FOOD SECURITY
FOR
SOUTHERN AFRICA

Edited by
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CONTENTS

Foreword ix
Acknowledgements xiii

PART I: OVERVIEW

1. The Food Security Equation in Southern Africa
   Mandivamba Rukuni and Carl K. Eicher 3

PART II: FOOD SECURITY FOR THE SADCC REGION

Introduction

   Carl K. Eicher and Fidelis Mangwiro 47

3. SADCC's Updated Policy and Strategy for Food, Agriculture and Natural Resources
   SADCC 62

4. SADCC's Updated Food Security Strategy
   K.J.M. Dhliwayo 66

5. Food Aid, Intra-Regional Trade and Economic Development in SADCC
   Mudziviri Nziramasa 77

PART III: FOOD SECURITY FOR ZIMBABWE: INTERACTION OF TECHNOLOGY, INSTITUTIONS AND POLICY

Introduction

   Malcolm J. Blackie 114

7. A Preliminary Assessment of Factors Underlying the Growth of Communal Maize Production in Zimbabwe
   David D. Rohrbach 145

8. The Economics of Groundnut Production by Communal Farmers in Zimbabwe
   G. Makombe, R.H. Bernstein & David D. Rohrbach 185

9. Wheat Policy Options in Zimbabwe and SADCC Countries: Preliminary Findings
   Jim Longmire, Peter Ngobese & Solomon Tembo 216
FOREWORD

This volume includes papers and research proposals prepared by researchers under the aegis of the University of Zimbabwe/Michigan State University (UZ/MSU) Food Security Research Programme in Southern Africa. The objectives of the UZ/MSU research programme are spelled out in Chapter One by Mandivamba Rukuni and Carl K. Eicher.

The papers in this volume (with the exception of Chapters Three and Five) are revised versions of papers that were presented at the University of Zimbabwe's Second Annual Conference on Food Security Research in Southern Africa, Holiday Inn, Harare, November 9-13, 1986.

But before we go further, let's step back and examine the context for food security research in Southern Africa. Currently, 70 million people live in the nine SADCC countries in Southern Africa. Since SADCC states are closely linked to the global food economy through capital transfers, exchange rate movements, food aid and trade, it is important to examine recent trends in the global food economy and the results of research over the past decade on the causes of food insecurity, hunger and malnutrition.

In the decade since the global food crisis of the early 1970s, four important lessons have been learned about the global food equation. First, the projected doomsday scenario of food shortages and higher real food prices in the late 1970s and early 1980s has not materialized. Instead, the global food models developed during and following 1972/73 world food crisis did not accurately foresee a world food economy of the 1980s with world maize prices at a twenty-five year low. In sum, the food pessimism of the early 1970s has been replaced by global food optimism.
of the 1980s. The dramatic change in the world food situation has important implications for food security policy analysis in Southern Africa.

The second lesson that has been learned over the past decade is that expanding research on food crops, increasing food production and achieving national food self-sufficiency will not automatically solve problems of hunger, malnutrition and famine. For example, India achieved national food grain self-sufficiency in the early 1980s, has a national grain reserve of some 30 million tons and became a food aid donor in 1985 when it donated 100,000 tons of food aid to Ethiopia. But today around 200 million or roughly one-fourth of India's population do not have access to enough resources to produce or income to purchase a calorie-adequate diet throughout the year. Based on the influential work of economists such as Reutlinger, Selowsky, Sen, Mellor and Timmer over the past decade, it is now recognized that poverty is a central cause of hunger and food insecurity and that raising the income of the poor is a strategic variable in combating hunger and malnutrition.

The third food lesson is that the most pressing food problems have shifted from Asia to Africa. Although, world opinion became transfixed with the Great African famine in Ethiopia in 1985, in fact, Africa's food crisis dates back to 1970 and earlier. For example, from 1970 to 1984 food production in sub-Saharan Africa grew at half the population growth rate.

The fourth lesson is that a food security research programme should not be restricted to food crops. For example, the most efficient way for many families in Rwanda to meet their calorie needs may be to produce more coffee for export rather than beans for home consumption. Likewise, expanding small ruminant (goats and sheep) and cotton production may generate jobs and income that will
enable rural families to purchase a calorie-adequate diet. In short, the food security research agenda of technical and social scientist should not be restricted to food. In sum, the experience of the past decade has helped shift the food policy debate from Asia to Africa, and from food production and building more grain silos to marketing, trade, food for work programmes and access to food.

Food security research came of age in Africa in the early 1980s under the growing recognition that a number of complex food problems should be examined in a framework that incorporates both food availability (food production and storage) and access to food through home production, purchase in the market or public or private food transfers. This background provides the context for food security research in Africa and the role of the University of Zimbabwe in carrying out food security policy studies and networking in the SADCC region of Southern Africa.

