

Population and Causes of Agricultural Land Conversation in Hyderabad, Sindh, Pakistan

Moula Bux Peerzado and Habibullah Magsi

Department of Agricultural Economic, Sindh Agriculture University Tandojam, Pakistan;
peerzadomb@gmail.com, magsi@sau.edu.pk

Abstract

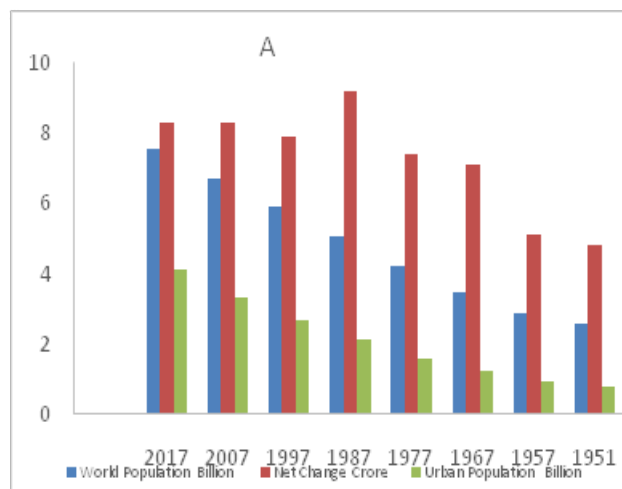
Objective: Pakistan is an agricultural country where 70% of its population directly and indirectly depends upon it. While its contribution in GDP is 19.8 percent, source of livelihood for almost 42.3% people and 44% exports are based on agriculture. On the other hand, the valuable agricultural land has been converting into commercialized zones. Taking it a prime issue of the region, the researchers staged a study, in which possible causes and impacts of agricultural land conversion on the population was discovered. **Methods:** For the purpose, both primary and secondary sources were used to collect data. The available literature divulged that the Hyderabad city is leading in urban population density per square kilometres in the country, 2nd in the world, 6th largest populous city in Pakistan and 2nd in Sindh province of Pakistan. **Findings:** Results found that around 13,000 acres of cultivable agricultural land has been converted in suburbanization vicinities. Hence, the urbanization, overpopulation, more demands for houses and land valuation is main reason behind agricultural land conversion in the study area. **Applications:** It is therefore suggested that there is need of a comprehensive land management system and land use policy to save the conversion of precious agricultural land for future generation's basic needs which will be fulfilled only by agricultural land and its products.

Keywords: Agricultural Land, Conversion, Hyderabad and Pakistan, Impacts, Population

1. Introduction

Over increasing population has some effect on agricultural land, and it is a very serious global concern¹. Land is also a scare resource which is affected by this process of urbanization and agricultural farming. Because, it demands, food, shelter education, health care must raise apace. So, provision and management of economic and social comfort is a dilemma. From very small thing to a big object, office, hospital, university etc. and basic human want come from land²⁻³. Therefore, land has importance in their life; thus, people don't hesitate to scarify their lives, to save it from every obstacle. Land is a single source of livelihood. Pakistan is an agricultural country where 70% of its population directly and indirectly depends upon it. While its contribution to GDP is 19.8 percent, source of livelihood of 42.3% people and 44% exports are agricultural based. While it's agricultural land is converted very

quickly^{4,2}. Which are a difficult and a very big challenge for economist, policymakers, politicians, scientists and every individual who lives in this society?



*Author for correspondence

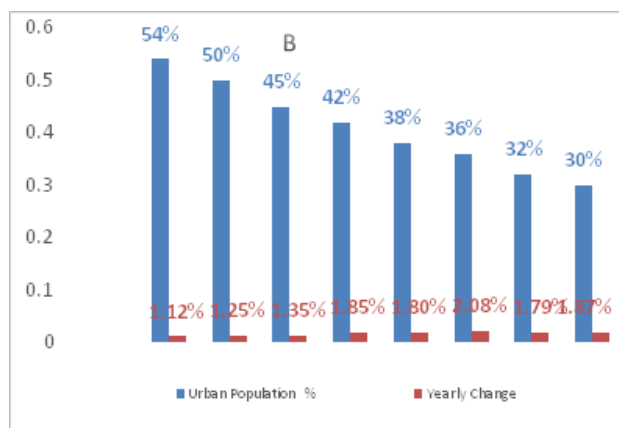


Figure 1. World population, net change, growth rate and urban population share from 1951 to 2017.

Source: UN, 2015, and GOP, 2017.

