

LAND ACQUISITION, INDUSTRIALISATION AND DISPOSSESSED FARMERS: A STUDY OF THREE VILLAGES IN FRINGE OF ROHTAK CITY

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Abstract

Acquisition of fertile agricultural land in urban fringe and its conversion to urban uses has become a frequent practice for industrial and urban development in India. Though this development generates employment opportunities but dispossessed farmers face serious threats to their bare survival and social fabric. Present study has made an attempt to analyse the impact of land acquisition, industrialisation and urbanisation on select economic aspects of dispossessed farmers of village Bohar, Baliana and Kheri Sadh. For this purpose both primary and secondary data has been used. Agricultural land has been converted into area under industrial, residential, commercial, plotted land and transport network at a large scale. Primary data has been collected from 126 households through extensive field survey. For this purpose 32 households from large farmers (>5 Acres), 44 households from medium farmers (2-5 Acres) and 50 households from small farmers (<2 Acres) have been surveyed with the help of well structured questionnaire. It has been found that most of the farmers couldn't utilize their compensation money in a proper manner. The farmers couldn't get employment in IMT due to lack of technical skills. Thus most of the farmers became unemployed which poses a serious question for their future livelihood.

Key Words: Land Acquisition, Compensation, Industrialisation and Dispossessed Farming Community

Introduction

Urbanization and industrialization are important determinants for the economic growth of a developing country. Increasing human requirements and spreading economic activities have led to increasing pressure on land resources, often creating competition, conflicts and resulting to non optimal use of land (Olembo, 1994). The present phase of developmental history is witnessing unprecedented rate of land use changes at a mass level owing to rapid population growth, urbanization and industrialization. Same is true with reference to India also. Most of human activities are directly based on land so it becomes one of the most fundamental resource. Land use determines contours of economic prosperity. Issue of land conversion is not only related to loss of productive agricultural land but it also have direct bearing on the livelihood and food security of the farmers and agricultural labours. This has pushed India to adopt planning approaches like Damodar Valley Project, National Capital Region and many others.

In last few decades, acquisition of land for the establishment of industries/urban centre has become a common trend in different parts of the country especially in NCR. Its impact can be seen in changes in land use/land cover of the region. Land use/land cover change information has an important role to play at local, regional and macro level planning. The land cover changes occur naturally in a progressive and gradual way, however sometimes it may be rapid and abrupt due to anthropogenic activities. So planners need more detailed information on land use/land cover than has been traditionally available.

Acquisition of land is posing challenges like livelihood, resettlement, rehabilitation and compensation related issue. Farmers loose their right on agricultural land after the acquisition. Though they get handsome compensation money; it affects their survival. Ironically Indian policy makers are using acquisition ignoring better use of land resources in combination of irrigational facility and productivity of land. It is bound to have serious [repercussions](#) to society.

Remote sensing data of better resolution at different time interval help in analyzing the rate of changes as well as the causal factors or drivers of change. Hence it has a significant role in urban and regional planning at different spatial and temporal scales. This along with the spatial and temporal analysis technologies namely Geographic Information System and Global Positioning System help in maintaining up to date land use dynamics information for a sound planning and a cost effective decision making (Ramachandra and Kumar, 2004).

Statement of the Problem

In 2006, Government of Haryana acquired 3680.64 acres of agricultural land for the establishment of Industrial Model Township (IMT), commercial and residential area in three villages namely Bohar, Baliana and Kheri Sadh of Rohtak district. These villages also become urban due to their incorporation in Rohtak city during 2007-12. So land acquisition and simultaneous change in character from rural to urban have taken place in these villages. Owing to good transportation connectivity, nearness to market centre, along with political support made these villages favourable location for the establishment of IMT by Haryana State Industrial Infrastructure Development Corporation (HSIIDC). In the light of above, present study is an attempt to look into the various issues related to land acquisition and its economic aspects with reference to farmers whose land has been acquired.

