INTRODUCTION

In several parts of the world, for many people having three meals a day or even two is a luxury although food is a basic necessity. This injustice elucidates the concept and idea of food insecurity. The understanding of food insecurity is about food availability, access, and utilization. Food insecurity is about having access to enough food to meet their dietary needs and food preferences for an active and healthy life” (Food & Agriculture Organization, 1996). That stated definition implies that four pillars of food security are there i.e. food availability, utilization, access and stability. First and the most important pillar i.e. food availability deals with the supply side of the food equation. Food availability is determined by the production of food, food imports and the stocks. Adequate resources or entitlement to acquire safe and nutritious food is called access. Access is the major area of concern for Pakistan and other third world countries. Poverty keeps constraining the access to food for poor and limits their choices of food. The concept of utilization brings non-food items in the concept of food security. Utilization is to reach the state of nutritional wellbeing by using food through appropriate diet, clean drinking water, health care and sanitation facilities. ‘The Stability concept discusses the both, food availability and accessibility dimension of food security’ (Wahab & Applanaidu, 2015). These all dimensions interact to determine the overall country’s state of food security.

The whole world is more concerned about the state of food insecurity today. Although Pakistan can produce for itself, still Pakistan is not food secure at household level. Pakistan is sixth most populated country in the world having population of
207.774 million people (6th population and housing census 2017). Most of the people belong to rural areas which mostly & heavily depend upon farming to earn their living. Agriculture provides jobs to 42.3% of the country’s labor force and contributes 19.5% to the GDP(GOP, 2017). Pakistan is a leading producer of many food commodities e.g. cereals, milk and meat in Asia. According to Food and agriculture organization, average food supply is 2440 kcal/capita/day (2016) but unfortunately the percentage of malnourished populace is very high. According to FAO 41.4 million people are undernourished (2014-16, 3-year average) and 39% people live in multi-dimensional poverty according to Economic Survey of Pakistan (2015-16)(GOP, 2016).

Sustainable development by definition demands holistic approach, as for eradication of hunger and food insecurity is also linked with improvement in status of women, provision of basic health and education, peace and security, land reforms, and alignment of policies for fair and equitable distribution of resources. Food security, although, is thought of comparatively simple idea, it is difficult to determine the potential factors that impact food security.

Pakistan is facing the immense pressure of population growth, depleting resources and the environment, and at the same time facing the problems of uneven growth and development between rural and urban areas. Pakistan could not fulfill its commitments as promised in MDGs. According to Global Hunger Index, the ranking of Pakistan is 106th out of total 119 countries, despite the fact that Pakistan produces surplus food that it can export(Von Grebmer et al., 2017). Pakistan has ranking of 147 amongst 188 other countries in Human Development Index (HDI) 2017. National Nutrition Survey, 2011, states that 58 percent of the people of Pakistan are food insecure.

Many research studies suggest that there exists a nexus between food insecurity and negative health outcomes. Seligman, Laraia, and Kushel (2010) found relation between food insecurity and diseases like hypertension and hyperlipidemia while Martin and Lippert (2012) suggested that food insecurity have negative impact on health of children. These negative health impacts lead to lower productivity which harms the human capital formation.

Socio-economic determinants of household food insecurity need to be known to allay the consequences of food insecurity, achieve food security in Pakistan to meet sustainable development goals and improve general wellbeing of people. Pakistan is facing the immense pressure of population growth, depleting resources and the environment, and at the same time facing the problems of uneven growth and development between rural and urban areas. Pakistan could not fulfill its commitments as promised in MDGs. According to Global Hunger Index, the ranking of Pakistan is 106th out of total 119 countries, despite the fact that Pakistan produces surplus food that it can export(Von Grebmer et al., 2017). Pakistan has ranking of 147 amongst 188 other countries in Human Development Index (HDI) 2017. National Nutrition Survey, 2011, states that 58 percent of the people of Pakistan are food insecure. Therefore, the issues relating to food insecurity allow us to the following research questions -What is the overall situation of food insecurity in Pakistan?

