

SOUTHERN AFRICA: FOOD SECURITY POLICY OPTIONS

Correct citation:

Mandivamba Rukuni and Richard H. Bernstein, eds. 1988. *Southern Africa: Food Security Policy Options*. Proceedings of the Third Annual Conference on Food Security Research in Southern Africa. 1-5 November, 1987. University of Zimbabwe/Michigan State University Food Security Research Project, Department of Agricultural Economics and Extension, Harare.

Library of Congress # HD9017.567

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ACKNOWLEDGEMENTS

This proceedings of the Third Annual Conference on Food Security Research in Southern Africa is the product of close cooperation between social scientists, technical scientists, government officers, and donor agencies in Southern Africa. The studies reported in the proceedings are part of a comparative analysis of food security in Sub-Saharan Africa that is directed by Michael Weber of Michigan State University's Department of Agricultural Economics. The UZ/MSU food security research programme is being carried out through a sub-contract with Michigan State University.

In the Ministry of Lands, Agriculture, and Rural Resettlement, we acknowledge the generous support provided by Sam Muchena and John Dhliwayo who are responsible for the close collaboration between the food security research project and the SADCC Food Security Technical and Administrative Unit--responsible for developing and managing SADCC's Food Security Programme. They have been particularly helpful in identifying relevant research themes that complement the SADCC programme.

The research supporting the preparation the proceedings papers was financed by the U.S. Agency for International Development, Bureau of Science and Technology; Bureau for Africa; and the Southern Africa Regional Programme; under a *Food Security in Africa* cooperative agreement (DAN-1190-A-00-4092-00) with the Department of Agricultural Economics, Michigan State University and a sub-contract with the Department of Agricultural Economics and Extension, University of Zimbabwe. We are grateful to the following present and former USAID officials for their support to the project's efforts to strengthen indigenous research capacity for food security policy research: Don Anderson, Curt Reintsma, Thomas Mehen, Calvin Martin, David Atwood, Ernesto Lucas, Michael Yates, Roy Stacy, Dale Pfeiffer, Pamela Hussey, and Janet Schulman. We are particularly appreciative of the support provided by Allison Herrick, Eric Witt and Joshua Mushauri of the Southern Africa Regional Programme, Harare.

We convey special thanks to Thembi Sibanda for an excellent job in organizing the Third Annual Conference, and to the many individuals who helped to make the conference a success: Murie Hutchison, Lovemore Nyabako, Maxwell Chiwashira, Samson Maguhudze, George Nyamatemba, Ronald Sagwete, Pete Hopkins, and Andrew Barnes.

We are especially indebted to Mrs. Corinne Smith for her patience, skill, and dedication in word processing the numerous drafts of the chapters included in this proceedings. Her persistence in mastering the word processing and laser printer technology has been exceptional.

Finally, we thank Chris Wolf and Elizabeth Bartilson for providing technical support for the laser printing technology used to print the proceedings.

TRADITIONAL HOUSEHOLD STRATEGIES TO COPE WITH FOOD INSECURITY IN THE SADCC REGION

L.M. Zinyama, D.J. Campbell, and T. Matiza¹

INTRODUCTION

The late 1960s ushered in a prolonged period during which Sub-Saharan African countries have found it increasingly difficult to produce sufficient food to meet the needs of their people. Explanations for this situation include environmental causes such as drought and climatic change; political ones such as warfare and government indifference to rural development; the political-economic consequences of the disruption of rural production systems by integration into the world economy; and social changes such as population growth.

The relative importance of each of the above differs from case to case, but there is an emerging consensus that no one cause explains the recurrent deficits. Rather, they emerge from complex interaction among a set of social, economic, political, and environmental variables operating at local, national, and global scales over a long time period.

Policy makers have paid relatively little attention to local level, village-based strategies for coping with food deficits. It is at the village scale that most food is produced and at which the majority of the population seeks security in food production. When hunger threatens, it tends to begin in villages that are the most vulnerable; and if causal conditions prevail, it spreads over an increasingly large area. National and international concern is seldom expressed until widespread problems exist, by which time the villages initially affected may be in dire straits. It is now recognised that in the time between the emergence of a problem and appeals for external institutional assistance, people in affected communities employ a wide array of strategies to mitigate the emerging food shortage. In many cases these are sufficient to prevent a crisis, but in others they are eventually overwhelmed and severe food shortages ensue.

This paper reviews the literature on strategies for coping with food shortages in rural Africa and examines the available data on coping strategies used in the SADCC countries. Theoretical approaches to analysis of coping behaviour are compared, coping strategies are described and the

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structure of the coping behaviour discussed. This paper sets out the context for research being conducted by the authors into the nature of strategies for coping with recurrent food shortage in rural areas of Zimbabwe. This research is funded by the Ford Foundation, the University of Zimbabwe, Michigan State University, and the United States Information Service.

