

Reasons of Agriculture Land Conversion into Non-Agriculture Activities: A Case of Rural Area of District Peshawar

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<https://doi.org/10.62345/jads.2024.13.2.112>

Abstract

Nowadays, most agricultural land is converted into non-agriculture activities in the district of Peshawar, which has caused a food crisis for future generations. Seeing its importance, the present study was carried out in 2024 in the district of Peshawar. The primary objective is to discover why agricultural land is converted into non-agriculture activities in the study area. District Peshawar consists of four towns. One village in each town was randomly selected, namely Qazi Killi, Tarnab, Palosi Maghdazi, and Musa Zai. The total number of respondents was 10496 in the four villages. Yamani formula was used, and the sample size was fixed to 385. Then, through the allocation proportion method, 385 respondents were distributed among the selected villages. Data were collected from the respondents through a questionnaire schedule, and descriptive statistics were used for data analysis. The result revealed that urbanization, low per-acre productivity, unemployment, availability of fewer facilities on the agriculture farm, less security, no awareness of the crisis of food in the future, population pressure and hereditary division are the reasons for agriculture land conversion into non-agriculture activities while above ninety per cent respondents claimed the mentioned reasons for agriculture land conversion to non-agriculture activities. Based on problems, the study recommends that the government should provide facilities to rural farmers in the village to enhance per acre agriculture productivity; rural industries should be developed for the generation of employment; strict rules should be applied for controlling agricultural land conversion into non-agriculture activities by the government; awareness should be given about future food crisis to the community of the study area.

Keywords: Agriculture Land, Conversion, Reason, Non-Agriculture activities, District Peshawar

Introduction

So many factors have converted agricultural land into non-agriculture activities in the district of Peshawar. It has damaged the green belt of the study area and decreased agriculture production while increasing the price level of food items. Agriculture plays a significant role in the survival of life, and with food, the survival of life in the study area is possible. Due to population pressure, more houses are required. Through house schemes, more land comes under the building, which converts agricultural land into houses, parks, roads and industries; however, it has affected agricultural production negatively. Land prices increasing day by day increase the farmer's interest

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Compliance with ethical standards: There are no conflicts of interest (financial or non-financial). This study did not receive any funding.

in another sector due to less return from agriculture. So, it migrates farmers to the city for higher returns. They sold their agricultural land in the villages and started non-agriculture activities in the city, which also put pressure on the city and made the environment unfavorable. Land degradation (LD) is also a significant problem in agriculture worldwide. Land degradation negatively affects fertility, which directly affects agriculture production. On the other hand, household size and farming experience positively correlate with land degradation. The land is degraded by soil erosion, tillage erosion, poor land management practices and water degradation, which affect agriculture production while, in the long run, affect the socioeconomic condition of the rural community, so it concluded that land degradation is also the reason for land conversion into non-agriculture activities for high return in District Peshawar (Ullah et al., 2019).

Agricultural land has decreased by 9% in the past two decades. The results show that age, income, land ownership, farm inheritance by successors, social networks and lack of basic facilities are factors for selling agricultural land. However, low returns from agriculture are also the main reason for agricultural land selling. Farm activity gives less benefit to farmers, so they sell the land of agriculture and start other non-agriculture activities that provide more returns to them. So, the government is responsible for delivering a prior price policy to farmers to encourage them to cultivate crops in the long run for their high returns (Rajpar et al., 2019). Most paddy fields were converted for homes and housing, partially used for economic activities with higher land rent, such as shops, boarding houses, and restaurants. The perceived impact has increased the air temperature and air pollution, which have reduced employment opportunities and income from the agricultural sector (Fandani & Harini, 2020). The total population of Hyderabad district has increased by 44% in the last 36 years (from 1981 to 2017). Seventy per cent of the agricultural land in the Hyderabad district has been sold and converted into the construction of buildings. This has led to the city's food shortage and damaged Hyderabad district's ecosystem (Moula et al., 2019). Samiullah et al. (2018) investigated that land holdings play a significant role in developing a country. In Peshawar district, year by year, the land is fragmented into parts through inheritance, which decreases the agriculture production of the district Peshawar. Generally, in Pakistan, particularly in district Peshawar, agricultural land was mainly converted to house buildings and roads by building societies, which has polluted the environment of Peshawar city. Seeing its importance, the present study was arranged to investigate the reasons for agricultural land conversion into non-agriculture activities in rural areas of Peshawar district.