The way the development and economic process happen in urban areas, it demands more land area for residential, hospitals, schools, industrial and commercial purpose, which increase towards cultivatable land and its periphery^{5,6}. Figure 1A describes the world population is growing by increasing trends from 1951 to 2017 in different decade. In the history of world population growth rate from 1951 to 2017, only one time in 1967 population grow by the growth rate of 2.08 percent, otherwise it remains between 1 percent and 2 percent (Figure 1B). From 1951 to 2017, world population is increasing from 2.58 billion in 1951, 2.87 billion in 1957, 3.48 billion in 1967, 4.23 billion in 1977, 5.06 billion in 1987, 5.91 billion in 1997, 6.71 billion in 2007 and reached at 7.55 billion in 2017. Whereas, in 2007 world population reached at point, where its half population become urbanized and now in 2017 it (urban population) reached at 54 percent (Figure 2A). Similarly, net change in world population from 1951 to 2017 is 4.80 crore in 1951, 5.10 crore in 1957, 7.10 crore in 1967, 7.40 crore in 1977, 9.20 crore in 1987, 7.90 crore in 1997, 8.30 crore in 2007 and reached at 8.30 crore in 2017. In last urban population from 1951 to 2017 is 0.77 billion in 1951, 0.93 billion in 1957, 1.25 billion in 1967, 1.61 billion in 1977, 2.11 billion in 1987, 2.68 billion in 1997, 3.34 billion in 2007 and reached at 4.11 billion in 2017. While urban population change and yearly change in percent from 1951 to 2017 is clear from Figure 2B^{7,8}.

Source: UN, 2015, and GOP, 2017.

Figure explains the situation of Pakistan population and its growth rate from 1951 to 2017 in different decade. Where population of Pakistan is showing continuously

growing trend to 38 million in 1951, 42 million in 1957, 53 million in 1967, 70 million in 1977, 97 million in 1987, 127 million in 1997, 158 million in 2007 and 195 million in 2017.

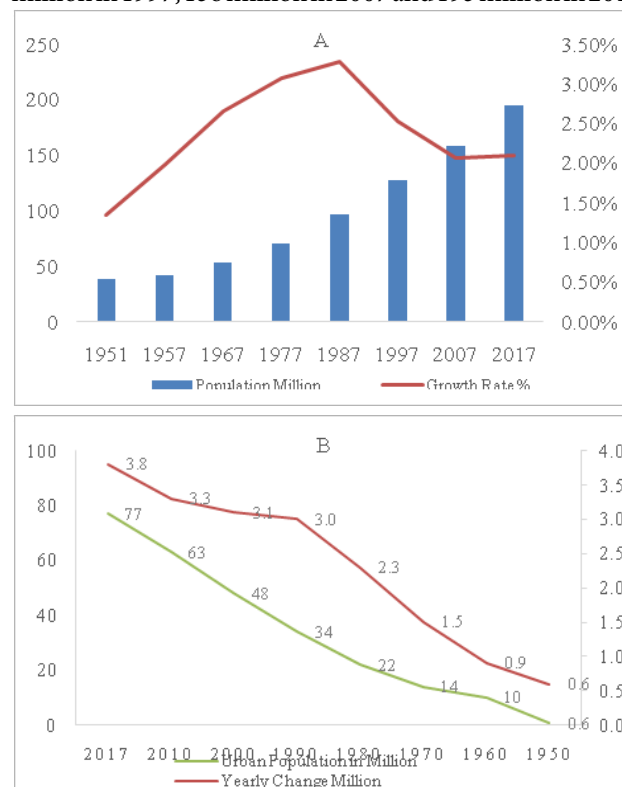


Figure 2. Population, growth rate, yearly change and urban population of Pakistan.

Source: GOP, 2017

While growth rate in different decades is showing increasing and decreasing trends from 1951 to 2017. Population growth rate was 1.35 percent in 1951, 1.98 percent in 1957, 2.66 percent in 1967, 3.07 percent in 1977, 3.28 percent (highest percent of growth rate in the history of Pakistan) in 1987, 2.58 percent in 1997, 2.07 percent in 2007 and 2.10 percent in 2017. While, yearly change in population of Pakistan with urban population proportion from 1951 to 2017 (Figure 3). It shows increasing trend in yearly population change and urban population (1950-2017). In which urban population proportion and yearly change was same with 0.6 million in 1950, whereas showing increasing trend in urban population from 1960-2017, with 10 million in 1960, 14 million in 1970, 22 million in 1980, 34 million in 1990, 48 million in 2000, 63 million in 2010 and 77 million in 2017. Then it is showing changing trends from 1960 to 2017 in yearly population change with 0.9 million in 1960, 1.5 million in 1970, 2.3 million in 1980, 3.0 million in 1990, 3.4 million in 2000, 3.3 million in 2010 and 3.8 million in 2017⁷.

Table 1 that from 1981 to 2017 Hyderabad district population is growing very imensively. While Hyderabad district overall population increased 44 percent in last 36 years (from 1981 to 2017). Similarly, Qasimabad taluka is leading in population growth rate with 269 percent, followed by Latifabad taluka with 58 percent, Hyderabad rural with 41 percent and Hyderabad city taluka with 37%.

Agriculture contributes 19.5 percent in GDP of Pakistan. While it is source of livelihood of 42.3 percent of total population. While, about 70 percent population directly and indirectly depends upon agriculture, and about 45 percent exports are agricultural related commodities. Population in rural areas is continuously declining from 62.1 percent in 2013 to 59.46 in 2017.

