Food Security Situation among South African Urban Agricultural Households: Evidence from Limpopo Province

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Abstract: The challenges posed by risk factors in the urban agricultural sector have been an issue of general concern among various stakeholders and the international communities. This concern is attributable to the negative impacts of food insecurity risk on urban agriculture and socio-economic development of South Africa. This study analyzed the food security situation among urban agricultural households of Limpopo Province using a well-structured questionnaire for data collection. Data were analyzed using descriptive and inferential statistics. The study revealed that male respondents were more in the study area with an average age of 46 years. Public tap water was the most used source in the study area with an average monthly income of R2668.75 recorded. In addition, an average of R1284.75 is expended on food on monthly basis by the agricultural households. Finally, some implications for national food security were drawn from the overall result of the study. It was suggested among other things that interest-free credit should be made available to small-scale farmers to enable them to access improved risk (such as health, drought etc.) management technologies. This will help them to contribute more meaningfully to national food security through enhanced productivity.

Keywords: Food security; Households' water source; Limpopo province; Probit regression; Tobit regression.

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1. Introduction

Globally, food insecurity continues to be a pressing concern to policymakers with its highest prevalence in Africa. (Pérez-Escamilla et al., 2017) Chronic poverty

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persists in Africa and recent estimates have shown that more than one-quarter of the population is suffering from hunger. (FAO, 2016) The eradication of poverty which is a causal variable for food insecurity remains a crucial issue for many developing nations in Africa. (Mabuza et al., 2015; Regmi & Paudel, 2016) In a continent rapidly undergoing urbanization with a projected estimate of above 50 percent of the population living in urban areas by 2030 (Crush & Frayne, 2011), achieving urban food security is, therefore, a key developmental challenge to focus upon. At the moment, South Africa is one of the upper-middle-income countries in the continent with a stable and robust economy. (World Bank, 2011) Although, South Africa is said to be food secure at the national level, however, available statistics suggest that a large number of households within the country are still food insecure. (D'Haese et al., 2011; Hart, 2009)

As stated by the United Nations Human Settlements Programme (UN-HABITAT), about two-thirds of the population of South Africa currently resides in urban areas. (Van der Merwe, 2011) Thus, the urban food insecurity in South Africa can no longer be overlooked as the urban areas of South Africa are now faced with tackling the challenges of ensuring physical and economic access to sufficient food supply and clean water for this large-scale population influx. The Food and Agriculture Organization of the United Nations (FAO, 2009) states that food security exists when people at all times have access to sufficient, safe and nutritious food and water to meet their dietary needs to attain an active and healthy life. This definition of food security is founded on the three dimensions of food availability, accessibility, and utilization.

Firstly, the availability of food specifically ensures that there are sufficient qualities of food on a consistent basis. Secondly, accessibility to food tackles having enough resources to obtain food for a nourishing diet. Lastly, food utilization or security requires knowledge of nutrition and healt. (WHO, 2016; Van Vuuren, 2016) Urban food security can, therefore, said to be achieved in a household when there is guaranteed access to food, clean water, and a healthy environment for all members. Urban Agriculture is one of the main strategies and viable tools that can be used to increase urban food security (Van Vuuren, 2016), as the Food and Agricultural Organization has established a connection between Urban Agriculture and Urban Food Security. (FAO, 2009)

Urban Agriculture was defined by Van Veerhuizen (2006), as "the growing of plants and the raising of animals for food and other use within and around cities or towns, and related activity such as the production and delivery of inputs, and the processing and marketing of products." He further stated that Urban Agriculture is associated with characteristics such as competition for land and limited urban space, the reuse of urban resources, the distance to the market, the location of

Urban Agriculture, the degree of a farmer's organization, and lastly, aspects of socialization among farmers. (Van Vuuren, 2016)

There are currently high levels of food insecurity in South African cities and the continual increase in food prices and other price shocks suggest that levels of urban food insecurity are unlikely to improve. According to D'Haese et al., (2011), 52 percent of households in Limpopo province are severely food insecure while about one-third are living on less than one dollar a day. The Urban dimensions of food insecurity are characterized by low dietary diversity, high malnutrition and obesity, and distinct hunger seasons. (South African Cities Network (SACN), 2015)

