

FOOD SECURITY FOR SOUTHERN AFRICA



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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	
2. A Critical Assessment of the FAO Report on SADCC Agriculture 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 Nziramasanga	77
PART III: FOOD SECURITY FOR ZIMBABWE: INTERACTION OF TECHNOLOGY, INSTITUTIONS AND POLICY	
Introduction	
6. The Elusive Peasant: Zimbabwe Agriculture Policy, 1965-1986 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. Bernsten & David D. Rohrbach	185
9. Wheat Policy Options in Zimbabwe and SADCC Countries: Preliminary Findings Jim Longmire, Peter Ngobese & Solomon Tembo	216

CHAPTER FIVE

FOOD AID, INTRA-REGIONAL TRADE AND ECONOMICS DEVELOPMENT IN SADCC*

Mudziviri Nziramasanga

INTRODUCTION

This paper focuses on two related issues. The first is how food aid in general can be given without impeding domestic production. Since it is probably not certain that any policy measures can be totally effective the focus may be best on how to best minimize the negative impact. The second issue to be examined is how food aid can be utilized to promote intra-regional trade. In addressing both issues we first outline briefly the major variables that determine the level of production, be they market forces or policy decisions. We then review the economic literature on the impact of food aid on the recipient country, most of which was stimulated by the concern over the volume of PL480 transfers to India over a period of over ten years. These two approaches are then married to produce, as it were, suggestions on the empirical methods of managing food aid so that it does not impede the progress toward meaningful (i.e. efficient) food self sufficiency at both the country and regional level.

Literature on the subject has focused on food aid for development as distinct from emergency aid. The distinction could be considered academic. Isenman and Singer (1977) point out that the major purpose of food aid is to feed the hungry. To the extent this is true all food aid can therefore be considered emergency aid. Since malnutrition saps the ability to work and productivity then food aid can also be considered an essential element for development, whether the need for such aid is

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generated by a long-term structural imbalance or a short term disruption in the production process. Indeed even the distinction between short term disruption and long term structural problems maybe very difficult to make. The food shortages in Ethiopia, Sudan and Mozambique may have been exacerbated by the drought or even started then, but the impact has become a long-term development issue. Because of this inter-relationship, no attempt will in this paper be made to distinguish between emergency aid and development aid.

Another problem has to do with the definition of self-sufficiency. Most of the literature does not attempt to give an economic interpretation of what has become, in addition, an emotional and political issue. Bigman and Reutlinger (1979) define self-sufficiency in terms of trade. A country is self-sufficient in the sense that, in a "normal" year when both the country's production and world prices are at their mean level, there would be no price differential between the country and the world, and thus no incentive for trade. Such a definition is rather absolute and may require qualification in the real world where there is hardly a world price that is totally market determined due to the existence of subsidies to producers, and where commodity names make such wide disparities in product characteristics as to jeopardize the concept of a single market; corn prices quoted in Houston apply to yellow corn and may not necessarily reflect the "world" price for white maize where there are a few "large" surplus producing countries in any given year.

Indeed, as Schuh (1979) and Schultz (1960) point out, food aid in the United States was an attractive alternative way of disposing of a huge surplus whose existence was evidence of an excess supply at the prevailing domestic prices. Disposal of these excess supplies through the normal trade channels would in fact depress world prices. The existence of these stocks thus indicated the presence of an imbalance in the world market as well. While food aid has shifted from being chiefly a disposal activity and has become an important component of foreign aid for both the U.S. and the EEC, the presence of these stocks nevertheless still indicates an imbalance in their collective (and therefore the world market) markets and casts doubts on the existence of a stable, market clearing world price.

Finally, the "incentive" to trade could be generated by factors other than deviations from "normal" production, the most obvious of these being the foreign exchange rate. The definition of self-sufficiency could however be used, with the provision that a price differential could exist but would not be large enough to stimulate trade or that if trade in food products existed in a normal year it would have a negligible negative effect on the balance of payments of the country or region.

THEORETICAL CONSIDERATIONS

A different body of literature has determined that the small-scale farmer in developing countries is much like any other farmer in that he responds to market and other policy incentives.

He seeks to maximize his net income (revenues less costs) subject to the technology available, the prices of output and inputs, the timely availability of those inputs and the ease with which the output can be marketed. For ease of analysis these factors all boil down to factors affecting the demand for the output (which in turn determine directly or indirectly producer prices) and the supply of that output. An increase in demand will translate into higher consumer (and producer prices) and, given appropriate policies, this will give appropriate signals to produce more food. An increase in supply (given the demand situation) that generates excess stocks will stimulate a downward trend in prices, thus depressing domestic production.