Materials and Methods

The universe of the study is district Peshawar. The total area is 1257 sq km. Its total population, according to the census of 2017, is 4269079. The population is further divided into males and females. The male population is 2201257, and the female is 2067591. The area is divided into rural and urban. The rural population is 2299037, and the metropolitan is 1970042, while the total household number of district Peshawar is 489843, the rural is 253787, and the urban household is 236056. The total number of councils in district Peshawar are 227, while the village council number is 216, and the neighborhood council number is 11. The urbanization process is at the top, and many buildings have been constructed on the ring road, which has occupied huge agricultural land. In rural areas, farmers cultivate their land and grow different crops and vegetables. District Peshawar consists of four towns. Due to financial and time constraints in each city, one village, namely Qazi Killi, Tarnab, Palosi Maghdazi, and Musa Zai was randomly selected. The total household in Qazi Kili is 4316, Tarnab 2212, Palosi Maghdazi 1761 and Musa Zai 2207. The total household number is 10496 in four villages. Yamani Formula was used, and the sample size was

fixed to 385. Then, through the allocation proportion method, 385 were distributed among the selected villages, while the lottery method was used to select respondents in each town. The detail is given in table 1.

Table 1: Sample distribution in four villages of the study area

Name of Town	Name of Village	Household Number	Sample Size
Town-I	Qazi Killi	4316	158
Town-II	Tarnab	2212	81
Town-III	Palusi Maghdazi	1761	65
Town-IV	Musa Zai	2207	81
Total		10496	385

Source: Local Government Census 2017

The data has two types' namely secondary and primary data. Secondary data was collected from the published literature while primary data was collected from the selected respondents with the help of interview schedules. The collected data was edited and then it was entered into the computer. After entering in the computer then the said data was analyzed. Univariate and descriptive statistics for data analysis were used. Table 2 shows the conceptual framework of the study whose detail is given below:

Table 2: Conceptual Framework of the Study

Independent Variables	Dependent Variable
Urbanization	Non Agriculture Activities
Low Productivity of Agriculture Land	
Low Permanent Employment on Agriculture Farm	
Less Facilities Available on Agriculture Farm	
Less Security Available on Agriculture Farm	
No Awareness of the Food Crisis in the Future	
Population pressure	
Heredity Division of the Agriculture land	

Results and Discussion

This section discusses the result after data analysis. The main focus of the study was to find out local perceptions regarding reasons of the land conversion into non-agriculture activities in the study area. It explains agriculture land holding, agriculture farming income, annual business income and perception regarding different reasons of agriculture land conversion into non-agriculture activities. The detail is given below:

Agriculture Landholding

Due to city expansion the landholding of the sampled respondents were decreased and now it come into Kanals in the study area. Table 3 indicates that 81% of the respondents have no land. 2% of the respondents have one Kanal land, 11% of the respondents have two Kanals land, 3% of the respondents have three Kanals land, only, 01% of the respondents have four Kanals land and the remaining 01% of the respondents have five and above five Kanals lands. It was concluded from the data that land possession was decreased year after year in the study area. Urban sprawl push

the prices of land and people sold their land on housing society in order to start small business to increase the incomes which have converted the agriculture land into business due to less return from the agriculture. Samiullah et al. (2018) investigated that land holding play great role in the development of a country while in Peshawar District year by year the land is fragmented into parts through inheritance and become small and small which affect the agriculture production of district Peshawar. Ali et al. (2019) analysis explored that the cultivated land area was reduced from 146 square kilometer to 91 square kilometers due to loss of land from 55 square kilometer area between the times of 1986 to 2015 in rapid construction. The annual reduction of land lose was 1.6 square kilometers.