-Literature Review

Food security is a dynamic and multi-dimensional idea that has gone through substantial transformations in its conceptual lifetime. It is a supple idea as imitated in the various efforts at definition in research and policy usage. Even a decade ago, there were almost 200 definitions in published writings (Maxwell & Smith, 1992). Maxwell (1994) explored post-modern currents in food security and it classified three core shifts in thinking about food security since the World Food Conference of 1974: from the global and the national to the household and the individual; from a food first perspective to a livelihood perspective; and from objective indicators to subjective perception.

Focus of policy makers was always on the supply side of the food equation ignoring the fact that all the people have the access to food or not. To have access, availability is the necessary condition but not sufficient. It further requires consistent availability and entitlement. Stability is another aspect that is very vital to food security. Stability requires consistent supply of food at individual, household and national level. Unfortunately, in countries like Pakistan people do not have capacity to store food to avoid fluctuations(M. Ahmad & Farooq, 2010). This paper further explores the trends and state of food security in Pakistan. They analysed the per capita annual availability of food in Pakistan which shows an increasing trend and average availability of calories/capita gradually increased. Despite the fact that indicators analysed showed a positive trend, one third of all pregnant women in Pakistan were found malnourished and 25% of new born babies were found underweight in 2001-2002. Hence, emphasizing only on food availability is not enough for attaining food security; other aspects of food security should not be overlooked.

Sidhu, Kaur, and Vatta (2008) analysed the determinants of food insecurity in a food surplus area i.e. Ludhiana district of Punjab state. They found family size, household income and status of being rural and urban to be statistically significant. Food availability has positive relation with production of grains, poultry, meat, fish and dairy products(Khan, Azid, & Toseef, 2012). Livestock does not only provide food but also serves as asset that can be converted into cash when needed. Only Sindh is found to be food secure in terms of food availability. Locality also matters in terms of food accessibility. Sindh and KPK were found to be food secure in terms of accessibility. According to the study determinants of food accessibility are adult literacy, ownership of land and electrified houses. Adult literacy and electrified houses affects the food security positively whereas cultivators under 2.5 acres are supposed to have less accessibility of food. In terms of absorption only Punjab and Sindh are food secure. Determinants of absorption were found to be the number of health care centers, immunization, safe drinking water and female literacy.

The place of dwelling and dependency ratio do not have a positive effect while literacy level of head of household above intermediate level has substantial and positive influence on food security status of household(Sultana & Kiani, 2011).
Social capital, on the other hand, and engagement in earning opportunities do not affect household’s food security, their result was not significant.

Income plays a noteworthy part in defining the status of household being food secure or insecure. Households relying on only one source of income have more probability to be food insecure than the households having diversified income sources (Aziz, Iqbal, & Butt, 2016). It is easier for the household having inconsistent income to become food insecure as compared with household with consistent income (Iram & Butt, 2004). Economic status plays a vital role in determining the food security status but it is not the only decisive factor. Literature suggests many determinants apart from income, for example, education, dependency ratio, household size, and age of household head.

K. Ahmad and Ali (2016) suggested that the increase in population growth impact the production and availability of food, the growth in food production can decrease the food insecurity but it may not overcome the needs of the people which live below the poverty line. Other things which keep the food insecure are the agricultural policies and distribution mechanism. The increase in the food prices is also due to the increase in input cost in the agriculture which results in the upward trend in inflation.

Education is the best investment that can be made in third world to change their fortune. Education helps to address many issues at the same time e.g. Population explosion, health, human capital, income earning opportunities and most important of all “food security”. It also improves food knowledge, food preparation skills of the food preparer and purchaser and improves purchasing efficiency. An adverse nexus exists between food insecurity and schooling (Rose, Gundersen, & Oliveira, 1998). Likelihood of being food secure, in general, increases with the level of educational attainment (Maitra & Rao, 2014). They conducted this study in slums of Kolkata, India. The results also reflect those of Gupta, Arnold, and Lhungdim (2009) which states that 50% of the poor (also food insecure) households (in slums of Kolkata) were headed by an illiterate person.

