

Economic Impact Assessment of Katchi Abadi Improvement Programme A Case Study of Punjab

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Abstract: The main objective of the study was to assess the economic impact of the Katchi Abadi Improvement Programme (KIP) that was implemented from 1985 to 1990 on the individuals, households and institutions in the Punjab. Seven hundred households from the *katchi abadis* of three districts (Rawalpindi, Faisalabad and Multan) which are representatives of three geographical zones (Northern, Central and Southern) of the Punjab province were selected by using the systematic random sampling technique. The analysis of the data revealed that KIP has major positive impact on the households' income that was increased up to average monthly income of Rs. 4535.0; the land value was increased up to average land value of Rs. 49,700.0/marla. The dwellers gained employment and business were generated. Moreover, the households' expenditure on health was reduced and expenditure on education was increased. This all indicates the positive impact of KIP on the economic aspects of the residents of katchi abadis. It can be concluded that KIP was relatively successful; however still there is room for improvement.

Key words: Impact assessment, employment and business, land value, expenditure pattern, random.

Introduction

Well over 300 million urban poor and about one fourth of it in rural areas in the developing world have few options but to live in squalid, unsafe environment where they face multiple threats to their health and security-over 200 million in Asia, over 50 million in Latin America, and over 60 million in the un-serviced areas of Africa's cities and villages which are now growing at a rate unprecedented in human history. These settlements lack the most basic infrastructure and services, causing occupants to be exposed to disease and vulnerable to natural disasters (The world Bank, 2000).

Squatter settlements-katchi abadis are growing at alarming rates in developing countries. They are the products of failed policies, bad governance, corruption, inappropriate regulation, dysfunctional land markets, unresponsive financial systems, and a fundamental lack of political will. Each of these failures adds to the toll on people already deeply burdened by poverty and constrains the enormous potential for human development.

Successive generations of the governments have recognized the positive role that squatter settlements play in housing the millions of poor families. A number of approaches have been

adopted in finding a solution to the dilemma of squatting. Resultantly, the regularization and improvement of squatter settlements/katchi abadis has been recognized all over the world and particularly in the countries of Latin America, Africa and Asia. The emphasis in the adopted strategies has generally remained on providing safe and sanitary housing and potable drinking water, sanitary facilities, basic amenities as well as social services and clean environment.

There are over 3000 katchi abadis in Pakistan with a population approximating 7 million, which has increased from the recognized 2302-katchi abadis with a population of 5.5 million declared eligible for regularization and subsequent upgrading in 1985 by the Government of Pakistan (EUAD, 1987) and about 9 million at present. The government of Pakistan also realized that the programmes of providing public housing have been inadequate to achieve the real target of providing housing, particularly to low-income people. The government decided to take measures for the formalization/regularization and improvement of the katchi abadis, so that these may be made suitable for including in the housing stock. Therefore, different katchi abadi regularization and improvement programmes were started at different times by the government, directing the local authorities for their implementation. However, the government made considerable efforts to regularize and improve the katchi abadis during 1985 to 1990 and a formal Katchi Abadi Improvement Programme (KIP) was launched in 1985 and fully implemented up to 1990. During this period major improvements and regularization of katchi abadis were carried out throughout Pakistan. There are more than 900 katchi abadis in Punjab according to the surveys conducted in 1985 (EUAD, 1987). This paper is about the economic impact assessment/evaluation of the KIP implemented in Punjab from 1985 to 1990. The KIP's economic effects on households' present monthly income, change in monthly income due to intervention of KIP, main source of income, change in the source of households' monthly income, generation of business and employment opportunities due to intervention of KIP, value of land, change in land value, households' expenditure pattern of living, change in expenditure pattern, change in expenditure on health and monthly savings of households were assessed in this research. The main objective of the study is to examine the effects and impact of the KIP on the economical aspects of the residents of the dwellers of katchi abadis.