Whereas, urban population is increasing from 37.9 percent in 2013 to 40.54 percent in 2107. The population of the country is expected to reach 242 million in 2030 and half of the population will live in urban areas. So, most of the cities are spreading urban sprawl, where agricultural land is present. Therefore, increasing population may a cause of agricultural land conversion in urbanization, might create unemployment, shortage of food, fiber and agriculture production^{7,9}.

Mostly, Pakistan depends upon agriculture, and growing population in urban centers may directly affect agricultural land. Therefore, the aim of this study was to find out these types of issues, related agricultural land conversion, their causes and resolution measures in Hyderabad district of Sindh Province of Pakistan. Thus;

Table 1. Population of Hyderabad district throughout three censuses

Name	Population			Growth rate %
Area	1981	1998	2017	
Hyderabad District (over all)	2022305	2834451	2908147	44%
Taluka Hyderabad City	394853	525299	538957	37%
Taluka Qasimabad	32043	115374	118374	269%
Taluka Latifabad	366799	563761	578419	58%
Taluka Hyderabad Rural	211765	290432	297983	41%

Source: GOP, 2016 and 2017

Table 2. Zones

Zone(s) = 4	Zone(s)	Description	Characteristics
Hyderabad City Qasimabad Hyderabad Rural Latifabad	Central	Where basic amenities were present at near distance	➤ More shops were present ➤ Diverse markets, super markets, super stores available closely. ➤ More Schools and quality education availability at near distance. ➤ Fully equipped Hospitals obtainability
	Peripheral	Where basic amenities were present at distance	➤ A few shops were present. ➤ Single market availability. ➤ Very low no of school presence. ➤ Lac of good and few Hospitals availability.

following specific objectives were studied. First to find out population trends and conversion of agricultural land in study area. Second to find out socioeconomic factors impacting local population regarding conversion of agricultural land in study area. Third to recommend policy, which will expectantly useful to the policymakers in the field of agricultural development, infrastructure development in the study area, particularly in the country? Last but not the least this study would be a good step in field of development of agriculture sector^{10,2}.

2. Methodology

2.1 Location Map of Study Area

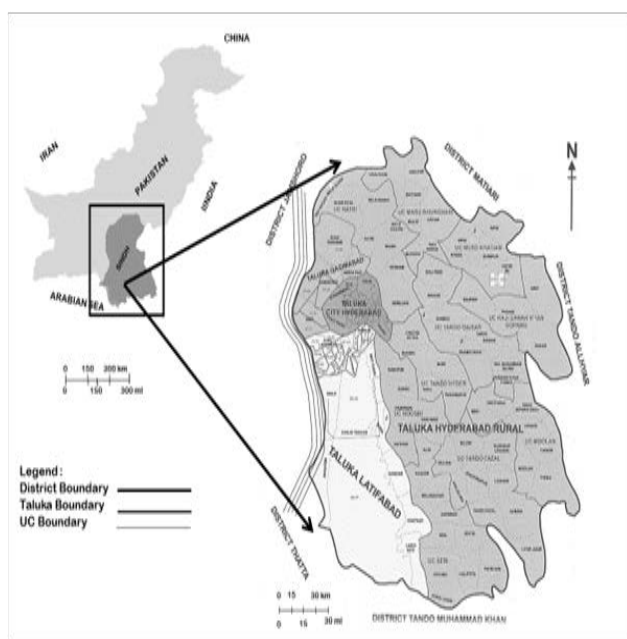


Figure 3. Location map of study area.

2.2 Population, Sample Size, Sampling Technique Data Collection and Analytical Measures

Population of study area was Hyderabad district, where more than 2.5 million people were lived, and sample size was 100 (calculated by online sample size calculator at 5 percent confidence level with 10 percent of error. <https://www.surveysystem.com/sscalc.htm> respondents which were selected purposively to find out reason of agricultural land conversion in study area¹¹. Therefore, purposive sampling technique was used, to fulfill the aim

of the study. So, those respondents were selected to know the real facts about problem. In stage I area was divided in different zones, where population was scattered and available in different four zones, such; as Hyderabad City, Qasimabad, Hydeabad Rural and Latifabad. Then each zone was divided in central zone and peripheral zone (Table 2).

In stage II from each zone 24 (12 from central zone and 12 from peripheral zone) respondents were selected. For validation of results, 20 experts' (like; estate agents, Hyderabad development Authority (HDA), official working in revenue departments) opinions were selected by type scale questions. Due to Non-availability of more experts in peripheral zone only 20 (5 from each zone) experts were selected from central zones. Thus, 116 (96 respondents plus 20 expert opinion) respondents were selected and personally interviewed from study area. For primary data comprehensive questionnaire was developed, from which desired information were gathered. While, secondary data was collected from, UN population division, world demogeographia, and, Economic Survey of Pakistan's various issues, official records and magazines. Once data was collected, subjected to the analysis, in order, to satisfy the objectives of the research. Therefore, descriptive statistics were calculated for both primary and secondary information, i.e., frequency, mean, percentage, etc., while using SPSS and MS Excel.