Ali and Khan (2013) suggested that livestock ownership ensures the food security in rural households of Pakistan. They further suggest that food insecurity is the function of poor access to market and poor asset base.

In developing countries, livestock has both, direct and indirect contributions to food security. To ensure food security, provision of nutritious food is necessary. Animals are an important source of food that contains essential amino acids, micro nutrients, proteins and vitamins. Furthermore, livestock is a very good source of income for small farmers as it can generate continuous income. This income is very helpful in fulfilling day to day family needs and in purchasing agricultural inputs (Sansoucy, Jabbar, Ehui, & Fitzhugh, 1995). In India, development of dairy has shown to improve consumption, income and repayment capacity (Kulkarni, Bhatta, & Kumar, 1989). In developing countries, dairy usually is labour intensive and increase in production means increase in employment. Livestock is also a source of organic fertilizer which is of immense importance for small farmers that can increase their income and thus consumption (Sansoucy et al., 1995).

Cash transfer programs have shown a positive impact on food security around the world. (Haushofer & Shapiro, 2016) suggests that monthly cash transfer increases the prospects of food security among the households instead of lump-sum cash transfers which are highly likely to be spent on durables. They found a strong nexus between cash transfers and increase in consumption.

For the poor people to have a supplementary income with their other source of earning, the government of Pakistan in 2008 introduced the Benazir Income Support Program (BISP), aiming that it will help the low-income households to ease their financial constraint. The study shows that households get their income from government or private income along with the agricultural income. The cash of BISP received by the families, most of it was spent on food and it was a major source to achieve the food security (Hassan, Ahmad, & Bibi, 2016). The data shows that there is strong positive correlation between the BISP amount and acquiring the food items.

Women have significant and considerable importance in the society due to their role in society in many ways from contribution in household, economic activities, childbearing and rearing, are the most to be affected by the food insecurity. The food insecurity may be due to the low intake of food and economic constraints but the women who are from low income households are more vulnerable to the food insecurity. According to Rose and Oliveira (1997) women of childbearing age are more food insecure due to the low intake of micronutrients.

Female headed households are more likely to be food insecure as compared to male headed households (Kassie, Ndiritu, & Shiferaw, 2015). Their study further reveals that the determinants of food security are: farm size, land quality, distance from market and the quality of the extension workers (proxy for government effectiveness). Maitra and Rao (2014) agrees with the literature on feminization of poverty and concludes that female headed household are more likely to be poorer and food insecure consequently (Aziz et al., 2016; Iram & Butt, 2004). In contrast to this study Mallick and Rafi (2010) found no significant difference of food security between male and female headed households. Ibnouf (2009) found in her study that women in rural areas of Sudan are more capable as compared to men in terms of increasing food security for their families as they can use and allocate resources in a better way. Women are much food insecure in those cases where they belong to low income households. According to Shariff and Khor (2005) those women, who are more food insecure are those who are less educated, belong to lower income households and they tend to have greater number of children than women who are from food secure households.

Ivers and Cullen (2011) suggested that the food security has direct relationship with the health of a person, and in case of women it matters a lot. The women who contribute to the household, especially those who take care of their children are more vulnerable to the food insecurity. The food security can be increased with an increase in income and attainment of better education. The financial constraint and low economic opportunities increase the food insecurity, which compel the
women to restore to the risky strategies which have direct impact on their health, and compromise the living standard of themselves and their children.

**METHODOLOGY**

Food security is a multi-dimensional concept and various methods are used to assess food insecurity problem. Most common of them found in literature are cost of calorie approach, Dietary intake assessment (DIA), Anthropometry, Food Insecurity Experienced Based Measurement (FIEMS), Rapid rural appraisal and Food expenditure. Every method has its own advantages and disadvantages. A complete analysis on food security cannot rely on only one method; keeping this in mind this research takes a holistic approach.