In July 1985, the UZ/MSU research programme was launched in Southern Africa. The chapters in Parts I, II and II in this volume summarize the first 18 months of research by members of the Project. The remaining chapters discuss needed research on food security in Southern Africa, including preliminary research proposals by Mbwanda, Mudimu and Muchero. The results of UZ/MSU research carried out in 1987 will be presented at the University of Zimbabwe's Third Annual Food Security Conference in Harare from November 1-5, 1987.

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CHAPTER FOUR

SADCC'S UPDATED FOOD SECURITY STRATEGY

K.J.M. Dhliwayo

Perhaps the logical and most appropriate point to start the explanation of the SADCC's updated Food Security Strategy is to begin by a brief outline of the Region's concept of Food Security, determine the need for a Food Security Strategy and present a brief outline of the objectives of the Food Security Programme.

FOOD SECURITY

Food insecurity exists when there is not enough food for the people who need it. This situation can arise either because of problems in producing adequate food, distributing the food to the people who need it or because people cannot afford to buy the food that is available. Food Security of the region therefore can only be achieved when all the SADCC Member states ensure that all members of their population have access to an adequate diet to lead an active and normal life throughout the year.

Two essential and integral components of Food Security are food availability (through expanded production, stocks, commercial or other food trade, or through expanded aid) and the ability of all people to acquire that food once made available.

Perhaps it should be emphasized that moves toward achieving national or regional food security begin at household/family levels, particularly in rural areas. Economic analyses indicate that, throughout the SADCC region the bulk of people who suffer either seasonal or semi-permanent food insecurity are in rural areas. Their poverty or food insecurity problems are a result mainly of low agricultural productivity, low incomes and inappro-
priate income distribution. This is likely to continue to be the case for quite some time unless corrective measures are undertaken.

THE NEED FOR A STRATEGY: BACKGROUND

In many parts of the SADCC region, particularly in rural areas, seasonal food scarcity occurs annually before the harvest. This happens when food from the last harvest runs out before the new harvest comes in.

Last year's harvest may run out because enough food to feed the population may not have been produced. Until the new crop matures and is harvested, members of a household are hungry for weeks or even months at a time. Such seasonal shortfalls can be caused by a complete lack of food production caused by either droughts, floods or invasion of crop pests and diseases or due to inadequate food delivery systems or the lack of peoples' access to food (effective demand). In the latter case, food may actually be present within a country or an area, but a large segment of the population may not have access to it simply because they lack adequate purchasing power.

The cost of the food may be so high that only the wealthy can afford it or that the poor people do not have the necessary cash to buy it even if it is available at a reasonable price.

Food insecurity may also be due to the fact that delivery/distribution systems breakdown or lack adequate capacity to move food to those in need of it, causing food to pile up or even rot in docks or silos.

In the SADCC region, the majority of people - men, women and children - who suffer from food insecurity (seasonal famine) live and work in rural areas. Many are landless labourers or peasant farmers who either do not own land or
lack adequate productive resources with which to produce enough food for themselves. They often lack access to credit, agricultural inputs, adequate training and extension service and other technical and marketing facilities.

OBJECTIVES OF THE FOOD SECURITY PROGRAMME

Although the overall aim of the regional Food Security Programme is to increase food availability so that the region can be more self-sufficient in its basic foods needs, the strategy of SADCC's Food Security Sector clearly recognizes that household, national or regional food security cannot be achieved from increased production alone. Food production needs to be complemented by increased cash crop production, enhanced commercial movement of food and agricultural products and inputs within and among Member states and the development of other activities that can generate employment and incomes in order to ensure that people have both physical and financial access to food.

Within this broad aim, the three objectives of the food security programme are:

i) to satisfy the basic needs for food of the population of the region and progressively to improve food supplies to all the people in the region irrespective of their position in society:

ii) to achieve regional self-sufficiency in food supply to the maximum extent possible in order to reduce the region's dependence on external sources of food; and,

iii) to eliminate periodic food crises which affect some areas or countries of the region.
SADCC STRATEGY ON FOOD SECURITY

In order to achieve food security, the Food Security strategy focuses on a number of the major components of a food supply system, namely: improved food and agricultural production; food storage and processing and the distribution of food and other agricultural products on the one hand and, the accessibility of food to the majority of people in the region on the other.