Annual Agriculture Farming Income

Income of the family plays important role in the socialization process of its members. Table reveals annual agriculture farming income wise distribution of the sampled respondents of the study area. According to table 81% respondents have no income from agriculture land. Only 19% respondents have income from agriculture sector. According to table 2% fall in income category Rs.10000-Rs.15000 while 6% fall in income category Rs.15000--Rs.20000. Similarly 1% respondents come under income category Rs.20000--Rs.25000 and 5% respondents fall in income category Rs.25000---Rs.30000 while 1% respondents come under category Rs.30000---Rs.35000 however 4% come under category Above-Rs—35000. The highest respondents were found in income category Rs.15000--Rs.20000 which is followed by income category Rs.25000---Rs.30000. The lowest income category respondents was Rs.20000--Rs.25000 and Rs.30000---Rs.35000 which is followed by income category Rs.10000-Rs.15000. The table indicates that people of the area are taking less interest in farming due to involvement in other small business and return. The per acre return of agriculture is lower than non-agriculture activities in the study area. Therefore, the farmers try to sell their land on house scheme builders to start any business for their high return. As they know that maximum agricultural land was occupied by building in the study area. Meijerink and Roza (2007) reported that agriculture play great role in the development of a country not only for food crisis solution but also generating in employments and environmental cleaning. It provides oxygen to the world for respiration and without oxygen the survival of life in this world is impossible, so if the urbanization process to convert the agriculture land to building. Through this way food will be affected which in the long run make the environment unfavorable. Such type urban sprawling activities in the study area not only affect the food but also make the environment polluted. Similar situation is also existed in Peshawar district.

Annual Business Income

Table 3 below shows the annual business income wise distribution of the sampled respondents in the study area. In the study area majority people depend on business income which mostly link with their education, income and health. According to table in income category Below Rs.100000 the respondents' number is 5%, while in income category Rs.100001-Rs.200000 the respondents' number is 6%. Similarly in income category Rs.200001-----Rs.300000 the respondents number is 16% however in income category Rs.300001----400000, the respondents number is 17% and in income category Rs.400001----Rs.500000 the respondents number is 14% while in income category Rs.500001----Rs.600000 the respondents number is 17% but in income category above Rs.600000 the respondents number is 25%. The highest respondent's number is found in income category above Rs.600000 which is followed by income categories Rs.300001----Rs.400000 and Rs.500001----Rs.600000.

Darin et al. (2017) study revealed that income play great role in socioeconomic uplifting and agriculture development while through business more income is earned by respondents which mostly link with their social activities. They make the house with the help of this income while from agriculture sector the return is very low and because of less return majority people have made building on the agriculture land and disturbed the ecosystem of the area. Now very less land has been left for agriculture activities in district Peshawar. Slowly gradually the agriculture land is converting into building in district Peshawar. Zhang et al. (2023) investigated that income is the factor which pushes the socioeconomic condition of the country. Income is received from different sources in day to day life. All people who live in this world focus on income but not care of the ecosystem which latter on affect the life expectancy of the people of the world. Land holding play great role in income increasing. All people try to use for the beneficial of their family.

Table 3: Agriculture land holding, annual agriculture farming income and annual business income wise distribution of the sampled respondents in the study area

i. Agriculture landholding distribution of the sampled respondents in the study		
Agriculture Land wise Category	Frequency	Percent
No Agriculture Land	312	81
Below 1 Kanal	06	02
2 Kanal	42	11
3 Kanal	13	03
4 Kanal	04	01
5 Kanal	04	01
Above 5 Kanal	04	01
Total	385	100
ii. Agriculture farming income wise distribution of the sampled respondents in the study area		
Income wise Category	Frequency	Percent
No Income	312	81
Rs.10000-Rs.15000	8	02
Rs.15000--Rs.20000	25	06
Rs.20000--Rs.25000	4	01
Rs.25000---Rs.30000	18	05
Rs.30000---Rs.35000	4	01
Above-Rs—35000	14	04
Total	385	100
iii. Annual businesses income distribution of the sampled respondents in the study area		
Business Income Wise Category	Frequency	Percent
Below Rs.100000	21	5
Rs.100001-Rs.200000	24	6
Rs.200001,-----Rs.300000	56	16
Rs.300001----400000	67	17
Rs.400001-----Rs.500000	53	14
Rs.500001----Rs.600000	66	17
Above Rs.600000	98	25
Total	385	100

Source: Field Survey 2023

Agricultural land provides products for survival of life while un-proper conversion of agriculture land make the ecosystem unfavorable which are dangerous for the human life. However, it creates

a change in the climate and depleting the ozone which spread different disease in the world and finally disturb the life of the future generation. Similar situation is also observed in district Peshawar. Huge land of agriculture was converted into building and road which has destroyed the ecosystem of district Peshawar. The study concludes that income is the major factor. The people focus on income how to increase the income level of their families to enjoy their life but do not care of the future generation how they will be lived in the future, however, if you compare, the past and the present record of the Peshawar district, there is clear difference in the past and today temperature which was caused by agriculture land conversion into non-agriculture activities for income increasing.