3. Results and Discussion

Findings of this study show that every 39 people of world are a resident of Pakistan. Its share in world population is 2.56 percent and 6th most populous country of planate. So, his cities are growing very immensely; as an outcome populace of rural areas is decreasing from 62.1 percent in 2013 to 59.46 in 2017. Whereas, urban population is increasing from 37.9 percent in 2013 to 40.54 percent in 2107. The population of the country is expected to reach 242 million in 2030 and half of the population will. Karachi is most leading populous city of Pakistan, and will be world most leading populous city in 2030, and progressed even faster between 1998 and 2011. None of the city other than Karachi in the world history grows fast in ten years with 8.7 million people. Hyderabad of Pakistan is second largest city of Sindh province claimed that it grows even quicker than Karachi "between" 1998 to 2011 from 1.4 to 3.4 (129 percent) million¹¹⁻¹³. While pop-

Table 3. Leading urban areas by urban population density in the world

Name / Geography	Urban area	Population	Year	Base Year Poulation Esimate	Land Area Square Mile	Density	Land Area Km ²	Density	Base Year
Bangladesh	Dhaka	15,669,000	2015	13,600,000	139	112700	360	43,500	2011
Pakistan	Hyderabad	2,920,000	2015	2,650,000	28	104,300	73	40,300	2011
India	Mumbai, MH	17,712,000	2015	16,600,000	211	83,900	546	32,400	2011
India	Kalyan, MH	2,841,000	2011	2,650,000	36	78,900	93	30,500	2011
India	Vijayawada, AP	1,715,000	2015	1,491,000	22	78,000	57	30,100	2011
Bangladesh	Chittagong	3,176,000	2015	2,900,000	43	73,900	111	28,500	2011
India	Malegaon, h p	653,000	2015	576,000	9	72,600	23	28,000	2011
China: SAR Hong Kong	Hong Kong	7,246,000	2015	7,050,000	106	68,400	275	26,400	2011
China: Macau SAR	Macau	589,000	2015	553,000	9	64,400	23	25,300	2011
India	Aligarh, UP	1,020,000	2015	910,000	16	63,800	41	24,600	2011
Syria	Hamah	1,230,000	2015	1,230,000	20	61,500	52	23,700	2015
Pakistan	Karachi	22,123,000	2015	19,530,000	365	60,600	945	23,400	2011
Somalia	Mogadishu	2,120,000	2015	2,120,000	35	60,600	91	23,400	2015
India	Surat, GJ	5,447,000	2015	4,585,000	90	60,500	233	23,400	2011
India	Kannur, KI	2,047,000	2015	1,643,000	35	58,500	91	22,600	2011

Source; Demographia, 2015

ulation of Hyderabad district which was more than 2.9 million in 2017. Explained the situation of the situation of urbanization in study area, where Hyderabad Pakistan was very dense populated area in which more than 42000 people live on one Km² (Geographia 2015), it has directly affected more than 5000 acres of agricultural land according to Hyderabad Development Authority (HDA), and more than 10000 peasants were affected due this process of urbanization was found by survey method¹⁵.

3.1 Population of Major Cities of World, Pakistan by Urban Population Density

3.1.1 Population of Major Cites of Pakistan by Urban Population Density in World

Table 3 describes that Pakistan's Hyderabad was leading after Bangladesh's Dhaka by population of major

Cites by urban population density in world, and Karachi was twelve numbers in the world by population density among top 15 cities of the world.

3.1.2 Population of Major Cities of Pakistan by Urban Population Density in Pakistan

As per Table 4, Hyderabad Sindh Pakistan is leading urban area in urban population density in the country with 40000 people lives on one Km² with 2920000 peoples followed by Karachi with 23411 people, Faisalabad with 19669 and 19231 people on Km². Most of Sindh states were highly dense in urban population density. Table 5 describes the situation of area and population of Hyderabad district throughout all censuses from 1951 to 2017, in which population of Hyderabad was about more than 0.6 (with area of 53871[1331157 acres] km²) million in 1951 and reached at 2.9 million in 2017 (with area of 993 [245376 acres] km²). While there was no urban pop-

ulation in Qasimabad and Latifabad taluka from 1951 to 1972, rest the situation is clear from above table and population is increasing more than 100 times from time to time. Therefore, agricultural land has been affected by due to this process of urbanization in study area. In which about more than 123553 acres of agricultural lands were converted from 1951 to 2017. But, the fact is that about 26000 acres of agricultural land has been converted in urbanization in last 20 years only in new Hyderabad district which is consist of only 993 km². This is the situation

of only Hyderabad district, but the Punjab's (leading population province of Pakistan) Lahore, Faisalabad. Multan, Sialkot, Bahawalpur etc are also facing the same situation of agricultural land conversion^{1,10}.

