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## RESEARCH ARTICLE

# CHALLENGES FACED IN THE MANAGEMENT OF SMALL SCALE FARM ENTERPRISES IN TRANS-NZIOIA COUNTY, KENYA

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### Abstract

This paper examines the challenges affecting the farming practices of small scale farmers in Trans-Nzoia County. The study adopted a survey research design in which interviews and questionnaires were used to collect data from the Agricultural Officer at the Trans-Nzoia County headquarters, the extension staff and selected farmers. A total of 357 respondents were selected using simple cluster sampling technique. The study employed regression model with a view to ascertain which of the farm enterprises would be appropriate in improving the farmer's livelihoods. The identified challenges facing the farm enterprises include, the small farm sizes, civil (political) strife, poor post harvest storage, poor farm tools used, failure to access fertilizers, poor farming methods employed, poor soils, diseases and pests, climatic changes and marginal provision of extension services. The government should consider increasing provision of extension services to the small scale farmers so as to change the thinking of the small scale farmers, and ultimately their farming practices. This could lead to improvement in the production levels of the farm produce.

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## Introduction

The most difficult challenge facing communities in the developing world where a substantial majority of the population is considered poor is the reduction of poverty and improvement in the people's living conditions through sustainable economic growth. According to Kwesiga (2004), sustainable economic growth is growth that is durable, environmentally friendly and widely supported and shared. Without sustainable economic growth, policies aimed at alleviating poverty in developing countries will do little more than redistribute existing poverty. Income growth widens people's choices and is regarded as a key to poverty reduction. Improving the economic status of poor people allows them to increase their consumption and gives them additional means of production which are essential for food security, material prosperity and social status. It also reduces on the pressure on the environmental resources.

### Origin of Farming Practices, Agricultural Policies and Programmes for Farmers

The period following independence for most of the developing countries held great hopes because the governments of these countries aspired for fast growth, overcoming adversities; wiping out poverty, feeding their peoples and providing everyone with equal opportunities to improve their livelihood. Underlying all these was the ideal of democratic participation by the people in the decisions affecting them. Initially, most countries moved in the right direction in their quest for higher standards. But over the decades, because of both external and internal factors, and

natural disasters; this was not attained. Twice as many countries are short of food today as there were in the 1950s (Mohiuddin & Poonam, 1991). Africa, formerly a net exporter of food, is today heavily dependent on food aid and imports (Hailu, 2008). This is equally true of the food situation in Kenya. What happened along the way is a question that is pertinent and needs a critical study. An analysis of the challenges faced by farmers and particularly small scale farmers is imperative.

The low growth rate in agriculture in many African countries, Kenya inclusive, in the late 20<sup>th</sup> century indicates the lack of attention paid to this sector. While there was improvement in food production in the late 1990s (Collinson, 2007) in the sub-Saharan countries, production in the 21<sup>st</sup> century has greatly declined (UN Report, 2005). The result is that despite efforts by many developing countries, Kenya inclusive; income distribution has become increasingly distorted, economic growth faltered, poverty and hunger have become widespread with resultant environmental degradation. The worst hit is the majority of the poor and under-nourished who live in the countryside locations such as Trans-Nzoia County of Kenya. Most of these are small scale farmers often referred to as marginal farmers simply because they produce little amounts for feeding themselves and not sufficient enough to export.

Most of the small scale farmers in developing countries are facing a big challenge because on entering the twenty-first century, the world agricultural and food system underwent remarkable change (Martin, 2001). For agribusiness to engage successfully in this emerging system, an understanding of the drivers of this change is essential. Agricultural production and processing are resource-intensive. Hence, societal desires for enhanced environmental quality, often through government regulations and policies, constitute a key driver of change (Perkins, 2008). A second key driver is the industrialization of agriculture as farming shifts from a rural lifestyle to an agribusiness sector with a supply chain mentality. Thirdly, firms that can effectively 'link' the food chain and add value will benefit economically (Perkins, 2008). The worry here is how informed and thus prepared are the small scale farmers in Trans-Nzoia County for the challenges hitherto mentioned.