Urbanization

Table 4 shows perception regarding agriculture land conversion into non-agriculture activities due to urbanization in the study area. About 89 % respondents claimed that the main reason of the conversion of agriculture land is urbanization. The return from agriculture land is very less and because of this the farmer sell their land in the villages and migrate to city for their high return which in the long run put pressure on the city and make the environment unfavorable while to disturb the ecosystem of Peshawar city and decrease the agricultural production. Similarly 6% respondents reply that urbanization is not the main reason of agriculture land conversion into agriculture activities. They told that there is no opportunity of employment in the villages and the people are poor to purchase input for their agricultural activities which give less return to them which is not sufficient for their survival of life. However 5% respondents argued that they have no knowledge about the reason of agriculture land conversion into non-agriculture activities.

Ali (2014) recorded that the total agricultural land in the Provincial Capital was 109,883 acres in 2001-2002 while in 2013-2014 it was 106576 and deputy commissioner record shows the total reduction in agriculture land was 3,037 acres while Gandapur also stressed that Nowshera agriculture land too was under pressure due to construction of house schemes. He told that the Nowshera land was 289,094 acres since 2000 while on 6865.5 acres houses have been built. So it has decreased the agriculture land of Nowshera which reduced the production of agriculture. The data shows that this problem is not only in Peshawar district but also it also facing to other districts of the KP. It is the alarming issue due to population growth in the world. Day by day the population is increasing which demand more food, water and other facilities in the country, so per capita resources are decreased which create house and food crisis in the world. Therefore it is necessary for all government of the world to care the agriculture land conversion into non-agricultural activities. Malik and Ali (2015) argued that when urbanization increases then more land of agricultural is converted into non-agricultural activities which decrease the production of agriculture in the country and create the problem of food crisis.

Table 4: Perception Regarding agriculture land conversion into non-agriculture activities on the basis of urbanization of the sampled respondent in the study area

Particular Item	Number	Percentage
Yes	343	89
No	23	06
Uncertain	19	05
Total	385	100

Low Agricultural Productivity

Table 5 indicates the perception regarding agriculture land conversion into non-agriculture activities due to low agriculture productivity of the sampled respondents in the study area. According to table 92% respondents claimed that due to low productivity of agriculture, the farmer sold their land on house schemes society's members on high price. They invest this amount on other non-agriculture activities in the city for high return while 5% go against this statement. They told that the village environment was not good and the opportunity of employment was less in the village than the city. Therefore they sold the land and left the village and migrate to city for employment opportunity. Similarly 3% respondents have no knowledge about the land conversion into non-agriculture activities. Quasem (2011) studied that Bangladesh is a land scarce country and 12.5 decimals is per capita of cultivated land and 1% farm land is converted into non-agricultural activities per year. It affects the agriculture production which is the main reason of food crisis. The main reason was found land ownership of a household and the non-agriculture activity of the household head. Annual conversion of farm land of the country is 0.56 and loss of agricultural production is between 0.86 and 1.16. The majority land is used for construction of houses and followed by road and establishment of business enterprises. Similar condition is also existed in District Peshawar. Majority land was used for construction of houses and for construction of road, while some land used for business establishment. Yusriyadi and Aminah (2019) investigated that there are so many factors which compel the farmer to sell their land on house societies members in the study area. The main reason is the income level which they are not sufficient for their house requirement and the second is the law and rule regulation which is present in the written while it did not come in action. These two are the main reasons for conversion of agricultural land to non-agriculture activities. Similar situation is also seen in the study area. The literature concludes that agriculture productivity is the main reason of agriculture land conversion to non-agricultural activities. The income level of the farmer is very low to purchase inputs for their production enhancement. They get less productivity which do not fulfill their requirement of the household, so for high return they sell the land and invest in non-agriculture activities in the city for high return.