Materials and Methods

The data were collected both from primary and secondary sources. The baseline data collected by the KIP implementing agencies in 1985 before the intervention of KIP were used as 'comparison' group. Moreover, the cross-sectional design was adopted to collect the primary data through a follow up survey from the field by using well-structured questionnaire. The data collected from secondary and primary sources were used to compare the 'before and after' situation for impact assessment purposes.

Three districts of the Punjab province i.e. Rawalpindi, Faisalabad and Multan as true representatives of three (Northern, Central and Southern) geographical zones of Punjab were selected to assess the economical impact of Katchi Abadi Improvement Programme in Punjab. The main reason for the selection of three districts was to capture more variation and to increase the scope of the study from the viewpoint of generalization of the research findings, which are based on three geographical zones of the Punjab.

Keeping in view the population size and characteristics, kind of the data analysis, time and resources available and practical evidences, a sample of 700 respondents was randomly selected.

Fitzgibbon and Morris (1987) stated a simple principle or rule of thumb that "as the size of the population increases the sample size decreases". This principle was the basis of sample selecting procedure for this study. A list of recognized katchi abadis for each district was obtained from the office of the Directorate General of Katchi Abadis and Urban Improvement (KA and UI), Local Government and Rural Development Department, Government of the Punjab, Lahore. These three lists (one for each district) were used as sampling frame for the study. There are 73 recognized katchi abadis in Faisalabad, 25 in Multan and 8 in Rawalpindi as per the lists provided by the concerned directorate. A proportionate number of katchi abadis from each district, keeping in view the total number of katchi abadis in the respective district, was taken. Therefore, six katchi abadis from Faisalabad, three from Multan and two from Rawalpindi were selected randomly. Fifty percent katchi abadis were selected randomly from the rural area and fifty percent from the urban area for each district. Subsequently, a proportionate number of respondents from the total sample size were taken for each district. The calculated number came out as 483 (69%) respondents for Faisalabad, 161 (23%) for Multan and 56 (8%) for Rawalpindi. The sampling weights technique has been advocated by Kish (1965) and his book on survey sampling is considered one of the standard books in the sampling field. A simple random sampling technique was used to select the required number of katchi abadis from each district both from rural and urban area. A systematic random sampling technique was used to identify the individual respondents for interview from each selected katchi abadi. Only those respondents were interviewed who were living in the katchi abadis since the implementation of KIP (1985) or before it? The interview was conducted only with the head of household. If he/she was not available at the time of visit, a second visit was paid to conduct his/her interview. If, he/she was again not available then the next house was selected for interview.

Results and Discussion

Effects and Impact of KIP on Economic Aspects of Dwellers

The study of economic aspects of the inhabitants of katchi abadis is important for the impact assessment of KIP. A brief description of the households' present monthly income, change in monthly income due to intervention of KIP, main source of income, change in the source of households' monthly income, generation of business and employment opportunities due to intervention of KIP, value of land, change in land value, change in households' expenditure on health and monthly savings of households is presented in the following sections.

Households' Monthly Income and Change in Monthly Income

The monthly income of the household is the most important determinant of housing and the level of poverty. At the household level it determines that how much a family can afford. The distribution of income among households determines number of poor families, and the extent of their poverty. The spatial distribution of income affects the housing characteristics in the settlements.

Table 1: Distribution of respondents according to economic indicators

Economic Aspects	Frequency	Percent
Households' Monthly Income at Present (Rs.)		
Up to 4000	451	64.4
4001-7000	207	29.6
7001-20000	42	6.0
Total	700	100.0
Average Monthly Income Rs. 4535.0	<i>Standard Deviation= 2331.04</i>	
Change in Households' Monthly Income Due to KIP		
Increased	561	80.1
No change	139	19.9
Total	700	100.0
Increase in Households' Monthly Income (Rs.) After the Implementation of KIP		
200-600	204	36.4
601-1000	231	41.2
1001-8000	126	22.5
Total	516	100.0
Mean Increase = Rs. 1220	<i>Standard Deviation= 1517</i>	
Main Source of Household Monthly Income		
Employment	141	20.1
Business	53	7.6
Agriculture	168	24.0
Labour	327	46.7
Other	11	1.6
Total	700	100.0
Change in Households' Source of Income after the Implementation of KIP		
Yes	516	73.7
No	184	26.3
Total	700	100.0
Gain and Loss in Employment Opportunities Due to Implementation of KIP		
Gained	544	77.7
No Change	87	12.4
Lost	69	9.9
Total	700	100.0
Generation and Flourishing of Businesses Due to KIP		
Yes	544	77.7
No	156	22.3
Total	700	100.0
Present Land Value (Rs./marla) in katchi abadis		
Up to 40,000	333	47.6
40,001-60,000	145	20.7
60,001-150,000	222	31.7
Total	700	100.0
Average Land Value per marla Rs. 49,700.0	<i>Standard Deviation= 27382.86</i>	

