A Report to the Congress on

DEVELOPMENT NEEDS and OPPORTUNITIES for COOPERATION in SOUTHERN AFRICA

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A REPORT TO THE CONGRESS

DEVELOPMENT NEEDS AND OPPORTUNITIES FOR COOPERATION IN SOUTHERN AFRICA

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I. Overview

A. Introduction

There are demonstrable, unmet needs and opportunities for comprehensive economic assistance to southern Africa.* In the short-term, economic assistance can help relieve human suffering, meet basic needs and protect the economies of the region from excessive damage and deterioration. Over the long-term, sustained and significant economic assistance can help lay the foundation for relatively rapid socio-economic growth within a politically more stable region. While development is eminently possible - given the region's substantial natural resource endowment - it will not be easy.

The vast majority of the population in the region is rural, young in age, and poor. Poverty - as measured by almost every economic and social indicator - dominates the

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*For the purposes of this paper, southern Africa is defined to include Angola, Botswana, Lesotho, Malawi, Mozambique, Namibia, Swaziland, Zambia, and Zimbabwe (Rhodesia). The Republic of South Africa is excluded because it is not appropriately categorized as a lesser developed country. However, while the Republic is not a part of the defined region, its influence on the nine countries of concern is profound.

The report does not address the possible development needs of the South African "homelands", which in the view of the U.S. Government and of the international community generally are not sovereign entities but rather integral parts of the Republic of South Africa. As such, their existence and present or projected "independence" is an element of the broader South African policy of apartheid and separate development. While the "homelands" or for that matter other rural areas of South Africa might on strictly economic grounds be in a position to benefit from inclusion in regional assistance planning, it is clear that the overriding policy considerations mentioned above preclude this possibility.

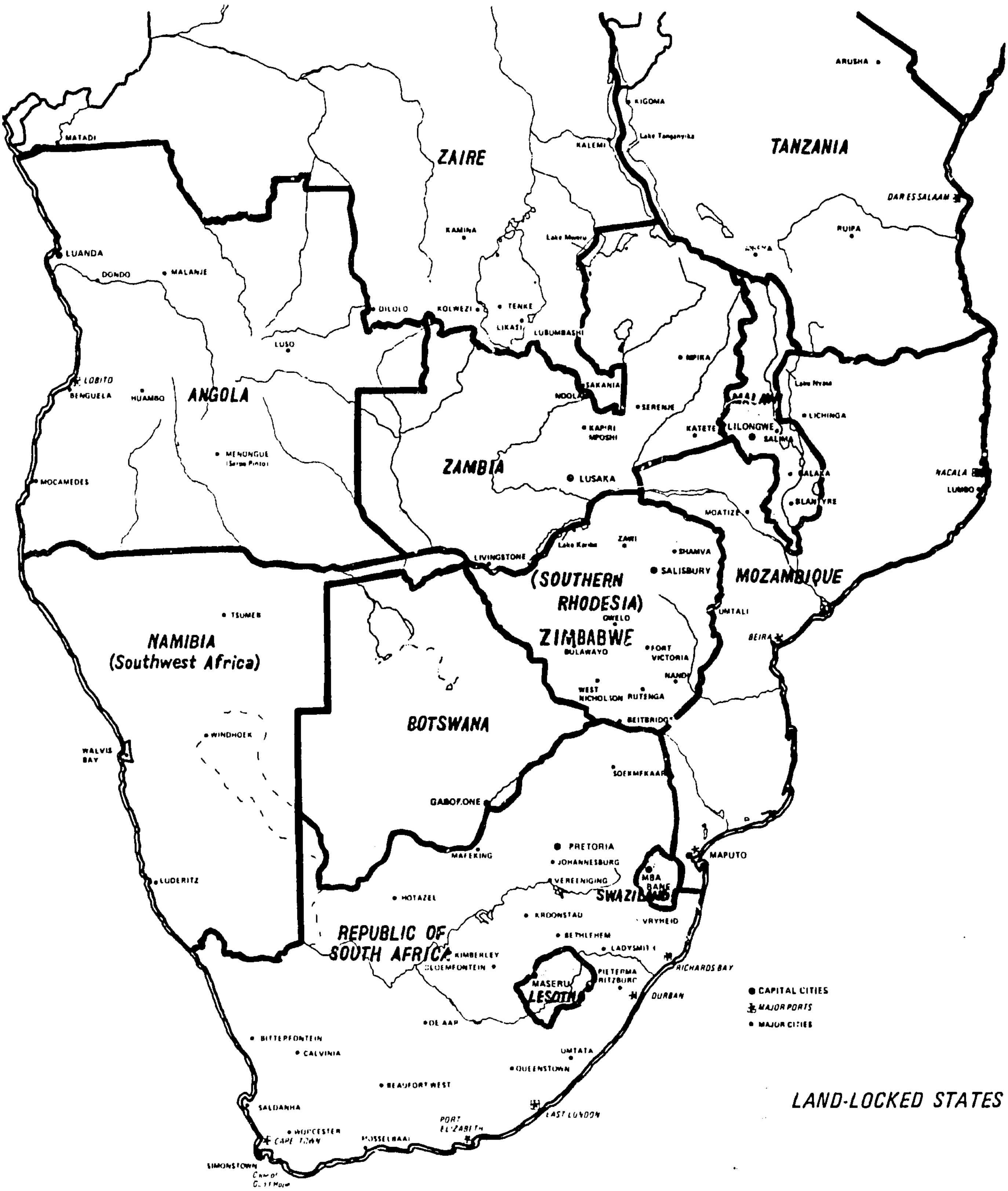
lives of the people of southern Africa. Health and education related indicators demonstrate substantial unmet human needs.

Movement and change characterizes the region's pattern of human settlement. Existing settlement patterns are being radically altered and new patterns formed. The exodus from rural areas -- permanently or temporarily -- has accelerated, despite domestic and internationally aided programs of rural development. People fleeing conflict and political oppression have created a staggering refugee and displaced person population. Workers who have, in great numbers, migrated to South Africa's mines, farms and factories now face the prospect of return and the economic consequences of this return migration.

Change in the region is occurring in equally important, but less visable ways. New farming methods are gradually being adopted, women are slowly being integrated into the development process and education is slowly becoming available to the masses. Infant mortality rates are dropping and life expectancy is increasing. In rural communities and among the urban poor, there is now the expectation that basic services will be available and that communication with the outside world is an inherent right. Minority rule, which had been accompanied by unequal distribution of land, resources, and opportunity, is also changing.

While many of the political characteristics and development constraints are not unique to the southern Africa region, combinations of unusual factors present complex challenges and new opportunities to the United States and other donors. The basic development problems and constraints in southern Africa will not be resolved unless structured, long-term, coordinated programs are initiated. *Ad hoc* and piecemeal projects must give way to comprehensive national and regional assistance efforts. The analyses presented in this Report and its annexes establish a basis for a broader commitment and partnership for economic and development cooperation in southern Africa, both with the countries concerned and with other donors.

SOUTHERN AFRICA



B. Major Conclusions*

1. Expanded assistance, in the short-run, can limit the negative impact of regional political turmoil; in the long-run, it can establish a basis for more equitable social and economic progress. The protracted conflict over minority rule in Namibia and Zimbabwe is having serious consequences on the development status of all the countries of the southern Africa region. Adherence to the United Nations' economic sanctions against Rhodesia by Zambia and Mozambique has required substantial sacrifices in terms of economic growth and the well-being of their citizens. In addition, military activity has cost lives, reduced productivity, displaced large numbers of poor people, and has retarded development. The flow of refugees from Zimbabwe, Namibia, and other areas of lesser conflict (e.g., Angola, Zaire, and South Africa) has strained limited food, transport, marketing, education, and health facilities and has diverted scarce host government human, financial, and administrative resources. Foreign donor assistance has helped to protect the economies of the region from excessive deterioration and has been a positive factor in affecting long-term development prospects. For example, aid donors have given priority attention to easing

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*The conclusions presented below are considered the most significant from a regional development policy perspective. Other important conclusions appear throughout the paper and in the country and sector annexes.

refugee problems, opening and maintaining key transport links, and relieving critical balance of payments deficits.

Development activities in all countries can begin to influence the long-term well-being of the region's poor majority population. Agricultural production programs, particularly in such chronically food deficit countries as Botswana, Lesotho, and Namibia, can influence the degree to which those nations will have to rely on imports for essential food supplies. Improved and expanded education programs in all of the countries are required to provide the human resources necessary to plan and implement essential development programs. Appropriate education for the masses will help improve productivity as well as decrease unemployment.

2. Southern Africa's varied distribution of resources and its natural geographic interdependencies will require intraregional cooperation to optimize development. Six of the nine southern African countries are landlocked and rely on ports in Namibia, Angola, Mozambique and South Africa. Accordingly, the construction and maintenance of transportation systems (primarily port and rail) is a priority requirement, not only for the individual coastal countries, but for the region as a whole. The development of exportable quantities of hydro-electrical power is

possible in Mozambique, Angola and Lesotho. The export of electrical energy could provide an important source of income for the country and a vital input to the development progress of its neighbors. In agriculture, certain countries offer natural advantages in food production (e.g., Swaziland, Malawi, Angola, Zimbabwe), while others (e.g., Lesotho, Botswana and Namibia) face chronic food deficits. Moreover, the relatively small domestic markets severely limits the potential for industrial self-sufficiency for all countries, with the possible exception of Zimbabwe. National economies could benefit from easily accessible, larger markets. Regional economic planning and cooperation will be a vital factor in reducing or eliminating wasteful competition and trade barriers.

