land during the land acquisition process, the livelihood of the labourers has also affected. To find out the impact of TSPL on the livelihood of labourers, thirty labourers families have been surveyed from four villages. Table 5.6 indicates the impact of the pattern of employment of labourers after setting up the thermal plant. Fifteen out of thirty families are casual labourers in agricultural before setting up TSPL it has reduced to 9 after setting up TSPL because the agricultural land is reduced in land acquisition process. Moreover, six belong to casual labour in the non-agriculture sector it has increased to 19 after setting up TSPL and 9 belong to long term attached agriculture labourers declined to 2 after establishing TSPL. The long term attached and casual agriculture labourers are shifted into the category of casual labour in the non-agriculture sector. Because area under agriculture has reduced after land acquisition process. Casual agricultural labourers got affected through this land acquisition process. Previously they were easily getting work within the same village but after land acquisition due to a shortage of agriculture land in this village, they have to go to some other villages or cities in search of daily employment. Some of these families are still planning on permanently shifting in some other village or city. Female members of their families become unemployed who were previously engaged at the time of collection of a cotton bud and earning 10 to 12 thousand per session. After setting up TSPL, 19 persons belong Casual labourers in non-agriculture, they are getting work in the thermal plant for a short period. The study found that labourers are mainly involved in housekeeping services and construction work in the thermal plant. Due to the lack of credit and capital, labourers are not able to start self-employment. Thus, agricultural labourers did not get any compensation amount & any other alternative, while their whole families depend for their livelihood on agriculture.

Table 5.6: Impact on Employment of the Landless Labourers

Pre-Land Acquisition			Post-Land Acquisition		
Employment	**No. of Labourers**	**%**	**Employment**	**No. of Labourers**	**%**
Casual labour in agriculture	15	50	Casual labour in agriculture	9	30
Casual labour in non-agriculture	6	20	Casual labour in non- agriculture	19	63.33
Long term attached agriculture labour	9	30	Long term attached agriculture labour	2	6.67
Total	**30**	**100**	**Total**	**30**	**100**

Source: Sample Survey

There is no doubt, that TSPL plays an important role in the development by giving employment opportunities and production of an electricity. But the land dispossesses who have paid the price for this development by giving their main source of their livelihood could not get a suitable job or livelihood , though, during land acquisition, Punjab government promises to give employment to their families. In the study the children of 70 surveyed families are well educated, many of them are post-graduation and graduation. They are eligible for getting the job in the TSPL, but no one has got a job in TSPL. Their struggle for employment, compensation, health problems and for environmental issues still in process.

CHAPTER 6

CONCLUSION

The involuntary acquisition of agrarian land has an unfavorable impact on land dispossessors economically as well as socially. Due to the rapid growth of urbanization in India, several agricultural land is acquired for feeding up the expanding cities. The land is necessary for the construction of houses, shopping malls, hotels, hospitals, industries and for other development projects also. In India, agricultural land has been acquired for the promotion of tourism also. Energy projects are another factor for grabbing the land in the country as the demand for electricity is very high in the country. In 2007-08, the State Government of Punjab acquired 2100 acres of agrarian land for establishing the thermal power plant from four villages named Banawala, Peron, Raipur and Talwandi Aklia in Mansa district. Fertile and multi- crop yielding land was acquired from these villages, more than 80 percent landholding villagers were not in favour of the construction of thermal power plant on their land. In Banawala village, the total land is 2900 acres out of which 1450.375 acres were acquired under TSPL, people have lost their half proportion of land in the process of land acquisition.

The present study aims to examine the socio-economic implications of agrarian land acquisition for the establishment of Thermal Power Plant in village Banawala in the Mansa district of Punjab. It also aims to study the nature of pre-and post-struggle being faced by land dispossessors due to land acquisition. In order to achieve the objectives of the study, the data was collected through the primary survey of various villages namely Banawala, Talwandi Aklia, Peron, and Raipur. The various stakeholders like land dispossessors and labourers from selected villages and employees from the thermal plant were interviewed. The survey of village respondents was conducted through snowball sampling and employees were selected conveniently. Secondary sources have been also used to collect information regarding land acquisition.