The analysis of data (Table 1) indicates that 64.4 percent households had monthly income up to Rs. 4000.0 and further 29.6 percent households had monthly income of Rs. 4001-7000.0. The average household monthly income at the time of survey for this study was Rs. 4535.0 with standard deviation of 2331.04 in katchi abadis.

The average household monthly income as per data collected from secondary (in 1985- before the intervention of KIP) was Rs. 900. It is also revealed from the Table 1 that due to implementation of KIP the monthly income of the households was increased. The percentage of the respondents who replied that their monthly income was increased was 80.1. Similarly, the percentage of the households whose monthly income was increased from Rs. 200 to 1000 was 77.5. This all indicated that KIP had very good effects to enhance the structural aspects (monthly income) of the poor squatters. This has helped to reduce the poverty in katchi abadis that was a positive economic impact of KIP's intervention.

Main resource of household income and change in source of income

The main source of household income reflects the pattern of occupation in the settlements. The analysis of data (Table 1) reveals that 20.1% of the respondents were employed and the major occupation in katchi abadis was labour that was 46.7%. The second aspect was change in households' source of income. It was also revealed from the same table that 73.7% of the respondents reported that the main source of household income was changed due to implementation of KIP. This indicated that new businesses were generated and income of the households also increased after the implementation of KIP. This is a positive impact of KIP on the economic aspects of the dwellers.

Gain and Loss in Employment and Change in Generation of Business: The implementation of KIP was an extensive intervention in the katchi abadis and some new businesses were generated. The analysis of the data (Table 1) indicates that the percentage of the respondents who replied that they gained the employment due to implementation of KIP was 77.7. It was also explored during the survey that what type of employment opportunities were gained. It is revealed from the data that mostly the opportunity of labour and employment as well as small business was increased. Similarly, it was also reflected that 77.7% of the respondents replied that the new businesses were generated and existing businesses were flourished due to implementation of KIP. The implementation of KIP has contributed positive effects in reducing the unemployment.

Effects on Property Value: The perceived changes in the land values by the inhabitants have crucial importance for assessing the impact of KIP. The average land value according to the data collected from the implementing agencies was Rs. 2500/marla. It reveals from the Table 1 that 47.6% of the respondents replied that the present land value is up to Rs. 40,000.0 per marla and 20.7% replied that the land value at present in katchi abadis is Rs. 40,001-60,000 per marla, while remaining 31.7% replied that the land value at present is Rs. 60,001- 150,000 per marla. The average land value in katchi abadis at present is Rs. 49,700.0 per marla with standard deviation of 27,382.0. This is a major increase in land value due to implementation of KIP. The utilities and amenities were provided in the katchi abadis through the implementation of KIP. Moreover, the proprietary rights were also granted to the dwellers. These both factors (development and confirming proprietary rights) of KIP have boosted up the land values in katchi abadis. It is a major positive impact of KIP. The residents of katchi abadis in Lahore in a similar study reported on the average an increase of about 100% rise in the property values because of the intervention of KIP (Zaidi, 1982).

Effects on household expenditure pattern

Some important inferences can be drawn from the analysis of present households' expenditure pattern and change in expenditure pattern after the implementation of KIP. Table 2 depicts the average expenditure on various items of living in improved katchi abadis. The average expenditure on food and clothing, health and education in 1985 was Rs. 1521.52, 109.64 and 136.64 respectively with standard deviation of 423.69, 72.58 and 150.35 respectively.