3. <u>A rational diversification of the economic relationships of the majority ruled states may serve to strengthen their economies by reducing excessive vulnerability to the events affecting other nations in the region</u>. A number of historically-based economic dependencies have been formed in the southern Africa region. All of the states, except Angola, look to South Africa as a principal source for food imports, low cost manufactured goods, employment for unskilled labor, and trade transportation links. Another example is that Malawi relies almost solely on Mozambique for the

transport of its imports and exports.

For the economies of the nations of the region to grow, there must be a degree of security and protection from vulnerability to the economic and political events of other nations. For example, South Africa may no longer be able or want to absorb vast amounts of foreign labor in its mines, nor, because of its own rapidly growing population, will it be able to continue to export large quantities of subsidized grains to neighboring countries. In recent weeks, the periphery countries have been informed that South Africa, when it is able to sell them petroleum, will only be able to do so at prices substantially above those charged on the world market. This situation, along with rising wages and a South Africa policy of import substitution, is leading to a high level of inflation (13 - 17%), which is passed on to those countries closely linked to South Africa's economy. To the extent determined reasonable, i.e., after a careful assessment of risks and an analysis of cost, the nations of the region should consider diversifying their dependency relationships. In some instances, a "spreading" of dependencies may prove to be either too costly or otherwise impractical. The diversification which does take place is likely to include both attempts to increase national self-sufficiency and the creation of new economic relationships with neighboring countries. While such efforts will entail significant opportunity costs and the possibility of slower growth rates, in the long-term they are likely to reduce the region's vulnerability to disruption by external events.

4. <u>The shortage of skilled and experienced manpower in the region is the most serious constraint to long-term development prospects</u>. In the analysis of every sector (e.g., agriculture, health, industry) in every country, the salient factor limiting development is the lack of sufficiently educated, trained, and experienced manpower. Critical shortages of technical, administrative, managerial, and professional personnel have had profoundly adverse effect on economic performance and government efficiency in planning and implementing development programs. The use of expatriate personnel to meet manpower requirements is not cost-effective, nor is it politically acceptable as a long-term solution to the problem. The countries of southern Africa typically face the paradoxical situation of having large numbers of unemployed citizens while they are unable to fill mid-level technical and managerial positions. Current formal and non-formal education programs must be expanded and made more relevant to the lives of

the people as well as the needs of the nations. Training should be a basic component of all foreign sponsored development assistance programs.

5. Unemployment and underemployment are increasing in all the countries of the region. Population growth and the limited availability of arable land are rapidly reducing the viability of subsistence agriculture for many of the poor. Average per capita agricultural production has been declining at approximately 1% annually, and stagnant agriculture sectors have encouraged migration to urban areas. The generation of new employment opportunities in the modern sector has not kept pace with urbanization and population growth. The influx of refugees and returning migrant laborers has and will continue to intensify the problem. A consequence has been the increased growth of urban slums and a decreased standard of living for the poorer segments of the population. Governments have been seeking, with relatively little success to date, to develop programs in industry, agriculture and construction that can absorb the available supply of labor. Despite laudable efforts by most governments in the region, existing formal and non-formal education programs are not meeting the needs of the employment market.

6. The substantial natural resource endowment of the region suggests that self-financed, sustained, and

<u>relatively rapid socio-economic growth and development are possible in the foreseeable future</u>. Angola, Botswana, Mozambique, Namibia, Zimbabwe, and Zambia are known to have deposits of commercially valuable minerals (e.g., petroleum, coal, diamonds, copper, iron ore, chrome, bauxite, tungsten, uranium) that presently are producing little or no income for the populations of the countries concerned. In part, this is due to political turmoil, transportation difficulties, energy shortages, insufficient investment capital, and fluctuations in the world market price of primary product exports. Angola, Lesotho, Mozambique, and Zimbabwe have the potential to develop relatively inexpensive hydroelectric power in excess of their present installations. Reduction of energy costs in the region as a whole would be an important input to overall development, improved quality of life, and the establishment of an employment generative industrial base.

In contrast to some other lesser developed areas of the world, there is reason for optimism about the future social and economic development of southern Africa. The region is sufficiently well-endowed so that, once transitory political, institutional, manpower and infrastructure constraints are dealt with, the countries will ultimately be able to finance their own development and meet the basic needs of their populations. Expanded concessional and private capital flows will be needed to assist the transition.

7. <u>In the intermediate term, the region may face serious food shortage problems</u>. Despite extensive governmental efforts, per capita food production in many countries is declining. The relative availability of arable land is diminishing as a consequence of population growth and soil erosion (e.g,, Swaziland, Namibia, Botswana, and Lesotho). Consequently, new lands being put into production are often only marginally productive. Overgrazing, animal diseases and poor husbandry practices are reducing livestock output (e.g., Lesotho and Botswana). In other countries (e.g,, Zambia and Mozambique), pricing and marketing difficulties serve as disincentives to increased farmer productivity.

Population increases, the probable return of unemployed migrant workers, and the influx of refugees, will place a further burden on already strained food supplies. In addition, population pressures combined with political problems may reduce or eliminate grain surpluses that, in the past, South Africa and Rhodesia have been able to export within the region. In Angola and Rhodesia, internal conflict is causing the progressive breakdown of farm production capacity. During 1978-1979, rainfall in the region has been below average. In view of the cyclical patterns characteristics of previous droughts, several years of inadequate rainfall should be anticipated and contingency plans developed to ensure an adequate supply of food. If domestic food supplies are not systematically expanded, the twofold consequence will be malnutrition and the increased expenditure of vital foreign exchange on imports. Angola, Mozambique, Zambia, and Malawi have potential for realizing substantial increases in agricultural production. External assistance could provide an important contribution to the realization of this potential.

8. Regional and intra-country transport is a major development constraint in southern Africa. Significantly, many of the primary transport systems have been deteriorating over recent years. The economic vulnerability of six of the countries (Botswana, Lesotho, Malawi, Swaziland, Zambia, and Zimbawe) is heightened by virtue of their land-locked geographic position and consequent reliance on the rail and port facilities of their coastal neighbors. In addition, however, the development potential of all the nations are severely limited by inadequate internal transport. Non-existent or poor quality trunk and feeder roads are impediments to the marketing of agricultural products and the development of industry and mining. Maintenance of existing roads and railways is often minimal due to a lack of skilled manpower and high costs.

The absence of adequate transport minimizes incentives to farmers who could increase production, hence, reducing food shortages in urban areas and limiting foreign exchange expenditures on food imports. The low level of industrial development outside of the major urban centers, which, to a significant degree, is attributable to transport problems, also depresses agricultural production and constrains the development of new, diversified employment opportunities. Poor internal road systems also make it difficult and costly to provide the rural poor with basic services. The effective service radius of health clinics, agricultural extension programs, and schools is markedly reduced when physical contact with the people is limited by the ability to travel only small distances. This often results in the ineffective use of scarce physical, financial, and manpower resources.

9. Urban growth within the region is expanding in excess of the availability of urban services and employment. Average regional urban growth is approximately 7.8%. While, in an absolute sense, many of the urban centers of southern Africa are not true cities, they manifest urban problems common to the developed and underdeveloped countries of the world. Employment, housing, potable water, and sanitation have not kept pace with the increased rate of rural to urban

migration. Because of the decrease in agricultural production (in absolute or relative terms), and marketing and distribution problems, food shortages and in some cases, malnutrition, are becoming increasing prevalent in urban areas. Urban planning is a new or as yet unknown concept in many of the countries. Policies to deal with urban problems should support both increasing employment opportunities in rural areas and easing the harsh conditions facing present city dwellers. While it is improbable (or, possibly, not desirable) that the urbanization process can be reversed, it is likely that appropriate policy and assistance measures can slow it down to manageable proportions. To date, few, if any, external donors, including the U.S., have focused on the problems of urbanization.

10. Mozambique and Angola are important to the development of the southern African region. Both countries have rail and port facilities which are of great importance to the shipment of the goods of six nations. Namibia will offer an additional outlet on the West Coast. The inaccessibility or decreased operating efficiency of the regional transport system to the landlocked nations, due to border closings or political unrest, has severely harmed some national economies (e.g., Zambia) and, consequently, has jeopardized the well-being of many of the region's poorest

citizens. In addition, both Mozambique and Angola have substantial export production potential in agriculture and energy, two sectors which could have a vital role in long-term regional development. Differences in soil and climate within and among countries allow for a wide diversification of crops. This includes tropical and temperate fruits and vegetables, as well as several varieties of food grains. Agricultural production, to a large extent, is constrained by technological and marketing factors and could be increased through technical assistance and training.

Concerning hydro-electrical power, the Cabora Bassa Dam in Mozambique is furnishing power to South Africa. The Cunene hydro-project in Angola, when operational, will be able to serve Namibia and Botswana. Should the demand arise, both countries, as well as Zambia, could furnish energy to other nations in the region. In addition, hydro-dams could supply water for irrigation programs which could support the agriculture of benefitting neighbors (e.g., Botswana and Namibia).

11. Despite increasing flows of assistance, development needs in southern Africa are not being met in a systemmatic or comprehensive manner. There has been excessive reliance on small, short-term projects rather than integrated programs involving production, employment, conservation,

trade promotion, infrastructure, and human resources. Such major problem areas as food production, transportation (particularly railroads), urban development, population, manufacturing, and small industries receive less than adequate attention.