The survey reveals that the respondents belong to an average age of 45 years representing working age group of the respondents. Education level is very low in the

sample as 39 respondents out of 100 are illiterate. The study found that in the village, the joint family system was collapsed as only 25 percent of the respondents have joint family system while 75 per cent belongs to the single family. There is no major change in the employment of land dispossessed families after establishing the thermal plant. After setting up a thermal plant there is a slight decrease in employment under farming from 84.2 percent to 81.42 percent. In government services, individual services, small business and retired/ very old, the same status was observed (15.81 percent). However, 2.85 percent of landholding people are unemployed after acquisition because their land was acquired. The study shows a majority of the people engaged in agricultural activities before and after land acquisition but the real income of farmers has decreased after land acquisition due to a reduction in the size of their agricultural land and also their engagement in the other allied activities. As a result, the size of land holdings returns of the crops, 'leased in' and 'leased out' activities, the number of diary animals, agricultural particulars also affected.

Many families were left with very small land holdings. Some of the small farmers became marginal farmers, semi-medium farmers are shifted into small farmers, and medium farmers become semi medium and large farmers become medium farmers after the acquisition. The average size of land holdings has declined after the land acquisition i.e. from 4.05 hectares to 2.46 hectares. Total owned land has decreased from 283.53 hectares to 120.39 hectares. With the compensation amount, 86.75 hectares of land was purchased by villagers in other areas. However in the land acquisition process, 76.38 hectares land was lost by the 70 farmers. The reduction in the size of land holdings had an adverse impact on land 'leased in' and 'leased out' activities. The village Banawala and Peron were also impacted by the land acquisition in case of land 'leased in' and 'leased out' activities because a major part of the land was acquired from these villages. Talwandi Aklia and Raipur has not faced any impact on land 'leased in' and 'leased out' activities due to less part of the land was acquired as compared to Banawala and Peron. Before the land acquisition 19 farmers 'leased in' 41.68 hectares of land. On the other hand, after the land acquisition, the 'leased in' process has reduced to 19.82 hectares. In the case of land leased out, 11

farmers leased out 26.71 hectares of land before the land acquisition. After the land acquisition, leased out the land has increased from 26.71 hectares to 67.36 hectares. Presently, out of 207.15 hectares of owned land, 67.36 hectares of land has been leasing out.

Before the land acquisition, the main crops grown in surveyed villages were- wheat, cotton, mustard, and fodder. However after the acquisition, in the village Peron and Talwandi Aklia paddy crop is also grown. Land acquisition process has reduced the area under cultivation of wheat, cotton, mustard, and fodder, as a result, the real returns from theses crops are declined significantly. The reduction of area under fodder has declined as the number of dairy animals reduced from 388 to 195. Village respondents keep few buffaloes and cows for the production of milk for sale and use in their homes. However, nobody is involved in dairy farming at large scale in the village. The study found that surveyed people are also not involved in other allied activities such as bee keeping, fishery, poultry etc. The agricultural particulars owned by farmers have also been reduced. After the land acquisition, the number of tractors has declined from 71 to 43, trolleys from 59 to 30 and ploughs from 59 to 36. In the whole village, there is only one semi - medium and one large farmer having its own reaper, this is used for self-agriculture and business purpose and harvesting combine is not found in the whole village. The irrigation facility is also being hampered due to the land acquisition process. After the land acquisition, a total number of tube wells have reduced from 91 to 61. The availability of canal water is also got affected, as the canal water is required in the thermal plant, there is less availability of water for the farmers. People of the Banawala village claimed that canal water is halted by the thermal plant it leads to remain less water for agriculture as a result irrigation problems occur to farmers.

The total compensation allowance (including displacement allowance) given to land dispossessors for their land acquisition ranged from Rs. 9.40 lakhs per acre to Rs. 15.40 lakhs per acre. It does not go with the earlier promises of the local leaders who promised to pay Rs. 25 lakhs per acre and also promised to give employment to affected families in the thermal plant. Out of 70 land dispossessed families, 40 families claimed that at the time of acquisition village accountant shows their irrigated

land as unirrigated, so they got compensation of unirrigated land instead of irrigated land. These families attempted a joint case in the district court for which they paid the cost of Rs.3 lakhs, the case is still pending. Use of compensation is one of the major concerns in resettlement and rehabilitation. Data revealed that 68.57 percent farmers have utilized the some part of their compensation amount on purchase of new agrarian land. New purchased land was not much fertile as the earlier land. Only 2.85 percent people used compensation amount for starting a new business. However, farmers spend the remaining part of compensation amount on unproductive purposes such as the construction of a furnished house, purchase of car/ motorcycle, social ceremonies and payment of old debt. Very few people have used the whole compensation amount for any productive purpose. The study found that no one has purchased any agricultural machinery with the compensation amount.