THE THEORETICAL CONTEXT

It is accepted that strategies for coping with recurrent food shortage are integral to rural socioeconomic systems. They include activities which may appear insignificant in years of plenty, but assume great importance during years of scarcity. They represent adjustments which societies have made--either in their socioeconomic and political systems or in their interaction with their environment--to reduce the risks of food shortage, most of which are associated with environmental hazards such as drought and insect damage.

Environmental approach

In recent years, scholars have addressed the relationship between society and the environment through three contrasting approaches. The earliest of these, environmental determinism, argued that the physical environment determines the nature of rural production. While popular for a few decades prior to World War II, and factual evidence did not support this approach. It is now seen as an apologia for colonial activities, rather than a scientific analysis. The demise of environmental determinism led to a neglect of analysing the role of the physical environment in explaining patterns of development.

Cultural ecology approach

During the 1950s and 1960s, most concern with the environment focussed on devising policies to reduce soil erosion and overgrazing. Environmental issues were seen as distinct, rather than as integral components of the rural socioeconomic system. Geographers and anthropologists continued to explore the interactive nature of people--environment relations within a cultural ecology framework. Cultural ecologists drew analogues with the concepts of adaptation and evolution in biology to argue that societies adapted themselves and their physical environment to try to meet the community's material and spiritual needs. The approach argued that societies faced with reoccurring food shortages would develop means to cope with their effects. Many researchers have examined indigenous strategies for coping with food shortage within this framework (Colson, 1979; Hankins, 1974; Tobert, 1985).

The adaptationist's cultural ecology approach is criticised for failing to recognise that the opportunity set of coping strategies is determined not only by the interaction of society with its physical environment, but also by both the structure of relations within the society and between local communities and the broader national socio-political structure.

Political ecology approach

An alternative approach known as political ecology (Bargatzky, 1984; Blaikie and Brookfield, 1987) developed out of a realisation that the adaptationist framework failed to explain recent food shortages in Africa. Rather, it recognised that integration of village communities into colonial economic systems had radically transformed the operational context of the interaction between village society and its environment. Consequently, the pre-existing adaptations were less effective in dealing with food shortage and the people were more vulnerable when environmental disruptions to food production began in the late 1960s (Wisner, 1977; Watts, 1983a; 1983b).

While the political ecology approach, centered in the dependency paradigm, has proven instructive in analysing the contemporary food security situation in Africa, it fails to explain circumstances where integration in colonial systems has reduced deaths due to the availability of marketed grain and food relief (Kates *et al.*, 1981) and it fails to explain shortages in socialist countries such as China (Torry, 1984; 1986).

Proposed framework

This paper proposes a more general conceptual model which incorporates the importance of both cultural ecology and political ecology, but strives for a greater range of applicability. The structure of rural systems is seen as emerging over time from an interaction between social, political and economic systems and their environment. Prior to the colonial period, African rural societies represented relatively closed systems in which the pattern of rural life was determined largely by village-level processes. As integration with the broader economy progressed, rural systems have become more open and determinants of the system's configuration have become increasingly distant from the village. Centralised, often sectoral, decision making in both socialist and capitalist countries has preempted local processes. This emphasis on sectoral matters has replaced the traditional focus upon the system as a whole and weakened the ability of local societies to manage their interaction with the physical environment (Berry *et al.*, 1977; Campbell, 1984).

In this context, village-coping strategies represent a subset of the total interaction between society and the physical environment. They have emerged as an integral part of the rural system and are subject to change as the development context of the village changes. However, they remain as

vital mechanisms for ensuring the ability of rural communities to weather periods of food shortage.

STRATEGIES FOR COPING WITH FOOD SHORTAGE IN RURAL AFRICA

Numerous studies have documented strategies used by herding and farming communities in Sub-Saharan Africa to cope with food deficits². They have shown that coping strategies are widespread; vary from one society to another; and are adopted in an identifiable sequence--most palatable are taken first and those representing major disruptions of societal norms are taken last.

In a review of societal responses to natural hazards, Burton, Kates and White (1978) have categorized coping strategies as reflecting means of preventing and modifying the hazard events, and of sharing and bearing the consequences. The strategies are based in the totality of the societies' economic, social, political, and environmental resources (Figure 1) reflecting their role as integral components of the system. Their importance in the system are often only apparent in times of deficit. In years of adequate production, they are often unimportant aspects of the production system. As such, they are vulnerable to disruption if development policies are implemented which fail to recognise the "occasional" significance of such strategies.

Economic strategies

Economic strategies for ameliorating the impact of events which reduce food availability include diversification of crops produced, animals owned, and on- and off-farm income supplements. Diversity reduces the risk of shortage as a downturn in one activity is offset to some extent by the continued production of others. It also allows for the flexible allocation of resources, such as labour, in response to changing circumstances.