This impact of an increase in supply has been the basis for criticizing food aid. By increasing the availability of food it depresses consumer prices. This is translated directly or indirectly into lower domestic production. In addition, it is alleged that the deflationary impact of food aid involves very little domestic budgetary costs and is thus an attractive option to policy-makers who then are less inclined to implement the more unpalatable policies aimed at attaining self-sufficiency from domestic production, since these would involve agricultural research outlays and higher urban food prices. If the transfers are large enough they could depress domestic prices to a point where there is no incentive to generate commercial trade in food, and a dependency situation is thus reinforced: unpalatable

policies are avoided at the cost of domestic production and the dependency on aid.

This brief summary of the analysis of the potentially negative impact of food aid is based on some very strong assumptions. The first concerns the determinants of prices. Downward or upward movements in prices are not generated by changes in supply alone. Rather it is the existences of surpluses or deficits that generates the tendencies for prices to change, and these surpluses/deficits must be a relatively significant proportion of "normal" supplies for such price movements to be relevant.

In the case of emergency aid in particular, it is highly unlikely that these short-term inflows are of such a magnitude that they generate a significant decline in consumer and producer prices. Even such a large program as the PL480 shipments to India were not large enough to generate substantial net downward price movements. The dynamics of producer price determination add another-complication. Unless producer prices are market determined food aid may depress consumer prices but this would have to be translated into lower producer prices the next season if the aid is to have a negative impact. Guaranteed producer prices in most countries rule out the full impact of market forces and introduce policy as another, and probably more important determinant of what producers expect from their output.

Theoretical economic analysis of the impact of food aid on domestic production was best summarized by Fisher (1963). Under

some assumptions about total supply he showed that the impact of imports of food (read, food aid) on domestic production is inversely related to the sum of the responsiveness of producers and consumers to changes in the prices they receive and pay respectively, as well as the ratio of total demand to total supply of food.¹

Dudley and Sandilands (1975) looked at the post-1963 situation where PL480 shipments came tied to commercial imports. The recipient country had to pay for insurance and shipping (on US vessels) and in addition pay 15 per cent of the f.o.b. price as downpayment. The cost of aid thus increased since each ton of PL480 shipments was tied to commercial imports. Policymakers in countries that faced a structural problem and thus needed long term food aid had to try and satisfy domestic demand at minimum cost using three potential sources: local production, food aid and commercial imports. The result is the same, except the domestic price becomes an explicit policy variable, and the level at which it is set at in effect determines the socially acceptable level of food imports and food aid. In the case of Colombia which Dudley and Sandilands studied, this price was set at a level that did not reflect the full cost of food aid, and so domestic production declined. So much for the negative price effects.

¹ In economic jargon, the percentage change in domestic production induced by food imports is equal to the inverse of the sum of the price elasticity of supply and that of demand, the latter appropriately weighted by the ratio of total demand to total domestic production. The higher the price elasticities, the lower the impact of imports on domestic production.

Isenman and Singer point out that the primary aim of food aid is to feed the hungry, particularly the nutritionally vulnerable groups, without a significant increase in the use of budget resources. Food aid does this by helping to contain food price increases and reducing price variability (and thus increasing welfare). They aid development by easing a major constraint on output and employment. This is because at low income levels a proportionately larger share of income goes to food grains and less to savings. Food aid as an income transfer thus raises real income and savings. On the other hand, they point out, the responsiveness of both supply and demand to prices is very low anyway. A one percentage point decline in producer prices would generate at most a 0.1 to 0.2 percentage point decline in domestic production, and its impact in fact can be neutralized by other factors such as the weather or timely availability of inputs. Their argument thus is based on food aid as a form of income transfer whose impact can be to generate an even higher demand for food, particularly if it was distributed outside of the normal market channels (at government subsidized prices, for example).

EMPIRICAL EVIDENCE THUS FAR

There are thus two countervailing forces at work. Food aid (whether short-term emergency aid or of a long term nature) is an income transfer from the donor to the recipient country. As income, it generates additional demand for all items, including food. This additional demand of course can be channelled to

domestic sources of supply, particularly if such transfers are done outside of the normal marketing channels so they do not significantly affect producer prices. On the other hand, food aid does increase supplies and has a tendency to depress prices, thus acting as a disincentive to domestic producers. Policymakers also tend to become more dependent on it and are loathe to make some hard decisions that are necessary for the country to be self-sufficient in food.