The livelihood of the village labourers is also affected, as farmers lose their land in the land acquisition process. The long term attached and casual agricultural labourers of the villages are shifted in the category of casual labour in the non-agriculture sector. Because area under agriculture has reduced after land acquisition process. Female members of labour families become unemployed who were previously engaged in casual labour activities at the time of collection of a cotton bud and earning 10 to 12 thousand per session. After the land acquisition, 19 surveyed labourers got work in the thermal plant for a short period. The casual and contractual jobs available in the thermal plant but they are paid low income. The study found that labourers are mainly involved in housekeeping services and construction work in the thermal plant. Due to the lack of credit and capital labourers are not able to start self-employment. Thus, labourers did not get any compensation amount & any other alternative, while their whole families depend on for their livelihood on agriculture.

The agrarian land acquisition does not affect the people economically only but also it has a social, political and environmental impact. Due to land acquisition, the social life of villagers has disturbed severely. Different sorts of disputes have come up among different families in the surveyed villages. The study shows that nearly 49 percent families indulge in such disputes after land acquisition. The main reasons for

these disputes are connected with the distribution and utilization of compensation amount among the family members. The land acquisition process also leads to increase in the number of young drug addictors due to cash in hand amount received as compensation. The 61 percent village respondents have told that it would have an impact on marriage plans. The considerable implication is withdrawn from this issue is that land still plays a significant role in the marriage of Jats because land is the source of income as well as a symbol of social status for them. The response of 58.57 percent village respondents shows that land acquisition leads to emotional disturbance of people because they are emotionally attached to their land.

The migration is another social impact related to the land acquisition process. After the land acquisition, the level of human migration or displacement has increased. The people from the surveyed villages depend on agriculture land for their livelihood, but their source of income has been snatched. Therefore, they have started moving to other villages or cities in the search of employment. Total 20 farmers have migrated from village Banawala and Perron to other villages or cities within the state. Some other families have also plan to migrate in near future.

Villagers are not in favour of land acquisition for the thermal plant. In January 2008, they involved in agitation during land acquisition in the village Banawala. The Punjab Kissan Union, Mazdoor Mukti Morcha, and Kissan Struggle formed a joint struggle committee under the leadership of the Punjab Kissan Union against the government's campaign to acquire land at a very low price for setting up a thermal plant. At the beginning of the struggle, the level of participation by farmers, agricultural labourers and the workers of the different Kissan and Mazdoor Unions is very high. The women and students from sampled villages also participated in these movements. But after some time, some people had to leave the agitation due to the pressure by the state authorities. The authorities employed different types of 'Harassment' strategies, such as lathi charge, police case, punishment in jail, etc. to stop these dharna's or agitations.

The survey records that 82 percent respondents participated in village dharna and 74 percent participated in city dharna. At the time of these dharnas, 41 respondents were arrested by police and 29 respondents were sent to jail. The 40 respondents

had been victims of lathi charge. All these harassment processes were continued for more than six months. The 52 respondents accepted the fact that the struggle left them economically weaker. During the time of agitation, farmers could not get enough time for farming which resulted in the less production of these crops. The demands of struggle are still pending.

After the establishment of thermal power plant, environmental problems are also being faced by the village respondents. Consumption of a large amount of coal in the thermal power plant has created several adverse effects on environment leading to global climate change. Most of the village respondents (65 percent) view that plant leads to fly ash problems and 57 percent view that it has serious global warming issues. While the 55 percent respondents from Banawala village claimed that due to the thermal plant the water of the village pond gets polluted. Because there is no sewerage system in the village, the pipes of toilets of TSPL are put into the pond of the village Banawala. Consequently, polluted pond water leads to air pollution and many health problems. Moreover, according to 63 per cent respondents, villagers are facing breathing problems. There is a very short distance between thermal plant and villages, so villagers are facing many environmental problems, which are a source of their health problems. Before the establishment of the thermal power plant, State Government promised to give monetary compensation amounted of Rs.1.85 lakh per family whose land was acquired. However, people claimed that they did not get any compensation from Government and TSPL administration for their health problems. There is no special medical facility such as dispensary and hospital provided to the villagers after setting up the project.