A further set of economic strategies is based on savings. Farmers and herders build up stores of grain, livestock, cash, jewellery, and other commodities which are liquidated in times of difficulty, either through consumption or sale. In some cases, under conditions of severe hardship, people even sell productive assets such as draught animals and land and may abandon agriculture entirely.

²For a review of such studies see Campbell (1986).

Figure 1. Characteristics of strategies for coping with food deficit.

	Social	Economic	Environmental	Political
Prevent occurrence of deficit	Extended family; Village ties; Clans etc.	Store, Production strategy; Economic diversity; Build up assets	Fallow; Manure; Ecological variety; Wild food	
Modify conditions of deficit	Pray; Pay rainmaker	Sell: crops, food, assets, livestock. Labour migration	Migrate to newlands	
Share consequences	Gifts; Loans; Children go to kin	Gifts; Loans		Access to relief institutions
Bear consequences	Pray; Elderly "go out to die"	Cattle die, Crops wilt		

Source: Modified from Burton, Kates and White (1978).

In recent years, as rural systems have become more fully integrated into national economies, extra-village strategies developed. For example, trading systems have allowed households to make cash purchase of grain over wide areas, and labour migration has assumed a greater role in reducing shortage.

Social strategies

Social responses to food shortage are found in reciprocal arrangements based on membership in institutions such as family, clan, and age set. Such institutions have fundamental roles in the organisation of society, among which is their coping function.

Social strategies include labour sharing (e.g. to tend a field or care for animals); the gift or loan of food, livestock or cash; and in some cases sending members of a distressed family to live with more fortunate relatives or friends. Such strategies are reciprocal in that assistance given at any one time may represent repayment of past kindness; or a commitment on the part of those being helped to assist the help-givers, should they experience problems at a future time. The pattern of reciprocity is complex across institutions and over time; assistance may even be repaid across generational boundaries (Cashdan, 1985).

Environmental strategies

Communities selectively use their physical resources base to reduce the likelihood of food shortage. Different locales, valleys, and hills provide different ecological potential which permit farmers to diversify crop production and allow herders to move their animals from one area to another in response to the availability of pasture and water. Fallow and uncultivated land offer resources such as wild fruit, berries, roots, and wildlife which supplement the food supply. While these may be used under good conditions, for example as food flavourings, there is substantial evidence that a range of "famine foods" are resorted to in quantity only during food shortages.

Political conditions

The political structure of rural society plays an important role in determining the access of people to resources (Sen, 1981). For example, in hierarchically organised societies scarce resources may be progressively denied to lower classes as a shortage intensifies. Studies of food shortage show that the poor suffer more and face shortages before the wealthy.

As village societies have become more dependent on exogenous supplies of food from national or international relief agencies, so the political relationships between and within countries have come to influence food availability. Urban areas receive food before rural ones; and rural areas with political

influence are more likely to receive assistance than those occupied by minority or politically dissident groups. At the international level, the political orientation of a nation requesting help may influence the willingness of some donors to respond.

While the response categories are similar among different groups in a variety of countries, they may adopt different coping strategies. The nature of the production system, the environmental circumstances, and the history of the community will determine the specific response set.

Sequential adoption of coping strategies

A major finding of studies of societies confronting food shortage is that the available coping strategies are resorted to in an identifiable sequence. The sequence is a response to worsening conditions and reflects a move from strategies which can be easily used, with relatively little disruption to the socioeconomic system, towards those which represent a more radical departure from day-to-day patterns.

Watts (1983b) has conceptualised this sequence in terms of the increasing allocation of family resources and the reversibility of the actions taken. He argues that, in the initial phases of difficulty, available resources such as savings, labour, and wild foods are used by families. As the situation intensifies, recourse is sought in broader social and economic interactions such as loans and gifts from the extended family, sale of small stock, and male labour migration. Finally, sale of productive assets such as land and implements may occur and, as this reduces the capacity of the family to reestablish itself after the shortage is over, emigration, representing abandonment of agriculture, occurs.

Most studies have provided information on coping strategies and their sequence of adoption, but few have examined differences in the use of coping strategies among different groups of villagers, poor versus wealthy, young versus old, and men versus women. The evidence is scattered, but it suggests that there may be a gender, age, and economic class differentiation in the recourse to coping strategies.

Many studies have concluded that poorer families enter and move along the sequence of strategies ahead of wealthier ones (Campbell, 1977; Apeldoorn, 1981; Watts, 1983b; Hogg, 1985). Further, women may be more responsible than men for guiding the family through the early stages of shortage while men become more involved as the situation intensifies (Apeldoorn, 1981; Campbell and Trechter, 1982). This gender differentiation may be a fairly recent phenomenon as there is evidence that prior to the widespread practice of labour migration, men were involved in provisioning the family at all times.