Which of these has been more dominant in practice, the price effect or the income effect? The answer would seem to depend on the set of policies adopted by both the donor and recipient countries. Unfortunately, the empirical evidence is still sparse.

As already pointed out, Dudley and Sandilands concluded that PL480 shipments when tied to commercial imports had a net negative impact on the domestic wheat production in Columbia. Imports increased at the expense of domestic production. However, this was predicated on a policy of setting domestic prices that did not fully reflect the cost of imports. Hall (1980) showed that PL480 wheat shipments to Brazil were beneficial to domestic production because of the policy of that country to use the counterpart funds generated from the wheat sales to support producer prices. In this particular case, the relationship between producer and consumer prices was in fact reversed through a conscious policy decision. Roger, Srivastava and Heady (1972) showed the impact of food aid can be beneficial if channelled through distribution outlets outside of the normal commercial pattern. Kydd and Hewitt

(1986) think the World Bank programme that provided structural adjustment loans to Malawi permitted imports (including food) which allowed the government of that country to maintain its expenditure programmes which benefitted, among others, the peasant farmers. This is another variant of the income transfers approach. Schuh (1979) seems to make a case for dumping excess agricultural products on developing countries because of the potentially positive income distribution effects. By depressing consumer food prices there is a positive real income effect, which, if properly targeted for the poor, could be beneficial. He also asserts that PL480 shipments since the 1960s have aided the market development of such countries as Taiwan, Republic of Korea, India, Indonesia, Egypt, Japan and Spain, and this has led to an increase in their commercial imports of food from the US. This market expansion has been partly the result of increased per capita income, and as such, Schuh argues, is part of the development process.

Maybe this is true in the case of the countries he cites. It could be quite possible that the market development could theoretically lead to quite a different type of substitution - that of the new import at the expense of domestically produced foods. Thus food aid "hooks" the domestic consumer to imports at the expense of the domestically produced product. Consumer welfare may increase but that of the producer declines. Finally Schuh also cites the significant budgetary support that food aid gave to India and Bangladesh. The latter apparently received food aid equivalent to 25 per cent of its budgetary resources. This

theoretically allowed it to maintain its public expenditure levels, including support of local agricultural producers. Whether this can be considered beneficial or not depends on the effectiveness of such support.

On the same lines one can cite the example of the powdered milk given as food aid to Zimbabwe over the period 1982-83. The allocation, made in July August 1982, was for 4,000 tones of milk powder and 1,000 tones of butter oil, all of which was designed to meet an already existing excess demand. This was not a case of interruption in supplies; rather it was the result of increases in demand stimulated by an increase in real income accompanied by the impact of consumer price subsidies on milk. While the price-induced component of the deficit could have been corrected by increasing the price of milk, the solution preferred by policymakers was that of imports to increase supplies. There was no need for an income transfer. Similarly, there would be no producer price since that was controlled by the state; producers got a guaranteed price. The development aspect would be promoted by the use of counterpart funds (generated from the sale of milk) to subsidize peasant milk producers so as to enhance their cash incomes and nutrition levels. There would be a minimal impact on the government budget.

The benefits accruing to the consumers are evident: a milk shortage was alleviated. Those accruing to domestic producers, however, depended on the effectiveness with which the counterpart funds were used and the additional supplies of milk generated.

The price effect would be zero unless policy makers were to lower producer prices as domestic supplies increased. As of August 1986, however, the incremental output has yet to be realized, although the sales have generated about \$6 million in counterpart funds out of the estimated total counterpart funds to be generated by 1988 of \$27 million.*

Another food aid programme was implemented at the same time as the EEC skim milk powder sales, and the counterpart funds so generated were also earmarked for the development of the dairy industry. A bulk milk tank delivery system was introduced in the large scale commercial farm sector using Norwegian aid funds. The rental of the bulk tanks currently generates \$160,000 annually; they are expected to reach \$350,000 annually or a total of \$5.25 million over fifteen years. These funds are specifically earmarked for the development of the peasant sector milk production development programme.

