

## The Socio-economic Status as a Factor Affecting Food (In) Security in Rural Areas, uThungulu District Municipality, Kwa-Zulu Natal, South Africa

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**ABSTRACT** South Africa is food-secure nationally, but at household level, it is food-insecure due to socio-economic factors that limit access to food to a large number of people who live below poverty line. The study examined the impact of socio-demographic status on food (in) security particularly in the rural areas of uThungulu District Municipality. The results of this paper form part of the major study. One hundred and forty seven respondents, who were available to participate, completed the questionnaires about food security related issues. Unemployment rate exceeded fifty percent and a low percentage (25%) of the respondents was diverting to self-employment as means to generate income. The results further indicated that forty-two percent of the study population was earning the minimum income of R700 per month. The majority of the respondents were not actively involved in entrepreneurship activities. The majority of the respondents had poor socio-economic profiles and this make them vulnerable to food insecurity.

### INTRODUCTION

Socio-economic factors are crucial for understanding the challenges of food security in order to find and implement solutions. Dharmaseena et al. (2016) asserted that socio-economic factors affect access to food and acquisition decisions by individuals and households. uThungulu District Municipality has significant resources to ensure that both men and women are equipped with means of coping with food insecurity (Integrated Development Plan (IDP) 2016/2017). Furthermore, Moyo and Machethe (2016) attested that a large population in South Africa, particularly in Limpopo Province, is severely food-insecure due to low household income. Throughout the world, food insecurity is a major public problem in rural areas. Section 27 of the Constitution of the Republic of South Africa (1996) asserts that everyone has the right to have access to sufficient food. Food security is a vital aspect of well-being and socio-economic development in poor rural and urban communities. The fundamental problem or cause of food insecurity is that poor households are unable to purchase food despite its availability. South Africa as a country has a food-secure status but at

household level, people are food-insecure. However, Hendriks et al. (2016) suggested immediate food security indicators to evaluate the effectiveness of different interventions aimed at food insecurity alleviation.

It is also noted in Food and Agriculture Organisation (FAO) (2001) that vulnerable groups are predominantly found in rural areas. It is further assumed that food-insecure populations are usually larger and exposed to vulnerability factors, including low-income, insecure land tenure or a deteriorating natural resource base. Misselhorn (2009) alluded that the real problem is deeply rooted in structural socio-economic and governance factors that lead to ongoing livelihood failures and food insecurity. Ncube and Kang'ethe (2015) stated that the black majority has a poor socio-economic status; this leaves most of them vulnerable to food insecurity because they lack purchasing power. Mmbengwa et al. (2012) pointed out that where socio-economic problems are dominant, it is suggested that governments have to enhance an enabling environment for farming and small, medium and micro-sized enterprises (SMMEs) as well as the provision of financial assistance as a tool for socio-economic upliftment. De Marco and Thor-

burn (2008) clearly stated that the cost of living, transportation, and human capital factors such as educational attainment and employment have been linked to food insecurity. Phillips (2009) similarly maintained that food insecurity may also include issues of distribution of resources, production of food, climate change, land ownership, human rights, economic and social development. The issue of unequal distribution of resources mostly affect women who lack access to security of tenure or ownership which limits their role to alleviate food insecurity. Moyo et al. (2016) confirmed that in South Africa, household food security does not mainly depend only on household food production but also on total household income generation. Modirwa and Oladele (2012) further pointed out that the socio-economic status of women plays either a negative or positive role in food security, and women have poor expertise regarding a range of productive resources, including education, land, information and financial resources.

Food and Agriculture Organisation (2003) asserted that food insecurity results from various factors, some of them generic, such as poor governance and lack of institutional support. The Statistics South African (SSA 2014) showed that the unemployment rate stood at 25.2 percent making food insecurity a growing problem within the country. It further stated that government and other institutions needed various interventions and programmes to reduce vulnerability, and to manage food insecurity and improve the welfare of citizens. South African local institutions are unable to take a leading role in rural development through enhancing food security programmes (Fukuda-Parr and Taylor 2015) poor countries with a weak government capacity tend to depend on food aid as means to cope with nutrition and food supply shocks. However, this dependency might also have a negative impact on the price stability and local availability of food in the longer term.