Individual government planning and implementation capacity is hampered by the lack of financial and material resources and sufficient numbers of trained and experienced manpower. In addition, development planning and implementation are distracted by the need to deal with crisis situations. Assistance sources and local governments could collaborate more effectively on long-term planning and the execution of joint programs to address fundamental development problems and maximize the effectiveness of existing development efforts.

C. United States Interests in the Southern Africa Region

In recent years, southern Africa has been a major focal point of American foreign policy. The discussion below defines, in part, the reasons for this interest and why careful consideration of future U.S. development assistance policies and program levels is of particular importance at this time.

1. The development problems of the countries of southern Africa are comparable to the problems of most poor countries. The needs of the people are squarely within the basic human needs rationale for U.S. development assistance. The region is characterized by poor, newly independent nations (Namibia and Zimbabwe*, are not yet majority-ruled). Poverty and human suffering are widespread and worsening. Food supply is increasingly precarious in several countries. Unemployment and urbanization are mounting. Despite noteworthy efforts by the independent countries, only a small number of people have experienced significant improvement in living standards since independence. For many, political turmoil has resulted in a lower quality of life and expanded personal risk.

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*"Zimbabwe" is used throughout to indicate an independent Zimbabwe, whereas, "Rhodesia" is used in reference to the former British colony of Southern Rhodesia which unilaterally declared its independence in 1965.

The region is characterized by fragile economies which are threatened by political and military conflicts. In terms of meeting basic needs, southern Africa presents both a formidable challenge and a major opportunity.

2. Southern Africa offers opportunities for expanded U.S. trade and investment. A number of the countries (Angola, Botswana, Mozambique, Namibia) possess confirmed or highly probable deposits of important minerals (e.g., petroleum, uranium, diamonds, chrome, iron ore, copper, bauxite, titanium, tungsten, high grade coal, and natural gas). Several American corporations already have substantial financial commitments in these countries (e.g., Gulf Oil in Angola, American Metal Climax in Botswana and Zambia, Libby Foods in Swaziland, American Smelting & Refining in Namibia, and General Tire in Mozambique). U.S. foreign assistance policy could have a positive effect on the availability of future attractive investment opportunities for the U.S. private sector. Moreover, American aid policies should seek to fortify conditions that would encourage those private sector activities which can complement concessional assistance to meet important development needs in employment, manpower training, transportation, etc.

3. U.S. foreign policy places a high priority on the resolution of political turmoil in southern Africa.

Improved living condtions and economic stability are essential elements conducive to a politically tranquil environment. To be effective, American peace initiatives in southern Africa require complementary development efforts designed to relieve human suffering and to minimize damage to the interdependent economies of the region from current political strife. At the same time, assistance programs can help establish the foundation for longer-term balanced growth. The manner in which the United States is able to demonstrate its economic and humanitarian concern for the region as a whole, in conjunction with peace initiatives in Namibia and Zimbabwe (Rhodesia), will be important factors in determining the quality of future American relations with the rest of Africa and the Third World.

The apartheid system in South Africa, minority rule in Rhodesia and South West Africa, and extreme poverty throughout the region are elements that already resulted in armed conflict. This threatens world peace. Such conflict not only exacerbates the region's already serious development problems, but it also provides a focal point for global power confrontations. The concern of the United States for human rights and fundamental freedoms must be reflected in its foreign policy, particularly those elements dealing with social and economic development.

4. <u>U.S. support for social and economic development will serve to counter the influence of the Eastern Bloc in</u>

southern Africa. Official and public concern has been expressed over Soviet and Cuban involvement in the region. Soviet interest and activity in Africa are not recent phenomena. The West - the United States in particular - possesses a distinct comparative advantage in providing social and economic aid.

An interesting and significant case in point is that both Angola and Mozambique have expressed the desire to have better relationships with the United States. In several key areas, there is a convergence of interests between the United States, Angola, and Mozambique. It is to the benefit of the latter two countries to promote peaceful settlement of the political turmoil over the establishment of Namibia and Zimbabwe. While the Governments of Mozambique and Angola are avowedly Marxist, their actions have been predominately pragmatic and have included support and encouragement of U.S. private investment. Each nation has expressed a desire to have better relations with the United States and to decrease the extent of its present dependence on the Eastern Bloc.

However, present legislation prohibiting bilateral U.S. assistance may have the effect of encouraging these countries to have closer ties with the Communist world than either of them actually wishes. In addition, a modest U.S. assistance program could do much to offset reliance on Soviet and Cuban aid, and enhance the effectiveness of U.S. aid currently being given to neighboring landlocked countries.

II. Development Setting

A. Southern Africa: Brief Historical Setting

The present day socio-economic development problems of southern Africa, to a significant extent, have their origin in the region's historical legacy. The identification of a colonial origin to a given problem, however, does not necessarily indicate that "blame", per se, should be placed on the former colonial power. "Blame" is not at issue. The role of history in development analysis is to provide the planner with sufficient insight to plan projects that will result in in-depth, rather than symptomatic solutions to important problems affecting the daily lives and well-being of the region's poor.

Settlement of the southern Africa region began over two thousand years ago. Archeological evidence indicates that the economies of the earliest civilizations were based on herding and farming. More advanced practices, including the smelting of metal, had been discovered and were utilized before the arrival of settlers from Europe.

The first known European to have landed in southern Africa was the Portuguese, Bartholomew Diaz, in 1487. European settlement of the region began in the mid-Seventeenth Century, when members of the Dutch East India Company founded what is today known as Cape Town, South Africa. A few decades earlier, several Portuguese military installations were established along the coast of Mozambique. The English arrived in the region at the end of the Eighteenth Century.

Initially, southern Africa was attractive to Europeans because of its strategic location along the safer ocean route to the Indian Ocean around the Cape of Good Hope. The nation which controlled this route was perceived to have a distinct advantage in access to the spice trade with the Indies.

In time, however, control of southern Africa was to become important for the valuable natural resources in the region. Early trade involved ivory and animal skins. In 1871, diamonds were discovered; and in 1885, extensive deposits of gold were found. The discovery of these mineral deposits increased the flow of European settlers to the region.

Beginning in the Eighteenth Century, disputes developed between the various European powers and their settlers. Significantly, attempts to settle the lands occupied by indigenous black populations intensified. White settlers increasingly engaged in numerous confrontations with the African inhabitants of the region. The indigenous blacks suffered a marked loss in quality of life as their traditional economic and social patterns were disrupted.

By the Twentieth Century, Great Britain controlled what are today the countries of Rhodesia, Zambia, Malawi, Botswana, Lesotho, and Swaziland. The Union of South Africa was, in almost all respects, independent, but controlled by often opposed groups of British and Dutch settlers. Namibia (South West Africa) was a colony of Germany. In the aftermath of World War I, Namibia became a mandated territory of the League of Nations under the administration of South Africa. Mozambique and Angola were considered colonies or "overseas provinces" of Portugal.

While the colonizers brought new technology to the region (e.g., railroads, industries), black Africans did not, in general, participate. In the words of one author, there was "economic growth without development." Most improvements were directed to the transferral of wealth for the benefit of Europeans. Some of the developing world's best road and rail systems were established there. For the most part, however, the transportation network was designed to ship minerals and other goods to coastal areas for export and to serve primarily the settler and colonialist population.

Agricultural development was concentrated in the European or "modern" sector. Production increases resulting from these enterprises did relatively little to provide food to the rural based black population.

Few blacks received an education. Those that did generally learned of the history, customs, climate, etc., of the colonial power - and little that was relevant to their need for technical knowledge or sense of national identity.

Black nationalist movements began to organize in the 1950's. Successful efforts to overcome the formation of a white Rhodesian dominated Central African Federation ultimately resulted in the independence of Malawi and Zambia in 1964. Botswana, Lesotho, and Swaziland, by virtue of their status as British High Commission territories, were able to avoid absorption into the Republic of South Africa, and were granted independence between 1966 and 1968. However, all three countries continued to maintain strong economic relations with South Africa. The Southern African Customs Union eliminated tariffs between the four countries and established the South African rand as a common monetary unit. South Africa's economy absorbed low-wage migrant labor and was a source of relatively inexpensive manufactured goods and food exports for Botswana, Lesotho, Swaziland, Zambia, Mozambique, Namibia (South-West Africa), and Malawi.

White Rhodesians, anticipating British plans to grant independence to a black majority government, proclaimed a Unilateral Declaration of Independence (UDI) in 1965. British negotiations with the rebel government of Ian Smith were not fruitful. In 1966, the United Nations imposed economic sanctions against Rhodesia. Several of the black Rhodesian nationalist movements turned to guerilla warfare to achieve their goal of majority rule.

Independence efforts, including armed opposition in all of Portugal's African colonies (Angola, Mozambique, Cape Verde, Guinea Bissau, and Sao Tome and Principe) began to intensify in the 1960's. In 1974, moderate and leftist elements of the Portuguese army, motivated in part by dissatisfaction and frustration with the prolonged wars in Africa, overturned the Portuguese government. Mozambique and Angola were officially declared independent in 1975. Both countries suffered severe economic setbacks as a result of the wars. Departing Portuguese took with them many of the skills and physical elements of economic infrastructure essential to a smooth transition to nationhood. A civil war in 1975 and continuing civil unrest in Angola attracted international involvement and further retarded the development of the economy.