Change in household expenditure pattern

The change in expenditure pattern is a determinant of assessing the relevant changes of expenditure among different items. Table 2 reveals that the expenditures for most of the houses on food and clothing and education were increased. The increase was mostly on food and education (reported by 51.1 and 60.3% respondents respectively), that is positive impact of KIP to improve the health of the residents and education level.

Effects/change in households' expenditure on health

The change in expenditure of households on health is a major element to assess the effects of KIP on the health status of the dwellers. This indicates that due to implementation of KIP the environment and particularly the sanitation of the katchi abadis is improved and at least the rate of waterborne diseases is reduced. The analysis of data (Table 2) reveals that the percentage of households whose expenditure on health was decreased due to implementation of KIP was 85.7. This is a major effect of KIP in improving the health status of the dwellers due to the improvement made in the environment.

The findings of the improvement made in economic aspects are also confirmed by other similar studies conducted in squatter settlements. An evaluation team recently conducted an impact assessment study of a similar project (Alam and Ahmad, 2001) in katchi abadis and slums of Faisalabad, Pakistan. The findings reported by the researchers' team about the improvement made in the economic sector were as under:

- The areas have attracted greater level of business activity;
- Rise in value of land and local properties;
- Reduction in medical expenditure of the household. Most of the community members reported as much as 80% of the expenditure on the purchase of medicines has been reduced following the completion of sanitation project; and
- Land and house prices have risen. A piece of land is now worth of Rs. 19,000/marla compared to Rs. 7000/marla prior to the implementation of up-gradation project.

This increase in land value per unit area in the above study was within a period of 4 years.

Effects on household monthly savings

A key issue in determining the appropriateness of services to low-income population is whether or not a project is affordable. The assessment of savings is important to determine that whether the project is replicable and accessible to certain portion of low-income population?

Table 2: Households' monthly expenditure pattern

Economic Aspects	Frequency	Percent
Monthly Expenditure (Rs.) on Health before the Implementation of KIP		
Up to 149	594	84.9
150-500	106	15.1
Total	700	100.0
Mean Expenditure= Rs.109.21	Standard Deviation = 72.58	
Monthly Expenditure (Rs.) on Education before the Implementation of KIP		
Up to 199	559	79.9
200 and above	141	20.1
Total	700	100.0
Mean Expenditure= Rs.136.64	Standard Deviation = 150.35	
Change in Monthly Expenditure (Rs.) on Food and Clothing After the Implementation of KIP		
Increased	358	51.1
No Change	178	25.4
Decreased	164	23.4
Total	700	100.0
Change in Monthly Expenditure (Rs.) on Health after the Implementation of KIP		
Increased	22	3.1
No Change	78	11.1
Decreased	600	85.7
Total	700	100.0
Change in Monthly Expenditure (Rs.) on Education after the Implementation of KIP		
Increased	422	60.3
No Change	109	15.6
Decreased	169	24.1
Total	700	100.0

Table 3: Households' savings pattern

Change in Households' Savings after the Implementation of KIP		
Yes	35	5.0
No	665	95.00
Total	700	100.0
Amount of Households' Monthly Savings (Rs.)		
Up to 100	8	22.85
101 - 500	27	76.15
Total	35	100.0

The cost of different daily consumption items has tremendously increased in the last 10 to 15 years. The average households' monthly income in katchi abadis was Rs. 4,535.0. It was very difficult for the dwellers of katchi abadis to save. The analysis of the data (Table 3) reveals that only 5.0 percent respondents replied that the household had monthly savings and the remaining 95 percent reported that there was no saving. It is also revealed from the same table that among those 5% who reported household savings the percentage of those households who saved monthly up to Rs. 100 was 22.85% while the percentage of houses that saved monthly Rs. 101-500 was 76.15. Therefore, the intervention of KIP could not increase the savings of the dwellers.

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