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Research Article



Food security situation of small farmers in district Rawalpindi

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Abstract

Pakistan is facing a number of calamities on economic, social and environmental fronts. Recently, elevated food inflation along with high rates of redundancy has pessimistically affected food security of millions of people, especially of small farmers. Although all of the farmers were sowing wheat along with other crops but the produce of the sown crops were not satisfying food needs of a large majority of respondents. Other than wheat all food items were bought from market which were easily available from market but were not economically accessible to most of the respondents. Equal access and utility of all food items by all family members was also lacking in study area, only 35-37% of the respondents said that their hunger needs are satisfied. Respondents were also not having awareness about all aspects of food security.

Keywords: Food security, ICTs, small farmers.

Introduction

Food security could be defined as “physical and economic access to sufficient, safe, and nutritious food by all people at all times to meet their dietary needs and to maintain active and healthy life” (FAO, 2006). It could be potted into three aspects: food availability, accessibility and utilization. Among them, first aspect can be attained when enough food is persistently available to all constituents of the society. It can be ensured through local and domestic production, importation and food aids. Whereas, food accessibility; the second aspect of food security, can be achieved when all family units and individuals have adequate resources to put away an appropriate diet. In other words, food could only be made accessible if domestic income permits the preparation and purchase of sufficient food (Bakhtiari and Haghi, 2003). Similarly the third aspect; food utilization, refers to the

food usage that depends on domestic knowledge and procedures for processing and storage of food, fundamental morals of diet and taking care for children (FAO, 2006).

Failure in achieving above three aspects of food security resulted in a situation called food insecurity. It is the situation when there is lack of availability, accessibility, and utility of safe and nutritional food (Gareau, 2004). Severity of this problem can be analyzed through food insecurity statistics of United States where during 1980, 9.7 percent of households were not having enough food to meet their basic intake needs and by 2008, that percentage had risen to 14.7 percent (ibid). Studies conducted by FAO reveal that globally, in 2010, about 925 million people were malnourished in comparison with 1.023 billion of

2009. This death rate was elevated prior to the economic and food catastrophe of 2008-09 and is also higher than the echelon subsisted when world leaders decided to trim down the number of starving people by half at the World Food Summit in 1996. On the whole, majority of the world's hungry people are living in the developing countries, where they are reported to be 16 percent of whole population. Whereas, this number is upgrading compared to statistics of 2009, it is still well above the mark set by the Millennium Development Goal (MDG) of reducing the fraction of underfed of developing countries from 20 percent of 1990-92 to 10 percent in 2015 (FAO, 2010).

Moving from World's food insecurity situation to its state in Pakistan, the story becomes more horror. Pakistan is facing a number of calamities on economic, social and environmental fronts. Recently, elevated food inflation along with high rates of redundancy has pessimistically affected food security of millions of people, especially of small farmers. These calamities along with the 2010 floods, topical rains in Sindh and conflicts in different parts of the country have exacerbated food insecurity in Pakistan. As a result, utilization of central food items such as wheat and rice has dwindled significantly. A study conducted by World Food Program (WFP) and Swiss Agency for Development and Cooperation (SDC) disclosed that 80 out of 131 districts in Pakistan do not have conditions for satisfactory food security. The report also shows gigantic inter- and intra-provincial food security discrepancy: for example, maximum percentage of food insecure population (67.7 percent) were reported in Federally Administered Tribal Areas (FATA), then in Baluchistan (61.2 percent) and Khyber Pakhtunkhwa (56.2 percent). District level investigation shows that the highest proportions of food deficit people (82.4 percent) live in Dera Bugti (Balochistan), it provides confirmation of a strong link between food insecurity and militancy. In addition to this, agricultural sector in Pakistan has been deserted over the last two and half decades resulting in reduced investment in Research and Development (R&D), decreased agricultural productivity, increased rural poverty and rural-urban income inconsistency. Until recently, in Pakistan the prominence has been on the supply side of food with spotlight on achieving wheat self-sufficiency by providing enticement in terms of subsidies. Though, such subsidies rarely benefited the small farmers and rural households. By and large food security in Pakistan has depreciated over the last few

years as mirrored in the rising statistics of the poor and the famished (Haq, 2011).

As the above statistics depict the severity of food insecurity in Pakistan therefore, among country's priorities and goals, food security is pretty significant. Keeping in view the significance of food security, the present study was conducted. Primary purpose of the study was to assess the situation of food security in study area with sole focus on small farmers.

Materials and Methods

Rawalpindi tehsil was selected purposively out of six tehsils of Rawalpindi district. From selected tehsil, five union councils were selected through simple random sampling technique. One village was selected randomly from every selected union council and from every selected village, 20 respondents (male/female small farmers) were selected through simple random sampling technique. In addition, 20 Agricultural Extension Professionals (AEPs) were selected randomly as respondents, from Department of Agriculture (Extension Wing) district Rawalpindi. Hence, the total sample was comprised of 120 respondents (100 small farmers and 20 AEPs). Keeping in view the objectives of study, an interview schedule was designed and validated through the senior faculty members in the Department of Sociology and the supervisory committee. Then it was pre-tested on 15 non-participant farmers. After making necessary amendments in the instruments, the data was collected and analyzed by employing SPSS.