### Objective

The objective of study is to determine the impact of socio-demographic status on food (in) security particularly in rural areas of *uThungulu* District Municipality.

### MATERIAL AND METHODS

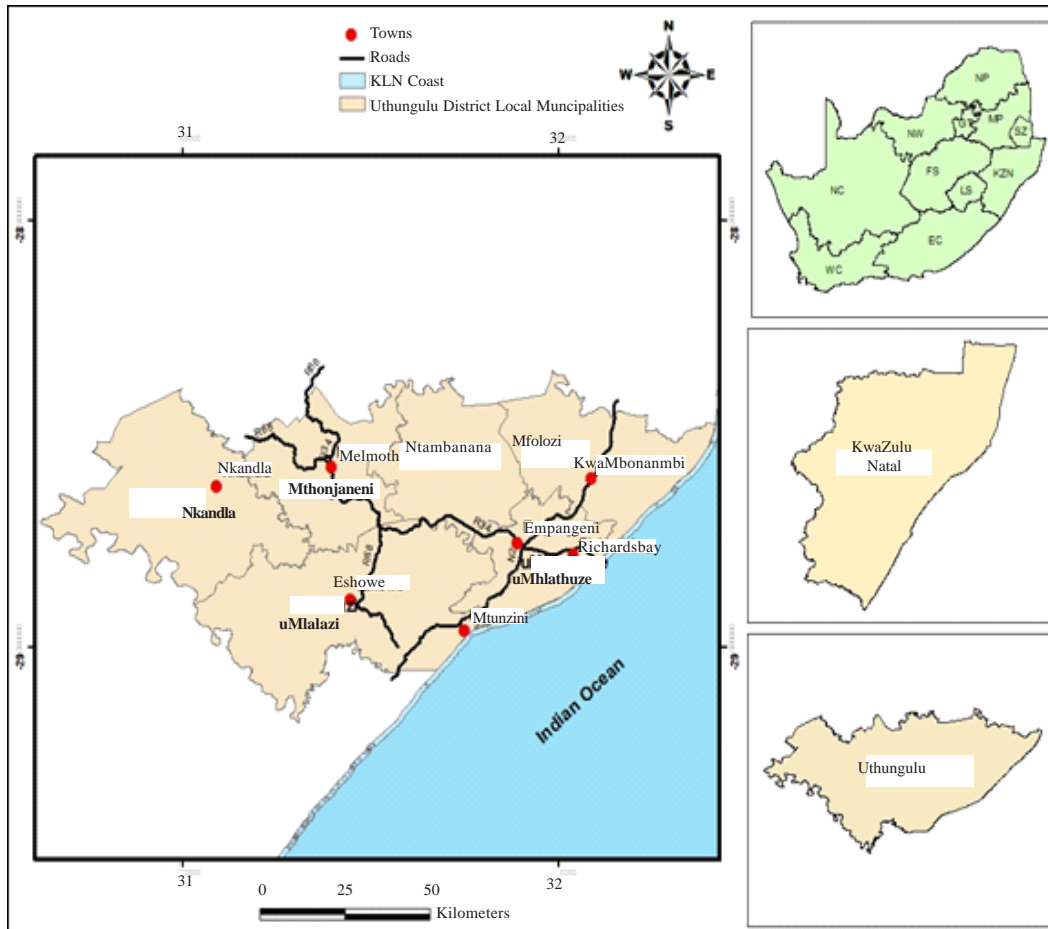
Kwa-Zulu Natal (KZN) is dominated by rural areas where people struggle to access food, and

as a result the majority are food-insecure. It is noted that this is the third smallest province in South Africa, but it has the largest population. Most areas are associated with insufficient development and poor service provision and delivery (SSA 2014). Furthermore, it is specifically noted that the province is facing a lack of or inadequate basic infrastructure and poor roads, shortage of basic needs such as water and electricity, inaccessibility to markets, lack of credit, inadequacy of education and health facilities, as well as scarcity of job opportunities (Katanekszs et al. 2012). Unemployment in this province has been noted with concern as one of the major constraints that contribute to high levels of poverty and income inequality, decreasing the overall quality of life (Provincial Growth and Development Plan (PGDP) 2012). A self-administered questionnaire was used to collect data from 147 community members. The respondents were from six local municipalities within *uThungulu* District Municipality as depicted in Figure 1.