Changing patterns in the structure of coping

The foregoing discussion has detailed examples of coping strategies and indicated that people structure the choice of strategy in such a way that a sequence of use exists. There is some evidence that the use of strategies in a community may vary according to economic status, gender, and age, and that within a country not all communities will have the same opportunities for coping due to differences in socioeconomic, political, and environmental circumstances. Further research is needed to examine these variations within the recognised general pattern of coping behaviour.

The pattern of coping is not static. Research has shown that strategies for mitigating food shortages are integral components of rural systems and will thus change as the rural system develops. The adaptationist approach argues that rural societies learned coping strategies over a long time period which promoted the long-term viability of the community. Prior to colonial intervention, rural systems were relatively closed and changed gradually, allowing time for successful adaptive change in coping strategies.

However, colonialism represented a swift and radical change. Rural systems rapidly opened up and had to adjust quickly to meet exigent demands for taxes, labour, and cash crops from a powerful exogenous force. Other colonial innovations such as education and medical care had their impacts over a longer period, but the cumulative effect was that all aspects of the rural system--economic, social, political, and environmental--had to simultaneously absorb disruptions. Rural systems were thrust into a state of rapid and continuous change as they adjusted to the imposed economic and political milieu.

These rapid changes occurred in response to the opportunities and constraints of the new order. The day-to-day workings of rural systems were in a state of flux; and as they adjusted to immediate conditions, attention to long-term, risk-reducing mechanisms tended to be reduced.

The altered configuration of the system of interaction between society and the environment often reduced opportunities for traditional coping strategies and new ones were sought to accommodate the broader system.

For example, social systems moved towards individual rather than communal structures, reducing attention to reciprocal coping arrangements. Population growth and the declining access to land as a result of European settlement increased land pressure in existing farming areas and pushed cultivation into more marginal bushland. With a reduction in the fallow period, yields declined and with less fallow and bushland, the availability of wild foods and game as diet supplements declined. The demand for food from urban markets and the non-agricultural labour force encouraged commercial sales at the expense of storage. Such sales, labour migration, and expanded

cash cropping represented a response to the expansion of the cash economy stimulated by the need to pay taxes and purchase goods in the cash sector. Therefore, a variety of long-standing coping strategies were undermined.

However, other coping strategies became available within the expanded economy. For example, cash obtained from labour migration and food and cash crop sales was available to purchase marketed food during times of scarcity. Further, the urban market for livestock increased the possibility of livestock sales. Increasingly, famine relief from governments and NGOs is seen as an expected source of assistance.

The lack of locally-based strategies is particularly important among recent settlers in areas where food deficits are recurrent. Such people--squatters, rural migrants, and settlement scheme residents--may not have had time to develop a system of interaction with the physical environment which incorporates coping mechanisms; and their relocation has often severed supportive social and political relationships. In the early years of settlement, they are particularly vulnerable. In such circumstances, a strategy needs to be developed which allows for external assistance to be given and simultaneously encourages settlers to search for coping mechanisms based on local resources.

Currently, villagers resort to a number of both well established and recently adopted strategies for coping with food deficits. There is some evidence that village-based strategies are being replaced by those which depend on the broader system, particularly among younger people whose greater exposure to the cash economy and to education has raised expectations of opportunity in the modern sector (Campbell, 1984). If this trend continues and becomes more widespread, the knowledge of coping strategies founded in the rural system may rapidly become eroded and result in increased dependence on external sources of assistance.

COPING STRATEGIES IN SADCC COUNTRIES

The problem of food shortage has a long history in the SADCC region (Gibson, 1977; Dias, 1981; Miller, 1982). While coping strategies used in the region have been studied less extensively than in Kenya, North East Africa, and West Africa, studies to date (Scudder, 1971; Devitt, 1978; Hitchcock, 1978; Colson, 1979; Cheater and Bourdillon, 1982, Vaughan, 1985) indicate that, while they may differ in detail, coping strategies in the region are similar to those found elsewhere in Africa.

Food shortages in Southern Africa manifest themselves at different levels --the subcontinental, national, regional, and local. At the subcontinental and national scales, they are most commonly associated with low and erratic rainfall; at the regional scale patchy rainfall, insect damage or crop disease

may be the cause; and at the local level, scarcity may affect whole communities or individual families as a result of various socioeconomic conditions. For example, food shortages affecting much of the SADCC region occurred during the droughts of the late 1940s, early 1970s, and most recently in the early 1980s. The example of Zimbabwe illustrates the greater frequency of difficulty at the national and regional scales. Severe nationwide shortages associated with drought were reported in 1923-24, 1941-42, 1946-47, 1963-64, 1967-68, 1972-73, 1978-79 and 1981-84. Furthermore, in 1914, 1926-28, and 1945-46 the drier southern and western parts of the country were particularly affected--while the rest of the country obtained reasonable yields.