Study Area: An Introduction

Study area comprises of three villages namely Bohar, Baliana and Kheri Sadh. This study area is located within co-ordinates of latitudes 28°50'30"N to 28°55'05"N and longitudes 76°37'30"E to 76°43'10"E. The notified industries are spread in three villages namely Bohar, Baliana and Kheri Sadh whereas plotted land is spread over Bohar and Kheri Sadh village. The area has recorded rapid transformation in its land use/land cover during a very short span of time i.e. 2006-13. Share of agricultural land has reduced from 82.45 per cent (2006) to 48.09 per cent (2013). Industrial area has increased significantly from 0.24 per cent to 23.61 per cent. Other major categories of land use which have significantly increased are residential area, plotted land, vacant land and transportation network (Kalkal, 2013). Agricultural land has been converted into industrial area, plotted land, vacant land, transportation network and commercial area.

Objectives of the Study

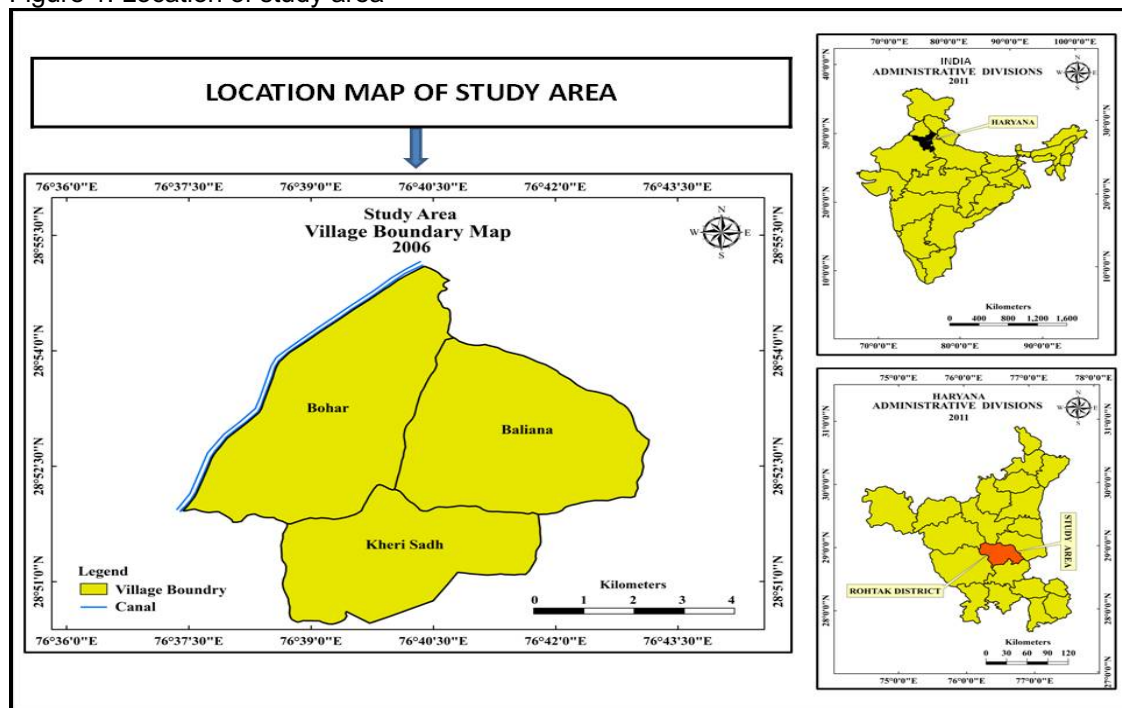
To investigate the impact of land acquisition and industrialization on economic status of dispossessed farmers.

Data Source and Methodology

Primary data has been used in present study. An extensive field survey has been conducted to investigate the possible impacts of land acquisition and industrialization on dispossessed farmers. Farmers have been divided into three categories i.e. large farmers (> 5 Acres), medium farmers (2-5 Acres) and small farmers (< 2 Acres). Random sampling method has

been used. Five per cent farmers from each category have been selected from three villages i.e. Bohar, Baliana and Kheri Sadh for present study.