In 1966, the United Nations General Assembly resolved that South Africa's mandate over Namibia was terminated. Nevertheless, South Africa proceeded to increase the linkages of the territory's economy to its own and intensified its exploitation of the territory's mineral wealth. In the latter part of the 1970's, world-wide pressure, manifested through the United Nations, created an environment which obliged the Government of South Africa, whose continued occupation of the territory had been declared illegal by the United Nations and affirmed by the International Court of Justice, to take steps to forward independence for Namibia. Debate on how the new Namibian Government will be constituted has been prolonged and intensive.

The nations of southern Africa of the 1970's have in common the need to overcome the social and economic inequities inherited from their colonial antecedents and must confront the challenges of newly gained independence. Each country has and will continue to devise its own political and economic philosophies and policies. Some, such as Mozambique and Angola, have looked to an African blend of socialism as a means to confront the problems of development and social organization. Others, for example Swaziland, Lesotho, and Botswana, have adopted a style similar to modern capitalism. In practice, the application of ideologies tends to be quite flexible. The governments, in general, have adopted a realistic and pragmatic approach to the important specific problems that they must resolve. Ideologies are viewed as a means to the achievement of a desired goal - e.g., development. Where a given ideology does not serve a country's purpose, pragmatism (i.e., what will work) rules. Thus countries such as Angola continue to be hospitable to selected foreign private investors.

In the long run, southern Africans can be expected to find their own solutions for dealing with social and economic development problems. Such "solutions" will result from the selective application of policies, technologies, and experiences developed at home and abroad.

B. Overview

1. Geography/Ecology

The region of southern Africa, excluding the Republic of South Africa:

- covers a land area almost equal in size to all of Europe;
- contains slightly more arable land than Spain and less than France;
- includes nine countries, of which only three, Angola, Mozambique, and Namibia, have direct outlets to the sea; and
- ranges in climate and ecology from the almost totally arid areas of Namibia and Botswana - considered among the driest in the world - to the tropical rain forests of Angola and Mozambique.

The vegetation pattern covering 70% of the region, is comprised of semi-arid and marginally arable grasslands, which,

- make up large portions of Zambia, Malawi, Zimbabwe, Lesotho and Swaziland; and
- range in use from animal husbandry in central Malawi to crop production in Zimbabwe, Zambia, and Lesotho.

2. Resource Endowment

The region is characterized by a small number of large rivers - Zambeze, Limpopo, Okavango, Luangwa and Ruvoma. Substantial areas of Botswana, Namibia, and Lesotho are severely lacking in water. Major investments have been in river basin impoundments (between Zimbabwe and Zambia, Kafue in Zambia, Cabora Bassa in Mozambique, and Cunene between Angola and Namibia) for power and irrigation. Despite these impoundments, flooding is common; and, in the major basins, great exploited potential for power and irrigation exists.

The countries of southern Africa contain extensive deposits of important minerals. Potential for additional mineral deposits is considered excellent.

-- Namibia has significant deposits of diamonds, uranium and other minerals. The largest uranium mine in the world is at Rossing, Namibia. The Namibian coast is considered a prime prospecting zone for oil and natural gas.

-- Botswana's output of industrial diamonds will, by 1980, exceed that of South Africa. The country also has extensive coal and copper deposits.

-- Mozambique's mineral deposits include high grade coking coal, iron ore, titanium, tungsten, manganese, bauxite, asbestos, flourite, diamonds, and natural gas.

-- Zambia's copper production accounted for 15% of world copper trade in 1975.

-- Rhodesia's reserves of chromium are estimated to be 23% of the world's known reserves and 86% of the world's known reserves of high chromium chromite.

-- Angola's proven oil reserves are 1.3 billion barrels. Prospecting for additional oil is continuing in several areas along the coast. The country also has exploitable deposits of iron ore, diamonds, copper, zinc, urganium, and other minerals.

3. <u>Demographic</u>

Over 38 million people live in southern Africa. The nine countries of this region exhibit a considerable range in population size, i.e., Mozambique, the most populous, has more than ten times the population of Botswana or Swaziland. The countries also display extraordinarily different overall population density characteristics: Namibia and Botswana are among the least populated in Africa, whereas Malawi's settlement density is one of the highest.

While both population size and densities vary greatly, there are important demographic similarities among the countries:

-- By global standards, population density per arable hectare is extremely high and increasing.

-- Population growth rates are very high - ranging from an annual percentage growth of 2.0 in Angola to 3.5 in Zambia and Zimbabwe. The population of the region will more than double by the year 2000.

-- High dependency ratios are due to a relatively young population. One remarkable statistic, with implications for the future, is that in 1975, 40-50% of the population in the region was under the age of 15.

-- The rate of urbanization is among the highest in the world, and far exceeds the region's rapid overall population growth rate.

-- The vast majority of the region's population live in rural areas and are employed in subsistence agriculture.

One of the most significant demographic features is that close to one million southern Africans are leaving their homes to seek refuge or employment in other countries. More than half of these people have fled their country of origin to escape political and military conflicts. The others leave their homes in search of employment in the mines and farms of South Africa. Increased migration, along with higher birth rates and population shifts to urban areas, create new and complicated development problems.

4. Quality of Life

Poverty, as measured by almost every economic and social index, dominates the lives of the people of southern Africa. Health and education related indicators demonstrate substantial unmet human needs (see Table I). Infant mortality is high, with estimates ranging from 106 in Lesotho to 203 in Angola per 1,000 live births. In areas of Namibia, infant mortality has been estimated at as high as 250 per 1,000. Prenatal care is the exception rather than the rule. Attended deliveries by a trained non-physician are still unusual. Malaria is widespread, except for Lesotho. Preventable infectious diseases are rife. Life expectancy is low -- ranging from 38 years in Angola to 56 years in Botswana.

While great progress has been made in improving the quality of life of the rural population, much remains to be done:

- Safe drinking water is rarely available. In rural areas, available water is often located at substantial distances from villages.
- Skilled manpower is in short supply.
- Organized markets, storage facilities, and farm-to-market roads are lacking or inadequate.
- Basic health services are frequently limited, even for the most accessible population groups.
- Less than 40% of the population is literate, and formal and non-formal educational opportunities are not meeting the needs for skilled workers.
- Basic agricultural inputs, such as credit, fertilizers, insecticides and technical advice rarely reach those in greatest need.

The Development Indicator table below demonstrates that eight of the countries in the region can be classified as low income (below $580 per capita) and the remaining six are towards the lower end of the middle income countries. The high average per capita GNP for some countries often conceals inequalities of income distribution within the countries.

Development Indicators

	Physical Quality of Life Index (PQLI)*	GNP Per Capita	Average Annual Growth Rate
Southern Africa			
Malawi	30	140	4.1
Lesotho	48	170	4.6
Mozambique**	27	170**	1.4
Angola	16	330	3.0
Botswana	51	410	4.0
Zambia	38	440	1.7
Swaziland	33	470	7.0
Zimbabwe	46	530	2.2
Namibia	38	915	N.A.
Other LDCs			
India	41	150	1.3
Bolivia	39	390	2.3
Philippines	82	670	2.4

*PQLI is a non-income measurement that serves to summerize many aspects of well-being. It combines three indicators - infant mortality, life expectancy at age one and literacy - into a single composite index. Each of the components is indexed on a scale of 0 (the most unfavorable performance in 1950) to 100 (the best performance expected by the end of the century).

**More recent estimates of Mozambique's per capita GNP are $140.

5. Rural Production

The great majority of the population in the region depend on agriculture for their livelihood. Nevertheless, agriculture accounts for considerably less than 40 percent of GNP. Moreover, food crop production has not kept pace with population growth. Agricultural production has declined by an average of 1 percent per year.

General characteristics of the agricultural sectors of the countries of southern Africa include:

-- the cultivation of small plots held under some form of traditional tenure where land use is allocated by local authority;

-- the intensive use of arable land - a result of population pressures - which has given rise to soil depletion and erosion, and has brought about a consequent reduction in crop production.

-- the absence of appropriate locally adapted and tested technological packages and research programs capable of improving productivity;

-- women and children providing most of the labor inputs except plowing;

-- the lack of proper economic incentives;

-- great shortage of qualified and experienced agriculture technicians at all levels; and

-- small consumer markets and a shortage of farm-to-market roads, transport vehicles, and storage facilities.

Significant differences between the agriculture sectors of the countries of the region include:

-- Livestock production is the dominant agricultural activity in Namibia and Botswana, while crops are more important in Malawi, Mozambique, Zambia and Zimbabwe.

- -- Mozambique, Zambia and Angola have relatively good soils and large areas of under-utilized arable land, while Botswana, Namibia and Lesotho have poor soils and little arable land.
- -- The level of food consumption (1974), measured in calories, ranges from 77% of the world average in Botswana and Mozambique to 101% in Zimbabwe.

6. Macro-Economic Factors of the Region

The Republic of South Africa is the principal economic factor and the economic hub of the region. The periphery states depend on the Republic for:

- -- over 50% of all trade;
- -- ports, roads, communication and international airports and facilities;
- -- basic manufactures and processed foods;
- -- employment opportunities;
- -- investment capital;
- -- foreign exchange from worker remittances; and
- -- food imports.