Regarding the employment in the thermal power plant, people of Punjab involve only in the housekeeping services, catering services and security services. In these services, income received by them is low which is not enough to serve their family. From the village Banawala, only two villagers are employed as security guards in plant although the major part of the land was acquired from this village. The study found that the salary of one security guard, who is retired from the army is just Rs.9600 per month while other gets Rs.6500 per month which is not enough to serve his family. The major part of employment in the thermal plant from other states such

as Bihar, Odisha, Kerala, Maharashtra, Himachal, UP and Haryana in many services rather than security. On the other hand, in the case of self-employment study found that only two small hotels providing lunch and dinner, one tea shop near TSPL and two canteens inside the TSPL have been run by outside villager. In spite of these opportunities, construction jobs on contract are also available to the people. However, surveyed labourers of various villages show that they got very short period work in construction. Their earnings were not more than from when they work as agricultural labour. There is no doubt that TSPL plays an important role in the development by giving employment opportunities. But the land dispossessors who have paid the price for this development by giving their main source of livelihood as agricultural land, cannot get a suitable job into the thermal plant.

The state government has acquired the land for setting up a thermal power plant under the Land Acquisition Act, 1894. Punjab government has made a New Land Purchase Policy 2006, which has amended Land Acquisition Act 1894 to facilitate the acquisition of land in the state. This policy ensures that the acquisition and purchasing of land should be on the basis of the willingness of the landowner or the farmers for selling their land. But in the surveyed villages 80 percent people were not in willing to give their land to the thermal power plant. The policy provides acquisition of land through tenders and bids at a fixed price by the landowner himself for his land. It is also viewed that the policy will eliminate the scope for litigation and save both farmers as well as the government from wasting their time and money in various courts of law. However, if we see the provisions of the Land Acquisition Law, it is organized that it is entirely opposite to the provisions while acquiring the land from the owners. According to the Land Acquisition Amendments (2007) under the land acquisition act 1894, the Punjab government promised to Rs. 25 lakh per acre compensation amount (including displacement allowances) to farmers. But farmers received in between Rs. 9.40 lakhs per acre to Rs. 15.40 lakhs per acre as compensation amount. According to Amendment Act 2007, a Social Impact Assessment study must be conducted. Under SIA, the agricultural labourers are also eligible for compensation but they did not get compensation. According to law, after the compensation amount is determined, the collector must ensure that payment

occurs within 60 days, Possession of land shall not be taken unless full compensation is paid or tendered to the land owner. But in this case, most of the farmers claimed they did not get compensation at the time. As per the act, Punjab government promises to give employment to land dispossessed families. In the study the children of 70 surveyed families are well educated; many of them are post-graduation and graduation. They are eligible for getting the job in the TSPL, but no one has got a job in TSPL. Their struggle is still in process for employment, compensation and environmental problems and they still in hope about their demands will be fulfilled.

Suggestions

1. Productive agricultural land should be avoided for the establishment of new projects because this creates a situation of food insecurity. The government should acquire waste and barren land for the development of the new project. Maximum use of barren land will also reduce the burden of agricultural land.

2. Only compensation amount cannot increase the income of the villagers, also ensured the employment and determination of other basic facilities may enlarge the earning of the villagers.

3. The government should provide medical facilities nearby the project to reduce the health problems emerged from any developmental project.

4. The land acquisition policy of India describes employment for local people should be given preference in projects. The government also encourages the companies to enhance the skill of unskilled labourers.

5. Land dispossessors pay the price for development by giving their land so they must need permanent income and better-living conditions.

6. The government should develop the basic infrastructure and other facilities in the village where a development project is to be established.

7. The government can also provide the compensation to tenant cultivators, agricultural labourers, artisans and other sections of the population who are also affected by the land acquisition.