Figure 1. Location of study area



Results and Discussion

Status of agricultural land utilization before land acquisition

Land utilization is the key component in the development procedure. In rabbi season, all surveyed farmers grown the crops on their agricultural land and not a single acre of agricultural land remain in the form of fallow land. In khariff season 83.97 per cent of total surveyed farmers were growing crops. It was also found that the farmers were satisfied from the production of crops in different seasons and the land was being intensively used.

Source of irrigation in acquired agricultural land

All surveyed farmers had good source of irrigation. There was two major source of irrigation; either it is in the form of canals or through both canals & tub wells; but there was not a single farmer which had the source of irrigation facility only through tub wells. It is also interesting that due to good canal network all farmers took the irrigational benefit through it. Large farmers have established tube wells for irrigation at large scale because they have sufficient agricultural land for cultivation and canal facility alone is not capable to irrigate all agricultural land in short time. So 85.71 per cent of total surveyed large farmers had irrigation facility in the form of both canals & tub wells where as small farmers have low share (27 per cent). The factor behind this was the size of agricultural land. Many small farmers (73 per cent) have not established tube wells for irrigation because it was more costly for small land holding and they irrigated their agricultural land by canals only whereas 14.29 per cent of total surveyed large farmers had only one source of irrigation in the form of canals only.

Motivating factors behind selling of agricultural land

Land plays a decisive role in development of farmer and moreover society of an area. The status of utilization of agricultural land and irrigation facility shows that this agricultural land was highly fertile and provides good production. It was found that all farmers were satisfied from agricultural activity in pre land acquisition period. But there are several factors responsible for the farmers to sell their agricultural land. 63.38 per cent of total surveyed farmers were compelled to give their land under compulsion of acquisition by Governmental Acts. Land is the only source of livelihood and they cannot survive without it. Though they purchased new agricultural land on other places by investing compensation money but they don't feel secure on those places. All this could be responsible for non peaceful land acquisition especially in Kheri Sadh village where a farmer's leader was killed at the time of protest against acquisition.

A share of 19.81 per cent of surveyed farmers sold their land for monetary purpose. There are obvious reasons for farmers to sell their land for monetary purpose because they can purchase more agricultural land through this compensation money which will gave them more profits. Monetary purpose works dominantly among medium farmers (39.44 per cent) and small farmers (20 per cent) but there was no interest behind this factor among large farmers. During field survey, 16.81 per cent of total surveyed farmers told that the compulsion is not only due to Acquisition Act. It is also due to the diminishing net return on agricultural production due to increase in cost of inputs such as HYV seeds, fertilizers, pesticides and irrigation source. Small farmers have large share (26 per cent) whereas large farmers have small share (6.12 per cent) who sold their agricultural land due to high input and low income.

Change in Economic aspect

Literacy

The literacy rate of surveyed farmers is 78.5 per cent and reflects the good status of literacy. The sex wise literacy rate of sample population for males and females is 84.2 and 72.7 per cent respectively; which shows that the condition of females is not equal to males. But during field survey, it was felt that in lower age group there was no bias for providing education to female child. So in coming times it will fill the gap of literacy rate between males and females. The overall literacy rate is highest among small farmers (80.1 per cent) and lowest in large farmers (75.6). The male literacy rate is highest among medium farmers (86.5 per cent) and lowest in large farmers (82.8 per cent). On the other hand, female literacy rate is the highest among small farmers (76.7 per cent) and lowest among large farmers (68.1 per cent).

Table 1. Status of Occupation of head of the household*

Occupation	Pre Land Acquisition Period				Post Land Acquisition period			
	Primary	Second-ary	Tert- iary	Unem-plied	Primary	Second-ary	Tertiary	Unem-plied
Large Farmers	77.34	Nil	22.66	Nil	53.06	Nil	34.70	12.24
Medium Farmers	73.24	Nil	26.76	Nil	57.75	Nil	32.39	9.86
Small Farmers	78.00	Nil	22.00	Nil	35.00	Nil	31.00	34.00
Total	76.19	Nil	23.81	Nil	48.60	Nil	32.70	18.70

Source: Based upon primary data collected by the researchers

* Figures in table are in percentage of surveyed dispossessed farmers

Occupational Change

Change in the activity and way of work using different kind of technologies and skills; is called occupational change.