Prior to the colonial period, most activities designed to offset the impact of food shortage were based in the resources of local communities (Beach, 1977). Many of these activities remain in place today. Others have fallen into disuse and new coping strategies have emerged as rural systems have been incorporated into the broader regional and national sphere³.

It is likely that localised food shortages occur somewhere in the SADCC region every year and these often affect only certain segments of the rural community. Those most vulnerable include poorer households and those that are socially or physically isolated from local or national centres of economic or political power. Such shortages may not necessarily arise from drought. Other factors in the social, political and economic milieu are often more critical than low rainfall. These factors which determine the supply and distribution of food and, hence, the persistence of shortage include:

- o Inadequate amount or maldistribution of agricultural land can reduce the total amount and variety of food available to disadvantaged families.
- o Poorer families, without cattle to provide draught power, particularly for ploughing, are unable to plant their crops at the onset of the rains and are thereby likely to suffer losses associated with late planting (the peak demand for draught power coincides with the end of the long dry season when the few cattle available are at their weakest and unable to work continuously in the fields).
- o Domestic crises such as illness and death, particularly if it involves the head of household or the wife, can drastically reduce the family's food supply for the following season because they frequently involve increased demand on food reserves (for example, to feed mourners, as

³This discussion is based on available academic studies, historical records and informal interviews conducted by the authors.

well as the temporary, or even permanent, reduction of labour allocated to crop production).

- o Lack of access to and failure to use modern crop production techniques that improve yields; including animal manure, chemical fertilisers or hybrid seeds.

Where these localised conditions are exacerbated by low rainfall, insect damage, war or economic disruption; then the potential for extremely severe conditions exists.

Traditional village level coping strategies

Studies of coping strategies conducted in the SADCC region confirm the general findings for rural Africa as a whole. Studies in Tanzania (Hankins, 1974; Heijnen and Kates, 1974), Botswana (Kgathi and Opschoor, 1981), Zambia (Scudder, 1971; Colson, 1979) and Zimbabwe (Beach, 1977; Cheater and Bourdillon, 1982; Bratton, 1987) have shown that rural societies incorporate a variety of coping strategies. The contemporary pattern is different from that in the past as many traditional coping strategies have been undermined or modified by the impact of colonialism; land alienation for European settlement and the resultant redistribution of the indigenous population in increasingly overcrowded reserves; the introduction of the cash economy; and changing socioeconomic values (Zinyama, 1986; Zinyama and Whitlow, 1986).

The coping strategies which arise from the interaction of rural society and its environment and are integral to rural systems, assume greater significance during times of acute food shortages. As many different peoples live in the SADCC region, variations in coping strategies exist in the region --both within and between countries.

Figure 2 summarises the range of strategies that may be adopted by households threatened by an imminent food crisis. People turn to a variety of coping mechanisms available within the environmental, economic, and social milieu to enable them to cope with the food shortage. These are usually adopted sequentially as the severity of the crisis deepens. However, families practice a number of interdependent strategies at any one time.

Socio-cultural strategies

As discussed earlier, the extended family and tribal system has traditionally played a crucial role in reducing the impact of food shortages. For instance, within an extended family, more fortunate members may share their supplies with less fortunate relatives. Children may be sent to live with

Figure 2. Traditional household coping strategies in the SADCC region.

Environmental	Economic	Social
Ecological diversity - vlel and streambank cultivation	Trade Crafts Beer brewing	Extended family links (borrow food) Pray to rainmakers
Gathering of wild fruits	Sale of livestock and household effects	Raiding
Hunting and fishing		Sharing
Control of access to water and pasture	Growing of drought resistant crops (e.g. water melons)	Reduce meals Splitting herds ^a .
Mobility ^a .	Store food (grain and tubers such as sweet potatoes) Migration	Arranged marriages Begging Stealing

^aStrategy peculiar to herders.

Source: Adapted from Kgathi and Opschoor(1983), Cheater and Bourdillon (1982) and Campbell(1986).

grandparents or other relatives until the crisis is over (Hankins, 1974; Heijnen and Kates, 1974). Where those children are not welcome, they may resort to playing around the homes of more prosperous families in the hope that they will be invited to eat⁴. This practice takes advantage of the traditional hospitality code that one does not deny food to a person who is present at meal times.