8. Social Impact Assessment report should share with people. It can be used as a reference point in case of any misperception about the land acquisition. It will reduce struggle and create confidence among people with respect to the government.

9. The government should make some provisions in new land acquisition bill for the requirements and problems still faced by the people who come under the old land acquisition.

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APPENDIX A

CENTRAL UNIVERSITY OF PUNJAB (BATHINDA)

Schedule of Villagers

Socio-Economic Implications of Agrarian Land Acquisition:
A Case Study of Talwandi Sabo Power Limited, Mansa (Punjab)

S. No._____ **Date.**_____

1. Respondent Profile

Name	Qualification
Father's Name	Sex
Caste	Distance from TSPL to your village
Age	Date of Notification for Land Acquisition
Contact No	Village & District

2. Household Status

Sr. No.	Name	Sex (M/F)	Age	Marital Status*	Type of the family@	Educational Status **	Livelihood #		
1	2	3	4	5	6	7	8	9	10

@ Joint -1, Single- 2, * Unmarried-1, Married-2, Widow/Widower-3, Divorced/ Separate 4, Others-5.

** Illiterate-1, Primary-2, Middle-3, Matric-4, Higher Secondary-5, Diploma or Certificate Course-6, Degree-7, Post Graduate-8, Technical Degree (Medical, Engineering)-9.Others

Self Cultivation-1, Casual Labour in Agriculture-2, Casual Labour in non-Agriculture-3, Long term attached labour-4, Salaried/govt.job-5, Individual Service (Caste Occupation)-6, Self-business based on agriculture and allied activities-7 (Animal Husbandry, Poultry etc.), Small Business/trade/construction-8, Big Business/trade/construction-9, Unemployed-10, Student-11, Only domestic work-12, Retired/ Very old-13, Disable/Handicapped/ sick-14, Others (Specify)-15.

3. Land Possessions (Hectare)

a.

	Possession	Leased in	Leased out	Total
Before				
After				

b.

Do you buy any land after the land acquisition?	Yes	No
If yes, then details of new land		

c.

Price of land before land acquisition per acre(Rs.)	
Price of land after land acquisition per acre(Rs.)	

d.

Land (Hectare)	Irrigated	Un-irrigated
Before		
After		

e.

Irrigation Source	Canal	Tube well
Before		
After		

4. Agricultural Income Before and After Land Acquisition

Returns	Before Land acquisition				After Land acquisition			
Crops	Ha.	Yield(qt./ha.)	Price (Per qt.)	Gross returns	Ha.	Yield(qt./ha.	Price (per qt.)	Gross returns
Wheat								
Paddy								
Sugarcane								
Cotton								
Maize								
Groundnut								
Fruits								
Vegetables								
Pulses								
Fodder								
Others								
Grand total								

5. Earnings from Dairy Farming

Dairy Farming	Before	After
Buffaloes (Nos.)		
Cows (Nos.)		
Milk Production (Lts.)		
Annual sale (Rs.)		

6. Employment Details

Employment status	Before		After	
Sr. No.	Employment	Income	Employment	Income
1				
2				
3				
4				

7. Agricultural Particulars

Name of Machinery	Before	After
Tractor (Hrs. Power)		
Trolley		
Plough		
Harvesting Combine		
Reaper		
Others (Specify…….)		

8. Process of Land Acquisition

a. Have you informed about the system of land acquisition by the authorities? Y/N

b. If yes, have they followed the similar process? Y/N

c. If no, how it is different?

d. Do you agree with the decision of the government to acquire land for the thermal plant? Y/N

e. Your land acquisition process is as per (Tick any one)

1. Your Will 2. Under Pressure 3. Forcefully 4. Other

9. Environment Issue

a. Do you face any environmental problems caused by the thermal power plant? Y/N

b. If yes, which type of the environmental problems you face?

1. Fly ash
2. Global warming (climate change)
3. Acid rain
4. Degrade drinking water quality
5. Carcinogen (cancer)
6. Other health problems
7. Any other

10. Compensation and Alternative Source of Income

a. Is your house also included in the land acquisition area? Y/N

1. If yes, you got any compensation amount for the house. Y/N

2. If yes, give the details about compensation.

3. If no, why

b. Has government provided an adequate amount of money for your all property? Y/N

c. What is the amount of compensation you received?

d. What is your attitude about compensation amount for acquired land?