Before land acquisition and industrialization period, the share of occupation of head of the household was highly primary (76.19 per cent). The highest share in primary occupation is measured in small farmers (78.00 per cent); these farmers also take agricultural land on lease. On the other hand, the lowest share (73.24 per cent) in primary occupation of head of the household has been found in medium farmers. After land acquisition and industrialization, the share of head of household in primary occupation is 48.60 per cent and records a decrease of 27.59 per cent. Highest decrease of 43 per cent in primary occupation has taken place in small farmers because they got little compensation money. Even this little money was spent in house building, marriage of son/daughter, purchasing consumer goods and so on. They did not invest in purchasing new agricultural land so their occupation of farming changed. Medium farmers reported a lesser decrease of 15.49 per cent in primary activity. Large farmers reported a decrease of 24.28 per cent in primary activity because they invested some part of compensation money in purchasing new agricultural land. So their occupation of farming continued. However some of them invested it on starting new business also.

There was not a single head of the household who was engaged in the secondary occupation before land acquisition and industrialization. HSIIDC established IMT in study area. But the head of the household in this area has not gained job facility in any industry of IMT. The share of tertiary occupation which includes commercial activities as well as all types of services in study area was 23.81 per cent which is by and large equal in all surveyed head of the household. But it has been increased (+ 8.89 per cent) in post land acquisition and industrialization period and measured 32.70 per cent. The share of tertiary activity is almost same in all categories this period also. It is found that not a single head of the household was without employment before land acquisition and industrialization. But after this process farmers were divested of their agricultural land due to compulsory land acquisition and got handsome amount of compensation money. Now many of them are surviving on this money and doing nothing. So the share of unemployed head of the households became 18.70 per cent after land acquisition. Small farmers became largely unemployed (34.00 per cent) whereas large farmers and medium farmers became unemployed with 12.24 per cent and 9.86 per cent respectively.

Industrialization and new employment facility

The industrialization brought about plenty of non-farm employment opportunities with higher incomes compared to that in the agricultural sector. It was thought that redundant workers in the agricultural sector, therefore, would be completely absorbed by the industrial sector during the industrialization. Study area has experienced more than five years of economic reform and industrialization, and had great changes in economic structure. Initially the government announced to provide job to one person from each household in any industry of IMT. But during field survey, it is found that not a single person in working age group of surveyed household gained the job facility through industrialization.

Educational attainment of working age group population

Education is a social factor that plays a pivotal role in initiating the process of social, economic and cultural development (Ali, 2009). The role of education in training, development and allocation of its man power resources is significant. If a person is only literate but not educated, he or she will not get a highly paid job. So it also plays an

important role to get a quality job for any person. As the higher level of education, it causes to increase the quality of human resource and opportunities of employment and the role of education in facilitating social and economic progress is well accepted today (Siddique and Hussain, 2010). In present study, higher level of education includes Graduation, Post Graduation, Technical Education like ITI, B.Tech., M. Tech. and others.

Table 2. Levels of Educational attainment of working age group population*

Occupation	School Education				Higher Education
	Up-to Primary	Up-to Middle	Up-to Sr. Sec.		
Large Farmers	27.88	29.52	35.84		6.76
Medium Farmers	22.48	26.43	41.55		9.54
Small Farmers	24.59	21.63	41.41		12.37
Total	24.98	25.86	39.6		9.56