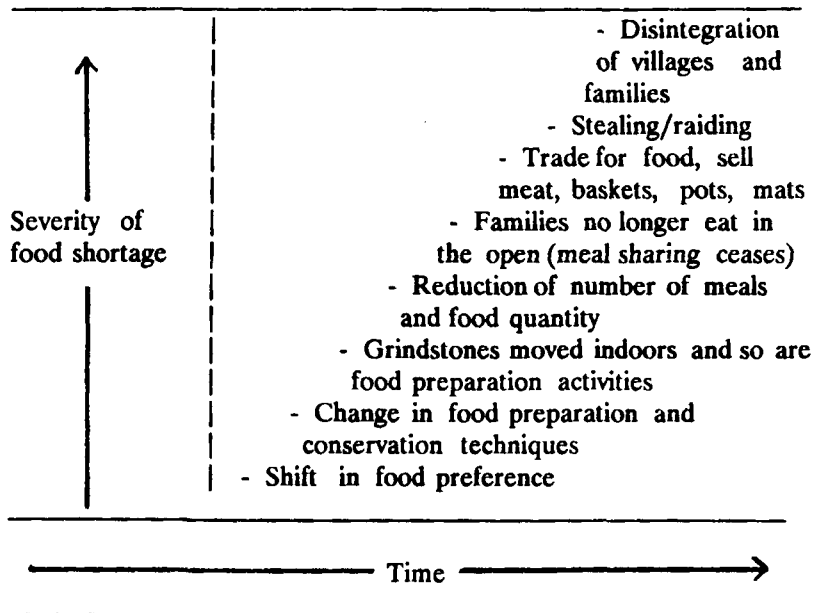
Mechanisms for sharing food appear to function effectively while some community members continue to have adequate supplies. However, some evidence suggests that it may break down as scarcity becomes universal and patterns of food preparation and consumption alter significantly. Colson (1979) working among the Gwembe Tonga of Zambia, observed a sequence of changes in people's food preparation and consumption habits (Figure 3). As the crisis deepened, there was a shift from preferred to less-liked foods. Further, stones for grinding grain were moved indoors, together with other food preparation activities, to restrict knowledge about a family's food status to immediate family members. The next stage in the sequence was marked by a reduction in the number of meals and in the quantity of food served at each meal. Similarly, Kgathi and Opschoor (1981) reported that households reduced the number of meals eaten.

Other strategies based in the social system include the practice whereby a family confronting a severe shortage arranges a marriage for a daughter, often a very young one, at some future date into a wealthy family in return for food; and undesirable, socially degrading activities such as begging and stealing from granaries or standing crops. Raiding of weaker communities by stronger ones was a means of acquiring food in the past, but colonisation and the introduction of European administrative structures brought it to an end by the late nineteenth century. In some areas, in the past, family members were sold into slavery in exchange for food (Dias, 1981; Miller, 1982). A less tangible strategy lies in the use of prayer and rain-makers (Larson, 1966).

There is some evidence that the role of the extended family as a source of support may be weakening. For example, Bratton (1987), in a study of a number of areas in Zimbabwe, found that the importance of the extended family as a source of help during the drought years of the 1980s had diminished and that other social structures, such as farmers' organizations, had assumed a more prominent role in its stead.

⁴This practice is known in Shona as *kukwata* and in Ndebele as *ukukwata*.

Figure 3. Sequential adoption of coping strategies among the Gwembe Tonga of Zambia.



Source: Adapted from Colson (1979).

Economic strategies

As food shortages intensify, households adopt a variety of economic strategies to alleviate the crisis. Studies by Scudder (1971) among the Tonga and Bemba of Zambia, by Kgathi and Opschoor (1981) in Botswana, and by Cheater and Bourdillon (1982) in southern Zimbabwe, have shown that these include brewing beer for sale, selling craftwork, petty trading, hunting, fishing, gathering wild foods, the liquidation of savings, and the sale of livestock. Poorer families trade livestock, baskets, pots, etc. with wealthier ones for food, and brewing of beer using wild fruit and plants replaces the traditional beer brewed from sorghum or millet. In recent times migration to towns or to harvest cash crops such as cotton, have become increasingly

important alternatives, though rural-to-rural migration is, in some areas, a long-standing response to food shortage (Dias, 1981).

Environmental strategies

Individuals usually gather wild fruits, fish and hunt in both good and bad years (Fleuret, 1979; Malaisse and Parent, 1985; Ogle and Grivetti, 1985), but they assume greater importance during food shortages (Campbell, A., 1986; Gibson, 1977; Kinsey, 1986). Scudder (1971) identified certain fruits which he classified as famine foods (e.g., fruits that are less palatable and are only utilised during food shortages). He also noted that the intensity of fruit gathering and the types of fruits changed as the food shortage worsened. For instance, when faced with critical shortages, the Tonga gather *Acacia albida* pods which are ordinarily poisonous to human beings. They render the seeds palatable and non-poisonous through an elaborate and time-consuming preparation process. In Zimbabwe, fruits normally eaten only as snacks between meals are often processed and dried for later use in order to extend declining grain reserves. The availability of such famine foods is declining due to changing land use patterns, particularly the extension of cultivation into formerly uncultivated areas and the reduction of the area under fallow (Brokensha and Riley, 1986) and their use is declining as knowledge of them is increasingly failed to be passed on from one generation to another (Malaisse and Parent, 1985).