So far only \$1.6 million from both programmes has been disbursed. The EEC requires the formulation of a National Dairy Policy and Programme before the funds can be disbursed. A dairy development policy document was developed in 1985. It envisages the expenditure of \$10 million of the counterpart funds and US \$3.0 in foreign exchange. The foreign exchange component was not available at the time the programme was drawn up and this will have to be made available either as additional financial aid or

* See Dairying Development in Zimbabwe: A Policy Paper, Ministry of Lands, Agriculture and Rural Resettlement, October 1985.

diverted from other projects. This delay could have been avoided had the programme been identified as part of the national development plan prior to the generation of counterpart funds. However, this was too soon after independence for development priorities to be well specified and it may be that the dairy development programme will not cause any resource misallocation. The point, however, has been made.

To summarize, the main purpose of food aid should be borne in mind. The transfers are designed to feed the hungry and the primary concern, as Reutlinger (1984) points out, should be the efficient transfer of this type of income. The impact of such transfers on producer prices and domestic production, while important, are of secondary importance. In addition, it would seem from all the available evidence that these negative effects can be identified and their impact on domestic production minimized through appropriate policy and administrative measures.

Another issue has to do with the "food-for-work" concept and using food aid to stimulate production. Zimbabwe has a policy of distributing emergency food in return for services rendered. Most of the work involves public or community projects and non-governmental organizations are supposed to adhere to the policy. The merits of such a policy with respect to the creation of rural infrastructure are evident and need no repetition but the benefits can only be realized if the projects are within the overall development concept for the region.

Problems appear because most NGOs are not efficiently organized for the dual functions of food distribution and project management. There have been recent complaints about NGOs not demanding services from the food recipients in the Matabeleland Province. Such projects could be justified to the extent that they were a local responsibility in the first place and the services being rendered are not a substitute for central government budget outlays (because that would imply an inequitable regional distribution of resources). Otherwise, it would be far more useful to distribute food aid and let the individual utilize this income transfer on the basis of their own preferences.

The most important cause of the potentially negative impact of food aid on domestic production seems to be its depressing effect on producer prices. As suggested by Rogers, Srivastava and Heady (1972) one way to minimize this problem would be to market food aid through separate channels. Such a special concessional marketing channel could be the use of non-governmental agencies to distribute food aid to target groups or direct government participation in the process. The result is to drive a wedge between income transfers and producer prices such that the first does not cause an undesirable change in the second.

This process, in my opinion, is not necessarily a panacea, however. First, non-governmental agencies may be well adapted to deliver emergency supplies, after which supposedly they would hand over their functions to regular agencies. No problems should arise to the extent that such income transfers have to be

separated from the "normal" market activities. It becomes a different story to say that they should effect the delivery of long term development food aid through a systematic marketing system of their own. Just because that channel exists does not guarantee that transfers among users will not occur. When they do, an informal market network is bound to develop and producer prices will be affected.

Even if this separation were effected the differentiated market system will have to end at some point and an integrated commercial system take over. Otherwise the additional domestic production will not be realized for lack of an efficient marketing system. Creating a separate distribution system may have its positive income transfer effects but it eliminates the possibility of using the aid flows to develop and strengthen the normal market channels. The current, massive food aid programmes by such NGOs as Band Aid may be suitable for delivering emergency relief supplies but the infrastructure they use may turn out to be very difficult to integrate into the normal systems should production in the drought stricken areas recover.

To use such outlets or even government-run delivery systems would be to create an aid-enclave outside of the "normal" development channels. A way out of this dilemma would be to differentiate the product by source rather than by marketing outlets, and to create a two-tier price system. Thus domestic producers get a producer price that reflects the appropriate incentive while the food from aid projects is labelled as such and

marketed through the regular channels but at designated lower prices, and only to the target groups. This way, the income transfer effects are preserved while the impact of aid on domestic producer prices is mitigated.

This problem takes on a slightly different twist in the SADCC region because of the importance of transport costs. The price effect of food aid is eliminated by the existence of marketing boards and guaranteed producer prices. In Zimbabwe the evidence points to a level of producer prices that do not reflect the landed costs of such imports as maize, beef and milk. A study in 1985 showed that the maize producer in Zimbabwe received a price in 1981 that was about Z\$38 below the f.o.r. price of exports. During the drought years 1982-83 there was a positive subsidy of Z\$22 and Z\$67 per ton respectively, but in 1984 the producer was paid a price that was Z\$89 below the import price, and this was during a drought period. A similar situation held true for beef and milk. The World Bank also established that marketing boards in Malawi for a long time paid producer prices that were below the landed cost. In such a case food aid could be given subject to the provision that it is sold at a price that reflects the opportunity cost, and the realized proceeds are used to subsidize the producer price in the following season. The same can be applicable to countries such as Mozambique and Botswana where there will be a structurally-induced food deficit for a long time to come.