3.2 Respondents' Information

3.2.1 Seriocomic Conditions of the Respondents

Table 6 describes the situation of education level of total respondent in study area. In which people in peripheral

Table 4. Leading urban areas by urban population density in the Pakistan

Urban area	State	Population	Year	Base Year Population Estimate	Land Area Square Mile	Density	Land Area Km ²	Density	Base Year
Hyderabad	Sindh	2,920,000	2015	2,650,000	28	104,286	73	40,000	2011
Karachi	Sindh	22,123,000	2015	19,530,000	365	60,611	945	23,411	2011
Faisalabad	Punjab	3,560,000	2015	3,560,000	70	50,857	181	19,669	2015
Larkana	Sindh	500,000	2015	500,000	26	19,231	26	19,231	2015

Source; Demographia, 2015

Table 5. Area and population of Hyderabad district throughout all censuses

Name	Population					
Administrative Area	1951	1961	1972	1981	1998	2017
Hyderabad District	625848	936199	1625864	2022305	2834451	2908147
Rural	341859	443442	876567	1111066	1365350	1400849
Urban	283989	492757	749297	911239	1469101	1507298
Hyderabad City Taluka	242651	436171	630624	394853	525299	538957
Rural	850	1634	1993	4978	7696	7896
Urban	241801	434537	628631	389875	517603	531061
Qasimabad Taluka	3370	5225	9448	32043	115374	118374
Rural	3370	5225	9448	14720	12127	12442
Urban	0	0	0	17323	103247	105931
Latif Abad Taluka	3780	7968	14517	366799	563761	578419
Rural	3780	7968	14517	22468	17717	18178
Urban	0	0	0	344331	546044	560241
Hyderabad Taluka	69431	87636	159471	211765	290432	297983
Rural	64779	80487	147769	194464	263986	270850
Urban	4652	7149	11702	17301	26446	27134
Other	306616	399199	811804	1016845	1339585	1374413

Source; GOP, 2016, and GOP, 2017

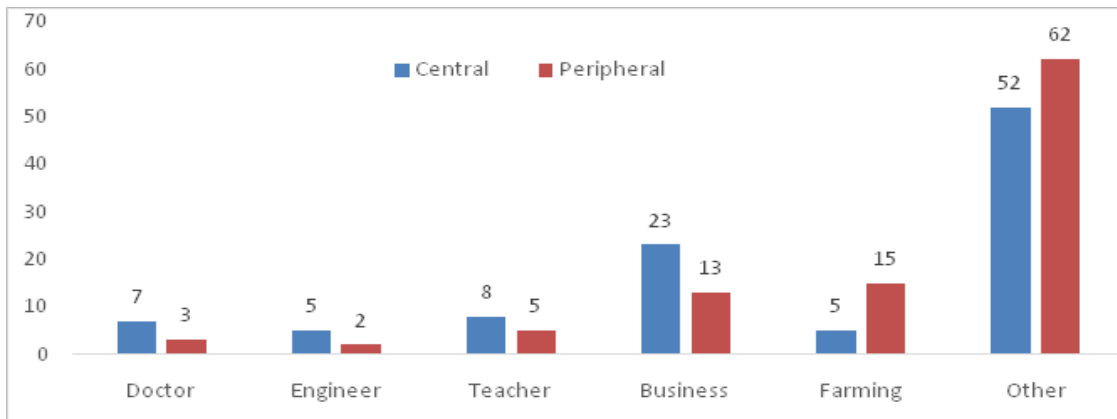


Figure 4. Profession of Respondents.

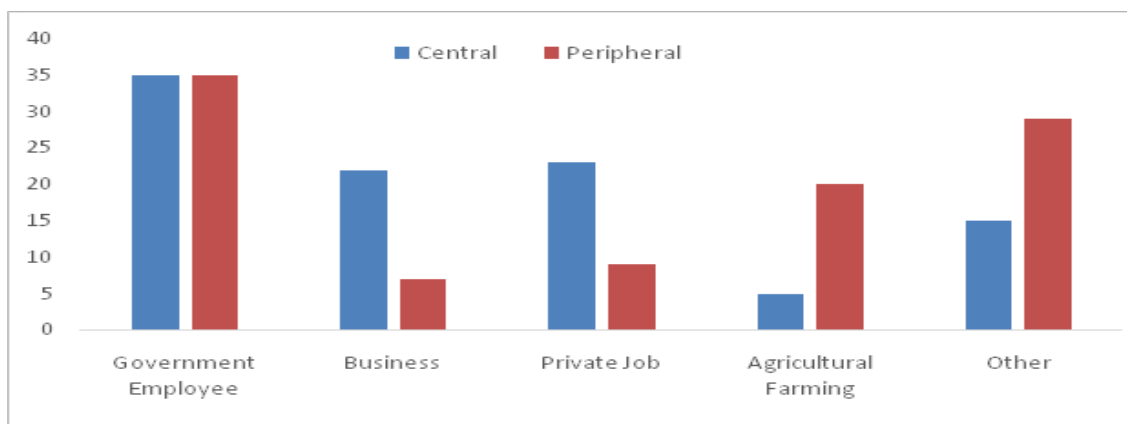


Figure 5. Sources of Income.

zone with 10 percent were leading in (1-5 years) and 30 percent had (6-12 years) of schooling followed by central zone with 8 percent, and 23 percent accordingly. While central zone respondents were leading in (13-18, and 19-22) years of schooling with 54 and 04 percent in study area, followed by 40 and 0 percent in (13-18, and 19-22) years of schooling in peripheral zone. Similarly, peripheral zone people leading in illiteracy by 20 percent and followed by central zone respondents were illiterate by 11 percent in study area. Despite the fact on average 15 percent respondents are illiterate in study area.