Yet another challenge is that historically, small scale farmers produced bulk commodities, but increasingly the market is demanding differentiated, specific-attribute products (Martin, 2001). At the same time, biotechnology is accelerating production trends and agriculture is becoming increasingly knowledge-intensive with the evolution of site-specific and information-based decision systems (Perkins, 2008). This may be true in developed countries but given the situation of the small scale farmers in Kenya and Trans-Nzoia County in particular, one wonders if the production is being accelerated by biotechnology at all. If agricultural production has become increasingly knowledge-intensive, it becomes imperative that the government of Kenya has to ensure that the small scale farmers access the required knowledge through increased extension services.

Unfortunately, this has not been the case. This perhaps explains why production trends of many farm enterprises have continued to decline. For instance, it is on record that farmers throughout Kenya are experiencing lower maize yields due to a number of reasons; which include marginal extension services, climatic changes, poor farming methods and non use of fertilizers (Onyango et al., 2001). This is also true of the Trans-Nzoia County which has been the main growing zone for maize in Kenya (KARI, 2005) where continuous cropping of maize, removal of field crop residue for feeding livestock, overgrazing, burning of stover in situ to ease ploughing by small scale farmers have all resulted in the deterioration of both the physical and chemical soil properties (Smaling et al., 1992; Hudgens, 1996; Onyango et al., 1999). At the same time, high inputs and transport costs for agrochemicals make the use of inorganic fertilizers on food crop growing uneconomical for most small scale farmers. This significantly affects production levels of many food crops.

On the other hand, in countries like Zambia, the rearing of the world famous Black Bengal goats has been gaining momentum in the country with a ray of hope to put positive impact on poverty reduction and improvement in the national economy. Giving top priority to poverty reduction, the government has adopted multiple policies and undertaken various programmes and projects, with goat rearing as one of the special programmes for poverty reduction. The Zambian government provides support to farmers (Nyimba, 2003) such as provision of drugs and routine extension services. The government of Kenya may need to borrow a leaf from the Zambian government. Provision of seeds, fertilizers and pesticides to small scale farmers may help change the production trends. On the other hand, introduction of networks to test viability of various crops/livestock over a broad range of environments, explore ways of boosting the efficiency of fertilizer use, upgrade disease resistance in livestock; and identify socioeconomic obstacles to improved agricultural output (Perkins, 2008) is absolutely necessary. This is because the

benefits of networking are especially valuable to countries with limited funds and scientific manpower (Nyimba, 2003). On this basis, the government of Kenya would be justified to introduce net-working and provide seeds, fertilizers and the technical advice and services to the small scale farmers. It is hoped that information provided in this paper will be useful to the government in designing such networking programmes/policies, fertilizers and the technical advice and services to small scale farmers in Trans-Nzoia County and the country at large.

#### Statement of the Problem

Given the above background, it is evident that like in many parts of Kenya, the livelihood of the people in Trans-Nzoia County depends mainly on small scale farming. For a good livelihood, productivity from the small scale farm enterprises needs to be sustainable. However, there are a number of factors that undermine agricultural productivity in Trans-Nzoia County. Some of these include farm management skills, environmental changes, fluctuating input prices, inadequate technical support; but more importantly lack of accurate economic analyses as a basis for selecting farm enterprises.

In as far as productivity of small scale farming enterprises in the Trans-Nzoia County is concerned, there are several questions that need to be answered and these include; why has productivity from the small scale farm enterprises remained low? How much has the government done to support small scale farmers in management of farm enterprises? What challenges do the small scale farmers face in the production process, especially in terms of costs? What are the current production trends of the farm enterprises? Which farm enterprise would be suitable for small scale farmers in the Trans-Nzoia County? These and many other issues need to be ascertained so as to provide a plausible explanation to the situation in Trans-Nzoia County. The small scale farmers also need to increase agricultural productivity and profitability by shifting from low-value to higher-valued enterprises. The increase in agricultural productivity and the shift from low-value to high-value enterprises has to be guided. The study of challenges faced in the management of the small scale farm enterprises was carried out in order to secure empirical data that would form the basis for guidance to the small scale farmers.

