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## INITIAL FINDINGS OF RURAL FOOD SECURITY IN SELECTED DISTRICTS OF TRANSVALE

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A study carried in 1995, among 197 randomly selected households in the Limpopo Province indicate a high incidence of and variability in food security. Botlokwa are totally food insecure, while that of Seke are food secure. Based on calculations of the minimum food security level, 58%, 17% and 25% are classified as food insecure. Drought and lack of income as the causal factors of food insecurity, production, employment seeking and asset accumulation are the main constraints to food security in the study households. Intensifying staple food production, working on the land, enhancing participatory agricultural and rural development are the possible options and strategies.

### 1. INTRODUCTION: THE PROBLEM SETTING

Amartya Sen(1981) in his famous book " *Poverty and Famines: An Essay on Entitlement Deprivation*" established the important concept of entitlement to the Food Security equation: Supply  $\times$  Access. He noted that: "Starvation is the characteristic of some people not having enough food to eat. It is the characteristic of there not being enough food to eat."

In an economist's framework food supply is a necessary condition for food security and access to it is a sufficient condition. "Food Security exists when a population is sure of access to safe and nutritious food. On the national level, a country must have a stable supply of food that is available to all households and individuals. There must be a guarantee of physical and economic access to adequate food for all household members at all times, without undue risk of losing such access." (Grukan, 1995). Although the definition may appear very simple, complexity arises when measuring, analysing and monitoring the causal relationships and consequences of food insecurity.

Over the past three decades global food production has grown faster than population, resulting in 18% more per capita food production than 30 years ago. In terms of food availability about 2700 calories per person per day are available compared to 2300 calories three decades ago. Although these figures reflect a general improvement in food world food availability, (1996) estimates indicate that more than 800 million people in developing countries face chronic undernutrition and 200 million under the age of five suffer from acute or chronic protein and energy deficiencies. If these problems are not combatted, the number of undernourished people may still be as high as 800 million and over 300 million of them will be in Sub-Saharan Africa by year 2010. The same 1996 projections classify 88 countries of the world as Low Income Food Deficit Countries (LIFDC), and of these 42 are in Sub-Saharan Africa.

South Africa being as a food surplus producing country is not classified as an LIFDC. It is generally accepted that South Africa produces sufficient food for the population yet a large proportion of the total population face acute problems of malnutrition, hunger and undernourishment.



Province. Every member country of the FAO (South Africa included) is expected to present a position paper on Food Security at the forthcoming World Food Summit of 13-17 November, 1996 in Rome, Italy. South Africa, where very little knowledge on smallholder agriculture and food security is available, to prepare a comprehensive document on Food Security for the Summit becomes a daunting task and with it comes a challenge for researchers.

A study to investigate the incidences and patterns of rural household food insecurity was launched in 1995 in selected districts of the Northern Province. This paper highlights the initial and preliminary findings of the study to stimulate further discussion on the subject, to guide the on-going research and contribute to the development of knowledge in HFS which would be relevant to rural areas of South Africa.

### **1.1 Provincial profile**

The Northern Province is the poorest province in South Africa with a GDP per capita of R1266 (DBSA, 1995). The Province has a population of about 5.12 million (growing at 3.9% per year), with a total area of 119 000 sq km (14% arable and 54.2% grazing land). It has the lowest degree of urbanization (12.1%) and is historically predominantly a rural region where agriculture plays an important role.

This mostly semi-arid Province, is characterized by problems of drought, animal disease, lack of water for human and livestock, depleted underground water resources and human and livestock. Recurring drought has adversely reduced both crop and livestock production in the region (Northern Province, White Paper on Agriculture, 1995). Most rural households are subjected to seasonal food shortages. Employment opportunities in the rural areas are very limited or non-existent. These features make the Province particularly vulnerable to food insecurity.

## **2. CONCEPTUAL FRAMEWORK**

Several authors (White Paper on Agriculture, 1995; Staats et al., 1990; Eicher and Staats, 1986) have defined Food Security as the ability of all households in a nation to acquire a calorie-adequate diet at all times. Food Security has two interrelated components: Food Availability and Food Access. Food availability may be ensured through production, storage or trade. Access to food is achieved through production, purchases in the market from income earned or food transfers. It is clear that food security for the broad population is not always directly related to a country's ability to produce food. Singer (1996) provided the following six factors for the declining food security situation in Africa: the marginalization of Africa in economic and human development indicators; the impact of war and conflict; deterioration of terms of trade and debt burdens in developing countries; globalization of markets leading to the shift from food to cash crop production; and the resulting dependency on imported food and Africa's increasing population (Sartorius von Bach, 1996).