Table 7 describes the condition of family education of total respondent, in study area. In which peripheral zone people were leading in (1-5, 6,12) of schooling and in illiteracy with 18 percent, 24 percent and 16 percent followed by central zone with 15 percent, 22 percent and 13 percent respectively. Additionally, central zone people with 50 percent were leading in (13-18) years of schooling in study area followed by peripheral zone respondents with 42 percent. While on average 0 percent respondents

were educated in both zones in (19-22) years of schooling study area.

Table 6. Education Level of Respondent

Description	Respondents N = 96	
	Central zone	Peripheral zone
Average schooling (1-5 years) percent	08	10
Average schooling (6-12 years) percent	23	30
Average schooling (13-18 years) percent	54	40
Average schooling (19-22) percent	04	00
Illiterate members percent	11	20
Total	100	100

Table 7. Education Level of family

Description	Respondents N = 96	
	Central zone	Peripheral zone
Average schooling (1-5 years) percent	15	18
Average schooling (6-12 years) percent	22	24
Average schooling (13-18 years) percent	50	42
Average schooling (19-22) percent	00	00
Illiterate members percent	13	16
Total	100	100

Figure 4 describes the profession of the respondents in study area. In which central zone respondents were leading in profession of doctor with 7 percent, engineers with 5 percent, and teachers with 8 percent and businessmen with 23 percent, followed by 3, 2, 5, and 13 percent in peripheral zone. While on average 15 percent respondents were farmers and 62 percent respondents had other type of profession in peripheral zone followed by central zone with 5 percent farmers and 52 percent other type of profession in study area.

Figure 5 describes the source of income of total respondent in study area. In which source of income of both zones respondents with 35 percent were government job. Similarly, central zone respondents were leading in business with 22 percent and in private job with 23 percent as a source of income followed by peripheral zone respondents with 07 and 9 percent respectively. Whereas on average peripheral zone respondent were leading in agricultural farming with 20 percent and other source of income with 29 percent, followed by central zone with 05 and percent accordingly.

Table 8. Housing characteristics of the respondents

Description (Average)	Respondents N = 96	
	Central zone	Peripheral zone
Age (Years)	47	51
Family size	06	6.7
Family Literacy ratio	90	75
Average monthly income Rs.	96500	85700
Average Area Sq. Yard	153	393
Average Area Ft ²	1381	3533
Average Covered Area Sq. Yard	173	235

Average Covered Area Ft ²	1440	2115
Average Floor Area Ratio (FAR /Ft ²)	1.2	0.83
Average Rent of Home (Rupees)	30475	26858
Average Rent Area / Sq. Yard (Rupees)	02	1.2
Average Rent Area / Ft ² (Rupees)	18	11
Average Price of Home (Rupees)	9087500	7978300
Average Price Area /Sq. Yard (Rupees)	651	332
Average Price Area / Ft ² (Rupees)	5854	2983
Average Years of living in home	21	81
Average Years of buying of a home	25	80
Average Previous price (H.B.F) Rs.	2018750	593750
Average Previous price (Plot) Rs.	558800	106625
Average Familial Property percent	10	90
Average Nonfamilial Property (%)	90	10
Average Agricultural land / acre (Own)	2.4	54
Average Agricultural land / acre (Sold)	1.4	42

Table 8 shows the housing characteristics of the respondents in study area. On average, average age of the respondent was 47 years in central zone and 51 years in peripheral zone. On average, average family size of the respondent was 6 in (central zone) and 6.7 in (peripheral zone). On average, average literacy ratio of the respondent was 90 percent in central zone and 75 percent in peripheral zone. While, on average, average income per month of the respondent was 96500 rupees in central zone 85700 rupees in peripheral zone¹⁵. On average, average area Sq. yard (Ft²) was 153 (1381) of a respondent in central zone and average area Sq. yard (Ft²) was 393 (3533) in peripheral zone. On average, average covered area Sq. yard (Ft²) was 173 (1440) of a respondent in central zone and on average covered area Sq. yard (Ft²) was 235 (2125) in peripheral zone. On average, average floor area ratio Ft² was 1.2 in central zone and average floor area ratio Ft² was 0.83 in peripheral zone respectively. On average, average rent was 30475 rupees in central zone and average rent with 26858 rupees in peripheral zone respectively. On average, average rent Sq. yard (Ft²) was 2 (18) rupees in