Another environmental strategy for coping with food shortages is the establishment of small gardens in vlei areas and along streambanks (Hankins, 1974; Lambert *et al.*, 1987). These small gardens can supply the family with a variety of vegetables for domestic consumption and for sale in order to obtain cash and/or grain. The availability of soil moisture or irrigation water from a nearby stream also enables the family to plant early-season grain crops such as maize which will be eaten as green mealies well before the main field crops are harvested. Therefore, these gardens provide a useful cushion against food shortage, particularly during the annual hungry season.

Recent changes in coping strategies

The above discussion has indicated that individuals resort to a variety of strategies in times of food deficit. Some are long-standing ones while others, such as labour migration, are more recent.

Impact of colonialization

Colonisation altered the practice of coping throughout the sub-region. In settler colonies, where plantations were extensive and where cash crop production was encouraged, major changes in agricultural production and land

use occurred among indigenous peoples (Floyd, 1959). These changes altered the integration between society and the environment on which rural systems were founded.

Throughout the region, labour migration had a profound effect upon traditional patterns of production and upon the availability of labour to apply to coping strategies. The importance of male labour to the rural society is illustrated by the report of the Chief Native Commissioner for Mashonaland during 1903-04 drought. He explained the surprising lack of labour migration by the fact that men "considered it necessary to remain at home and dig roots, hunt, fish, and gather wild fruit for their families" (Southern Rhodesia, 1904, p.2).

The above quotation illustrates the remarkable awareness of food shortage and traditional responses which are reported in many early colonial reports in Southern Rhodesia⁵. Rather than promote the existing and recognised strategies, the government's emphasis on changing African agriculture often undermined them. Labour migration and cotton and maize production were encouraged within the colonial economy, despite the fact that the supportive nature of traditional agriculture--based on diversified crop production--was recognised. Increasingly, the government found itself responsible for providing food relief, much of which was distributed to markets and purchased with the proceeds of cash cropping or labour migration.

Government intervention

Government action to reduce the effects of food shortage is recorded as early as 1902-03 when grain was brought to markets and distributed free where starvation threatened (Southern Rhodesia, 1903). From the early 1930s, government actions were coordinated through the Grain Marketing Board (GMB) which moved large amounts of grain to deficit areas where it was sold by government agents, traders or less frequently, distributed free or in food-for-work programmes.

Where crop failure was widespread or successive harvest failures had depleted national food stocks, the GMB imported maize and other grains for distribution and sale. For example, it imported 178,900 mt of maize following the failure of the 1946-47 crop and 143,500 mt after the 1950-51 drought. More recently, some 268,900 mt of maize were imported during 1984 when stocks accumulated from the bumper harvest of 1980-81 had been depleted during successive drought years.

⁵The subsequent discussion relates to Zimbabwe as the authors have not examined the historical record in other SADCC countries.

Apart from imports and large-scale internal grain transfers, additional government responses to national food shortages have included restrictions on the use of white maize in stockfeed, and requiring millers to blend white maize with yellow maize for human consumption--although the resulting product has been unpopular and withdrawn from the market at the earliest possible opportunity.

Government intervention to forestall food crises has been frequent and has become an expected source of support. The fact that cash purchases of food and government relief had come to replace many traditional strategies was recognised as a problem as early as the mid-1930s. Government reports spoke of the need to promote cash earning activities so that food could be bought in time of crop failure, as well as to pay taxes (Southern Rhodesia, 1935) and also that "the saying had become common: 'why worry? the Government will feed us'" (Southern Rhodesia, 1933, p.3).

In the contemporary context, food security is of major concern in the region and governments are involved in effective, but costly, interventions to reduce the incidence of severe hardship. While much attention is paid to providing external relief, there has been little investigation of locally available mechanisms for reducing food shortage, as the paucity of specific references in this paper indicates.

One of the objectives of the research the authors are conducting is to document local-level strategies for coping with food shortage in Zimbabwe. Existing strategies will be analysed to see if variations occur in the sequence of adoption, according to characteristics of the population such as economic status, gender, and age. Finally, the utility of these variations in formulating a system for monitoring village-level food security will be assessed.

CONCLUSION

Studies of coping strategies at the village level in the SADCC region suggest that the patterns of coping with food shortage in rural Southern Africa are similar to those found elsewhere on the continent and represent both continuity and change in traditional strategies. Some long-standing strategies are no longer in use, others are still employed, and new ones have evolved in response to recent socio-economic changes.