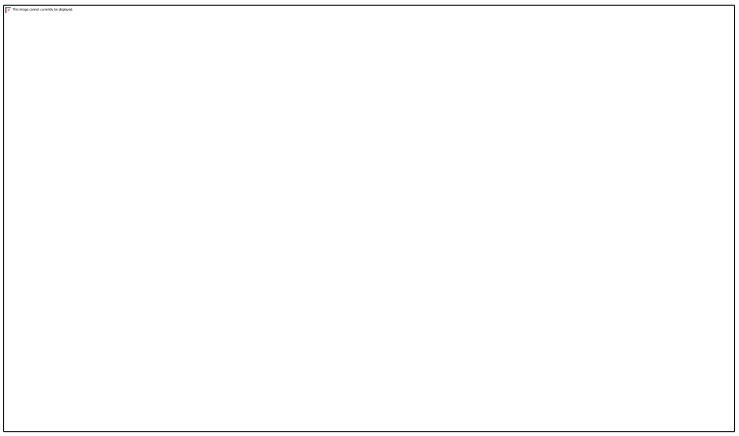
Embarking on Urban agriculture is one of the strategies utilized by urban households in South Africa to mitigate food insecurity. (SACN, 2015) However, there are a lot of risk factors militating against urban agriculture and consequently food security. With this in view, it is important to address the capacity and production needs of urban farmers by paying particular attention to those obstacles impeding their abilities to maximize their capacities in food production.

Therefore there is the need to determine the food security situation among urban farmers in Limpopo province, a major agricultural hub in South Africa, so as to shed light on the right strategies to embark upon in achieving two of the cardinal sustainable development goals of "no poverty" and "zero hunger" for all in the urban areas of South Africa. Specifically, the study is focused on describing the socio-economic characteristics of the urban farmers in Limpopo province, examining the determinants of the urban household income and determining the factors influencing the urban farming household"s food security in the study area.

2. Research Methodology

2.1. Description of the Data source and Study Area

The study was carried out in Sekhukhune district of Limpopo province. The district is situated in the south-eastern part of Limpopo province. It is one of the five districts of Limpopo province of South Africa. The seat of Sekhukhune is Groblersdal. It has a total land area of 13,528 km^2 (5,223 sq mi) square kilometers. The 2011 population census estimated the population of the district at 1, 076, 840 people (Statistics South Africa, 2011). The major economic activities of the inhabitants of this district are agriculture, mining, construction, trade, transport, and finance.



2.2. Sample Design and Data collection

Primary data were used in this study. Structured questionnaires were used in the collection of primary data with the household being the unit of analysis. Questionnaires were administered according to the various locations in the local municipalities. In this study, two local municipalities were purposively selected out of five municipalities in the district. This is because the two municipalities were the most populated local municipalities in the district and also known for agricultural activities. Within each municipality, 40 small-scale urban farmers were selected through the use of stratified random sampling technique making a sum of 80 respondent used in this study. This was done proportionately with respect to the number of households in each location. Furthermore, information was collected on age, occupation, household size, and gender of the household head as well as other households' socioeconomic characteristics such as monthly income and dependency ratio. Data were also collected on monthly household expenditure on food and non-food items.

2.3. Analytical Techniques

2.3.1. Modeling the Determinants of Agricultural Households' Income in the Limpopo Province of South Africa

This study used the Tobit regression to achieve this objective (determinants of the agricultural households' income in the province) since the dependent variable was income received from various on and off-farm activities which involved a number of zero values and thus Tobit model was used to avoid bias as shown in the table (1). Tobit regression model was initially developed by the Nobel laureate economist, James Tobin in 1958. A sample from which the information about the dependent variable is available only for a number of observations is called the censored sample. Thus, the Tobit model used in this study is also commonly known as the censored regression model. Other authors describe such models as

the limited dependent variable regression models due to the restriction imposed on the values that are taken by the dependent variable. The model is specified thus,

$$Yi * = Xi\beta + \mu i \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots (1.0)$$

$_i$ = 1, 2…n Variables (Table 1) included in the model.

Y = households income

Table 1. Independent variable and the description of the Tobit regression model of the determinants of agricultural households' income in Limpopo Province of South Africa

Independent Variable	Description
Households Size	Number of members of the household (Continuous)
Gender of the House head	Dummy; 1 if head is male 0 if female
Employment Status	Dummy; 1 if yes, 0 if otherwise
Households Sickness Record	Dummy; 1 if yes, 0 if otherwise
Farm Accessibility	Dummy; 1 if yes, 0 if otherwise
Animal possession	Dummy; 1 if yes, 0 if otherwise
Food expenditure	Total value in Rand (Continuous)
No food incidence	Dummy; 1 if yes, 0 if otherwise
High food price	Dummy; 1 if yes, 0 if otherwise
Presence of Shock	Dummy; 1 if yes, 0 if otherwise
Shock impact	Dummy; 1 if strongly agree, 0 if otherwise
Shock compensations	Dummy; 1 if yes, 0 if otherwise
Water source	0 = well, 1 = borehole, 2 = river, 3 = tap, 4= rain 5= others(Categorical)