Food aid will also benefit domestic production if it is over and above the normal financial aid, i.e., it provides additional resources. The financial resources are a more effective form of income transfer and help to expand overall demand. If the aid is sold and generates counterpart funds then they must be used in the context of development programmes, and not tied to some other donor-oriented goal.

Sen (1960) asserts that should the aid be tied to projects outside of the development programme then the tendency is for policymakers to regard the counterpart funds as additional resources. They would then divert material resources to these projects, thus leading to inefficiency and inflation. This may be the case of the EEC powdered milk programme in Zimbabwe. Some of the projects in the programme to utilize the counterpart funds had been rejected from the public sector investment programme for lack of funds. Some appear to have been added in 1985 when the availability of funds was assured. Now, the problem is that the counterpart funds do not necessarily augment the scarce domestic resources needed for these projects; neither can they be imported save by diverting foreign exchange from other projects. Zambia also is having problems in utilizing the counterpart funds generated by the sale of about 18,000 tones of cereals per year since 1981 as well as dairy products.

If the food aid must be deducted from the total financial aid programme then the value of this food aid should reflect the landed cost of the commodity using world prices. Schultz (1960)

contends that some costs charged to PL480 food shipments (such as the higher transport charges paid to U.S. shippers) do not add to the value of the commodity to the recipient country. To SADCC such conditions can have very significant negative consequences.

When Zimbabwe purchased wheat from the United States in 1986 (in a triangular deal) it insisted on an f.o.b. Houston price quotation and the freedom to choose the shipping company. The decision saved almost \$700,000 in shipping 7,000 tons of wheat. It is not always the case that unit production costs in the recipient country are lower than those of the donor. In fact in the case just cited, Zimbabwe is a relatively high cost wheat producer. On this basis alone and in the absence of a foreign exchange constraint imports would be an efficient way of satisfying the demand for wheat. However, wheat is a winter crop and the lack of alternative land uses at that time lowers the social costs. Transport costs from traditional suppliers make domestic production an even more attractive proposition, particularly in the face of a balance of payments constraint. Should donors insist on using their own national lines then the difference between the cost and what would have been paid under more competitive conditions should be covered by financial aid that is over and above the normal levels. Subsidies to donor domestic transporters or producers should not be at the expense of aid recipients.

Finally donor countries should simplify the bureaucratic procedures and administrative infrastructure associated with

receiving food aid. A case in point is that of Zambia. Since launching the Operation Food Production in 1980 Zambia has had a Government of Zambia-EEC Joint Committee (1982) which produced another plan of action "Special Programme of Action Against Hunger". The World Bank then stepped in and the discussions of structural adjustment policies led to a document, "Restructuring in the Midst of Crisis".

This was the basis for a Consultative Group meeting in May 1984 which discussed a food strategy among other issues. This Group met two more times in 1985, but it had already spawned an offshoot in 1984, i.e., a "Joint Monitoring Committee" which replaced the Joint Committee. The Joint Monitoring Committee included the World Bank, the EEC and other donors.

In the meantime Zambia on its own produced in 1984 an Investment Plan Task Force to formulate an agricultural action programme which donors immediately rushed to support. And in 1985 Zambia started discussions with the IMF in the framework of the Consultative Group. All this dialogue led to rather basic conclusions with regard to promoting agricultural production which could have been arrived at with less fuss, cost and enormous demand for administrators to attend these conferences. It would be ideal if basic policy decisions could be arrived at with regard to the disbursement of food aid within the region in order to maintain uniformity. Then programmes could be disbursed under conditions specified within such a framework and with a minimum of delay.

FOOD AID AND INTRA-REGIONAL TRADE

The recent history of droughts in Eastern, Western and Southern Africa would tend to give the impression that fluctuations in food production are uniform across countries in each region, or even over the whole country. A casual examination of the data proves otherwise. Data for the crop years 1985/86 and 1986/87 show that Southern Africa as a whole needed food imports (computed as the cereal equivalent) of 1.7 million tons and 1.6 million tons respectively.³ Yet there were country differences.

Zimbabwe had surpluses during those two years of 1.0 million and 873,000 tons respectively, almost all of them maize and sorghum stocks. These surpluses would cover the deficits in Mozambique and Zambia under status quo nutrition levels.