**Index Formation**

An index has been constructed to calculate the food insecurity status of households. The index is constructed based on calorie required per day per person. Consumption data is obtained from (Household integrated income and consumption survey 2015-16) based on 14 days recall period. This data is converted to single unit i.e. per day. Quantity of food items consumed is available and is converted into calories using Food Composition Table for Pakistan (GOP, 2001). The available calories to the household have been converted to per person per day. Index has been adapted from Aziz et al. (2016)

\[
FSSI_i = \frac{DCA_i}{CR_i}
\]

Where FSSI\(_i\) = food security status of the \(i\)th household.

DCA\(_i\) = Per person daily calorie availability of the \(i\)th household.

CR\(_i\) = Minimum calorie requirement of the \(i\)th household per person.

**Depth and Severity of Food Insecurity among Households**

Depth of food insecurity means that “how deeply the intake of dietary energy of food insecure individuals are deficient of their minimum needs” (Food and agriculture organization). Above mentioned index will provide us details about the incidence of food insecurity, while Food Insecurity Gap is being used to estimate the depth and severity of food insecurity.

Head count ratio = FIH / N * 100

Where:

FIH = No. of food insecure households

N = Total no. of households

\[
FIG_i = \frac{R - Ci}{R}
\]

Where:

FIG\(_i\) = Food insecurity gap for \(i\)th household

R = Required calories

Ci = Total calories consumed per person in \(i\)th household

Then Total food insecurity Gap (TFIG) can be calculated as:

\[
TFIG = \frac{1}{\text{no. of food insecure household}} \sum (FIG_i)
\]

**Determinants of Household food Insecurity**

Keeping in view the dichotomous nature of food security variable (i.e. food secure or insecure), Logistic Regression Analysis is used for determining the socio-economic determinants of food insecurity. Following are the variables which may be the determining factors of household food insecurity:

Income of the household, age of Household head, household size, gender of the household head, literacy level of the household head, agricultural land holding, livestock ownership, savings, expenditure, distance from the source of drinking water, cash transfers (Benazir income support program (BISP))

So, the Logit equation can be written as:

\[
FSS_i = \beta_0 + \beta_1 HS + \beta_2 Age + \beta_3 Gen + \beta_4 Lit + \beta_5 Liv + \beta_6 S + \beta_7 exp + \beta_8 Dist + \beta_9 Cash transfers + \beta_{10} Agri
\]

**Data**

For the analyses of above regression equation 1, Household integrated income and consumption survey (2015-16) is used for analysis. This dataset relates to Household Integrated Economic Survey (HIES) which was conducted in 2015-16 under a different survey called Household Integrated Income and Consumption Survey (HIICS) which was especially designed by merger of Household Integrated Economic Survey (HIES) and Family Budget Survey. This survey adopts a stratified two-stage sample design. About 24238 households are covered from all four provinces which will help to produce more reliable results with urban and rural breakdown.

**RESULTS AND DISCUSSION**

It is important to describe the data for a complete picture of situation under consideration. Data includes households from all four provinces of Pakistan whereby 43.4 percent of the households belong to Punjab, 25.5 percent from Sindh, 21.5 percent from KPK and 9.7 percent from Baluchistan. Around 33 percent data was collected from rural households whereas around 67 percent was collected from urban households. Current data shows that most of the households are headed by male members of the family i.e. around 91 percent. Individuals heading households were usually found to be more than 40 years of age (62 percent) whereas a considerable percentage of people i.e. 37 percent heads of households were between 20 and 40 years of age. Large number of households has net savings of less than Rs. 300,000/- per year. More than half of the households belong to lower income groups i.e. around 57 percent and around 35 percent belongs to lower middle income group.