2.3.2. Estimation of Probit Regression model

Probit regression model was fitted to identify factors that influence farming households' nutrition. This model was used because it is the standard method for estimating binary-category dependent variable and also due to the dichotomous nature of the dependent variable which was the re-categorized dummy form of the actual dietary diversity score as shown in the regression form (where food security level was with value 1 if rrespondent' are food secured and 0 otherwise). This is shown in the table (2). The model can then be specified as:

$$Yj = \alpha\, \beta j \sum_{i=1}^{n} Ij + uj \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \quad (2.0)$$

$$Pi = \alpha o + \alpha 1X1 + \alpha 2X2 + \alpha 3X3 + \alpha 4X4 + \alpha 5X5 + \alpha 6X6 + \alpha nXn + \ldots + ei \quad (3.0)$$

Where Y_j is the binary dependent variable indicating households' food security status; 1 if the household is food secured and 0 otherwise.

α and β_j are the parameters of the estimates

n = number variables,

μ_j= Error term

I_j = The independent variables specified in Table 2.

Table 2. Independent variable and their description (Probit Regression Model) of the assessment of the farming household's food security in the study

Independent Variable	Description
Households Size	Number of members of the household
Educational Status of the Head	Number of educational years (Continuous)
Presence of Shock	Dummy; 1 if Yes, 0 if otherwise
Drought shock	Dummy; 1 if Yes, 0 if otherwise
Gender	Dummy; 1 if head is male 0 if female
Household Heads' Age	Number of years (Continuous)
Employment Status	Dummy; 1 if yes, 0 if otherwise
Households Sickness Record	Dummy; 1 if yes, 0 if otherwise
Source of power	Dummy; 1 if yes, 0 if otherwise
Cooking fuel	Dummy; 1 if yes, 0 if otherwise
Water source	0 = well, 1 = borehole, 2 = river, 3 = tap, 4= rain 5= others (Categorical)
Asset ownership	Dummy; 1 if yes, 0 if otherwise
Household livelihood	1 if good and 0, otherwise
Household income	Total value in Rand (Continuous)
Food expenditure	Total value in Rand (Continuous)
Crop grown	1 if Arable crops, 0 otherwise
Adult eating pattern	1 if Regular and 0, otherwise
Child eating pattern	1 if Regular and 0, otherwise
Theft shock	Dummy; 1 if yes, 0 if otherwise
Death of family	Dummy; 1 if yes, 0 if otherwise

3. Results and Discussion

3.1. Socio-economic characteristics of the Urban Farmers in Limpopo Province

The findings from the table (3) show that majority of the urban farmers fall within the age interval of 21-60 years and their mean age was 46 years. This implies that the urban farmers in the province are generally in their economically active years and should be innovative, energetic and enterprising. This is in consonance with Baiyegunhi et al., (2016) who stated that majority of farmers in Limpopo province are in their active and productive age. This attribute is supposed to give them the leverage to participate more in urban agriculture. The results obtained further indicated that both male farmers (56.3%) and their female (43.7%) counterparts

participated well in Urban Agriculture in the study area. This agrees with Ganiyu and Omotayo (2016); Oni et al., (2010) who reported a similar trend in Vhembe district of Limpopo province.

More so, the majority (80.1%) of the respondents had a household size of one to six persons and a mean household size of five persons was recorded for the study area. This is in consonance with Adeniyi et al (2016); Baloyi (2011), who stated that the average household size in Ga-Mothiba district of Limpopo province is 5.6 persons. The implication of this is that the urban farmers in the study area can moderately have access to labour from their household members which provide an easy avenue for them to reduce their labour cost.

Also, three-quarter (75.0%) of the urban farmers had at least six years of formal education. This finding is corroborated by Oni *et al*., (2011) who stated that most of the farmers in Limpopo province have one form of formal education or the other. This attribute is expected to enhance the information seeking behavior of the farmers and their use of innovative production practices.

The findings from the table (3) further showed that majority (78.8%) of the urban farming households in the area made use of public tap/piped water as their major source of water. This agrees with D'Haese *et al*., (2011) who also reported a similar trend in their study. This implies that farmers in the area have access to a good source of water and this is expected to contribute positively to the food and nutrition security status of the urban farming household in the area.