Table 9. Causes of selling of agricultural land

Causes and reasons of sale of agriculture land conversion according to respondent, affected people and experts.	Percentage out of 100
	Respondents N = 96
High Land prices	70
Increasing population size	70
Business opportunities are more in urban centers	60
Due to irrigation water shortage land become barren, and non-availability of ground water	60
Daily wages income / earning opportunities are high in centers	55
Attraction of Schools (Education) is good	50
Availability of Service (Job opportunity) is high in centers as compare to rural areas	48
Low physical production of crops	36
Waste Hospitals (Medial facilities) are available in central areas	30
Family problems regarding defragmenting of hereditary land	30
Conflicts of interest among people	30
Inputs costs of agricultural products increase	25
Roads (Infrastructure & Transportation)	25
Availability of Factories	20
Other	15

Table 10. Experts opinions and validation of reasons of agricultural land conversion in the study area

S. No	Reasons given by the respondents	Average response of experts	S. E
01	Induced High Land prices	4.5	0.170
02	Increasing population size	4.2	0.213
03	Business opportunities are more in urban centers	4	0.246
04	Due to irrigation water shortage land become barren, and non-availability of ground water	3.8	0.280
05	Daily wages income / earning is high in centers	3.3	0.282
06	Attraction of Schools (Education) is good	4.2	0.233
07	Waste Hospitals (Medial facilities) are available in central areas	3.9	0.261
08	Availability of Service (Job opportunity) is high in centers as compare to rural areas	3.8	0.250
09	Low physical production of crops	2.2	0.186
10	Family problems regarding defragmenting of hereditary land	3.2	0.293
11	Conflicts of interest among people	2.4	0.209
12	Inputs costs of agricultural products increase	4.2	0.233
13	Roads (Infrastructure & Transportation)	3.7	0.263
14	Availability of Factories	2.2	0.131
15	Other	2.1	0.211

Table 11. Agriculture land conversion has impacts on the respondents in study area

How sale of agricultural land impacted on your life?			
Positively	%	Negatively	%
Children to school (getting better education)	70	Buy Milk from market	90
Economical sound	60	Buy grain (wheat) / flour from market	80
Better health	45	Buy animal, for meat and Eid- ul – Uzha*	73
I have car (own transportation)	30	Land less forever	71
Bungalow and flats in city center	20	Loss to agriculture sector and peasant's communities and their families	30

central zone and average rent Sq. yard (Ft²) was 1.2 (11) in peripheral zone respectively. On average, average price of a home was 9087500 rupees of a respondent in central zone and 7978300 rupees in peripheral zone. On average, average price Sq. yard (Ft²) was 651 (5854) rupees in central zone and average price Sq. yard (Ft²) was 332 (2983) in peripheral zone. On average, average years of living were 21 years in central zone 81 years in peripheral zone. On average, average years of buying were 25 years in central zone and 80 years in peripheral zone. On average, average previous (52 years) price of a home was 2018750 rupees in central zone and 593750 rupees in peripheral zone. On average, average previous (52 years) price of a plot was 558800 rupees in central zone and 106625 rupees in peripheral zone^{16,17}. On average, average familial (non-familial) property of a respondent was 10(90) percent in central zone and 90(10) percent in peripheral zone. On average, average familial agricultural land owned (sold) by a respondent was 2.4 (1.4) acres in central zone and 54(42) acers in peripheral zone.

3.2.2 Reasons of Selling Agricultural Lands

According to the results from respondent's interviews, the following are main reasons of agricultural land conversion in the study area.

Above table shows the causes of sale of agricultural conversion because of high land prices 70 percent, increasing population 70 percent, more business opportunities 60 percent, shortage of irrigation water 60 percent, daily wages income opportunities 55 percent, attraction of school (education) 50 percent, availability of job opportunities 48 percent, low production of crops, medical facilities availability 30 percent, family problems regarding defragmentation of heredity land 30 percent, conflicts of interest 30 percent, input costs 25 percent, infrastructure and transportation 25 percent, availability

of factories and other causes of agricultural land conversion¹⁸.

Therefore, to validate the results expert opinions were collected from expert (Table 9). Mostly results were justified by the expert's opinion in above Table 9. Mostly experts were agreeing with respondents view and only few statements were unjustified by experts.

3.3 Positive and Negative Impact of Agricultural Land Conversion on Respondents

After selling the agricultural lands, the respondents were asked that what is their current socioeconomic positions (see Table 10 & 11). Eid ul – Uzha (Islamic sunnah (compulsory) celebrations in the memory of Hazrat Ibrahim Alaihissalam and his son Ismail Alaihissalam). Table 12 states that Majority 70 percent of the respondents has replied that they are much more satisfied, because their kids are getting better education after selling agricultural land, 60 percent respondent are economical sound, 45 percent respondents have better health facility in study area having a car/bike (own transportation) and 20 percent respondents have own bungalow in city center. While, sale of agricultural land has some negative impacts on respondents. Mostly 90 percent people buy milk and 80 percent buy wheat/flour from market, 73 percent people buy animals for meat, 71 percent people become land less forever and due to loss of agriculture land 30 percent agricultural sector suffers^{19,20}. Therefore, following losses were faced by the respondents.

Due to loss of agricultural land the things and products we owned had lost for forever were milk and its byproducts with 100 percent, wheat/flour 100 percent, poultry farming 60 percent, domestic animal's 47 percent, vegetables 35 percent, edible oil 30 percent and fruits 20 percent.