Source: Based upon Primary data collected by the researchers

* Figures in table are in percentage of surveyed dispossessed farmers

About 93 per cent of total surveyed population attained education up to senior secondary level; about 50 per cent attained up to primary and middle level. Remaining 10 per cent are those people who attained higher education but only a small share of these gained technical and skilled education. Literacy rate of surveyed population of study area is good but it should be remembered that most of the literate are educated only up to level of senior secondary and below. Hence the level of educational attainment of people revealed that education status of surveyed population is not fit for skilled work as well as highly paid jobs in IMT. So due to poor technical skills and low education attainment of villagers, they couldn't get any job in any industry in this region. During field survey it was also found that there were some opportunities of low paid job (i.e. security guard and many other) for local people but the large farmers did not show any interest in these jobs because they got large amount of compensation money in the average of their agricultural land whereas low paid job was considered against their reputation. Jobs of chokidar (security guard) and similar one are not considered good. These are not socially acceptable to farming community of the study area.

Average annual Income

The average annual income of head of the households can be used to determine the estimate of economic development of farmers of study area. During the field survey, it was revealed that the occupation of people in study area is predominantly based upon agriculture in both the periods i.e. pre land acquisition and post land acquisition. The average annual income of the surveyed farmers was approximately 87000/-. Differentiation in average annual income among different categories of farmers i.e. large farmers (145000/-), medium farmers (74000/-) and small farmers (43000/-) is perhaps due to size of land holding. After land acquisition average annual income has been increased to 261000/-. This time differentiation in average annual income among different farmers i.e. large farmers (437000/-), medium farmers (215000/-) and small farmers (132000/-) is due to investing money in new business and income from new agricultural land purchased by these farmers. It is to be clarified here that this income did not include the compensation money. Henceforth this increase is remarkable for a rural region.

Purchasing agricultural land through compensation money

Agricultural occupation was the main source of income as well as livelihood of farmers in study area. Due to land acquisition they have lost their right of ownership on agricultural land but got handsome amount of compensation money in avenger of land. They have no skilled education without which they couldn't get job in allied industries or start new business. It is found that only 56.23 per cent farmers purchased new agricultural land for the continuation of their sedentary occupation of cultivation. The factor behind the purchasing of new agricultural land is the amount of compensation money and its utilization on different aspects. Large farmers got large amount of compensation money whereas medium and small farmers got low amount of compensation money. On the other hand, all three types of farmers invested their compensation money in house building, purchasing plots, cars and many others. Small and medium farmers spent most of compensation money in purchasing of consumer goods and now they do not have sufficient money left for purchase of new agricultural land. So the share of large farmers is greater (87.76 per cent) than medium farmers (54.93 per cent) and small farmers (26 per cent) in purchasing new agricultural land out of compensation money.

Second important issue relating to purchase of new agricultural land out of compensation money is its spatial dimension i.e. where the land was purchased. Not a single surveyed household purchased new agricultural land outside state of Haryana. 12.46 per cent of farmers who purchased new agricultural land within their home district of Rohtak of Haryana. In this series of purchasing agricultural land within home district of Rohtak. The share of large farmers, medium farmers and small farmers is 14.29 per cent, 15.39 per cent and 7.69 per cent respectively. On the other hand, remaining 87.54 per cent farmers purchased new agricultural land outside district Rohtak but within Haryana state; where more cheap and fertile agricultural land was available. In this series, the share of large farmers, medium farmers and small farmers is 85.71 per cent, 84.61 per cent and 92.31 per cent respectively. Now they purchased many acres of agricultural land and became more large land holding farmers.

Agricultural land on lease bases

The lease of agricultural lands played an important role in the lives of both owners and lease holders. Small size agricultural land usually do not generate sufficient income that's why farmers have to look for taking agricultural land on lease to earn more income through production. Farmers use lease as means to enlarge their agricultural fields mainly due to financial reasons as it does not entail such big costs as, e.g. purchasing agricultural land. The rent can be in the form of a sum of money or in form of sharing production of crops. Before land acquisition period, 31.55 per cent of surveyed farmers were taking agricultural land for cultivation on lease bases. Large farmers have small share (20.41 per cent) whereas medium farmers (42.25 per cent) and small farmers (32 per cent) showed large interest in this type of agricultural activity. The factor behind it was the income through farmers own agricultural land and other source of income. Large farmers earn good income from their own agricultural land so they have small share in these kind of farming. On the other hand, medium and small farmers couldn't earn sufficient income from small agricultural land holding; so they have large share in taking land on lease. But after land acquisition period, not a single farmer is involved in lease based farming. Firstly, agricultural land has been decreased due to large scale land acquisition for industrial, commercial and residential purpose. So due to lack of availability of agricultural land, the status of lease bases agricultural activity has been stopped in this region. Secondly, during field survey, farmers