The average monthly income per household recorded among the urban farmers in the area was R 2,668.75. This implies that majority of the respondents in the area were living on less than 1.5 USD a day using the concept of average daily household income per capita. Further results from the table (3) show that about 50 percent of the monthly income of the urban farmers is spent on food. According to Engel's law, this makes the urban farming household less well-off in terms of livelihood because the share of their total expenditure that goes to food is high. (Aliber, 2009)

Table 3. Socio-economic characteristics of respondents

Variables	**Frequency**	**Percentage**	**Mean**
Age			
21-40	29	36.25	46 years
41-60	34	42.50	
61-80	17	21.25	
Gender			
Male	45	56.2	
Female	35	43.8	
Household Size			
1-3	37	46.2	5 persons

4-6	27	33.8	
7-9	16	20.0	
Years of Education			
1-3	29	36.2	
4-6	31	38.8	
7-9	20	25.0	
Water Source			
Public/Piped Water	63	78.8	
Borehole Water	15	18.8	
Pond, Lake & River Water	2	2.5	
Income (rand)			
1-1000	23	28.8	2668.75
1001-2000	8	10.0	
2001-3000	18	22.5	
3001-4000	17	21.3	
4001-5000	10	12.5	
5001-6000	4	5.0	
Food Expenses (rand)			
1-1000	32	40.0	1284.75/month
1001-2000	44	55.0	
2001-3000	4	5.0	
Other Expenses (rand)			
1-1000	71	88.8	
1001-2000	0	0	
2001-3000	0	0	
3001-4000	5	6.3	
4001-5000	4	5.0	

3.2. Estimates of Tobit Regression of Factors influencing Agricultural Households' Income in Limpopo Province

Table (4) shows the results of the Tobit regression which determined the factors influencing the agricultural households' income in the study area. However, F-test shows that the estimates of the equation of the model were jointly significant at ($p<0.01$) level of significance. The pseudo-R-square is 0.0236. From the thirteen included variables only eight were statistically significant at different levels (Households size ($p<0.01$), employment status ($p<0.01$), accessibility to farm ($p<0.05$), animal possession ($p<0.10$), high food possession ($p<0.10$), shocks ($p<0.05$), shock impact ($p<0.01$) and respondents water source ($p<0.10$). Furthermore, results of the Tobit model presented the marginal effects of each variable. Test for multicollinearity among the variables was carried out with variance inflation factor (VIF) and the mean VIF was 1.92 (see Table 5). Also, high level of tolerance computed for the variables indicates that there was the absence of serious multicollinearity among the variables.

In the study, the parameter of households' size has a negative (-370.1264) effect on their income ($p<0.01$), meaning that increase in respondents household size leads to a reduction in households' income. In addition, larger household's size will lead to a lesser income of the agricultural households. This is not in line with the *a priori* expectation as the heads are supposed to have better income. However, this could be due to the economic situation of the nation which is generally characterized by the low income of households in the nation. Also, the coefficient of respondent's employment status was negative (-318.2081) and significant at ($p<0.01$) level of significance. This indicates that employment status of respondents is negatively related to the households' income in the study area. By implication, this implies that the farming households' employment status is negative and significant to their income. This is to say that as the households get more employment, their income reduces. This is not in line with the *a priori* expectation of the study.

Furthermore, the parameter of respondents possession of animal is negative (-673.0762) and significant at ($p<0.10$) level of significance. This means that respondents with farm animals have a lower tendency of having a good income. This is not in line with the *a priori* knowledge of this study. More so, the coefficient of respondents food price was negative (-1038.644) and significant at ($p<0.10$) level of significance. This indicates that respondent's food price have a lesser likelihood of influencing their income status. In addition, shock and shock impact were found significant at ($p<0.05$) and ($p<0.10$) level of significance to their income level, this is in line with the *a priori* expectation as a type of shock and its impact is expected to affect the urban agricultural households in the study area. Expectedly, the farming households' parameter of water source was negative (-453.242) and significant ($p<0.10$). This indicates that the source of water consumed by the agricultural households has a lesser likelihood of influencing their income status in the study area.