This aggregate picture also masked differences in food requirements by commodity. Thus Zimbabwe had a maize surplus but a wheat deficit in both periods. The Table below shows the pairwise situation in the SADCC countries. It gives the commodities in excess supply in one country and those in excess demand in the neighboring country. A wider regional comparison shows an even larger trade possibility. Of course, the situation will vary from year to year, but the structural differences are bound to persist.

See US Department of Agriculture, World Food Needs and Availabilities, 1985.

Surplus and Deficit in Staple Foods Between Bordering Countries
in the SADCC Region, 1979-1981

<u>Country</u>	<u>Has Surplus Staple Foods</u>	<u>Shares Border With</u>	<u>Which Has Deficit in Staple Foods</u>
Angola	Cassava, Millet and Sorghum	Zambia	Wheat, Rice, Millet and Sorghum
Malawi	Rice, Maize, Millet, Sorghum and Cassava	a) Mozambique b) Tanzania c) Zambia	Wheat, Rice, Maize Wheat Wheat, Rice, Millet and Sorghum
Svaziland	Wheat, Rice, Maize, Sorghum	Mozambique	Wheat, Rice, Maize
Tanzania	Rice, Maize, Millet and Sorghum, Cassava	a) Malawi b) Zambia c) Mozambique	Wheat Wheat, Rice, Millet and Sorghum Wheat, Rice, Maize, Millet and Sorghum, Cassava
Zambia	Cassava, Maize	a) Angola b) Botswana c) Malawi d) Mozambique e) Tanzania f) Zimbabwe	Wheat, Rice, Maize Wheat, Rice, Maize, Millet and Sorghum, Cassava Wheat Wheat, Rice, Maize Wheat Rice, Millet and Sorghum, Cassava (consumption so far negligible)
Zimbabwe	Wheat, Maize Millet and Sorghum	Botswana	Wheat, Rice, Maize, Millet and Sorghum, Cassava

Source: Koester, Ulrich, op. cit., Table 5.12.

The inter-country differences point to regional trade possibilities. The surplus countries have to be able to compete price-wise with other exporters because the deficit countries are not in the business of subsidizing high cost producers just because they are neighbors. Given the importance of transportation costs in getting imports from traditional food exporters to Southern Africa, however, surplus countries like Zimbabwe and Malawi should have a positive competitive edge in the region. Yet, Zimbabwe and Malawi have continued to accumulate surpluses since 1984 while Zambia, Mozambique and Botswana continued to have deficits; the net deficit of the region was really a mythical figure in the absence of trade in food commodities.

The most obvious reason of course is the scarcity of foreign exchange with which to facilitate straightforward intra-region commercial transactions. The second is that even if barter trade were an option between Mozambique and Zimbabwe the former does not produce the wheat to trade for the latter's maize; there are differences in consumption patterns and preferences but these are not matched by a development of specialization in the production of commodities.

The formation of the PTA clearing house should eventually widen the barter trade possibilities over time. This process can be made easier for essential food commodities if the SADCC countries adopted a common food policy objective and viewed food security more as a regional trade issue than one to be attained

through the accumulation of individual country stocks. This means, among other things, co-ordinating national pricing policies which thus far have been implemented by the marketing boards with national objectives in mind.

That the resultant prices can discourage regional trade was illustrated in the case of the East African Common Market by Koester (1985). In 1961 Uganda had a maize surplus while Kenya and Tanzania had deficits. Yet Kenya did not import maize from Uganda because the relatively cheaper maize from the latter might have depressed Kenya's domestic consumer price. The Kenyan Maize Marketing Board would thus have incurred a loss because of the larger differential between the guaranteed producer price and the depressed price to millers. In addition Weber and Hartmann (1976) state that trade restrictions, rather than the lack of a trading potential, caused the decline in food trade among the East African common market countries.

The SADCC countries have agreed in principle to formulate a common food security strategy and Zimbabwe has been charged with the responsibility of formulating a food security programme. However, national considerations still dominate the internal pricing decisions of each country. It is not yet clear whether the difference in the annual variations in food production will be the basis for a strategy based on regional trade and international imports, or whether each country will use national stocks to stabilize its own food availability over time and use regional trade if and when necessary. There still is yet to be a common

definition of what food security means and the least cost method of attaining it for the region as a whole.