It is strongly felt that the only long term solution to the problem of food security in the region is increased food production because no amount of food aid or other palliatives can solve the problem in a substantial sense. However, the task of increasing food availability and accessibility has to be undertaken in a broad development framework which includes the development of other agricultural enterprises, the provision of fertilizer, pesticides, appropriate technology, provision of adequate training and extension services and the involvement of large masses of people particularly the small-scale farmers and the landless in the process of development and employment.

The proposed strategy for the achievement of SADCC food security objectives, therefore consists of 8 principal elements, namely:

- development of a mechanism for the exchange of technical and economic information
- reinforcement of national food production capacity
- improvement of the food storage, distribution/delivery, conservation and processing systems
- development of cash crops and other agricultural enterprises
- establishment of systems for the prevention of food crises and the development of national food security strategies
- establishment of programmes for the control of major crop pests and crop diseases
- the development of skilled manpower, and
- the development of intra-regional trade.

The Regional Food Security Strategy is an integrated policy package and its major elements are complementary. The principal element of the Strategy is the exchange of technical and economic information, experiences and know-how in agricultural production technology and food supply management. Cooperation on the exchange of information in agricultural production, food supplies, crop prospects, regional resources base, food trade, commodity prices and the constraints on the demand and supply of agricultural commodities, will contribute not only to regional food security but also to the rapid development of the national economies. In this regard, closer links are being developed among the Food, Agriculture and Natural Resources sectors and between these sectors and the other sectors in SADCC's Programme of action such as Trade and Industry, Transport, Manpower, Mining and Energy. However, food security will not be attained only through the exchange of ideas and skills at a regional level. At a national and village levels, this information must be used for the enhancement and reinforcement of national food production capacities i.e. by the farmers and the supporting service institutions such as the credit, research, training and extension organizations.

It is at the national level that the most potent and effective instruments - prices, tax, monetary/credit, budget, public investment and training and extension policies - are formulated and implemented with a view to encourage farmers to increase food production. It is at the national level that these policy instruments have a greater reach into the rural food economy than any that may be conferred upon at a regional level. However, through regional activities such as short-term or inservice
training, exchange of manpower at mid-level management, problems-oriented seminars and courses, and through direct assistance in the planning and designing of projects, it is anticipated that the national production capacities will be enhanced and strengthened. Through these and other regional activities, greater emphasis will be given to the analysis of alternative national and regional food security and agricultural policies and the exchange of experiences in appropriate public welfare interventions aimed at improving household food security.

The strategy fully recognizes that food production per se does not and will not occur evenly among the SADCC Member states nor will it occur evenly in all areas in a particular member State. Warehouses or silos in one member State or in one area of that country could be overflowing with surplus grains, but all this surplus would not contribute to food security unless it is delivered to the areas where it is needed and action taken to ensure that people have access to it.

It cannot be over-emphasized that food production per se does not guarantee food security unless there is an efficient system for the storage, processing, preservation, marketing or/and distribution of that food to where it is needed - a system for the efficient flow of food and other agricultural commodities both at a national and regional level.

The food security strategy therefore recognizes the need for an improved and efficient food storage and delivery system and the need to enhance intra-regional trade. A complementary way of ensuring greater national food security is to improve the ability of a country, both at the national and individual farmer levels, to store grain effectively once it is harvested so as to avoid large food losses. In the region as much as 20% of food/grains is destroyed every year by pests, rot and other storage-
related problems. The percentage of losses incurred in other more perishable food crops such as potatoes, vegetables or fresh milk are probably even higher.

The establishment of a regional food reserve system as an insurance against the risk of food insecurity or famine in the region is underway. The size of the regional food reserve, because it is not costless, will of course depend on what the SADCC Member states are prepared to spend or invest collectively.

In addition to providing a hedge against the risk of famine and therefore improving food security, food reserves invariably have other externalities or benefits such as consumer price stability and the stability of incomes to the farmers.

Apart from enhancing food security at regional, national and household levels, inter-country trade and an efficient movement of agricultural commodities and inputs among Member states will also have positive consequences in other areas. It will expand the size of the SADCC market, make investments in marketing infrastructure much more cost effective and will encourage SADCC Member states to venture into some form of specialization not only in agricultural production but also in other economic activities in line with national endowments and technical/economic capabilities.

Empirical evidence has shown that expanded food production alone will not eliminate hunger nor can it achieve household food security. Experience has also shown that in some countries silos may be full and overflowing with grains, and that grain stocks may become an economic/financial menace while hunger and starvation continue to haunt a large proportion of their populations particularly in the rural areas. This demonstrates that it is not only the availability of food at a national or regional level that assures food security at the household
level but also the ability of the population to secure that food.

In economic terms, therefore, food security can be seen as a function of, inter-alia: increased food supply (either through own production, storage or food aid); efficient food delivery systems and the level and distribution of incomes (effective demand).