Quantitative research was utilised to quantify the problem by generating numerical data on socio-demographic status of respondents, food security status, and services that were available to the community rendered by different governmental institutions. Convenience sampling method was used where researchers identified community members who were available to take part in the study. Data were cleaned and coded. Statistical Package for Social Sciences (IBM SPSS22) was used to develop percentages, frequencies and correlations.

### RESULTS AND DISCUSSION

This study reports the analysis and interpretation of the demographic data collected within six local municipalities of *uThungulu* District Municipality in the province of KZN. It is organised into three sections: the first section provides the analysis of socio-demographic characteristics of respondents including gender, age, education level, marital status, employment status and income per month; section two provides sources of revenue in the form of SMMEs; while section three provides significant relationships between variables. Socio-economic factors have an influence on the kind of approach that needs to be implemented by various stakeholders to overcome food insecurity particularly in rural areas by looking at the socio-economic status of the communities. Data were carefully reduced



**Fig. 1. Map of uThungulu District Municipality**

and scientifically presented in percentages and tables for the interpretation and discussion of the results.

**Socio-economic Status of Respondents**

The total number of respondents that participated in the study was 147 from within uThungulu District Municipality. The respondents were requested to complete the socio-demographic questionnaire. Twenty-five percent of respondents were males and seventy-six percent were females, indicating that more females are more involved in the issues of food (in) security. Sharaunga et al. (2016) noted that in South Africa, particularly in rural areas, women play crucial roles in ensuring household food security.

However, women are still part of the most economically and socially disempowered groups in society. The results show that there are still gender barriers, which is why Qureshi et al. (2015) suggested that women empowerment is a crucial strategy for addressing high level of food insecurity. Furthermore, internationally, forty-three percent of women were involved in agricultural labour, with percentages as high as sixty percent in African states. Tibesigwa and Visser (2016) noted that in South Africa, female-headed households, particularly in rural areas, are more food-insecure because of poor socio-economic status. The majority of respondents were adults and services related to enhancement of food security were pre-dominantly performed by them. Fukuda-Parr and Taylor (2015) pointed

out that poor socio-demographic factors have led to the loss of the entitlements of individuals and households, and the impact on hunger and food insecurity.

Halakakatti et al. (2007) emphasised that women play an important role not only in agriculture but also in non-agricultural activities and they also contribute in taking decisions that will bring food at household level. It was discovered that rural women perform a large part of work relating to the maintenance of agricultural assets and agricultural production while their work is not recognised in the market as an economic activity. The present study noted that institutional support would contribute to food security and livelihood generation amongst rural people particularly women. However, the findings of Sridhar (2013) supported the empowerment of women because it creates an enabling environment for them and the ability to undertake a number of tasks either individually or in groups, so that they would have access to and control of society resources. On the other hand, Ncube and Kang'ethe (2015) reported that women in Africa are still the worst affected people by food crisis and this indicates that they are denied equal opportunity with men in various spheres of life including government and private sector.

Twenty-nine percent of the respondents range between the ages of 20 and 29. Most of the governmental programmes targeted the mentioned age group because they have maximum potential to stimulate the economy of the country. It is further revealed in Fukuda-Parr and Taylor (2015) that food insecurity is most pronounced amongst the elderly women, the disabled, and groups living in rural areas. Nine percent of the respondents range between the ages of 50 and 59 and this indicates that the ages of 20-49 (Table 1) are more affected by food insecurity due to low income as discussed.