Table 4. Tobit regression results of the factors influencing agricultural households' income in Limpopo Province

Household income	Coefficient	Std. Error	t	P>|t	Tolerance
Household Size	-370.1264	74.69197	-4.96	0.000	0.5328
Gender of the House head	521.319	365.5402	1.43	0.158	0.6673
Employment Status	-318.2081	110.6235	-2.88	0.005	0.5050
Household Sickness Record	-225.131	417.9472	-0.54	0.592	0.5784
Farm Accessibility	913.2278	404.7518	2.26	0.027	0.5299
Animal possession	-673.0762	355.1493	-1.90	0.062	0.7798
Food expenditure	-245.215	152.0958	-0.98	0.329	0.5698
No food	-206.0404	209.7586	-0.98	0.329	0.7451
High food price	-1038.644	527.1203	-1.97	0.053	0.3891
Shock	86.24057	43.03042	2.00	0.049	0.5687

Shock impact	-537.1986	187.2236	-2.87	0.005	0.3091
Shock compensations	21.24364	30.15156	0.70	0.484	0.3658
Water source	-453.242	268.8034	-1.69	0.096	0.5933
Constant	6375.871	1577.098	4.04	0.000	
Observation Number	80				
LR chi^2 (13)	32.61				
Prob> chi^2	0.0019				
Pseudo R^2	0.0236				
Log likelihood	-674.52895				

Table 5. Multi-collinearity test of variables

Variables	VIF	SQRT VIF	Tolerance	Eigenvalue
Household income	1.51	1.23	0.6638	11.5148
Household size	1.88	1.37	0.5328	1.0815
Gender	1.50	1.22	0.6673	4.6309
Employment	1.98	1.41	0.5050	0.4429
Household sickness	1.73	1.31	0.5784	0.3164
Farm access	1.89	1.37	0.5299	0.2971
Animal possession	1.28	1.13	0.7798	0.1979
Food expenditure	1.75	1.32	0.5698	0.1832
No food	1.34	1.16	0.7451	0.1230
High food price	2.57	1.60	0.3891	0.0930
Shock	1.76	1.33	0.5687	0.0792
Shock impact	3.24	1.80	0.3091	0.0536
Shock compensation	2.73	1.65	0.3658	0.0477
Water source	1.69	1.30	0.5933	0.0262
Mean VIF	1.92			

3.3. Estimates of Probit Regression of the Assessment of the Farming Household's Food Security in the Study Area

Table (6) shows the results of the Probit regression which assessed the factors influencing farming households food security. The result shows that the model produced good fits for the data as revealed by statistical significance of the Likelihood Ratio Chi-Square ($p<0.01$). The marginal parameters were also used for interpretation of the results. In order to avoid inconsistency and biases from the estimated parameters, the study subjected the variables to multicollinearity test using Collin command in STATA. Test for multicollinearity among the variables was carried out with Variance Inflation Factor (VIF) and the mean VIF of the variables was 2.86 (See Table 7).

Also, high level of tolerance computed for the variables indicates that there was the absence of serious multicollinearity in the analysis. In the study, ten out of the twenty variables analyzed were found to have significantly influenced farming households' food security in the study area. These variables included households"

size, shock and drought shock, the age of household head, employment status of the head, asset ownership of the head, household income, a crop was grown, theft and death record in the family. The parameter of household size was statistically significant ($p<0.10$) with a positive coefficient (0.2378) to respondents' food security status in this model. This indicates that households size influenced the probability of households' being food secure in the study area. This further implies that household's size had a significantly higher probability of influencing their food security status in the study area. This is in line with the finding of Babatunde *et al*., (2007) who reported that as the household size increases, the probability of food security decreases.

In addition, the coefficient of households shock and drought shock experience was also found to be positive (0.5737) and significant ($p<0.05$). This indicates that as the agricultural household's experience of drought and other forms of shocks increases, the food insecurity condition of such households' increases. The positive and significant effect of the household shocks increases the probability of households being food insecure. This is in line with the *a priori* expectation of this study, as more shock experienced by the agricultural households could directly influence family members' food insecurity status.

In the same vein, the parameter of household's age was positive (0.9472) and significant ($p<0.05$). This indicates that age of the farming households' increases the probability of increasing their food security status. Also, employment status, asset ownership and income of the respondents have a critical contribution to their food security status in the study area. Furthermore, the parameter of respondents' crop grown, theft incidence and death record in the family were found positively significant in the study at ($p<0.05$), ($p<0.05$) and ($p<0.10$) which indicates that as the agricultural households crop that was cultivated, theft incidence and death record increases the probability of increase in their food security status.