Manufacturing accounts for a very small percentage of the region's GNP. Those industries which do exist are generally owned by expatriate firms or operated by parastatal organizations and are centered around sugar refining, wood pulp, brewing, textiles, car assembly, soap, and vegetable oil refining. In addition, there are a large number of small manufacturing establishments, many of which could be considered as part of the informal or traditional sector, e.g., potters and charcoal manufacturers. The total number employed in manufacturing is unlikely to be more than one million, compared to over 10 million in agriculture. From 1970 to 1976, mining has been the most dynamic sector, whereas agriculture (with the exception of Malawi) has been largely stagnant.

All countries in the region are highly dependent on exports of primary mineral and agricultural commodities. There is very little trade among the countries of the region. Imports from outside of southern Africa consist mainly of capital equipment for mining, manufacturing, and agriculture, fuels and other inputs, and manufactured consumer goods.

7. Summary

While none of the causes of underdevelopment in the region is unique, the combination of causes has created special development problems. Political turmoil, extreme shortages of skilled manpower, logistic difficulties of land-locked countries, the vulnerability arising from economic dependence on South Africa, and falling agricultural productivity, etc., have a synergistic effect which magnifies and makes more difficult the solution of any given country-specific problem.

C. Sector Specific Constraints

1. Education/Manpower

Despite significant efforts since independence, the need for better educated, trained and experienced people is a universal requirement for development in all the region.* The need stems, in part, from a common colonial legacy of inadequate efforts to develop the capacities of indigenous people. For example, at independence, 1 percent of Zambia's population had completed primary school; 1,200 had received secondary school certificates, and only 100 were university graduates. There were only four Zambians in professional government jobs and 25 in higher administrative positions. Manpower deficiencies were even more severe in Angola and Mozambique. At independence, it can be anticipated that Namibia will also experience severe manpower deficiencies.

Human resources development in southern Africa is beset with a tightly interrelated set of problems:

-- The number of people with the necessary skills for entry into education and training at all levels is limited. Less than 40% of the region's population is literate.

*For a more detailed and specific presentation of the manpower problem see Annex B, Manpower Development in Southern Africa, and individual country papers in Annex A.

There are not enough people with skills training to fill available jobs or to enroll in higher level educational programs. For example, the National Development Plan of Botswana reported that in 1976, of 8,800 established government jobs, of which 1,800 were vacant, slightly more than 800 were held by expatriates. The situation will be more serious in Namibia where educational opportunities have been extremely limited, particularly at the secondary level and above. Minimal provision has been made for teacher training, technical and vocational education.

-- Facilities and faculties are inadequate. In some disciplines, such as human and veterinary medicine, the problem is complicated by high costs for such education.

-- Incentives for people to use skills they have or to learn new ones may affect the availability of appropriately trained workers. Relatively high urban wages draw skilled farmers from the countryside.

-- Expatriates are both an important source of expertise, particularly in Botswana, Zambia and Malawi, yet a drain on finances.

-- In formal education, great progress has been made since independence. A good example is Botswana, where, prior to independence, only 43% of the children were enrolled in primary school, while, by 1977, the comparable figure was 80%. Another example is Mozambique, where, between 1974 and 1977, the number of children attending primary school increased from 700,000 to 1,300,000; secondary enrollment during the period tripled from 20,000 to more than 60,000. Despite the progress, a number of basic problems still exist. These include:

** Curricula, largely inherited from the former colonial powers, frequently do not meet the relevant needs of the student population. Curriculum reform is a slow and difficult process. Despite efforts by most of the governments, there exists a lack of quality education in subject areas such as math and science.

-- Technical and vocational education have not kept up with demand. In Namibia, in 1975, there were only 339 students engaged in formal technical and vocational trainining. In several countries, most construction and engineering is still carried out by expatriates of foreign firms. Institutions, capable of teaching technical or vocational skills at lower cost, are needed.

-- Non-formal education programs are being tested in several countries (e.g., Lesotho). Such new approaches can be cost-effective means of transforming both traditional and vocational education subjects.

2. Agriculture/Livestock Constraints*

Over 70% of the labor force in southern Africa is employed in agriculture. In five of the countries (Botswana, Lesotho, Malawi, Mozambique and Swaziland), the percentage employed in this sector is over 80% of the labor force. While agriculture is the single largest sector of employment in the region, its contribution to Gross Domestic Product varies from a high of 42% in Malawi to less than 20% in Namibia, Zimbabwe and Zambia. Improving the productivity of the agricultural sector, while maintaining a high level of employment and assuring the farmer an adequate economic return, will be vital to equitable long-term development in southern Africa.

Important problems now facing the agriculture sector include the following:

a. Constraints to agricultural production related to traditional farming methods

1) There is a limited availability of seeds, credit, fertilizers and other basic inputs along with technical services.

2) Overgrazing (e.g., as in Swaziland, Botswana and Namibia) and accompanying soil erosion are, in many areas, severely reducing productivity. The problem

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*For greater detail on Agriculture Constraints, see Annex B, Agriculture Sector Assessments by region and country.

is most serious in Lesotho, where an estimated one percent or more of the nation's topsoil is washed away each year through erosion. Desertification is especially serious in Botswana and Namibia.

3) There is a lack of incentives to increase production. The widely applied system of communal land allocation plays a major role in limiting production: a) it greatly limits the farmers' incentive to improve the land to gain higher yields; b) it encourages cattle to be used as the preferred method of storing wealth; and c) it affects the ability of farmers to borrow funds.

4) Botswana, Lesotho, Swaziland, Mozambique, and Malawi export labor to South Africa which forces women and children to carry out all farm labor for the absent males.

5) Cattle potential is not being fully exploited for supplementing:

   (a) fertilizer (use of manure),

(b) energy (animal traction),

(c) nutrition (milk and meat), and

(d) family income (livestock sales).

6) There is a lack of adequate local markets, farm-to-market roads and storage facilities.

7) Farmers must overcome the high cost and limited availability of basic energy needs (i.e., firewood).

b. <u>Constraints to Production Related to Government Policies</u>

1) Price and marketing incentives are not available to all farmers. In the recent past, Zambian government pricing for food products had, in effect, been a "tax" on farmers and a subsidy for the urban consumer. As a result, the real income of farmers has been reduced as have production incentives.

2) Incentives, such as subsidies, may stifle individual motivation unless they are carefully designed and consistantly re-evaluated.

3) Inequitable land tenure practices may also discourage agricultural development, particularly in Rhodesia where whites occupy 50% of the arable farm land (most of which is not in production) but comprise only 3-4% of the total population.

4) Agricultural information, such as market reports and communication of appropriate production technology, is not widely disseminated, in a systematic manner, to farmers.

c. <u>Constraints Related to Training and Coordination of Delivery Services</u>

1) Implementation of policies is limited in some countries by the inadequacy of the governments' capacity to manage and perform efficiently.

2) In general, women are not consciously denied opportunities in agriculture, but there is a failure (a) to adequately use the talents of women, (b) to provide mechanisms for improving skills, (c) to promote full participation in available programs, and (d) to provide women producers with extension services.

3) Certain countries have stressed the importance of agriculture in the economy. Nevertheless there remain constraints which indicate that the agricultural sector receives less than top priority:

   (a) Few opportunities exist for in-service training and management training.

   (b) Salaries are low.

   (c) Agriculture service does not attract the most capable men and women due to its perceived low priority and esteem in the community.

   (d) There is apparently a preference by agriculturalists for work in the urban setting rather than in rural areas.

4) In some countries, coordination among government ministries is poor or non-existent. To improve agricultural production and productivity, there is a need for greater interaction and integration among ministries.

5) There is a scarcity of properly trained extension agents.

d. <u>Constraints Related to Environmental Factors</u>

1) Disease caused by tsetse fly, ticks, etc., affect animal resources. Large areas of good agricultural land are underutilized due to tsetse fly infestation (e.g., Zambia, Mozambique). The outbreak, in 1977, of foot-and-mouth disease in Botswana severely limited beef export to EEC markets.

2) Poor soil quality is not conducive to cultivation. This is particularly acute in Botswana, Namibia, and Lesotho.

3) There is inadequate, and in some countries inappropriate, use of wildlife, fisheries, and forestry resources.

4) There is virtually no forward planning to cope with drought (with the exception of Botswana).

5) There is a need to focus research and development on existing crop strains which are already adapted to local conditions.

6) There are substantial pre- and post-harvest losses due to inadequate storage and processing.

3. Transportation

Transportation ranks just after skilled manpower shortages as the factor most limiting social and economic development in southern Africa. The major constraints in the tranport sector include:

a. The dependence of the six landlocked states

1) Five of the ten major ports in the region are in South Africa. The other five major ports are in Angola, Namibia, and Mozambique. In all ten locales, severe developmental problems and political turmoil have affected port and transit service.

2) Added transport and time delays for the landlocked countries have increased basic unit costs, require larger inventories, and generally limit the availability of imports. This reduces the international competitiveness of the countries exports. Investors are discouraged from making investments when access and egress are not guaranteed and efficient.

b. <u>Transportation planning, administration and implementation</u>.

The greatest constraint on effective planning, administration, and maintenance of transport systems in southern Africa is the scarcity of trained personnel. The usual expedient is to rely on expatriate advisors, who often serve as administrators and technicians. The problem exists at all levels, but is especially serious for senior positions. In Botswana, 60% of the ministerial staff is composed of expatriates; there is only one national in the Roads Department who is a qualified engineer. In Malawi, an estimated 33% of all qualified engineers are expatriates. In addition, many established positions remain unfilled. In Swaziland, only 50% of the projected staff positions are filled in the Roads Branch of the Ministry of Works, Power and Communication.

c. <u>Construction and Maintenance</u>

Although there has been considerable investment in the last ten years in the transport sector, <u>the overall system in southern Africa is deteriorating due to the lack of attention to maintenance, shortage of resources, and the impact of the political turmoil and conflict now disrupting normal system functioning</u>. Services are provided largely by the systems built to meet colonial export needs, and do not meet the present day requirements for internal transport. New construction has been slowed by high costs (including the utilization of heavy equipment - intensive techniques), recurrent maintenance expenses, and a heavy reliance on external assistance to support transport construction.