Sharaunga et al. (2016) argued that education levels and employment determine the person's earning power and closely influence household food security. The results that are presented in Table 1 indicate that 22.4 percent went to tertiary institutions such as Universities and Technical Vocational Education and Training (TVET), nineteen percent studied until primary level and 10.2 percent had no formal education. Oni et al. (2010) indicated that most food security projects failed to accomplish food security in spite of huge investments by govern-

**Table 1: Socio-economic characteristics of respondents**

<i>Variable</i>	<i>Freq</i>	<i>%</i>
<i>Gender</i>		
Male	36	24.5
Female	111	75.5
Total	147	100
<i>Age (yrs)</i>		
20-29	44	29.3
30-39	42	28.9
40-49	23	15.9
50-9	13	8.8
60 and above	25	17.1
Total	147	100
<i>Education Level</i>		
No formal education	15	10.2
Primary education	28	19
Secondary education	71	48.3
Tertiary education	33	22.4
Total	147	100
<i>Marital Status</i>		
Single	92	62.6
Married	37	25.2
Divorced	4	2.7
Widowed	14	9.5
Total	147	100
<i>Employment</i>		
Full-time farmer	5	3.4
Part time farmer	17	11.6
Formally employed	19	12.9
Pensioner	19	12.9
Unemployed	51	34.7
Self employed	36	24.5
Total	147	100
<i>Income (R) per month</i>		
0 700	49	42.2
0 701-1 500	29	25
1 501-3 000	19	16.4
3 001-5 000	9	7.8
5 001-10 000	4	3.4
10 001 and Above	6	5.2
Total	116	100

ment because of some socio-economic constraints such as lack of education. Sridhar et al. (2013) emphasised that in order to empower rural populations in developing countries, vocational training programmes are the most important tools to address the issues of unemployed women and youth in rural areas in order to improve access to resources and standard of living.

Most of the respondents (62.6%) were single and 25.2 percent were married. These results are contrary to the perception that in African rural communities, marriage is the important source of social status particularly women because they earn respect and dignity in the com-

munity (Wolfe et al. 1996). Employment status of respondents is a vital factor because it determines the purchasing power and accessibility to food. It also indicates the quality of life in the community. Thirty-five percent of respondents were reported unemployed and 24.5 percent were self-employed. In agreement, Gollin (2008) discovered that many developing countries are dominated by people who are self-employed. This indicates that unemployment is particularly acute among young people in poor communities, where the unemployment rate often exceeds fifty percent and there is little sustainability in the economy. South African education system does not prepare young people for the world of work which means the government must have urgent intervention to improve this situation.

The findings show low percentages of people diverting to self-employment as means of entrepreneurship to generate income for uplifting their standard of living. The findings by Mohapatra et al. (2007) are in line with the study findings when they pointed out that in most developing countries particularly in rural areas, self-employment is still low because it is not well understood as the contributor toward increasing rural income. This indicates that many people of uThungulu do not even look at self-employment as an option but they usually rely solely on getting jobs at established businesses. The findings of uThungulu IDP (2014/15) stated that the majority of people (50%) who dwell in rural areas are unemployed because of scarce skills and industries located in the study area were forced to source labour from outside the region to the detriment of local workers.

This indicates that unemployment rate is high in rural areas due to the lack of skills which has negatively affected employment conditions and this situation portrays that public and private institutions find it hard to create job opportunities. It was noted with concern in Moyo (2007) that even though South Africa has got high unemployment rate, food security at household level for rural populace is obtained through agricultural production.

Even though people are employed, it is crucial to look at their earnings per month as that will determine their purchasing power. Forty-two percent of the respondents reported that their income was R700 per month while 5.2 percent had an income of R10001 and above. The study

report was in line with the findings of Gollin et al. (2007) and Pandey (2016) who contended that the majority of poor countries are in a situation of high food drain because of their low income of which the large proportion is required for food. This indicates that the majority of the population has low purchasing power which makes them unable to have access to nutritious food which also suggests that there is a lack of institutional services that could improve their income. This further indicates that the rural poor in low-income countries are more vulnerable to food insecurity while Poulsen et al. (2015) noted that farming activities may provide a source of food and income for households and assist to reduce food insecurity. Mabuza et al. (2016) attested that in South Africa nonfarm income is generated from related activities such as self-employment within local community. Due to this situation, some households have resorted to maintaining a portfolio of income sources with those outside agriculture.