The purpose of this discussion is not to speculate on the benefits of an integrated, regional food security programme. Those interested in a detailed treatment of the subject can find ample reading elsewhere. What is relevant here however, is that the potential for trade in food commodities among SADCC countries is there but has yet to be fully exploited. The constraints have to do with differences in national agricultural pricing policies, historical trading patterns, and balance of payments constraints. It is the point of this paper that food aid can be used to alleviate these constraints and promote regional trade. The mechanism for this of course is the so-called "triangular" purchases involving a donor and either two aid recipients or more commercial importer and one food aid recipient.

The uses of food aid for development as well as for trade promotion (through triangular transactions) are of course inter-related and the measures taken to promote the first inevitably also facilitate the second. If food aid can encourage recipient countries to base producer prices on the marginal cost of imports (i.e., world prices) then deficit countries will be indifferent with respect to f.o.r. prices and will certainly prefer a regional source if possible because of the lower transportation costs. Trade will thus be based on comparative advantage as it should be.

See, for example, Koester, op.cit.

Food aid can be used to explore potential trade links where none existed before, largely because the balance of payments impact on the recipient countries will be minimal; countries can afford to be more innovative, as it were. Finally, if the transportation costs are indeed lower within the region, then triangular deals can in fact increase the income transfer effect of food aid since more of the value of the transactions will be in the food rather than transport services.

Having said all this, however, it should be pointed out that the major criticism levelled against food aid in the 1960s has reared its ugly head to bedevil triangular transactions. Donor countries use food aid to dispose of surplus commodities, and domestic interest groups (mainly farmers and shipping companies) have a vital stake in the volume of food aid originating in the donor countries. This has acted as a constraint.

A few examples will serve to highlight the issues. Mozambique had a deficit of about 450,000 tons of cereals in the 1984/85^o season and the United States pledged to make up about a third of this figure. Other donors also contributed. As already shown, all of this deficit theoretically could have been made up from stocks in Malawi and Zimbabwe, subject to the actual commodity composition. As it was, the United States executed one triangular operation totalling 10,000 tons, with 7,000 tons of maize from Zimbabwe (in exchange for wheat) and 3,000 tons from Malawi. The EEC estimated allocations for countries in the SADCC

region totalled 35,000 tons for 1985 and 82,000 tons for 1986.* Of these amounts, only 23,000 tons and 36,000 tons respectively were likely to be coarse grains supplied from Malawi, Zimbabwe and Kenya. This is a relatively small proportion of the estimated requirements of coarse grains in the deficit countries (Angola, Tanzania, Botswana, Lesotho, Mozambique and possibly Zambia). It is also a small proportion of the potential volume of intra-regional purchases.

One could argue, as Lipton (1986) does, that this potential is sporadic and subject to the vagaries of the weather and potential disruptions of transport routes by the regime in the Republic of South Africa. The fluctuations in the volume of regional tradeable surpluses in cereals, from near zero levels during a drought to the current record (though small relative to world stocks) stocks may not warrant an overly optimistic outlook for attaining food self-sufficiency through intra-regional trade.

That approach, however, seems to miss the point. First, agricultural production in any single region is subject to uncertainty, though the long term trend in developed countries is upward. It is simply a case of fully taking advantage of an opportunity when it arises. Secondly, regional food security does not necessarily imply zero commercial imports from the international market. The definition of food self-sufficiency

* See Meetomq Document: Meeting of Experts on Purchasing of Foodstuffs in Developing Countries, mimeo, Brussels, March 1986.

given in the first section actually implies an integration of regional commodity movements into the world trade patterns such that a deficit can be made up in the course of normal annual transactions. This is currently not the case because the existence of food stockpiles in a country adjacent to one with a perennial deficit is evidence of the lack of normal trade movements, whether such surplus stocks are transitory or not. The reasons for non-existence of trade have already been stated, and the use of food aid for the relaxation of these constraints is a pertinent subject.

One option has already been presented. Donor countries should consider increasing the quantities of food purchased in the SADCC countries themselves. This is said with the full cognisance that agricultural interests in both the U.S. and the EEC see the food aid programmes as an extension of their countries' domestic agricultural policies.

The EEC as a result restricts triangular purchases to those cereals unavailable on the Community market, while the range of these commodities (maize, millet, sorghum, rice) still leaves a considerable opportunity the policy itself is subject to a lot of interpretations. Are consumer preferences to be taken as given in the negotiations, for example, or will there be an indirect pressure to steer aid requests to commodities available on the EEC market? A stated objectives of the triangular operations was "market stabilization in that producing country whose production exceeds its needs for the product".