Results and Discussion

Crops sown

As population of present study is from farming background, therefore, respondents were further asked about the crops they cultivate. Data analysis in this regard highlighted that all the respondents were sowing wheat followed by vegetables (37 percent), ground nut (33 percent), maize (32 percent), bajra (25 percent), jawar (21 percent), pulses (6 percent), fruit (5 percent) and gram (2 percent) (**Table1**).

Table 1: Frequency distribution of the respondents on the basis of the crops they sow

Crops	Response					
	Yes		No		Total	
	F	%	F	%	F	%
Wheat	100	100.0	-	-	100	100
Vegetables	37	37.0	63	63.0	100	100
Groundnut	33	33.0	67	67.0	100	100
Maize	32	32.0	68	68.0	100	100
Bajra	25	25.0	75	75.0	100	100
Jawar	21	21.0	79	79.0	100	100
Pulses	6	6.0	94	94.0	100	100
Fruit	5	5.0	95	95.0	100	100
Gram	2	2.0	98	98.0	100	100

Sufficiency of sown crops for food needs

Respondents were further asked about the sufficiency of sown crops for their food needs. Response tabulated for this aspect show that produce of the sown crops

was satisfying food needs of a large majority (87 percent) of the respondents. Whereas, slightly less than one-fifth (17 percent) of the respondents' food needs were not satisfied by the crops they produce (**Table 2**).

Table 2: Frequency distribution of the respondents according to the sufficiency of sown crops for their food needs

Response	Frequency (F)	Percent (%)
Yes	83	83.0
No	17	17.0
Total	100	100

Sale of excess food after storing for annual needs

Respondents were asked about their excess produce after storing for their annual food needs. In addition, they were also asked regarding selling of excess produce. Data analyses in this regard illustrate that

majority (71 percent) of the respondents sold excess produce. Among the respondents (71 percent) who sale excess produce, 29 and 41 percent sold excess produce through social marketing and in markets respectively (**Table 3 and 3a**).

Table 3: Frequency distribution of respondents according to their response about selling excess produce after storing for their annual needs

Response	Frequency (F)	Percent (%)
Yes	71	71.0
No	29	29.0
Total	100	100

Table 3a: Frequency distribution of respondents according to their way of selling excess produce

Response	Yes		No		Total	
	F	%	F	%	F	%
Social networking	29	29.0	42	42.0	71	71.0
Marketing	41	41.0	30	30.0	71	71.0

Purchase of food items from market

Data collected for this aspect show that all of the respondents were buying fruit from market followed

by meat and eggs, pulses and rice, milk and vegetables as reported by 97, 96, 74 and 62 percent respectively (Table 4). On the other hand, none of the respondents buy wheat flour from market.

Table 4: Frequency distribution of the respondents regarding their response about the food items they buy from market

Produce	Response					
	Yes		No		Total	
	F	%	F	%	F	%
Wheat flour	-	-	100	100	100	100
Fruit	100	100	-	0.0	100	100
Meat and eggs	97	97.0	3	3.0	100	100
Pulses	96	96.0	4	4.0	100	100
Rice	96	96.0	4	4.0	100	100
Milk	74	74.0	26	26.0	100	100
Vegetables	62	62.0	38	38.0	100	100

Availability of desired food item in the markets

Easy availability of necessary food item is an important indicator to judge the situation of food security of any area. Therefore, respondents were

asked about this aspect. Analysis of the response received in this regard explains that desired food items were easily available to majority (79 percent) of the respondents (Table 5).

Table 5: Frequency distribution of the respondents according to easy availability of desired food item from markets

Response	Frequency (F)	Percent (%)
Yes	79	79.0
No	21	21.0
Total	100	100

Economical feasibility to buy required food item (s)

Availability of desired food item is not only enough to describe food security situation of any area or an individual. Economical feasibility of available required food item is also a strong parameter to state

food security situation. Therefore, respondents were asked about this feasibility. Information tabulated in this regard shows that desired food item (s) was not economically accessible to slightly less than (45 percent) of the respondents (Table 6).

Table 6: Frequency distribution of the respondents about economical feasibility of required food item (s)

Response	Frequency(F)	Percent(%)
Yes	55	55.0
No	45	45.0
Total	100	100

Equal access and utility of all food items by all family members

Hassan (2008) reported that in Pakistan there is gender discrimination in accessibility and utility of all physical and natural resources. Women are considered to be the neglected part of society and have no or limited access to food, education, health services,

credit etc. Therefore, it was important to ask about equal accessibility and utility of all food items for all family members. Data collected in this regard illustrate that only 29 and 35 percent of the respondents were strongly agree and agree about the equal access and utility of all food items by all family members respectively (**Table 7**).

