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Perceptions of Smallholder Farmers Towards Organic Farming in South Africa

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ABSTRACT

Despite the global achievement of the commercial agriculture and momentous development in incorporating smallholder farmers since independent, food security remains a major concern in South Africa. Though, the government has lunched several programmes to ensure that smallholder farmers are integrated in the mainstream of organic agriculture. Reasons for these are profit opportunities, environmental sustainability, and cultural factors as well as to ensure food security in rural households. The study aims at identifying various measures of smallholder farmers' perceptions on organic crop farming using descriptive statistics inform of Likert scale. A sample size of 160 organic crop farmers from Amathole District Municipality was interviewed. The results showed that 66.9% of the respondents agreed that the practice improved their livelihood, 56.9% also agreed that organic farming is a profitable business while 83.1% of the respondents considered the practice to be environmentally friendly. However, the findings from this study provides useful insights for policy makers, farm advisers, and researchers in the design of effective policies and programmes which can promote organic farm practices, improve smallholder farmers' livelihoods and drive growth in the organic food market.

Keywords: Likert scale; livelihoods; organic farming; perception; smallholder farmer.

1. INTRODUCTION

Organic food production is a major innovation that is seen to have beneficial impacts on future agricultural sustainability (Wheeler, 2005). Although, conventional farming plays a major role in meeting the basic

food needs of the people. It is however, dependent on the intensive inputs of synthetic pesticides and fertilizers (Tu, Louws, Creamer, Mueller, Brownie, Fager, Bell and Shuijin, 2006). Indigenous subsistence smallholder farming on the other hand, can no longer meet the demands and expectation of the world's growing population (Adomi, Monday-Ogbomo and Inoni, 2003). Some argued that the full acceptance and use of new technology, as well as the formulation and implementation of dynamic agricultural policies are effective ways of increasing agricultural output, alleviating poverty and ensuring self-sufficiency (Aina, 2007). The practice of organic farming has been identified as a trail to sustainable development, alleviating poverty and enhancing food security in the rural households.

Increasing food production in the country and tackling deep-rooted problem of hunger in the rural households is one of the major factors that farmers perceived towards the practice of organic farming. Many non-governmental organisations (NGOs) as well as farmers' organisations are progressively promoting organic agriculture methods as a way to ensure food safety. The conventional intensive agricultural system is said to have some side effects on the production of food in relation to food quality and safety measures (Adebayo and Oladele, 2014). Thus, organic agriculture is one of the sustainable methods of farming and it offers potential towards shift in food and nutritional security (Byerlee and Alex, 2005).

Similarly, Anderson, Green and Jolly (2005) indicated that organic farming is a process that excludes the use of synthetic pesticides, fertilizers, livestock feed additives and growth regulators. The system essentially depends on crop residues, crop rotation, legumes, green manures, off-farm organic wastes, animal manures, mechanical cultivation and biological pest control. This results in balanced soil fertility maintenance, which in turn results in the replenishment of plant nutrients, weed control, insect control and other aspects of pest control.

Agbamu (2002) viewed the technique as the way-out from the environmental limitations of the chemical dependant in conventional farming method. Thus, organic farming is said to involve a deliberate attempt of making the best and efficient use of natural and local resources in an ecological pleasant farming system. It refers to the management of the ecosystem without the use of external inputs, particularly the synthetic ones.

Despite increasing applications of chemical pesticides fertilizers and high input technologies over the years, environmental degradation, poverty and hunger remain major concerns regarding global human security issues. Smallholder farming in particularly is projected to provide households with equitable food thereby ensuring food security at the national level (Sanders, 2006). Organic farming is therefore an interesting option that is considered as a sustainable agriculture in less developed nations for smallholder farmers. Reasons are, it offers a low combination of external inputs technical know-how, conservative environment as well as efficient input/output (Augustine, Jokthan, Zarafi and Bivan, 2013).