While food security research may focus on a national or regional level, household level research perspectives place major emphasis on analysing household data to assess the performance of institutions in assuring household access to food. Analysis of micro level data provides



The first defines individuals as poor if they fall below poverty line set according to well defined standard SALDRU (1993) in its study of the Northern province estimated R750/month/HH as the poverty line. The latter considers the value of the basic basket of goods and services and defines anyone consuming (or earning income) less than a certain amount as being below the poverty line. The third approach which is used in this study following Phillips et. al, (1992) in defining simplified food security equation as:

where

**Table 1: Food Security Indicators in Selected Distr**

**Source:** Computed from the survey data, 1995

Value label	Small families (%)
Food insecure(1)	64
Vulnerable(2)	27
Food secure(3)	9
Total	100% (103)

**Table 3: Status of Household Food Security by dist**

District	Insecure %H
Nebo	62
Seshego	62
Botlokwa	53
Giyani	45
Venda	31



**Table 4: Average Maize and Groundnuts as Reported**

District	Maize in Kg
Nebo	282
Botlokwa	27
Giyani	862
Seshego	473
Venda	1010

**Table 5: Households' Perception on Food Shortages**

Experience Food Shortages yes ( HH)
For see Food Shortages (yes %HH) HH)
Credit Users (% HH)
Market Access(% HH)
Access to Land: Farm land available per HH in Hectares

Source: Survey Data, 1995.

Seshego are vulnerable to food insecurity since their available incomes hardly cover their requirements.

Attempts to calculate the value of subsistence food production and purchased food at individual level per adult equivalent show that 58% of the people in the sample are food insecure while 17% are vulnerable. 25% are food secure. Those classified as insecure allocate for purchasing and/or consume own production valued less than R342 per year per adult equivalent. Those who meet the minimum daily calory requirement (2205) are the vulnerable group allocates between R342 and R400 and secured households are those with more than R400. Although these figures show a very rough indication of HFS, it has been very difficult to get data on quantities of food consumed, purchased, sold and income.

Tables 2 and 3 reveal the status of HFS by family type (small families are those HHs with less than 5 persons and large families are those with greater than 5 persons in the household) and by districts, respectively. The production data for the major staple, maize and the crop, groundnuts as reported by the respondents are given in Table 4. Almost 90% of the HHs produce maize except in Nebo where 11 of the HHs do not produce maize at all.

#### 4.1 Households' perception on food security

Table 5 depicts that more than two-thirds of the HHs responded have had an experience or incidence of food shortages. Respondents attribute the causes of food shortages to drought (50%), insufficient income (34%) and to other factors. 47% of the respondents also state that the summer months when stocks from previous harvests are depleted to be the most severe time of food shortages followed by the winter months (25%). Of those HHs producing food, 24% claimed that their stocks do not last more than six months, 19% between 6 and 12 months and only 29% have food in their stores last for more than a year. Other responses on credit use, market and access to farm land reflect the differences between HHs in the districts (Table 5).



- a) enhance domestic food production/supply;
- b) improve food access to the poor and vulnerable groups and
- c) accelerate agricultural and rural development programs.

An obvious strategy is to stimulate local food production, especially staple crops (drought tolerant, i.e. maize and sorghum in the province, particularly for households who do not have the means to purchase food). Improving and developing efficient water management systems, developing farming systems and technologies adapted to sustainable production for the province, strengthening adaptive agricultural research and extension are possible options National and Provincial Agricultural Policy makers have to explore.

Further research to identify vulnerable and food insecure groups in the rural areas is crucial to design a targeted direct food security intervention (food subsidies) and programs to improve food access to the poor and vulnerable groups. Accelerating agricultural and rural development calls for provision of appropriate support services to improve the productivity of existing farming systems, promoting schemes targeted at increasing on-farm and off-farm employment, infrastructure, improved services and marketing, improving the land tenure and security of farmers (particularly the poor and women farmers). Finally it is critical that effective participation of farmers in the agricultural and rural development process is maintained. The ultimate positive effect of these measures will undoubtedly improve the coping strategies to deal with the risk of food insecurity. Subsequent comprehensive HFS studies will deal with detailed analysis of the factors responsible for HFS and their interrelationships and to eventually develop a model to measure and monitor the process.

## NOTES

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