Question	Strongly Agree	Agree	Neither Agree Nor Disagree	Disagree	Strongly Disagree
I received average amount					
The received amount is low, more money can be generated through the land that has acquired					
The amount is too low, cannot be used as a purchase for new agrarian land.					
It is just ok.					

e. Whether the government has provided any alternative source of income or employment to your family? Y/N

If yes, which type of alternative source of income or employment provided to your family?

f. What is your opinion about employment is given for acquired land?

g. Do you get any promise of monetary help from Govt. / semi Govt. / private organization for your health problems? Y/N

If yes,

1. Received amount per household
2. Promised amount per household

h. How the compensation amount has been utilized?

Productive Purpose	**Unproductive Purpose**
Purchase of new agrarian land	Construction of a furnished house
Go abroad	Purchase of car /motorcycle
Start new business	Social ceremonies, like marriages etc.
Payment of old debt	Any other

11. Struggle against Land Acquisition

a. Have you or your family member participated in the struggle? Y/N

Name. of Member	Gender*	Type of participation **	Harassment #

*male-1, Female-2, **village dharna-1, Dharna in city-2, arrested by police-3, jail-4, others (specify…)-5
#Lathiicharge-1, Police case-2, physical punishment in jail -3, others (specify….)-4.

b. Do you think that your participation in the land acquisition struggle has made you economically weaker? Y/N

If yes, explain

c. Role of Different Organizations In the Struggle

Organization	Positive/Supportive	Negative	No Role	Specify it
Kisan Unions				
NGOs				
Political Parties				
Government				

Role of Panchayat				
Role of Police				
Any other				

12. Social Issue

a. Do you think, that the people who don't have the land are also affected by this acquisition? Y/N

If yes, how they are affected?

b. Have you faced any land clash among your family members during the land acquisition? Y/N

If yes, what is the reason behind this?

c. Is anyone from your family migrated to some other village/city after the land acquisition? Y/N

If yes, what is the reason?

d. Do you have any future plan to migrate from this village? Y/N

If yes, what is the reason?

e. Do you think that land acquisition has an impact on the unity of your village? Y/N

If yes, how?

f. Do you think that TSPL helps to development of your village? Y/N

If yes how?

g. D**o** you think TSPL has any negative impact on your village? Y/N

If yes how?

13. What are the Major Changes have been seen in a Village?

a. Social change
b. Construction
c. Environmental change
d. Income change
e. Health
f. Any other

Any other suggestions /Remarks

APPENDIX B

CENTRAL UNIVERSITY OF PUNJAB (BATHINDA)

Schedule of Employees

Socio-Economic Implications of Agrarian Land Acquisition:
A Case Study of Talwandi Sabo Power Limited, Mansa (Punjab)

S. No: _____ **Date:** _____

1. Respondent Profile

Name	Education
Father's Name	Designation
Mother's Name	Date of Joining TSPL
Age	Department
Contact No	District & State

2. Job Profile

Salary	
Incentive	
No. of years of work experience	
Nature of Past Job	

3. Which facilities would be provided by TSPL (you can tick more than one)

a) Housing facilities b) Transportation facilities c) Health facilities d) Any other

4. "TSPL helps to develop the adjoined areas'', give your views?

5. Environmental Problems

a. "Thermal plant leads to environmental problems". Comment on it with the context of TSPL.

b. How does TSPL work eco- friendly?

c. What are the environmental problems caused by the present thermal plant? (Specify there)

d. Which type of measures has been taken by the TSPL to stop environmental problems?

e. What kinds of checks are done by Punjab Pollution Control Board or any other pollution control body to curb the environmental pollution?

f. What are the arrangements for ash disposal in TSPL?

g. According to villagers, "Fly ash causes breathing problems & affects the agricultural productivity", Give your views.

h. Which is the way of drainage system of waste water of thermal plant?

6. Health Issue

a. Do you feel any major or minor health change after joining TSPL?

b. Has TSPL administration made proper arrangement of hospital / dispensary / medical facilities in TSPL?

c. Is there any kind of medical insurance policy given to you by the administration? (Explain it).

Any other views