Throughout Africa, long-standing locally adapted strategies have disappeared or grown less effective, and are being replaced with redistribution strategies that depend on external institutions beyond the control of the village. If research shows that the SADCC region mirrors this general trend, the situation should be viewed with concern. Food shortages occur frequently in individual villages, but relief agencies usually become involved only

use occurred among indigenous peoples (Floyd, 1959). These changes altered the integration between society and the environment on which rural systems were founded.

Throughout the region, labour migration had a profound effect upon traditional patterns of production and upon the availability of labour to apply to coping strategies. The importance of male labour to the rural society is illustrated by the report of the Chief Native Commissioner for Mashonaland during 1903-04 drought. He explained the surprising lack of labour migration by the fact that men "considered it necessary to remain at home and dig roots, hunt, fish, and gather wild fruit for their families" (Southern Rhodesia, 1904, p.2).

The above quotation illustrates the remarkable awareness of food shortage and traditional responses which are reported in many early colonial reports in Southern Rhodesia⁵. Rather than promote the existing and recognised strategies, the government's emphasis on changing African agriculture often undermined them. Labour migration and cotton and maize production were encouraged within the colonial economy, despite the fact that the supportive nature of traditional agriculture--based on diversified crop production--was recognised. Increasingly, the government found itself responsible for providing food relief, much of which was distributed to markets and purchased with the proceeds of cash cropping or labour migration.

Government intervention

Government action to reduce the effects of food shortage is recorded as early as 1902-03 when grain was brought to markets and distributed free where starvation threatened (Southern Rhodesia, 1903). From the early 1930s, government actions were coordinated through the Grain Marketing Board (GMB) which moved large amounts of grain to deficit areas where it was sold by government agents, traders or less frequently, distributed free or in food-for-work programmes.

Where crop failure was widespread or successive harvest failures had depleted national food stocks, the GMB imported maize and other grains for distribution and sale. For example, it imported 178,900 mt of maize following the failure of the 1946-47 crop and 143,500 mt after the 1950-51 drought. More recently, some 268,900 mt of maize were imported during 1984 when stocks accumulated from the bumper harvest of 1980-81 had been depleted during successive drought years.

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Government intervention to forestall food crises has been frequent and has become an expected source of support. The fact that cash purchases of food and government relief had come to replace many traditional strategies was recognised as a problem as early as the mid-1930s. Government reports spoke of the need to promote cash earning activities so that food could be bought in time of crop failure, as well as to pay taxes (Southern Rhodesia, 1935) and also that "the saying had become common: 'why worry? the Government will feed us'" (Southern Rhodesia, 1933, p.3).

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Throughout Africa, long-standing locally adapted strategies have disappeared or grown less effective, and are being replaced with redistribution strategies that depend on external institutions beyond the control of the village. If research shows that the SADCC region mirrors this general trend, the situation should be viewed with concern. Food shortages occur frequently in individual villages, but relief agencies usually become involved only

when widespread deficits exist. Thus, if the shortages are scattered, exogenous-based relief may fail to respond to local needs. Consequently, in the absence of effective local strategies, local problems will become severe. Research has shown that widespread shortages arise from the accumulation of problems in individual villages. Those most vulnerable will suffer severe shortages before a widespread problem exists. By the time relief measures are implemented, those initially affected will be suffering greatly. Therefore, the external system is less sensitive to local conditions than that based on village resources.

Dependence upon exogenous, rather than local institutions, implies not only greater uncertainty as suggested above, but also greater cost to national governments. Local strategies are essentially free, in the sense that they represent calls on insurance mechanisms for which the premiums are paid continuously within the rural people--environment system. External relief involves the costly allocation of scarce funds which are diverted from development activities which might otherwise reduce the incidence of shortages in the long term. It would behove governments to maintain local coping strategies, rather than allow them to be undermined by increasing reliance upon external relief sources or by rural development plans which fail to consider them.

There is a need to also consider the reliability of external assistance. The political and economic conditions prevailing in an affected nation--and its relationships with donor nations and agencies--may affect the availability of relief and its distribution. Where economic problems, political will, civil strife, poor transportation facilities, shortage of fuel, and other such factors are likely to undermine the effectiveness of external agencies in acquiring and distributing food; then the consequences of reduced effectiveness of local coping strategies may be disastrous (Roape, 1979; 1985).

Therefore, there is a need to find a balance between local and external means for coping with food deficits. The reality of rural Africa is such that open systems have replaced more closed ones. Governments should recognize the opportunities of the exogenous system, but view with caution the tendency for them to supersede tested and locally relevant strategies. Development efforts must strive to obviate the need for frequent calls for famine relief; such relief should be a palliative, rather than an institutionalised component of development. One means for reducing the recourse to external relief is to incorporate within rural development programmes the objective of strengthening existing viable coping strategies and/or encouraging the search for new ones as the rural economy develops.

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