Organic Farming in South Africa

According to Parrott *et. al.*, (2006), South Africa has two distinctive classes of organic agriculture, they are; certified organic production and non-certified or agro-ecological production. The certified organic farms production is set aside primarily for export markets in North America and Europe while the non-certified farming is practiced to tackle difficulties faced by smallholders such as food insecurity, income and deep-rooted hunger in the rural households. The practice of organic farming within the sector has developed

gradually but progressively over the past ten years in South Africa (Auerbach, 2003). In the past, the sector was overwhelmed by divisions, but small and large-scale producers have now come jointly to form the South African Organic Sector Organisation. Traditionally, recognized organic farming developed amongst commercial farmers primarily for the export market. However, customary farming excludes the use of chemical fertilizers and the more developing customary farmers used crop rotation and fertilized their soil with kraal fertilizer. Modi (2003) stated that these practices are related to organic farming and in areas where there is an existing practice of conservative agriculture, it has been simple to initiate organic farm management for household food security and for the commercial market.

The organic trend in South Africa has a long history dated back 1970s. Moffet (2001) noted that there are about 50 small-scale organic farmers in 1990 and the United Kingdom Soil Association certified the first set of farmers in 1993. This has increased slowly and steadily over the years.

The role of organic agriculture in South Africa has begun to add value in creating incomes and generating foreign exchange for the economy, but like in most other African countries, the non-financial benefits of organic farming have not been properly documented (Rundgren, 2006). There is huge potential for organic intensification in South Africa. This can be achieved by a growing sizeable domestic organic market unlike in many other African countries whose market size is mainly determined by exports (GROLINK, 2002). EPOPA (2006) estimated the value of the South African organic market to be around R100 million across all categories of produce which has led to the intensification of this agricultural sector over the last 15 years. The active participation of smallholders who were hitherto given little support, are being promoted by many large retail chains actively promoting organic products in marketing campaigns.

Farmers' Perception Towards Organic Farming

The theory of reason and action is also a factor that a person alleged control over act of a behaviour. This factor is referred to as "Alleged Behavioural Act"; this is called the perception of the simplicity or complexity of performing the behaviour. However, it is expected that a farmer who adopts or trial of the innovation, modifies his or her beliefs and perceptions towards the innovation. In addition, farmers' are not expected to consider only expected profit as the benefit to adopt an innovation but to the trade-off between perceived expected benefits and perceived riskiness associated with the innovation, farmers may also consider other benefits, costs and risks, for instance, social and environmental ones to make the decision (Rogers, 2003).

Farmers' perception about an innovation is guided by three considerable variables of the adoption, which are household characteristics factors, farm characteristics and acquisition of information/process of learning about organic farming (Borges *et. al.*, 2015). Farmers' intention on organic farming and the decision to adopt rely on these factors. In conclusion these aforementioned variables influence farmers' perception towards the adoption of organic farming practices.

Although, very few studies have been done investigating thoroughly on smallholder organic crop farming, to the best knowledge of these researchers in Amathole District Municipality of the Eastern Cape Province.

Given the above background, it becomes timely to embark on a research of this nature which aimed to describe smallholder farmers' perceptions on organic crop farming in Amathole District of Eastern Cape Province, South Africa.

2. MATERIALS AND METHODS

Area of Study

The study was carried in Amathole District Municipality of the Eastern Cape Province. The district is located between Port Alfred and Port St John's in the Eastern Cape Province of South Africa. The district extends from the Indian Ocean coastline in the South to the Amathole Mountains in the North. The district covers a land area of approximately 23,577.11km^2 and comprises of seven local municipalities and one Metropolitan. The district has a human development index of 0.52 with a population of over 1,635,433 (Statsa census, 2011) and a moderately high population density of 78 people per square kilometre. Majority of the inhabitants are blacks with some whites and coloureds. The occupation of the inhabitants varied. However, majority of the inhabitants are small-scale farmers while others engage in petty trading and civil service. Amathole District Municipality has the second largest economy in the province.

Sampling Plan

Information on organic crop farmers in the study area was obtained from the department of Agriculture and Agrarian reform. The organic crop farmers constituted the population of the study. A multi-stage stratified random sampling was used for this study. Raymond Mhlaba and Amahlathi local municipalities were randomly selected from Amathole District Municipality. Four villages were randomly selected from the two local municipalities and they included: Ntelamasi, Mathole, Mavuso and Mghaise. Forty (40) organic crop farmers were chosen from each of these villages given a total sample size of one hundred and sixty (160) rural organic crop farmers.

Data Collection

This research employed primary and secondary source of data. Primary data was collected through structured questionnaires to get information on the perception of farmers towards organic crop production. The questionnaire was used for those practicing organic crop farming. Secondary data from journals, books and articles was also used for literature to get the information on organic crop farmers.

