

CHAPTER SIX

CONCLUSIONS

6.1 Conclusions and Policy Implications

This study evaluates the viability of cassava production as a food security option. It analyses the food security concept. From this analysis it emerges that food security is underpinned by supply, effective demand, nutritional balance and sustenance in supply and demand. A review of the global food security situation reveals that the situation is pathetic. The food security problem is envisaged to deteriorate as the world population increases. With respect to the focal point, Zimbabwe, the study indicates that the situation is equally bad. Although the country has significantly increased food production in the rural areas since 1980 there is still widespread poverty and food insecurity. Malnutrition is rampant.

The study further highlights that access to means of production (land, labour and capital), geographic location, incomes and droughts have a major influence on food security in Zimbabwe. In this regard it will be appreciated that previous food security policy strategies were geared towards addressing the aforementioned problems. These strategic options include food aid, food subsidies, irrigation development, development of marketing infrastructure, resettlement, minimum wage policies and establishment of strategic reserves, price controls, free inputs, etc. These options have been confronted with the problem of disequity as is the case with smallholder maize miracle and lack of sustainability as is the case

with food reserves, early resettlement schemes, some irrigation schemes and others. The challenge to policy makers is therefore to formulate food security policy strategies which improve household food security, reduce social imbalances and are sustainable. The advocacy for cassava production aims to achieve these goals.

The cassava option seeks to address food security problems related to droughts, resource imbalances, lower incomes and geographical locations. It further seeks to address the problem of social imbalance (disequity) and sustainability. It adopts a three pronged strategy which involves:

- * Producing a drought tolerant and low input crop which thrives in various environmental conditions including marginal areas;
- * Producing a cash crop (cassava which is used in stockfeed manufacturing) hence give rural families greater flexibility to buy other food staffs; and,
- * Produce a cheap main stockfeed ingredient hence increase the scope for producing meat cost effectively making it affordable with the consequent effect of increasing meat consumption, thus improve food security from a nutritional balance point of view.

Despite being currently a minor crop in Zimbabwe cassava is one of the most widely grown crops worldwide. It is of major economic and social significance. In the evaluation process the study analyses the suitability of Mashonaland Central and Masholand West for cassava production. It emerges that the physical, climatic, soil and demographic features do not significantly constrain cassava production. Furthermore, the study also highlights that cassava production can be successfully intergated into the current farming

systems. However, the long production cycle of cassava presents rotational problems. This study suggests the use of retired land or alleys (semi-intensive mode of production) for this crop to deal with this problem. Nevertheless, more work on the integration of cassava with the current crops grown in Zimbabwe needs to be carried out.

The study highlights building up cassava production and the establishment of stockfeed mills as the main elements of the proposed cassava project. The growth in cassava production is based on the classical adoption curve. The management of cassava production will largely be an affair of farmers, Department of Research and Specialist Services, and Agritex. Stockfeed mills will be established under a "Built Operate and Transfer" and as such will initially be owned by Ministry of Lands and Agriculture with an autonomous management structure put in place to run the enterprises. The total cost of the project is Z\$19,24 million of which capital items account for Z\$11,2 million. The proposed management structures are meant to enhance sustenance.

The study carries out a thorough feasibility analysis of the proposed cassava project. This analysis is within the context of assessing the viability of cassava as a food security option. Technical aspects which influence the success of cassava production such as botany, climate, soils, diseases, varietal selection and planting orientation are analysed. The analysis shows that although these factors are critical to the success of cassava production they as such do not severely constrain the success of cassava production in Zimbabwe. However, as has been indicated above the long production cycle of cassava makes cassava production less compatible to current farming practices. Secondly, a marketing analysis is presented. This analysis attempts to assess the impact

of critical marketing aspects on the success of the project. Lack of consumer taste and preferences is identified as one of the major constraints on the adoption of cassava. The study proposes the piloting of cassava production in two provinces as a risk management strategy in this area. However, as this proceeds, further studies on cassava consumption should be an integral part of the future work on cassava production in Zimbabwe.

The main economic appraisal tools used in the study are the financial and economic analyses. A budget for cassava production is presented in analysing the cost-benefit for cassava production. The test parameters used are net profit, return per dollar (Z\$) variable cost, gross margins, net present value (NPV), internal rate of return (IRR) and economic rate of return (ERR). The cassava enterprise budgets are used to build up cashflows for the stockfeed factories and whole project or Government perspective. In the analysis it is amply demonstrated that cassava production and stockfeed processing are very viable enterprises. Similarly the economic analysis shows that the project is very viable. However, the Government perspective of the analysis indicates that the project is not very viable mainly because of high expenditures on study tours, travel and subsistence, field days and trucks.

In addition a SWOT analysis is presented in order to provide a qualitative summary of the results of interviews with various stakeholders. It highlights problems and opportunities and this is crucial for strategic policy formulation. From this analysis the issues of consumer taste and preferences for cassava, and longer production cycle remain nagging. However, cassava production has a lot of potential. In addition it offers several benefits which are likely to counter the aforementioned problems and these include improvement of standard of living, employment generation, enhanced

nutrition and food security, revenue generation, soil conservation, higher overall crop production and increased export earnings.

The general conclusions are that cassava is a viable food security option for Zimbabwe. The production of cassava is as a strategic option for sustaining food security. It has a multiplicity of uses and in terms of food security it offers greater flexibility in that it can be consumed directly, it can be easily marketed with proceeds being used for buying other food items, it can be used to produce a variety of foods, and it can be used in meat production (another important element of food security). It is easy and cheap to produce which enhance access. In addition, and unlike most other crops it is drought tolerant, it is not input intensive and adapts to a wide range of environmental conditions. And, although it is currently not of major significance in Zimbabwe, it is widely produced worldwide for human and animal consumption. Millions of people worldwide thrive on it. Thus, Zimbabwe stands to benefit from its production as well.