The income generated in this study concur with Loopstra and Tarasuk (2013) who indicated that factors that make households to be food insecure are low household income and lack of entitlement such as home and land ownership. The respondents clearly stated that due to their low income they were unable to do savings and investments. Loopstra and Tarasuk's (2013) findings suggested that the interventions of different institutions that would aim at increasing the financial security would improve access to food for food-insecure households. As a result of poor socio-economic status of the majority of the people, the government has decided to encourage communities to establish cooperatives to improve income generation, productivity and reduce food insecurity particularly at household level.

#### **Source of Revenue in the Form of SMMEs by Respondents**

Generally, unemployment and food insecurity is triggering many people to start small businesses in an attempt to earn a living and these businesses generate income for both unskilled and semi-skilled labourers. Table 2 portrays kinds of businesses that were performed by respondents.

The results indicated that the majority of respondents were not actively involved in any type of business. Table 2 shows that the high

**Table 2: Descriptions of different type of small businesses run by respondents (Authors)**

Variable	Response	Frequency	%
<i>Spaza Shops<sup>1</sup></i>	Yes	21	14.3
	No	126	85.7
	Total	147	100
<i>Hawking</i>	Yes	15	10.2
	No	132	89.9
	Total	147	100
<i>Construction</i>	Yes	26	17.7
	No	121	82.3
	Total	147	100
<i>Catering</i>	Yes	28	19.0
	No	119	81.0
	Total	147	100
<i>Rent out</i>	Yes	24	16.3
	No	123	83.7
	Total	147	100
<i>Selling Firewood</i>	Yes	13	8.8
	No	134	91.2
	Total	147	100
<i>Carpentry</i>	Yes	15	10.2
	No	132	89.8
	Total	147	100
<i>Herbalist</i>	Yes	6	4.1
	No	141	95.9
	Total	147	100

*A Spaza shop<sup>1</sup> is an informal convenience shop in South Africa usually run from home*

percentage of respondents answered no to most questions which means they were not business orientated while very few of them had businesses. Pereira et al. (2014) noted that *spaza shops* have great influence in rural food security and strengthen community-level food security. Nineteen percent of respondents owned catering company where they render their services to the local communities to generate income for their living while 17.7 percent respondents were involved in construction and 16.3 percent for renting out their goods such as tents, chairs, and musical instruments. This paper concurs with Ligthelm (2011) and Fakoti (2013) that the failure rate of SMMEs is very high and the majority fails within two years. Nine percent of the respondents used forest as the source of income by selling fire wood since rural areas are dominated by forests. This is noted in Shackleton et al. (2007) that the majority of forests, by their very nature, are located in remote areas as these areas are relatively underdeveloped in terms of infrastructure, government services, markets and jobs. Respondents pointed out that it is challenging to start a business in rural areas because there is no support from governmental institu-

tions and local people do not have confidence on local businesses or branding. The study findings indicate that there are very few people who are involved in small businesses and this is an indication, according to Lundstrom and Stevenson (2001) that people are discouraged due to the fact that rural businesses receive very little attention as well as lack of support from financial institutions. This indicates that rural areas are still faced with numerous challenges that cripple entrepreneurial growth.

Du Toit et al. (2009) asserted that the government has established a variety of policies to stimulate growth of SMMEs and entrepreneurship in rural areas as the strategy to address food insecurity and other related poverty issues such as BEE, Broad-Based Black Economic Empowerment (BBBEE or B-BBEE), Accelerated and Shared Growth Initiative (ASGISA), Growth, Employment and Redistribution (GEAR), Reconstruction and Development Programmes (RDP) and National Development Plan (NDP). Furthermore, these programmes indicate the importance of SMMEs as alluded in Antoni and Umejese (2014). Table 3 portrays services available in communities.