As discussed in the previous chapter, Index is formulated to calculate the incidence of food insecurity among households in Pakistan. Results inferred from the index are as follows:

<table>
<thead>
<tr>
<th>Table 4.1 Incidence of food insecurity</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Region</strong></td>
</tr>
<tr>
<td>-------------</td>
</tr>
<tr>
<td>Pakistan</td>
</tr>
<tr>
<td>KPK</td>
</tr>
<tr>
<td>Sindh</td>
</tr>
<tr>
<td>Punjab</td>
</tr>
<tr>
<td>Baluchistan</td>
</tr>
</tbody>
</table>

37044 | Page
With the help of index the researcher explored the overall situation of food insecurity situation prevailing in Pakistan. According to the data under consideration, 70 percent of population is found to be food insecure in Pakistan. Baluchistan has the largest number of food insecure households i.e. 85 percent. Sindh houses the second largest number of food insecure households in Pakistan, whereas Punjab and KPK has 70 percent and 55 percent of food insecure households respectively.

Table 2 presents the Incidence (Head count ratio of food insecure households in percentage form), average availability of calories per person per day and total food insecurity gap (percentage) to determine the depth of food insecurity.

Table 4.2 Incidence and Depth of Food Insecurity

<table>
<thead>
<tr>
<th>Region</th>
<th>Food Insecure (%)</th>
<th>Average Calorie Availability</th>
<th>TFIG (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pakistan</td>
<td>70</td>
<td>1848</td>
<td>20.21</td>
</tr>
<tr>
<td>KPK</td>
<td>55</td>
<td>2135</td>
<td>1.27</td>
</tr>
<tr>
<td>Sindh</td>
<td>75</td>
<td>1758</td>
<td>24</td>
</tr>
<tr>
<td>Punjab</td>
<td>70</td>
<td>1840</td>
<td>21</td>
</tr>
<tr>
<td>Baluchistan</td>
<td>85</td>
<td>1481</td>
<td>37</td>
</tr>
</tbody>
</table>

Analysis of the data under consideration suggests that 70 percent of the households in Pakistan are food insecure. On average people consume 1848 calories daily which is below the subsistence level. Total food insecurity gap (TFIG) is 20.21 percent which means that on average food insecure households in the country falls 20.21 percent below the threshold level which is 2150 calories per person per day.

Table 4.3 Province wise ranking

<table>
<thead>
<tr>
<th>Province</th>
<th>Rank</th>
<th>Food Insecure (%)</th>
<th>Average Calorie Availability</th>
</tr>
</thead>
<tbody>
<tr>
<td>KPK</td>
<td>1</td>
<td>55</td>
<td>2135</td>
</tr>
<tr>
<td>Punjab</td>
<td>2</td>
<td>70</td>
<td>1840</td>
</tr>
<tr>
<td>Sindh</td>
<td>3</td>
<td>75</td>
<td>1758</td>
</tr>
<tr>
<td>Baluchistan</td>
<td>4</td>
<td>85</td>
<td>1481</td>
</tr>
</tbody>
</table>

KPK contains the lowest number of food insecure households i.e. 55 percent and ranks number 1 in food security among all provinces. Average availability of calories are 2135 calories per person per day prevails in the province. Food insecurity gap is only 1.27 percent which indicates that KPK faces a calorie short fall of 1.27 percent which is lowest among all provinces. Punjab secured 2nd rank in being food secure among other provinces which houses 70 percent of food insecure households. Average calorie availability is 1840 calories per person per day in Punjab. Food insecure households in this province fell 21 percent below the subsistence calorie requirement.

Average calorie availability in Sindh is found to be 1748 calories per day per person and ranks no. 3 among provinces. The 24 percent calorific shortfall is faced by the people of Sindh, the province which has 14 million acres of cultivable land. 75 percent of households in Sindh are food insecure according to the data under consideration.

Baluchistan have the most number of households which are food insecure and ranks last in being food secure among all provinces of Pakistan. Average calorie availability in Baluchistan was 1481 calories per day per person. Total food insecurity gap is found to be 37 percent which is highest among other provinces. On average food insecure households in Baluchistan fall 37 percent below the threshold level. The incidence of food insecurity is around 85 percent approximately.