#### **MATERIALS AND METHODS**

The study was conducted in Trans-Nzoia County, formerly one of the districts that constituted the Rift Valley Province of the Republic of Kenya. The study adopted a descriptive survey research design. This design was selected because it is convenient in collecting substantial amount of views from respondents over a large area (Koul, 1997). Trans-Nzoia County is quite big in terms of land area (2,487.3 Sq.Km) and so, this design was convenient in soliciting views from respondents on small scale farm enterprises in the County.

The study population constituted of officers from the District Agriculture and Livestock Office, extension staff and selected small scale farmers in the district. Agriculture and Livestock Officers were selected to participate because they are the ones who direct government policy and monitor implementation. The extension staff formed part of the respondents because they are the ones who liaise and work closely with farmers and provide extension services. The population of small scale farmers in Trans-Nzoia County was estimated at 5000 (GoK, 2006) and the district Agricultural Officer who is the implementer of government policy and is directly involved in the farming practices also constituted the population of study. Thus, all the categories of respondents in the study population were carefully selected because they had the kind of data that the study sought to find.

The proportion of the target population that met the inclusion criteria was estimated at 5000. These included the Agricultural Officer (1), eight extension staff (one from each division, two from Cherangany and Kiminini due to their large number of small scale farmers) and 348 small scale farmers (58 from each division. The divisions of Endebess and Kaplamai were combined due to the presence of the Agricultural Development Corporation-ADC farms). This cluster sampling technique was adopted to ensure that data collected was representative of the divisions of Trans-Nzoia County.

The extension staffs and the Agricultural Officer were purposively selected because, by virtue of their positions and responsibility, they are expected to have the kind of data that the study sought to find. However, the research used simple cluster random sampling procedure to select the small scale farmers from each division, each division formed a cluster. This technique was used because it provided for equal chances for each farmer to be selected. The author obtained lists of the small scale farmers in each division so that small ballot papers were made to enable the random

sampling. For each division, the ballot papers were placed in a box and after carefully shaking it, one ballot was picked at a time and the name of the farmer on that ballot was recorded. After that the ballot was replaced and the box shaken again and the process continued until all the 58 farmers were identified. In case a name was picked a second time, the ballot would be replaced to give a chance to another farmer. This procedure was repeated for all the divisions.

The author used questionnaires and interviews techniques for collecting data. The study adopted a descriptive analysis because the data collected was mainly qualitative in nature. This was done thematically and presented in tables and charts so as to interpret the data analyzed.

## RESULTS AND DISCUSSION

### Challenges affecting Production of the Farm Enterprises

Data collected through completed questionnaires by the respondent (small scale farmers) indicated that there are several challenges that affect the farming practices in Trans-Nzoia County and ultimately the production levels. Table 1 presents the challenges enumerated by the respondents (small scale farmers).

**Table 1: Challenges Facing Farm Enterprises in Trans-Nzoia County**

Enumerated challenges	Absolute No.	Percentage (%)
Small land pieces for farming	162	16.0
Nature of farm implements used	138	13.7
Civil strife in the country	121	12.0
Post harvest storage	113	11.2
Poor soils	98	9.7
Disease and pests control	87	8.6
Poor methods of farming employed	79	7.8
Unpredictable climatic changes	67	6.6
Marginal extension services	53	5.3
Ownership of farm land	49	4.8
Accessibility to fertilizers	43	4.3
<b>Totals</b>	<b>1010</b>	<b>100</b>