told that the young generation (sons/daughters of these farmers) is not interested in hard work in low output agricultural activity.

Animal Husbandry

Animal husbandry plays an important role in rural livelihood. In study area, animal husbandry is not merely a subsidiary to agriculture but it is a major economic activity. During field survey, it is clearly found that 'Murrah buffalo-famous for their milk production' is largest pet animal in study area. Before land acquisition period, 95.70 per cent of farmers were involved in animal husbandry in which the share of large farmers, medium farmers and small farmers was 95.92 per cent, 97.18 per cent and 94 per cent respectively. But after land acquisition, there are 62.55 per cent of surveyed households are engaged in animal husbandry in which the share of large farmers, medium farmers and small farmers is 61.22 per cent, 70.42 per cent and 56 per cent respectively. Due to acquisition of land, farmers couldn't grow fodder crops which are more important for survival of animals. On the other hand, farmers got handsome compensation money which gave them better opportunity to join other comfortable businesses.

Perception about land acquisition and industrialization

The people of study area were engaged in primary occupation i.e. agriculture, animal husbandry and other traditional works. Due to land acquisition, farmers were forced to give their agricultural land for the establishment of IMT, residential and commercial sectors. It compelled them to change their traditional occupation where as there is no creation of jobs for the local persons in IMT. During field survey it has been found that 82.44 per cent of households feel that land acquisition and industrialization process has proved bad for them in which the share of large farmers, medium farmers and small farmers is 85.71 per cent, 67.61 per cent and 94 per cent respectively. They think so because of getting little compensation money in avange of their fertile agricultural land where as they don't have skilled education which can make them employable in industries. Most of the part of compensation money has been spent on building house, purchasing plots/cars and many others. Now they neither have the agricultural land and nor the compensation money. Those farmers who had purchased new agricultural land on other places also feel insecure from local people of those places. On the other hand 17.56 per cent of total surveyed farmers think that this process is good in which the share of large farmers, medium farmers and small farmers is 14.29 per cent, 32.39 per cent and 6 per cent respectively. These farmers feel good because they utilised compensation money on purchasing new agricultural land and in other business. So they earn more money through it and feeling secure for future aspect.

Conclusion

With reference to disadvantages in locating IMT in study area was based on policy delima of acquiring land but sparing fertile land has defiantly not been adequately resolved in this case, as most of acquired land was fertile and having much higher average production as compare of other nearby regions. The surveyed farmers were divested of their agricultural land which was basic source of livelihood for them due to compulsory land acquisition. So land acquisition along with industrialization encroached their source of livelihood which will lead increasing anxiety among villagers about their future prospects. During field survey, it has been found that farmers feel that land acquisition and industrialization is bad. Farmers are dissatisfied with this process because of little compensation money in avange of their

agricultural land. Many of the farmers spent maximum portion of their compensation money in house building, marriage of sons/daughters, purchasing cars, plots and so on. Thus now they do not have the agricultural land which was the regular and traditional source of earning and nor the compensation money. They do not have skilled education which can make them employable in industries. These are the reasons that they think that this process will destroy their future also. So they are feeling insecure. On the other hand, a small portion of surveyed farmers think that this process is good for them and it will secure their future very well because they have purchased more agricultural land through compensation money. Now they have started new business or purchased more new agricultural land on other places which have increased their income in post industrialization period. So it will give them new vistas for better life. But this kind of acquisition of fertile agricultural land and dispossession of farmers and have raised serious question on the policy of land acquisition.

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