Table 4.4 Results of the Regression Analysis

<table>
<thead>
<tr>
<th>Sr #</th>
<th>Variables</th>
<th>Coefficients</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Constant</td>
<td>-3.121 &lt;0.01</td>
</tr>
<tr>
<td>2</td>
<td>Household Size</td>
<td>-0.217 &lt;0.01</td>
</tr>
<tr>
<td>3</td>
<td>Gender of Household Head (Male)</td>
<td>0.498 &lt;0.01</td>
</tr>
<tr>
<td>4</td>
<td>Annual Income</td>
<td>0.673 &lt;0.01</td>
</tr>
<tr>
<td>5</td>
<td>Age of Household Head</td>
<td>-0.257 &lt;0.01</td>
</tr>
<tr>
<td>6</td>
<td>Annual Savings</td>
<td>0.54 &lt;0.01</td>
</tr>
<tr>
<td>7</td>
<td>BISP</td>
<td>0.184 &lt;0.01</td>
</tr>
<tr>
<td>8</td>
<td>Expenditure</td>
<td>0.383 &lt;0.01</td>
</tr>
<tr>
<td>9</td>
<td>Water source</td>
<td>-0.303 &lt;0.01</td>
</tr>
<tr>
<td>10</td>
<td>Agriculture Land Holdings</td>
<td>-0.327 &lt;0.01</td>
</tr>
<tr>
<td>11</td>
<td>Education of Household Head</td>
<td>0.024 &lt;0.01</td>
</tr>
</tbody>
</table>

Note: * p<0.05; ** p<0.01

Household size and food security status of households show a negative relation which means that higher the household size, lower are the chances for household to be food secure. Our results are in contrast with (Flores-Arias, Bellido-Outeiriño, & Moreno-Munoz, 2014)which suggests that more members in the household means more labour and that resultanty can increase the food security status of household. While Paddy (2003) is in agreement with our results and suggests that probability of becoming food insecure increases as the size of household increases.

There is positive relation between gender of household head and food security status of household. In countries like Pakistan, where males are mostly the earning hands of household, the gender of household head matters a lot.

Coefficient of Annual income shows a positive relation prevails between annual income and being food secure. These results express that households with greater income are likely to be food secure, higher the income, higher the chances of household being food secure. These results are consistent with (Asghar & Muhammad, 2013; Aziz et al., 2016; Iram & Butt, 2004) etc.

Age of household head has positive relation with the food security status of household. Coefficient of age of household head is 0.257. This implies that as the household ages, household becomes more food secure. This may be because of income and experience increases with the age. This finding is in agreement with Opsomer, Jensen, and Pan (2002) who suggested that food insecurity increases until the age 35 then starts decreasing steadily as the household head ages. Nord, Jemison, and Bickel (1999), concluded that as the age of household head increases, probability of household being food secure also increases. Contrary to the above results Matchaya and Chilonda (2012)suggests otherwise, as young farmers are of more energetic and dynamic nature, though less experienced, are more likely to be food secure. The reason of contrast may
be the above stated research in rural areas of Malawi while we have data of both urban and rural areas.

Cash transfer programs have shown a positive impact on food security around the world. Haushofer and Shapiro (2016) suggested that monthly cash transfer increases the prospects of food security among the households instead of lump-sum cash transfers which are highly likely to be spent on durables. This study suggests positive relation of Benazir Income support program with food security. Coefficient of BISP is found to be positive i.e. 0.054 and this result is significant. Haushofer and Shapiro (2013) is also in agreement with above results and their research have shown strong response of consumption to monthly cash transfers. They concluded that unconditional cash transfer has positive impact on psychological wellbeing and consumption of households in other words increases food security among households.

Household expenditure is showing the positive sign in our results, the coefficient of expenditure is 0.383 which statistically significant. Levin et al. (1999) found that increase in food expenditure increases the likelihood of household being food secure whether headed by a male or a female.