**Table 3: Available services in communities**

Variable	Response	Frequency	%
<i>Water Supply</i>	Yes	119	81
	No	28	19
	Total	147	100
<i>Electricity</i>	Yes	134	91.2
	No	13	8.8
	Total	147	100
<i>Public Transport</i>	Yes	127	86.4
	No	20	13.6
	Total	147	100
<i>Road Infrastructure</i>	Yes	123	83.7
	No	24	16.3
	Total	147	100
<i>Physical Market</i>	Yes	75	51
	No	72	49
	Total	147	100

The results reveal that the majority of respondents (81%) indicated that water was supplied in their area. However, respondents stated that water was supplied once a week and they fetched water through community taps as they did not have taps in their household yards. Sixteen percent of the respondents indicated that the road needed to be built and maintained.

These findings are supported by Menon and Dixit (2013) that rural women and men must have equal access to land, water, credit and other important services that improve quality of life. Qureshi et al. (2015) pointed out that in many countries, public investment in physical infrastructure including irrigation facilities has stimulated and reduced rural food insecurity. He further reported that rural subsidized electrification has improved the availability of water for irrigation. Table 4 shows where people purchase their food.

**Table 4: Shopping and food aid in the uThungulu District**

Variable	Frequency	Percentage
Local business	23	15.6
Town	124	84.5
Access to food aid	8	5.4
No access to food	138	93.9

Eighty-four percent of the respondents shopped in town because of the variety of food stuff and because they believed that it was cheaper than the rural *spaza* or general shops and they also insisted that rural shops were not up to standard because sometimes they sold spoiled or expired food. They further stated that infrastructure such as buildings and furniture was extremely poor and there was a lack of electronic equipment and variety of food stuff. Sixteen percent maintained that they used local shops because it was convenient for them. They further indicated that in rural shops they were allowed to buy food on credit and pay at the end of the month and transport to town was expensive. This was further noted by Dharmasena et al. (2016) that there is an inadequate availability of local grocery stores due to limited variety of food. Paddison and Calderwood's (2007) findings are in line with the study. They stated that rural shops are disadvantaged because of geographic isolation and unfavourable cost structures. They also argued that stereotyping of rural shops is incorrect since marginalised enterprises were contrasted against more innovative forms.

Five percent of the respondents reported that they received food aid from governmental institutions periodically when there were election campaigns or when there had been a disaster or during Christmas time. Makenete et al. (1998)

asserted that food aid programmes initially existed to fill the food gap experienced by countries that were unable to produce or commercially import enough food to meet local demand and governments determines how much aid should be received by vulnerable communities. Ninety-four percent of the respondents indicated that they had never received such kind of aid because they were informed that there was no such programme in South Africa as it is in Lesotho. Makenete et al. (1998) indicated that in Lesotho, it is very difficult to deal with food security problems and therefore food aid in the form of free gifts, grants or low credit sales is an important mechanism to halt mass hunger. Furthermore, they argued that food aid is more significant in ensuring sufficient food security and that it continuously provides access to nutritious food for vulnerable groups in the short and long term. Food aid continues to ensure access to nutritious food for vulnerable groups. While Ninno et al. (2007) described the purpose of food aid as the strategy for short-term emergency relief that assists in addressing medium-term food deficits. Developing country governments have adopted various strategies and efforts to increase production as well as public distribution of food. This indicates that in the absence of food aid, nutrition and consumption levels are likely to drop consequently increasing food insecurity.

### Significant Relationships between Variables

This section explains the correlation analysis, which is used to quantify the association between two continuous variables. In correlation analysis a sample correlation coefficient is estimated. The sample correlation coefficient is denoted by  $r$  and ranges between +1 and -1 and quantifies the direction and strength of linear association between the two variables. Correlations were drawn between gender, age, marital status, education, employment, income, food aid, *spaza shops*, renting out, physical markets, selling of firewood, and catering. The correlations associated with socio-economic status are reported in Tables 5 and 6.