Now, it may be that the existence of 1.5 million tons of surplus maize in Zimbabwe is evidence of an imbalance in relative commodity prices; land is being shifted to maize because its producer price is higher relative to that of such crops as beans, sunflower, etc. It may even be because the country is a high cost producer relative to domestic income levels and the recent removal of subsidies has reduced consumption and increased stocks. If so, then triangular transactions based on the opportunity cost of maize and the other crops would help correct the situation. However, recent transactions do not support this assumption.

As already mentioned, USAID executed a triangular deal in 1986 whereby 7,000 tons of Zimbabwe maize were exchanged for 9,600 tons of U.S. wheat, with the maize sent as food aid to Mozambique. At the same time, 3,000 tons of Malawi maize were exchanged for 1,400 tons of wheat for the same purpose. The landed cost of U.S. yellow corn in Zimbabwe borders would be about \$U.S.200. The prices used in exchange were U.S.\$106 a ton for wheat (f.o.b. Houston) and \$145 a ton f.o.r. for maize. The f.o.r. price for corn in Houston would have been U.S.\$104. The actual transactions price for maize was thus between the world price abroad and the landed price in the regional market, and it can be taken to reflect true market conditions. This price also reflected relatively accurately the then current producer price of maize (U.S.\$111.10).

The differential between the price per ton and that paid to producers, if it accurately reflects internal transport and

handling charges, reflects the importance of improving the marketing channels. The point being made is that the production costs in the region were not completely out of line with world prices. Returning to the issue about the volume of such triangular transactions, it is noteworthy that a similar opportunity had arisen in 1985. Zimbabwe needed 56,000 tons of wheat and a similar exchange could have been made. The opportunity was lost because of potential opposition by U.S. agricultural interests which would not want to lose the opportunity of a straight commercial sale of wheat and a disposal of yellow corn stocks on concessional terms as aid. The intervention by domestic considerations in donor countries almost always turns the triangular transactions into rectangular negotiations and whittles down the size of income transfers as well as trade development of food aid programmes.

The impact of transportation costs is clearly illustrated in the U.S./Malawi/ Zimbabwe/Mozambique transaction. The value of Malawi maize in terms of wheat delivered in Blantyre was U.S.\$142, slightly lower than that of Zimbabwe maize (f.o.r.). Of this amount, however, U.S.\$87 went into transport services and as a result the country obtained 0.47 tons of wheat of every ton of maize, compared to 1.37 tons in Zimbabwe. Malawi paid \$40.7 per ton ocean freight to ship in U.S. bottoms compared to a much smaller figure for Zimbabwe which had hard currency and could shop around for the lowest rates. If this conditionally (to ship in U.S. vessels) is insisted upon, then financial aid over and above

the normal allocation should be granted to cover this shipping cost differentials.

The impact of domestic conditions in donor countries is also apparent in the cost of the commodity swap for the recipients. According to FAO data Zimbabwe received 27,970 tons of wheat from Australia in March 1986, in exchange for 33,000 tons of maize. At about the same time it also received 6,700 tons from Canada for 9,000 tons of maize. The Canadian barter rate of 1.34 tons of maize per ton of wheat is 10 per cent higher than that of Australia. The demarcation of the market may of course represent transportation cost differentials and not producer price support variations in the donor countries. It does, however, illustrate the fragmentation of the world market as far as the recipient country is concerned. About the only thing to be done in this case is to ensure that the differentials reflect differences in transportation charges only, and not some domestic subsidy.

Probably the most difficult issue would be to use food aid in order to "encourage" production patterns that directly promote the recipient country's comparative advantage, and thus encourage trade. Conditions in Mozambique may be such that its comparative advantage is not in maize production but some other food crop. The agricultural implements and seed packs being sent there as part of the food aid could reflect this long term consideration rather than increase the ability to directly substitute maize imports with local production. Such a policy decision will have to be the result of an overall regional food security package and

will have to originate from the SADCC countries themselves to be successful. Without such an orientation, however, shortages induced by structural causes will persist and the benefits from specialization in production will be lost. Zimbabwe tried to use Japanese aid to develop rice production, a crop for which Malawi may have a relative comparative advantage. It even tried to produce fresh water prawns as a substitute for the Mozambican real thing. The list of agricultural goods with such trade possibilities is substantive, but it is not clear whether they can be economically produced in the region. Food aid could thus be used to directly finance the necessary research.

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