Water source shows a negative relation with the food security status of household, but the results are statistically insignificant.

Food security status of household is found to be positively influenced by agricultural land holdings. Greater the agricultural land a household has, greater is the probability of being food secure. It can be argued that households with more agricultural land can produce more food for themselves and with more land; more income can be earned which already showed a positive relation with food security. Increase in agricultural land holding by 1 acre increases the probability of being food secure by 32.7 percent. Khan et al. (2012) concurs with our results and suggests that ownership of land increases the probability of households being food secure.

Education level of head of household shows a positive relation with food security status of households. Education increases the income earning opportunities that may lead to becoming more food secure. Further in rural farm households, education empowers them with technological advancements and entrepreneurial skills. Our results agree with most of the existing literature. A negative relationship exists between food insecurity and schooling (Rose et al., 1998).

CONCLUSION AND RECOMMENDATIONS

Food insecurity is the major tangible peril in improvement of Pakistan’s economy and general wellbeing of its people. This research suggests that Pakistan is facing a severe food insecurity condition where 70 percent of the households are food insecure which is very alarming. State of affairs in terms of food insecurity in Baluchistan is worst among all provinces. Sindh has the second highest number of food insecure households that are around 75 percent. Punjab, slightly better than Sindh, have 70 percent of its households are food insecure. KPK contains the least number of food insecure households i.e. 55 percent.

Depth of food insecurity is estimated by food insecurity gap which is 20.21 percent for Pakistan. KPK has the lowest food insecurity gap which is only 1.27 percent. Sindh has 24 percent while Punjab and Baluchistan has 21 and 31 percent respectively.

The main objective of the research was to find the determinants of household food insecurity in Pakistan. Household size, gender of household head, annual income of the household, age of household’s head, annual savings, social security benefits (BISP in case of Pakistan), expenditures, agricultural land holdings and education of household head are found to have a significant impact on state of affairs of food insecurity in Pakistan. Education opens new income generating opportunities and it also impacts the ability of household’s nutritional decision making. Household size and food insecurity have a positive relation, meaning that greater the household size, greater will be the food insecurity condition. This research also reveals that probability of a female headed household to be food secure is higher as compared to male headed households. Annual income and savings also showed positive relation with food security, in other words, households having more income and savings are more likely to be food secure. This study also suggests that unconditional cash transfer programs like BISP, in case of Pakistan, can have positive impact on food security of households.

The results show that incidence of food insecurity is very high in Pakistan but has low depth as compared to its incidence and in case of KPK it is minimal.

Pakistan’s performance in achieving Millennium Development Goals was abysmal but it can strive for better to achieve Sustainable Development Goals. To achieve SDGs and to improve the economy, ensuring food security is essential.

Considering the results of this study, we can make suggestions and policy recommendations to fight against food insecurity and allay its consequences.

Following are some policy recommendations for the Government to deal with the problem of food insecurity. Firstly, policies may be made to increase the income especially for bottom income groups who are more vulnerable to food insecurity than others. Cash transfer programs like BISP are beneficial to the vulnerable segments of the society so the program should be improved and the problems involved in BISP should be solved. Investment can be made to improve the level of education in the country as it can solve many problems and allay food insecurity in Pakistan. Programs and policies to alleviate food insecurity preferably may be introduced by the Government that targets decreasing the household size and dependency ratio. Livestock ownership needs to be encouraged as it increases the income and can diversify the food and thus can help in ensuring food security among rural households. Strategies might be geared towards increasing women’s ability to generate income. Lastly, efforts have to be made to increase their productivity both in paid work and domestic production so they can increase their income without sacrificing their children’s welfare, their own health and additional time.
References


**How to cite this article:** Ahmad Bilal Babar. 2020, Incidence, Depth and Determinants of Household Food Insecurity: Empirical Evidence from Pakistan. *Int J Recent Sci Res. 11*(01), pp. 37041-37048. DOI: http://dx.doi.org/10.24327/ijrsrc.2020.1101.5046

*******