Note: more than one response is possible

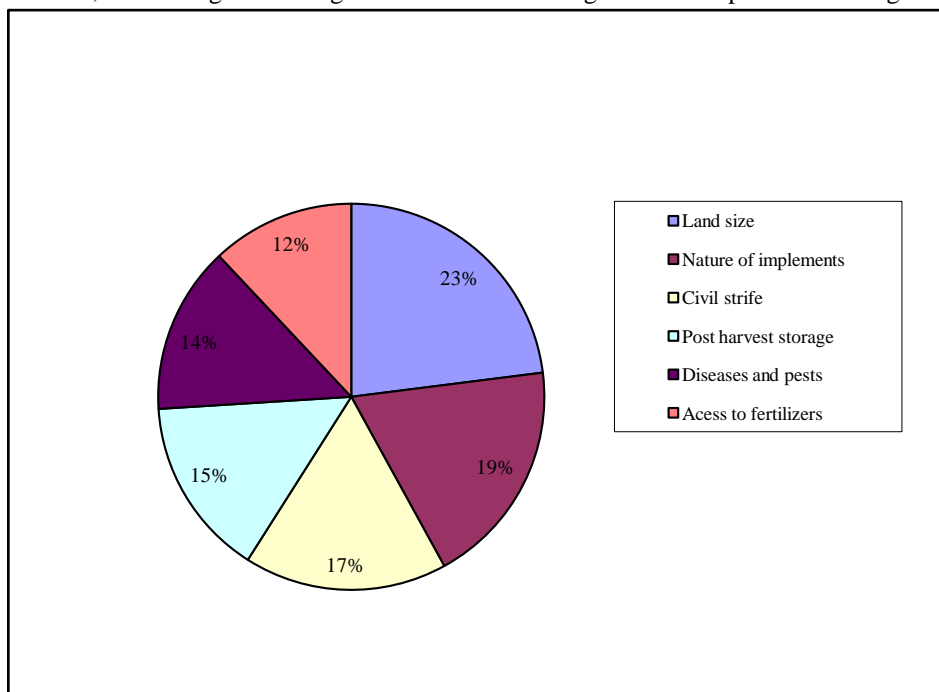
Source: Author's household survey, 2008

From Table 1, majority (16%) of the small scale farmers indicated that the size of the farm land being small presents a big challenge to them. Another 13.7% of the small scale farmers indicated that the nature of farm implements used also presented a challenge to their farm enterprises. Majority of them use the hand hoe that is fairly energy consuming with little improvement in production levels.

Civil strife in the country (12%) and poor post harvest storage (11.2%) and the poor soils (9.7%) are other significant challenges that affect the farming practices in Trans-Nzoia County. The other challenges identified by the respondent (small scale farmers) include disease and pest control (8.6%), poor methods of farming employed (7.8%) and the unpredictable climatic changes (6.6%). The marginal extension services provided (5.3%), the ownership of the farm land (4.8%) and accessibility to fertilizers (4.3%) were also identified as challenges that affected the small scale farmers in Trans-Nzoia County in the recent past.

On the other hand, data obtained through face to face interviews with the respondent extension staff indicated the failure of the small scale farmers to practice better methods of farming that conserve soil fertility and ultimately boosts production. According to them, the extension services are not marginal as indicated by the respondent small scale farmers but rather ineffective. According to data collected through the face to face interviews with the

respondent extension staff, although the challenges they identified are similar to those enumerated by the small scale farmers, their rating of the magnitude of these challenges varied as presented in Figure 1.



**Figure 1: Views of extension staff on the challenges facing the small enterprises in Trans-Nzoia County**

Source: Author's household survey

According to the respondent extension staff and from Figure 1, it is evident that land size (23%) presented a significant challenge to the small scale farmers. This is because according to the respondent extension staff, a substantial number of small scale farmers hire land for farming since they have very small pieces of land. If they cannot raise the money for hiring in time, they often fail to grow what they want or do it late leading to poor harvests. They also fail to take proper care of the land as it does not belong to them. Apart from the challenges, it was found out that civil strife that rocked the country and particularly western Kenya, featured as one of the significant challenges affecting farm enterprises in Trans-Nzoia County. Data obtained through the interview with the Officer in charge of Agriculture at the Trans-Nzoia County head quarters confirmed the challenges enumerated by the small scale farmers and identified by the respondent extension staff.

## CONCLUSION AND RECOMMENDATIONS

The small scale farmers in Trans-Nzoia County are faced with several challenges that affect the farming practices in the area. These include small farm sizes, poor farm tools, failure to access fertilizers, poor soils, poor methods of farming employed in the farming process; diseases and pests, challenges associated with the recent civil strife in the country, marginal extension services and climatic changes.

Further research should be conducted to generate suggestions aimed at resolving these challenges of effective use of arable land and other resources for maximum production, economic returns and high profitability of the farming systems not only in Trans-Nzoia County but in the rest of the country.

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