Table 6. Probit regression results of the assessment of the farming household's food security in the study area

	Coefficient	**Std. Error**	**Z**	**P>|z**	**Marginal effects**	**Tolerance**
Household size	.2378807	.1400632	1.70	0.089	.0424329	0.4694
Education	-.37175	.246638	-0.15	0.880	-.0066312	0.4140
Shock	-.573759	.2589819	-2.22	0.027	-.1023466	0.2973
Drought shock	-8.597943	3.535554	-2.43	0.015	-.2663342	0.2399
Gender	1.683225	1.121214	1.50	0.1333	.3002521	0.4121
Household head age	.9472738	.378212	2.50	0.012	.1689738	0.4359
Employment	-.5091104	.2580137	-1.97	0.048	-.0908146	0.3666
Household sickness	-.1836794	.716439	-0.26	0.798	-0.327646	0.4156

Source of power	.9459561	.72200244	1.31	0.190	.1687387	0.3905
Cooking fuel	.5316287	1.161315	0.46	0.647	.0948314	0.4067
Water source	-.4565023	1.132291	-0.40	0.687	-.0814304	0.3493
Asset ownership	-.4216384	.2548724	-1.65	0.098	-.0752115	0.4132
Household livelihood	-.0583322	.0704307	-0.83	0.408	-.0104052	0.3524
Household income	-1.029442	.5398118	-1.91	0.057	-.1836309	0.1726
Food expenditure	.1386634	.3720467	0.37	0.709	.0247346	0.2057
Crop grown	.6738691	.2682137	2.51	0.012	.1202041	0.3257
Adult eating pattern	-1.516066	.9964504	-1.52	0.128	-.2704344	0.3590
Child eating pattern	-.2921364	.6379064	-0.46	0.647	-.052111	0.5215
Theft	5.388979	2.690162	2.00	0.045	.9457412	0.5015
Death of family	3.239575	1.883803	1.72	0.085	.8942156	0.4248
Constant	4.284745	4.177338	1.03	0.305		
Observation Number LR chi^2 (20) Prob> chi^2 Pseudo R^2 Log likelihood	80 67.61 0.0000 0.6278 -20.036929					

Table 7. Multi-collinearity test of variables

Variables	**VIF**	**VIF**	**Tolerance**	**Eigenvalue**
No food	2.29	1.51	0.4360	15.9952
Household size	2.13	1.46	0.4694	1.4031
Education	2.42	1.55	0.4140	1.0711
Shock	3.36	1.83	0.2973	0.9927
Drought shock	4.17	2.04	0.2399	0.6624
Gender	2.43	1.56	0.4121	0.3642
Household head age	2.29	1.51	0.4359	0.3446
Employment	2.73	1.65	0.3666	0.2310
Household sickness	2.41	1.55	0.4156	0.1935
Source of power	2.56	1.60	0.3905	0.1417
Cooking fuel	2.46	1.57	0.4067	0.1379
Water source	2.86	1.69	0.3493	0.0924
Asset ownership	2.42	1.56	0.4132	0.0853
Household livelihood	2.84	1.68	0.3524	0.0696
Household income	5.79	2.41	0.1726	0.0578
Food expenditure	4.86	2.20	0.2057	0.0483
Crop grown	3.07	1.75	0.3257	0.0384

Adult eating pattern	2.79	1.67	0.3590	0.0256
Child eating pattern	1.92	1.38	0.5215	0.0193
Theft	1.99	1.41	0.4985	0.0132
Death of family	2.35	1.53	0.4248	0.0072
Mean VIF	2.86			

4. Conclusion

This paper explained the food security situation among South African Urban Agricultural households in Limpopo Province of South Africa. This study brought to the limelight some salient policy issues that should be urgently addressed in order to mitigate the food insecurity issues among the urban households in Limpopo Province of South Africa. In conclusion, the rural farming households in the Province of South Africa are witnessing different dimensions of food (in)security which is obviously affecting different aspects of their social and economic activities even on daily basis.

5. Recommendations

It is recommended that South African government should ensure that the teaming unemployed youths are encouraged to practice agriculture so as to replace the aging farmers in the rural parts of the country. Also, drought shock, theft and other forms of negative occurrence should be critically appraised by the government of the day. Finally, financial support should be rendered to the poor Urban Agricultural households in order to invest in the agricultural enterprise for better food security. The onus, therefore, rests on the government to provide a holistic approach to the grass root food security state of South Africa so as to effect a timely intervention in order to rescue the Urban Agricultural households in the study area.

6. Disclosure Statement

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