Experience has also shown that the production of food fluctuates more than the production of any other basic commodity. The production of the major grains (maize in particular) is subject to weather conditions and other hazards in the region. When bad weather (drought) hits a small and relatively poor country, localized famine or food insecurity results from a food shortfall. The very small farmers (who are the majority) lose their only source of food and incomes. Shortages may begin which are bound to push up consumer prices and as price rise, more and more of these poor farmers find it difficult to afford even a minimum diet.

Given that incomes are an important factor in the achievement of household food security, SADCC's up-dated food security strategy therefore seeks to expand its scope to include agricultural-related activities that will generate employment and incomes for the rural population.

SADCC's updated strategy will identify initiatives which can be taken at the regional level to encourage SADCC Member states with a grain surplus to diversify crop production. This could include cash crops, horticultural and industrial crops, dairy and animal products and the establishment of agro-industries, including fruit and vegetable canning industries, milling factories, factories for the manufacturer of agricultural inputs and the development of an informal sector to produce simple but effective farm equipment.
Possibilities of moving towards some form of specialization by Member states, based on varying natural resource endowments and technical/economic capabilities, will also be encouraged and this, once adopted, will facilitate the flow and exchange of commodities between and among SADCC Member states and hence contribute to an integration of the region's economies.

The strategy recognizes that agricultural production and food production in particular are prone to weather conditions and other hazards. Inadequate rainfall (drought) and invasion of pests and diseases, all affect the production of food crops even in highly sophisticated agricultural systems.

In this respect, the strategy encourages Member states to establish systems for the prevention of food crises and food losses and to initiate programmes for the control of major crop diseases and pests. Concerted regional cooperation and action can: provide early warning in the advent of drought and outbreak of major crop diseases; help deficit countries to obtain imports more quickly from surplus countries; coordinate requests for emergency food aid; provide facilities for food storage and provide easier and more reliable access to food reserves within the region.

The strategy also acknowledges that, skilled manpower, just like land, water, fertilizers and energy, is an important input in agricultural production. Skilled and experienced manpower still poses a major constraint on agricultural production in the region. The strategy therefore incorporates training components in the specific project proposals of the Food Security Programme. This is to be viewed as an integral part of an effort to enhance the production capacities of Member states.

The development and strengthening of national and regional training institutions to complement project specific
inservice training courses will be initiated and co-ordinated by SADCC's Manpower Development Sector. SADCC's twelve regional food security projects are listed in the Annex.

CONCLUSION

While the current Food Security Strategy may not fully achieve the intended objectives, it is anticipated that the strategy or its major elements taken together will take us to a point where we can begin to see the right path to the intended goal. As we attempt to implement the elements of the strategy, new ideas, approaches and yet unimagined components of a food security strategy may open up to us.

We are therefore not in danger of taking a wrong path; we could have been in danger of not taking any path at all. Some people may argue that it is always safer or perhaps more comfortable to wait until we are sure of the track. But waiting for the right solution is almost invariably a prescription for doing nothing at all. We therefore believe that getting on the path, even if it may be a wrong one, will generate enough information and the necessary experience about which the strategy can be made more effective or improved upon.

Our updated Food Security Strategy therefore is by no means to be taken as the Bible. Even the Oxford English Dictionary may be subject to periodic reviews. In any case the ability of the strategy to achieve the intended objectives depends largely on the region's commitment to the achievement of food security. The real challenge therefore is whether the region as an economic community, is prepared to move along whatever paths are available to it now in a way that produces the result that contribute to the attainment of food security. The answer to that question is YES. Yes, the region is willing to bring forth a new kind of commitment that will ensure that what can be done should be done.
ANNEX : SADCC'S REGIONAL FOOD SECURITY PROJECTS

Analyses by SADCC of the major issues concerned with the food security of the region led to the identification of a number of projects designed to address these issues which could be more effectively handled on a cooperative rather than on an individual national basis. These projects are:

Project 1 - A Technical Assistance Programme Designed to Achieve Coordination and Cooperation on all Agrarian Issues.

Project 2 - An Early Warning System for Food Security

Project 3 - A Regional Resources Information System

Project 4 - A Regional Inventory of Agricultural Resource Base

Project 5 - A Regional Food Reserve

Project 6 - Regional Post Production and Food Loss Reduction

Project 7 - Regional Food Processing Technology

Project 8 - Regional Food Marketing Infrastructure

Project 9 - Regional Food Aid

Project 10 - Retention and Recruitment of Professional and Technical Staff in the SADCC Ministries of Agriculture

Project 11 - Regional Seed Production and Supply

Project 12 - Improvement of Irrigation Management.