Although construction costs are high throughout the world, the topography in parts of the southern Africa region, such as the sand dunes of Namibia and western Botswana, complicates construction and makes for higher average costs. The present emphasis of projects with direct impact on human needs (e.g., rural development) has served to reduce essential investments in basic infrastructure, such as transportation.

d. Transportation as a Constraint to Meeting Basic Human Needs

In all the countries studied, transportation was repeatedly cited as the factor most limiting to "doing more" for rural populations. Surveys have shown that rural populations perceive that one of their greatest needs is for increased contact with the "outside world". This is an essential aspect for further improvement in rural life. If transport infrastructure is excluded from a development activity, local initiatives that are essential for project success may diminish.

The following sectoral example (with country-specific variations) illustrates how transportation constrains small farmer agriculture in southern Africa:

1) Farmers face difficulties in obtaining, on a timely basis, seeds,

fertilizers, and other inputs. When obtained, transport distances and inefficiencies can render the use of these inputs uneconomic.

2) Livestock marketability is greatly reduced by a lack of essential veterinary assistance or by reaching marketing centers in poor condition.

3) The harvesting and marketing of crops is often handicapped. Even when proper price incentives are in place, farmers may have limited or nonexistent market choices.

4) Extension and research services can not reach the majority of farms.

5) Production of perishable, high value crops is discouraged because of high spoilage risks due to transport difficulties.

4. Communications

Telecommunications in the region are characterized by the inability of national institutions to meet the increasing demand for services. In Zambia, for example, it is sometimes easier to telephone to London than it is to be connected with a number in the same city. Service in the region is now provided by a mix of satellite ground stations, microwave links, and groundwire hookups, which usually pass through South Africa.

As a sector, telecommunications have offered little attraction for assistance, since donors see little direct relevance to basic human needs. It is important that this sector not be overlooked in light of its importance to the efficient movement of goods and services and the potential economic benefits of improved interregional cooperation. The chief constraints are:

-- There is a major shortage of equipment, ranging from spare parts to telephone sets. A lack of standardization complicates the shortage. The cost of increasingly sophisticated equipment is a heavy drain on foreign currency.

-- Waiting lists for service are excessively long. It may take two years or more on a waiting list to obtain a phone, and placement on the waiting list may be based on a priority basis. The situation discourages private investment which is essential to employment creation.

-- Even if there are spare parts on hand, there is a severe shortage of trained personnel to handle repairs.

-- Rural areas are especially isolated without telecommunications. Expansion of communications in such areas cannot be justified on the basis of the rate of return on investment. However, minimum services are justified in terms of national integration, health and emergency response.

-- Direct, efficient communications between countries is practically non-existent. This discourages intraregional cooperation and the development of more rational investment between countries in the region.

5. Limited Availability of Services for the Poor

The poor of southern Africa share a common problem - a lack of access to the goods and services which are requisite for their entry into the mainstream of the modern economy and society. While there may be wide variations from area to area, one repeatedly finds the poor thwarted in their efforts to become more productive.

a. <u>The Rural Poor</u>

The primary problems faced by the rural poor are:

- -- The great majority of the rural poor are isolated and have limited or no access to modern transportation and communications.
- -- Most basic services are inadequate or unavailable, particularly in the critical areas of health and education. While most of the southern African countries have made great progress since independence, most basic human needs are not being met.
- -- There is insufficient availability of suitable technology (farming systems, implements, and technical packages) which could improve land and labor productivity.
- -- There is a lack of efficient markets. This problem not only has physical aspects (lack of adequate rural roads and vehicles to transport farm production) but also organizational aspects.

Parastatal organizations (such as those in Zambia), having responsibility for marketing, are often inefficient, overly centralized, or offer inadequate price incentives.

-- There is a lack of general education and of knowledge of specific techniques which would encourage self-generated improvement in productive performance.

-- There is an insufficient availability of local organizations which would facilitate the process of gaining access to knowledge, technology, credit, inputs and services. The capacity of rural people to organize and to influence the nature of programs intended to assist them has not been emphasized. The lessons of the need for participation and "bottom-up" planning which have been learned at a high cost elsewhere in the developing world have not generally been effectively employed in the southern African countries. The exception to this would be Botswana and Mozambique where innovative and potentially effective methods for enhancing participation are being put into effect.

-- Access to adequate shelter-related services are lacking. The most significant shelter-related needs are potable water and fuelwood. For example, in Swaziland, about 53,000 rural homesteads lack a source of potable drinking water. In Malawi, only 39% of the rural population has access to safe drinking water. Up to 20% of the rural poor of Mozambique and Angola must use unsafe water. Lesotho, moreover, suffers from severe erosion which has reduced the supply of wood and thatch for traditional dwellings. Lesotho, along with Botswana, Namibia, and Malawi, face a fuelwood shortage. As a consequence, in many areas, deforestation and accompanying soil erosion is well advanced.

It is noteworthy that much of the "rural development" effort undertaken has been narrowly concentrated on agricultural production, with relatively little attention given to services and the overall habitat. This general inadequacy of rural services throughout the region contributes to the continuing movement out of rural areas to the cities.

b. Urban Poor

The southern African region exhibits some of the highest urban growth rates in the world. As a result of the rapid increase in urban population, basic shelter and services have not been able to keep pace with demand. Much of the urban growth is unplanned or only partially planned. Problems arise especially in relation to:

-- Energy supply: Wide areas surrounding the towns are becoming depleted of firewood and charcoal sources as well as becoming degraded through continual removal of vegetation.

-- Waste disposal: Both liquid and solid waste disposal tend to be haphazard and environmentally unsound. For example, in various cities in Zambia, 30-49% of the urban dwelling units are without basic sanitation.

-- Unemployment: Large numbers of urban dwellers are unemployed or underemployed. In Botswana's three principal cities, 15-18% of the males and 35-48% of the women are unemployed. In general, the modern sectors of the southern African economies create more than a 1% increase in new jobs each year, whereas the urban labor force is increasing at between 8% and 10%.

-- Service Institutions: Institutions and agencies established to serve urban dwellers are generally poorly staffed and under-financed.

-- Shelter: Housing is in short supply. In Swaziland, only half of the 1,200 unit annual demand in the country's two main towns is being met.

The experience of the last decade suggests that urban areas will continue to be attractive to rural people and that continued growth of most of the cities in the region is inevitable. It is not inevitable, however, that cities continue to grow in ways that are hazardous to people and to the environment.

6. Mining

The substantial mineral endowment of the region, with the exception of Malawi and Lesotho, suggests that self-financed, sustained socio-economic growth is possible in the foreseeable future. To fully capitalize on mineral resources,

a range of basic constraints will have to be overcome.*
These constraints are outlined below:

- -- A lack of sufficient private investment, due primarily to the region's:
  - ** poor infrastructure and low average levels of income,
  - ** high energy costs,
  - ** political instability, and
  - ** inadequate supply of trained manpower.
- -- Lack of an adequate transportation system, particularly in the five landlocked countries. As a result, mineral deposits of a size and grade that might be exploitable if transport links were available, lie unexploited.
- -- An inadequacy of local manufacturing and maintenance facilities to support mining projects: As a result, equipment and materials have to be imported at high costs; repairs take a long time and are expensive; and stocks of spare parts have to be large.
- -- A need for detailed geological knowledge: For example, only 15% of Botswana's and

*For additional detailed analysis of mineral potential, constraints and development needs, see Annex B sector appraisal, "Mining in the Southern Africa Region."

15% of Namibia's surface areas have been fully explored. The percentage is equally low in Angola and Mozambique, where mineral prospects are encouraging.

-- An acute shortage of trained, skilled and experienced manpower at all levels of industry, especially in technical fields: This requires importing, on a temporary and extremely high cost basis, expatriate staff. In Zambia, 95% of the professional staff of the Geological Survey Department is expatriate.

-- The limited availability and high cost of water: This is a key constraint to mineral development, particularly in Botswana and Namibia. Rainfall is sparse, erratic and unevenly distributed. Ground water is difficult and expensive to find.

-- Unclear investment policies: Government policies regarding foreign investment, particularly in Mozambique, Angola and Zambia, are sufficiently uncertain, despite public political statements, to discourage some investors.

-- The relatively small size of some mineral deposits: This factor make such deposits less attractive to investors. Mineral deposits anywhere in the industrialized world must be of size sufficient enough to attract investment capital. For large deposits, exploitation is usually undertaken on a very capital-intensive basis. However, in order to promote employment, special government support may be warranted to develop smaller deposits by more labor-intensive means.

-- A general lack of priority on the part of concessional financing agencies for participation in the mining sector.

7. Manufacturing

The manufacturing sectors of the southern African countries are small in absolute terms and also, frequently, in terms of their contribution to GNP - ranging from a 27% contribution to GNP in Rhodesia to less than 10% in Namibia, Botswana, and Lesotho. Expansion of the manufacturing sector is vital to the region's development in that manufacturing will:

-- provide employment for the increasingly large numbers seeking employment in the modern sector;

-- generate essential foreign exchange; and

-- provide the domestic market with essential consumer goods which are now imported.