In Table 5, the significant correlation  $p < 0.01$  is observed between age and marital status. Age and education shows insignificant correlation (-0.549) at  $p < 0.01$ , this is because most respondent didn't reach tertiary level. Marital status and education well as marital status and land

access show the insignificant correlation at (-0.239) and (-0.252) respectively when observed at  $p < 0.01$ . This is caused by the high percentage of unmarried people as compared to married ones and low levels of tertiary education compared to secondary education. This further indicates that marital status affects their educational level of vice versa.

**Table 5: Correlations at  $p < 0.01$**

Variable	Correlation $r$	Significance at $p < 0.01$
Age and marital status	0.605	0.000
Age and education	-0.549	0.000
Marital status and education	-0.239	0.004
Education and income	0.298	0.001

Education and income show weak positive correlation of 0.298 and a one percent significant when observed at ten percent level of significance, this is caused by a high percentage who have secondary education followed by primary education and a high percentage of people earning between R700 and R1500 per month. The study indicates that educated people have high income. This is supported by Qureshi et al. (2015) that education is a vital factor that influences the food security status of the households and provides greater employment opportunities and increases household income. Furthermore, Mutisya et al. (2016) viewed access to education as a mechanism that could improve food security through access to information on best agricultural production, nutrition and increased efficiency on better decision making.

In Table 6, gender and *spaza shops* show a positive but weak correlation at  $p < 0.05$  significant this is further indicated when comparing gender and renting out. This is caused by a high percentage of females involved in *spaza*

**Table 6: Correlations at  $p < 0.05$**

Variable	Correlation $r$	Significance at $p < 0.01$
Gender and <i>spaza shops</i>	0.174	0.035
Gender and rent out	0.176	0.033
Marital status and income	0.192	0.039
Marital status and food aid	-0.167	0.044
Education and food aid	0.188	0.022
Employment and income	-0.231	0.013

shops; and most of them are renting out things. Marital status and income also have a positive but insignificant correlation at  $p < 0.05$  this is true because most people (63%) are single.

Education and food aid show a positive but insignificant correlation when observed at  $p < 0.05$  significance. This is strange because a lot of people have high school education with some going as far as tertiary level. This was supposed to convert into better jobs but the level of unemployment is very high and people who are receiving food aid is very low (5.4%) due of institutional gaps. Employment and income have shown an insignificant correlation when observed at  $p < 0.05$  level. This is caused by low level of employment where the highest income is between R700 and R1500 per month.

## CONCLUSION

The majority of the respondents have poor socio-economic status. The results show that they are more vulnerable to food insecurity, particularly women. Most rural women are more involved in agricultural activities including the maintenance of agricultural equipment and agricultural production; however, their work is not recognised as an economic activity. Furthermore, the results confirmed that the majority of rural people has secondary education which limits them from participating in markets due to low purchasing power. The study found that there is a high rate of unemployment due to the fact that public and private institutions are unable to create job opportunities and those who are employed are low income earners without permanent jobs. The study also portrayed lack of entrepreneurship skills and that the businesses of rural people are unable to compete in the market. This is because they have numerous challenges that include being unable to meet the demand of the market, and their products do not meet the standards of the market and there is inadequate support from various institutions.

## RECOMMENDATIONS

The South African Government should improve food security policies that would be specific to particular societies, for example, provinces, and address the needs of that specific culture, with an intention to empower that culture to use its indigenous knowledge to produce and have access to food. The reason be-



hind this is that South Africa is the 'rainbow nation', which means it has different races and ethnic groups which have their own unique ways of ensuring food security.

There is a need to determine new methods of financing or funding rural entrepreneurs and small-scale farmers. Cost-effective ways must be identified to improve access to inputs that would maximise production of small-scale farmers so that they may earn cash as well as compete in the market, thereby improving food security. The Government should address issues of food access and affordability for low-income people, particularly in rural areas where the majority of the population has a poor socio-economic profile. Programmes such as an unemployment grant should be formulated and implemented to enable people to enjoy the right to food as stipulated in the Constitution. Food aid programmes should also be introduced to avoid hunger or famine.

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