Table 12. Due to loss of agricultural land, which kind of food product you owned and do not buy from market

Products owned by respondent not buy from market	%
Milk and its byproducts (Yogurt & Lasi)	100
Wheat / Flour	100
Poultry farm (Eggs)	60
Animals (Domestic) and animal for Eid- ul – Uzha	47
Vegetables	35
Edible Oil	30
Fruits	20

4. Conclusion

Most respondents has sold their agricultural land due to high land prices, increasing population, more business opportunities in urban centers, shortage of irrigation water, daily wages income opportunities, attraction of better school (education), availability of job opportunities, low production of crops, medical facilities availability, family problems regarding defragmentation of heredity land, conflicts of interest, input costs, infrastructure and transportation, availability of factories and other causes of agricultural land conversion in study area. While, it has left some positive benefits on the respondent's life, i.e., kids are getting better education, become economical sound, availability of better health facility, having a car/bike (own transportation) and have own bungalow in city center. Where it has left negative marks and impacts on respondents, mostly people buy milk, wheat/flour from market, buy animals for meat very costly, become landless forever and due to loss of agriculture land regularly agricultural sector suffers harshly. Government should make rule to restrict that no further agricultural land can be converted and urban centers may be built where unfertile and low quality agricultural land is present.

5. Acknowledgement

The authors would like to thank Higher Education Commission (HEC) Pakistan, for financing this project under Indigenous Research fellowship. The error in the interpretation of those of the authors.

6. Reference

1. Ha K, Hung M, Magsi PG, Hieu H, Hao OM. Evaluating and Orienting the Agricultural Land Use Systems to Serve the Land Use Planning Progress in Viet-Yen District, Bac-Giang Province, Vietnam. *Indian Journal of Science and Technology*. 2016 May; 9(18).
2. Peerzado MB, Magsi H, Mangan T, Sheikh MJ. Socioeconomics impacts of land valuation and infrastructural development in Hyderabad Sindh, Pakistan. *Proceedings of the 4th International Conference on Energy Environment and Sustainable Development*. 2016 Nov; p. 1-6.
3. Magsi H, Torre A, Liu Y, Sheikh MJ. Land use conflicts in developing counties; proximate driving forces and preventive measures. *The Pakistan Development Review*. 2017; 56(1):19-30.
4. Magsi H, Torre A. Social network legitimacy and Property right loopholes: Evidences from an infrastructural water project in Pakistan. *Journal of Infrastructure Development*. 2012; 4(2):59-76. Crossref.
5. Liu Y, Fang F, Li Y. Key issues of land use in China and implications for policy making. *Land Use Policy*. 2014 Sep; 40:6-12. Crossref.
6. Bertaud A. Land Markets, Government Interventions, and Housing Affordability. *Wolfensohn Center for Development*. 2010.
7. Gop (Grand Old Party). *Economic Survey of Pakistan 2016-17*. Advisor's Wing, Islamabad, Pakistan. 2017.
8. United Nations. Department of Economic and Social Affairs, Population Division. *New York: United Nations: World Population Prospects*. 2017.
9. Gop (Grand Old Party). *Economic Survey of Pakistan 2014-15, Population, Labor Force and Employment, Economic Advisor's Wing, Islamabad, Pakistan*. 2016; p. 1-15.
10. Chithra K, Anilkumar PP, Naseer MA. Quantification of Residential Land Use Characteristics from an Impact Generation Potential Perspective. *Indian Journal of Science and Technology*. 2015; 8(28):1-7. Crossref, Crossref.
11. Creative Survey System. Available from: <https://www.surveysystem.com/sscalc.htm>. Date Accessed: 02/09/2016.
12. Wendell C. Pakistan where the population bomb is exploding. *New Geography*. 2015 Sep.
13. Grand Old Party. *Population census, Pakistan bureau of statistic, Islamabad*. 2016.
14. GoS (Grade of Service). *Development Statistics of Sindh. Planning and Development Department Government of Sindh Karachi*. 2011; p. 1-48.
15. Ding C, Lichtenberg E. Land and Urban economic growth in China. *Journal of Regional Science*. 2011; 51(2):299-317. Crossref.

16. Ding C, Zhao X. Assessment of Urban Spatial-Growth Patterns in China. During Rapid Urbanization. Chinese Economy. 2010; 44(1):46-71. Crossref.
17. Ding C, Zhao X. Land market, land development and urban spatial structure in Beijing. Land Use Policy. 2014; 40:83-90. Crossref.
18. Demographia world urban areas (Built up areas of world agglomerations), 11th annual Edition. 2015; p. 1-144.
19. Liv O, Inge T, Gitlesen JP. Housing Price Gradients in a Region with One Dominating Center. Journal of Real Estate Research. 2017; 29(3):1-26.
20. Magsi H, Torre A, Liu Y, Sheikh MJ. Land use conflicts in developing counties; proximate driving forces and preventive measures. The Pakistan Development Review. 2017; p. 19-30.