Table 5: Perception Regarding agriculture land conversion into non-agriculture activities on the basis of low agriculture productivity of the sampled respondents in the study area

Particular Item	Number	Percentage
Yes	355	92
No	018	05
Uncertain	012	03
Total	385	100

Low Permanent Employment

Table 6 shows perception regarding agriculture land conversion into non-agriculture activities due to low permanent employment in agriculture farm of sampled respondents in the study area. According to table 90% respondents claim that due to low permanent employment in agriculture farm the people sold their land and they migrate from villages to city for high return for survival of life. The employment opportunities in rural area is less than the city while 5% go against this statement however 5% say nothing about the situation why they have left the agriculture sector. Xu (2022) argued that due to less employment in agriculture has positive impact on agriculture land transferring to non-agriculture activities. Due to less employment in agriculture the farmer

turned to city and sold their land on house societies members on high price. They start other non-agriculture activities in the city for high return. They start business in the city and transfer their agriculture assets to city for high return. There in city the off employment is more and the return is more and they have sufficient money in their hand for enjoyment of life. Such type situation is also present in rural area of district Peshawar. The employment chances in rural is less, so all people try to migrate to city along with their agriculture assets. They sold the land on house Scheme Societies on high price. Slowly gradually interest in the village is negatively affected which in the long decrease the agriculture production and create the food crisis in the rural area and also put pressure on the city which affect the green belt of the city and make the environment unfavorable which latter on multiply the disease in the project area.

Table 6: Perception Regarding agriculture land conversion into non-agriculture activities on the basis of low permanent employment on agriculture farm of sampled respondents in the study area

Particular Item	Number	Percentage
Yes	347	90
No	020	05
Uncertain	018	05
Total	385	100

Availability of Fewer Facilities

Table 7 indicates the perception regarding agriculture land conversion into non-agriculture activities due to fewer facilities available on agriculture farm of the sampled respondents in the study area. According to table 91% respondents told that the facilities on agriculture farm is less than the city. There is more electricity shortage in the villages. One hour the electricity is available while one hour is not available however sometime the shortage is more than the 12 hours which mostly affect the life of the local people, so they sold their land on house scheme society's member on high price and migrate to city for better life. Similarly 4% go against this statement while 5 percent respondents have no knowledge about the situation why the people left the villages and migrate to city. So many problems are facing to them while in the city these problems are less than the villages. So the people sold the land in the villages while go to urban area for higher facilities namely electricity, hospital, and university and colleges.

Table 7: Perception Regarding agriculture land conversion into non-agriculture activities on the basis of fewer facilities available on agriculture farm of the sampled respondents in the study area

Particular Item	Number	Percentage
Yes	350	91
No	014	04
Uncertain	021	05
Total	385	100

Less Security

Table 8 shows the perception regarding agriculture land conversion into non-agriculture activities due to less security available in the village of the sampled respondents in the study area. According

to table 91% respondents told that less security is the main reason of land conversion into non-agriculture activities in the study area while 4% say no and 5% claimed that they have no knowledge about the situation which factor is the main reason of the land conversion into non-agriculture activities in the study area. The researcher is witness that in village the security is less. There more criminal cases occurred which for long time disturb the environment of the study area while sometime Dacoit attack on the houses and kill the family member. The bad environment pulls the people from the village to the city for the purpose of security. They sell their land in the villages and migrate to city for safe life. Demirel and Matejova (2023) have studies in Turkey and they argued that security play great role in the development of a country. Without security the development of a country is impossible. Majority people migrate to those sites where the security is good. The people from rural mostly migrate to city for high security while sometime this theory is failed. In the study area majority people due to threat migrate to city and put pressure on the city population on urban area, so they sell their land in villages and come to city for quality life. So the study conclude that good security attract the people to their sites. Such type situation is also existed in rural area of district Peshawar. The number of criminal cases in rural area is more and due to security the people fled away from the rural area to city for security purpose. They sell the land and live in the city and enjoy the life.

Table 8: Perception Regarding agriculture land conversion into non-agriculture activities on the basis of less security available in the village of the sampled respondents in the study area

Particular Item	Number	Percentage
Yes	350	91
No	014	04
Uncertain	021	05
Total	385	100

Awareness for Food Crisis in the Future

Table 9 shows perception regarding agriculture land conversion into non-agriculture activities on the basis of non-awareness for food crisis in the future of the sampled respondents in the study area. According to table 91% say it is correct that food crisis will be occurred in the future while 4% say no however 5% claimed that they have no knowledge about the future. The majority respondents told that they see to high return what will be occurred in the future about the food crisis while they see to the present but don not care of the future generation. Kashmir Reader Desk (16, Feb, 2021) deliver an awareness program in a joint meeting. There majority directors of the agriculture wings were present. The meeting concluded that the agriculture land conversion into non-agriculture activities create different problems for the future generation. They disturb the ecosystem which make the environment polluted and affect the health as well as the food of the future generation. Such type situation is also present in the study area. The house societies convert the agriculture land into different enterprises namely CNG and Petrol Station, building etc. which in the long run increase the temperature of the air which affect the agriculture production in the future.