Data Analysis

A descriptive statistics inform of five points Likert scale was used to describe farmers' perceptions to organic crop farming. Nine attitudinal statements were presented to respondents in the survey. Farmers were asked to tick the appropriate reaction which was scored on a 5-point Likert scale from 5 (strongly agree) to 1 (strongly disagree). The difficulty of measuring attitudes, character, and personality traits lies in the procedure for transferring these qualities into a quantitative measure for data analysis purposes (Likert, 1932). However, in response to the difficulty of measuring personality traits and character, Likert developed a procedure for measuring attitudinal scales. This procedure was adopted in this study for quantitative measure of data analysis.

Results and Discussion

As shown in Figure 1, it is observed that majority of the respondents have favourable perceptions towards organic farming. "Sixty-six percent" of the respondents strongly agree that organic farming could improve their livelihood. "Eighty-three point one percent" of the respondents strongly agree that the practice of

organic farming is environmentally friendly. It was observed that "Sixty-four point two percent" of the respondents strongly agree that the practice allows them to make use of their own farming skills. However, majority of the smallholder organic crop farmers perceived organic farming as a profitable business. This is because it is less expensive to practice and also avoid loss of nutrients from the soil as well as environmentally friendly. This is also because of the higher incomes generated from farm produce due to high price premium on the products in local and international markets. This result supports the findings of Dipeolu *et. al.*, (2006) while studying a comparative economic analysis of organic and inorganic vegetable production in Ogun State Nigeria that farmers, had a positive perception towards organic farming. It is also observed in line with the findings conducted by Tratnik *et. al.*, (2009) that there is a positive perception shown by Croatian vegetable growers towards organic farming. The overall implication of this finding is that organic farming adoption has a potential in the study area if farmers are further encouraged to adopt the farming system.

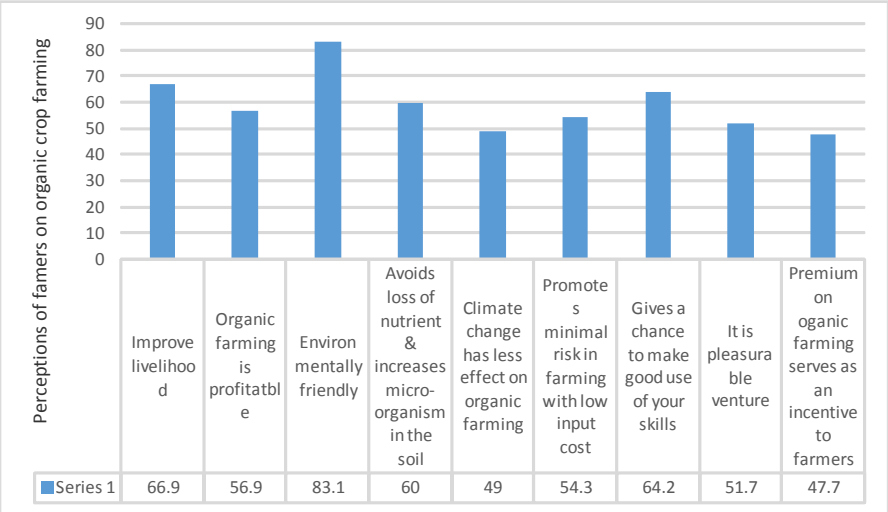

Figure 1: Perception of Smallholder Farmers on Organic cropping
Source: **Field Survey 2016**

3. CONCLUSION

This study has shown the extent to which farmers' perception towards organic crop farming could improve their livelihood, generate income through the sales of organic products as well as become food secured and consumption of nutritious foods in the rural households. The findings have a lot of implications for policy making. Organic farming must be improved to alleviate poverty and hunger in the rural communities and also must be encouraged by several stakeholders and the South African government as a way to lessen the threat of poverty for rural poor farmers. However, the following recommendations must be taken, to overcome this challenge.

4. RECOMMENDATIONS

Rural organic crop farmers in South Africa and Amathole District in precise need to be motivated by government to encourage more rural households to partake in organic farming in order to improve their livelihood and become food secured in the teething global food crisis.

The government must make sure that agricultural inputs are subsides and are enjoyed by the target audience in the rural communities.

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