The major constraints which have adversely affected the manufacturing sector include:

-- limited market size and low purchasing power;

-- inadequately skilled and educated manpower to form a highly productive work force as well as insufficient numbers of entrepreneurs with business, commercial, administrative and management experience;

-- insufficient volume of risk capital, especially for higher risk small-scale enterprices. In Botswana, Lesotho, and Swaziland, individual savings have, to date, gone more to the purchase of livestock, traditionally considered a prestigious and profitable investment;

-- insufficient and inefficient transportation and communication systems which may raise the cost of doing business, especially in interior regions;

-- the high cost of energy; and

-- continued trend toward polarized growth within the southern Africa Customs Union combined with non-tariff barriers which discourage intra-regional trade.

8. Health and Population

The health status of the majority of people in southern Africa is poor. This fact is statistically illustrated in the table on page 66.

In addition to unmet health needs, the population in the region is growing at a very rapid rate. The annual population growth rate in the region, between 1970 and 1975 are among the highest in the world. The growth rates for the countries of the region are listed below.

Average Annual Population Growth Rates 1970-1975

Malawi	2.3	Lesotho	2.2
Mozambique	2.4	Angola	2/
Rhodesia	3.5	Botswana	1.9
Namibia	2.8 1/	Swaziland	3.2
Zambia	2.9		

1/ 1970-1974.
2/ Available data show conflicting annual growth rates ranging from 1.7 to 2.2 percent.

The major constraints affecting health status and the rapid population growth rate in the region include the following:

-- The lack of financial resources which limits health services and, subsequently, better health care. Government spending on health on a per capita basis ranges from approximately \$2 to \$15 with total public and private health expenditures

SOUTHERN AFRICA HEALTH AND DEMOGRAPHIC DATA
(Most Recent Data: 1975-1978)

	ANGOLA	BOTSWANA	LESOTHO	MALAWI	MOZAMBIQUE	NAMIBIA	ZIMBABWE (Rhodesia)	SWAZILAND	ZAMIBIA	RSA	KENYA	THAILAND
Dependency Ration	.80	.80	.80	.90	.78	84	.95	.98	.97	.78		.94
Life Expectancy at Birth (in years)	38	56	51	43	44	41	52	44	44	52	50	61
Infant Mortality Rate (per 1,000 live births)	203		106	163.8	165	177	122	168	127	117	119	89
Crude Birth Rate	47.0	43.0	36.7	50.5	43	45	47	49	49	40	48	33
Crude Death Rate	23.0	17.0	14.5	28.2	20	16	13	22	19	15	15	10
Years Population to Double	28.6	23	32	27	30	24	20	27	23	28	21	30
Malaria - Total New Cases/Year	165,667		10,435	1.554m				908	656,000			
Measles - Total New Cases/Year				168,000	4,548				128,218			
TB - Total New Cases/Year	2,913		1,926		4,527			1,045				
Population/Physician - TOTAL	15,170	8,824	15,400	39,044	15,520		5,700	7,600	8,000	1,970	5,800	8,530
- URBAN									3,400		987	
- RURAL									41,000		70,000	

per capita probably never exceeding $30. This compares with a 1977 United States total public and private per capita annual health expenditure of $730.

-- There are inadequate numbers of trained professional and para-professional health workers. In Botswana, Lesotho, Mozambique, and Angola, the number of physicians per population is over 1:15,000, and for the same countries, the para-professional per population ration is 1:1,000. As most health care in the region is concentrated in urban areas, these ratios hide the true magnitude of the manpower problem.

-- There is a limited knowledge of proper health practices by citizens. A prime example of this is poor environmental sanitation practices. The major causes of mortality and morbidity are malnutrition, diarrhea, and intestinal disorders, which are a consequence of poor environmental and behavior practices. Greatly contributing to the problem is a lack of potable water for most of the population.

-- Few, if any, of the governments in the region have mounted vigorous population planning policies or programs. In addition, the people of the region have traditionally looked upon large families as a positive social and economic factor.

-- Health services are primarily curative. In Zambia, less than 7% of the health sector budget and less than 10% of the country's health manpower are allocated to disease prevention and control.

-- The lack of transportation and communication systems have a major impact on the ability of patients to reach existing health services and of the services to reach populations in greatest need.

-- Mental health problems are largely unmet. These mental health problems stem from the traumas of independence struggles, family dislocations (caused by migration to South Africa for employment), the influence of urbanization, and changes in traditional social and cultural institutions.

-- Rapid urbanization in the region has forced people to live in crowded and poorly serviced housing. As a result, there is a lack of proper waste disposal facilities and accessible sources of potable water.

These conditions have produced severe public health risks.

D. Special Development Concerns

1. Dependence of Southern African States on South Africa

From every perspective, the dominance of South Africa over the economies of Botswana, Lesotho, Swaziland, and Namibia is pervasive. To a lesser degree, Malawi, Mozambique, and Zambia share elements of dependence. South Africa is a principal source of between 80% and 100% of the consumer and capital goods in Botswana, Lesotho, and Swaziland. It operates all of the transport links on which the goods are shipped. The division of the Customs Union revenue pool provides a striking illustration of the dependency relationship. These revenues, collected by South Africa, are distributed according to a formula weighted in favor of Botswana, Lesotho, and Swaziland. The formula tends to tie the countries to South Africa, in that revenues from the Customs Union account for 34% of all revenue in Botswana, 45% in Swaziland, and 69% in Lesotho. These percentages are expected to rise next year.

Despite poor living and working conditions, South Africa attracts a large percentage of the labor force not only from these countries, but from Malawi, Mozambique, and Rhodesia, due to limited or non-existent job opportunities in the home countries. Wage remittances from such employment is an important contributor to the GNP of all five. Botswana and Swaziland estimate yearly earnings, repatriated by workers, to be $18.0 and $15.0 million, respectively. The importance of migrant remittances is much greater to the Government of Lesotho. Such earnings are estimated at $57.0 million, or nearly half of Lesotho's GNP.

Botswana, Lesotho, Swaziland and Malawi depend on South Africa for considerable investment capital and technical assistance. South Africans dominate the wholesale and retail trade. With the exception of Malawi, there is little private capital coming into the countries, other than from South Africa.

South Africa's ports, railroads, and excellent road system have historically been the primary transport outlets for the landlocked countries. Some of the specific transport dependencies are:

-- Except for a tenuous and limited egress through Zambia, Botswana's only outlet (pending an acceptable settlement in Namibia and the possibly subsequent construction of trans-Kalahari road) is through South Africa.

-- The only railway in Lesotho is a branch line tied to South African Railways. All goods must be transported to and through South Africa. Lesotho is also subject to South African transport policy which <u>requires</u> the use of South African Railways, even when road transport would be cheaper.

-- Namibia's major roads and the railway are linked to the South African economy. At independence, there will be a high degree of reliance on South Africa until Namibia can operate its own railways, road transport, and ports.

-- Because of port inefficiencies and the need to earn foreign exchange, Mozambique has received assistance from South Africa in port operations. Recently, the two countries agreed to double the Transvaal rail line from Maputo to the border. This addition will permit Maputo to continue to be a major export outlet for South Africa minerals.

-- Swaziland, while it has an export rail link to Mozambique, brings virtually all of its imports in from South Africa. Its rail system is affiliated with South African Railways. It recently completed construction of a new rail line to enable it to export goods through the South African port of Richards Bay.

Namibia's degree of dependence is such that two-thirds of its total production is exported to South Africa and nearly half of all basic foodstuffs are imported from the Republic. Institutional patterns are similar, with all Namibian units (banking, railways, posts, currency, agriculture research, etc.) being branches of South African parent organizations. Much of what Namibia now produces has virtually no domestic utility. Little value-added production takes place in Namibia; and African agriculture has been deliberately left to stagnate to assure labor availability for the mines and European farms.

2. The Sanctions Factor: The Impact on the Periphery Countries of the Rhodesia Sanctions

UN sanctions on Rhodesia have involved economic disruption with an increasingly negative economic impact. Adherence to sanctions has severely distorted both regional and national investment patterns and the movement of goods. Ironically, the countries on Rhodesia's periphery have suffered more in economic terms than has Rhodesia, the target of the sanctions. For instance:

-- In Botswana, sanctions may result in the reluctant and costly takeover of Botswana's portion of Rhodesian Railways sooner than would otherwise occur. Resources and administrative attention would be diverted from other important development areas. Without the transit traffic from Rhodesia, the railway could be expected to operate in Botswana, at a loss, requiring subsidization.

-- In Mozambique, Rhodesian sanctions have meant the loss of foreign exchange previously earned from transport transit for interior countries and the disruption of internal traffic and trade.

-- In Zambia, sanctions have meant continued closure of the most direct import source for many products and uncertainties about transport for imports and exports. Rhodesia would normally be the lowest cost source for imports essential to Zambia's economy such as coking coal, fertilizers, and various kinds of equipment. The Zambian economy has suffered the cost of expensive imports when in theory, much might be supplied by Rhodesia.

-- For Malawi, Rhodesian sanctions have had a mixed effect. While losing a source of manufactured goods and processed food, Malawi has profited by expanding its tobacco production to capture much of Rhodesia's former market.