Table 9: Perception Regarding agriculture land conversion into non-agriculture activities on the basis of non-awareness for food crisis in the future

Particular Item	Number	Percentage
Yes	350	91
No	014	04
Uncertain	021	05
Total	385	100

Population Pressure

Table 10 indicates perception regarding agriculture land conversion into non-agriculture activities on the basis of population pressure of the sampled respondents in the study area. According to table 94% claimed that population pressure is also the reason which converts agriculture land into non-agricultural activities in the study area while 2% told that no while 4% claimed that they have no knowledge about the situation which factor is responsible for agriculture land conversion into non-agricultural activities. The resource of the world is fixed while the population is not fixed. Day by day it decrease per capita land and make the environment unfavorable. There is a negative association between per capita land decreasing and population pressure which latter on create problem of the food which affect the survival of the world population. So, more population wants more resources in the world. Each country of the world tries how to decrease population growth of their country. Halim et al. (2013) explained that population pressure required more resource for the future. They want houses, water, road and food. Through population pressure more road and houses are constructed which occupies the agriculture land and disturb the food system of the future. For this problem solution the researchers of the world try how to increase the food production in the world. They invent the new variety and make the road for easy access to farm. So this paragraph conclude that population growth is also the key reason for agriculture land conversion. Similar situation is also observed in District Peshawar. Due to population pressure the urban area spread to rural area and on majority land different enterprises have been developed which have occupied mostly the land of agriculture which latter on affect the agriculture production.

Table 10: Perception Regarding agriculture land conversion into non-agriculture activities on the basis of population pressure of the sampled respondents in the study area

Particular Item	Number	Percentage
Yes	360	94
No	010	02
Uncertain	015	04
Total	385	100

Hereditary Division of Agriculture Land

Table 10 indicates perception regarding agriculture land conversion into non-agriculture activities on the basis of hereditary division of the sample respondents in the study area. According to table 94% respondents are claimed hereditary division and 2% respondents say no but 4% respondents have no knowledge about the reason of agriculture land conversion. So majority respondents voted to hereditary division. They told that hereditary division divided the land into small parts which are not capable for high production, so on this land they make the house or sell the land for high

return. On this amount they start other agriculture activities for high return. Sometime they made shop and give on rent while sometime sell on house scheme committee for high price. The discussions conclude that hereditary division also the reason for agriculture land conversion into non-agriculture activities. Samiullah et al. (2018) investigated that land holding play great role in the development of a country while in Peshawar district year by year the land is fragmented into parts through inheritance and become small and small which affect the agriculture production of district Peshawar. Gajendra et al. (2005) investigated that land fragmentation through hereditary division has affected the production of agriculture in South Asia. Through hereditary division the land divided into parcel where the modern technology application is impossible for higher production. Therefore the farmer sold their land on house societies on high price. They paid high amount which they used in the city for high return. Such type situation is also observed in district Peshawar. The people sold their land on house scheme society's member on high return. They start business in the city for high returned. Through modeling the agriculture land is occupied which in the long run affect the production of agricultural. The discussion concludes that hereditary division is also the main reason of agriculture land conversion into non-agriculture activities in the study area.

Conclusion and Recommendations

The study concludes that urbanization; low per acre productivity; unemployment; availability of fewer facilities on the agriculture farm; less security; no awareness for the crisis of food in the future; population pressure and hereditary division are the reasons for agriculture land conversion into non-agriculture activities in the study area. On the basis of problems it is necessary for the government to provide facilities to rural community of district Peshawar for controlling the agriculture land conversion into non agriculture activities in the study area. Government should provide facilities to rural farmer in the village to enhance per acre agriculture productivity in the study area; rural industries should be developed for generation of employment; similarly provide hospital, college, university facilities for improvement of socioeconomic conditions for banning the agriculture land conversion into non agriculture activities; strict rules should be applied for controlling agriculture land conversion into non agriculture activities by government; awareness should be given about future food crisis to farming community of the study area; family planning should be applied for controlling of family growth for decreasing population pressure in the study area.

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