Table 7: Frequency distribution of respondents according to their response about equal accessibility and utility of all food items by family members

Response	Frequency (F)	Percent (%)
Strongly Agree	29	29.0
Agree	35	35.0
Neutral	21	21.0
Disagree	11	11.0
Strongly Disagree	4	4.0
Total	100	100

Accessibility of choice food

Food security is defined as “when at all times all people have admittance to safe, nourishing and sufficient food to uphold an active and healthy life”

(FAO, 2006). Therefore, respondents were inquired about the accessibility of choice food at any time. Information generated in this regard highlighted that choice food at any time was not accessible to more than half (58 percent) of the respondents (**Table 8**).

Table 8: Frequency distribution of respondents according to accessibility of choice food at any time

Response	Frequency (F)	Percent (%)
Yes	42	42.0
No	58	58.0
Total	100	100

Consumption of food items on daily basis

Analysis of the collected data for daily consumption of food item (s) show that all of the respondents were consuming wheat bread on daily basis followed by

vegetables (97 percent), milk (47 percent), eggs (10 percent), fruit (8 percent) and meat (1 percent) respectively (**Table 9**).

Table 9: Frequency distribution of respondents according to consumption of food items on daily basis

Food items	Response					
	Yes		No		Total	
	F	%	F	%	F	%
Wheat bread	100	100	-	-	100	100
Vegetables	97	97.0	3	3.0	100	100
Milk	47	47.0	53	53.0	100	100
Eggs	10	10.0	90	90.0	100	100
Fruit	8	8.0	92	92.0	100	100
Meat	1	1.0	99	99.0	100	100

Satisfaction of family’s hunger needs through produced food

Information tabulated to access satisfaction of family’s hunger needs through produced food illustrated that slightly more than one-third (37 and 35 percent) of the

respondents’ showed their strong agreement and agreement with fulfilment of their family hunger needs through food they produced, while about negligible number (21 percent) of the respondents remained neutral (**Table 10**).

Table 10: Frequency distribution of respondent according to the satisfaction of family’s hunger needs through produced food

Response	Frequency (F)	Percent (%)
Strongly Agree	37	37.0
Agree	35	35.0
Neutral	21	21.0
Disagree	7	7.0
Total	100	100

Awareness about food security

In order to assess awareness level of respondents regarding food security they were asked about it and the response tabulated thereafter highlights that more

than half (59 percent) of the respondents were not aware of the term food security. Among the aware respondents (41 percent), only 32 percent had defined food security as availability, accessibility and utility of desired food item (s) at any time (**Table 11and 11a**).

Table 11: Frequency distribution of respondents on the basis of their awareness about food security

Response	Frequency (F)	Percent (%)
Yes	41	41.0
No	59	59.0
Total	100	100

Table 11a: Frequency distribution of respondents about what is food security

Response	Frequency (F)	Percent (%)
Availability of desired food items	3	3.0
Eating what you want	10	10.0
Availability, accessibility and utility of desired food item(s) at any time	32	32.0
Total	100	100

Perceptions about situation of food security

After assaying awareness level of the respondents about food security, they were further inquired about their own food security status. Information generated in this regard shows that 22 percent respondents were

strongly agree with the statement that ‘their food is secure’, same number of the respondents had given neutral response. Whereas, only a negligible number (5 percent) of the respondents was strongly disagree with the question statement followed by agree (30 percent) and disagree (21 percent) (**Table 12**).

Table 12: Frequency distribution of respondents on the basis of their perceptions about food security situation

Response	Frequency (F)	Percent (%)
Strongly Agree	22	22.0
Agree	30	30.0
Neutral	22	22.0
Disagree	21	21.0
Strongly Disagree	5	5.0
Total	100	100

References

- Bakhtiari, S. and Z. Haghi. 2003. Studying food security & human development in Islamic countries. Corporate Document Repository, Sustainable Development Department, FAO, Rome, Italy.
- FAO. 2006. Agricultural extension, rural development & food security challenge, Corporate Document Repository, Sustainable Development Department, FAO, Rome, Italy.
- FAO. 2010. State of food insecurity in world. Economic and Social Development Department FAO Rome, Italy.
- Gareau, S. E. 2004. The development of guidelines for implementing information technology to promote food security. *Agric. Hum.*, 21(4): 273-285.
- Haq, K. 2011. Human Development in South Asia; Food Security in South Asia. Mehboob Ul Haq Human Development Centre Lahore, Pakistan.
- Hassan, M. Z. Y. 2008. Obstacles to gender mainstreaming in agricultural extension in the Punjab, Pakistan: A case study of district Muzafargarh. PhD Thesis, Deptt. of Agric. Extension, Univ. of Agri. Faisalabad. Pakistan (Unpublished).