3. Regional Development Effects of Independence in Zimbabwe and Namibia

Zimbabwe

By almost any test, the economy of Rhodesia is the most advanced of any of the entities in southern Africa, except for South Africa. In Rhodesia, the industrial sector has been viable and competitive, even in the face of sanctions. In contrast, much of Zambia's industrial sector depends on a high degree of protection and government support, despite sanctions on Rhodesia. Some observers argue that sanctions have contributed to the long-run strength of the Rhodesian economy by forcing the pace of diversification. In this view, diversification provides a measure of protection in the home market and stimulates increased efficiency.

In a more open regional economy, an independent Zimbabwe, along with South Africa, would be the least costly source of numerous industrial products, especially manufactured consumer goods, for most of the countries in the region.

It may be expected that after majority-rule is attained, Zimbabwe will be a major economic factor in the region, given the following assumptions: (1) the country will not experience armed internal confrontation between competing groups, (2) large numbers of skilled whites will not leave an independent Zimbabwe, (3) majority-rule will be achieved with the economy reasonably intact, and that (4) private capital and concessional assistance will be readily available. The competitive edge that the country had in the past will reassert itself and, given a fairly liberal trading regime in the area, Zimbabwe will experience export-led growth. With its endowment of infrastructure, production equipment and technical and entrepreneurial skills, Zimbabwe will be attractive to foreign investors. Therefore, the requirements for external concessional assistance in a post-independent Zimbabwe might be of short or limited duration and should be planned to promote balanced growth in the country and region*.

Prosperity in Zimbabwe could spill over into the rest of the region. Rising incomes in Zimbabwe could create a growing market for its neighbors' products, and auxiliary industries could appear in surrounding countries. The opening of the border would give Zambia easier access to the rest of the world, raising its income which might also benefit its neighbors. It is, therefore, conceivable that an independent Zimbabwe would give the whole area a

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*For additional details on development problems and projected development needs in Zimbabwe, see Annex A, Zimbabwe Country Paper.

forward push in which growth in one country would generate growth in the others.

Although theoretically possible, such a regional scenario may not be realized for several reasons:

(1) the lack of purchasing power in the surrounding countries makes it unlikely that they could buy Zimbabwean products; conversely, nearby countries produce little that would prove attractive as imports to Zimbabwe.

(2) Zimbabwe's competitive edge may threaten many rival concerns in neighboring countries. Instead of an upward boost, Zimbabwe's emergence could impart a downward thrust to activity in the rest of the region, as some existing businesses fail when no longer protected by sanctions.

(3) The attractions that exist in Zimbabwe for external capital and enterprise may, in fact, divert investment from the other countries in the region.

Zimbabwe's neighbors may see little reason to tolerate competition for their markets and financial resources, and may respond to Zimbabwean development by raising trade and payment barriers. In such a case, the economy of the area could become fragmented into uneconomic national segments. The result would be a situation not notably different from that which exists under sanctions. One modification would be that Zimbabwe and Zambia will be better off as a consequence of easier access to world markets and supplies, and that Mozambique would benefit from the transit trade.

The most pessimistic outlook is one in which the advent of majority rule results in a serious collapse of the Zimbabwean economy. Skilled Europeans may find that they no longer wish to or cannot remain in country. Although there are more than 10,000 university-trained black Zimbabweans, any significant white exodus would result in notable economic disruptions. In fact, such an exodus has already begun: over 1,000 whites are leaving each month, and more than 60,000 have applied to depart.

Namibia

Independent, majority-ruled Namibia will have an important role to play in the development of the southern Africa region. Namibia will have much to contribute to the progress of the region, and, significantly, will also rely on the resources and cooperation of its neighbors for its own growth.

Namibia's coastal location and the port facilities at Walvis Bay (if these are incorporated into it) provide an attractive West Coast outlet for the goods of landlocked Botswana, Zambia and Zimbabwe. The addition of a Namibian seaport could reduce the vulnerability of these countries by offering a new option for the shipment of vital imports and exports. Furthermore, a West Coast port is substantially closer to major trading partners situated in the Western Hemisphere, thus offering opportunities for reducing transportation time and costs.

Namibia's dry, often desert-like climate will continue to force that nation to seek reliable sources of food imports. A prosperous Namibian economy could provide a market and stimulus for the agricultural production of countries such as Angola, Zambia and Zimbabwe. The potential result would be improved income and quality of life for productive small farmers who previously may not have perceived the existence of a reliable demand for their output.

A substantial demand for inexpensive electrical power and water for irrigation will stimulate Namibia to work with regional neighbors in the development of hydrological and river basin projects. Work initiated on the damming of the Cunene River in Angola, once completed, will provide Namibia with its potentially most important source of energy as well as water for agricultural use. The income Angola will receive from the Cunene project will stimulate its own development. Botswana's proposed development of the Okavango basin could also support the improvement of Namibian agriculture. Such cooperation would provide benefits to the citizens of both nations.

4. Labor Migration*

Hundreds of thousands of African men migrate from bordering countries to work in the mines of South Africa. Thousands of additional men and women migrate to South Africa to find employment as farm workers and domestic servants.

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*For additional information on labor migration and related development impact, see Annex B Sector Appraisal, "Labor Migration in the Southern African Region."

Foreign Workers in South Africa*

	1965	1977
Lesotho	117,000	163,000
Mozambique	161,000	69,000
Malawi	80,000	34,000
Botswana	59,000	39,000
Swaziland	39,000	15,000
Rhodesia	27,000	31,000
Angola	11,000	700
Zambia	16,000	800

*Source: K.W. Grundy, Economic Patterns in New South African Balance.

These patterns of labor migration, coupled with domestic development constraints, have created significant problems unique to the southern African region.

-- The implementation of income and wage policies in the supplier states is hampered by the constant upward pressure on domestic wages, which is necessary to compete with wages offered at the mines. In Lesotho, it is estimated that remittances from miners employed in South Africa account for 70% of the average rural household income.

-- With a significant portion of the male work force between the ages of 18 and 45 normally absent from home, production and development opportunities in the supplier country are adversely affected and family life disrupted. Specifically,

** The absence or young males places an added burden on the women, children and elderly left in the villages.

** Rural families are more reluctant to permit children to attend school when there is farm work to be done and older males are not available. The situation is most critical in Lesotho where 34% of the households are headed by women and 68% are managed by them.

-- The conditions the migrant mine workers live and work in are physically and mentally oppressive. These conditions stem from the apartheid policies of the Republic of South Africa and the system of contract labor.

The recent (February 1978) World Bank Report on Migration from Botswana, Lesotho and Swaziland notes that:

> "It is difficult to assess the future demand for foreign migrant labor in view of the range and nature of events which have influenced the demand/supply situation particularly in gold mining over the years. While the industry is committed to greater mechanization, assessments differ regarding the extent to which alternative techniques could be developed to reduce labor substantially, given the special geological features of the ore body, such as hard, narrow, discontinuous reefs two miles deep. However, while there is limited feasibility for varying

> production techniques of operational mines in response to changing relative prices of labor and capital, new mines are expected to be increasingly capital-intensive. Other factors influencing future demand include the pace of local substitution of foreign migrants, the future role of gold in the international economy, the rate of economic growth in the sending countries, and political considerations stemming from current developments in southern Africa."

A more recent study* concludes that as a result of rapidly growing black unemployment (now set at 22.4%) in in its own country, the South African Government and South African companies have established a conscious policy of reducing the inflow of foreign workers. This would have negative impact on the economic growth of countries surrounding South Africa.

Thus, the outlook for a continued high demand for labor exports is pessimistic. Development policies in the supplier countries must therefore focus more explicitly on the implication of increased unemployment at home and the consequent decrease in foreign exchange earnings. Means must be found for export sector promotion with a high employment generation component.

5. <u>The Refugee Situation as a Development Constraint</u>

It is estimated that there are close to one million refugees and displaced persons within southern Africa. There are approximately 250,000 refugees in Angola, between 70,000

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*Simkins, Charles and Clarke, Duncan, "Structural Unemployment in Southern Africa."

and 100,000 in Mozambique, 20,000 in Botswana, 65,000 in Zambia, 7,000 in Lesotho, and 500,000 "displaced persons" in Rhodesia. In addition, it is estimated that there are 500,000 people in protected villages in Rhodesia who are restricted from normal farming livelihoods. The number of refugees is growing daily and the prospects are for significant increases in the near future.

The refugees and displaced persons in southern Africa represent a diverse group which includes well-educated urban dwellers fleeing political oppression in South Africa, Rhodesia and Namibia, and less well-educated villagers unfortunate enough to live in or near areas of conflict in Rhodesia, Angola and Namibia.

Political conditions and conflicts in the region suggest a significant expansion of the refugee population as a result of a continued escalation of the conflicts in Zimbabwe and Namibia and the maintenance of apartheid laws in South Africa. It is estimated that, by 1985, the refugee population in the region could reach three-quarters of a million people - higher than the present populations of Botswana or Swaziland, two of the most likely countries of asylum.*

The actual economic and social costs and the "development" drain in the asylum states are difficult to quantify, but are substantial. These include:

*See Annex B, "The Refugee Situation in Southern Africa.

-- Part of the expense of feeding, housing, educating and providing for health needs.

-- Providing protection to refugee settlements from military attacks. Refugee settlements in Mozambique, Zambia and Angola have suffered military incursions from Rhodesia and South Africa. All three countries, for example, has been forced to divert funds planned for development programs to defense.

-- Military incursions aimed at guerrilla and refugee camps have caused considerable human casualties accompanied by the destruction of physical property and vital infrastructure. This is particularly true in Mozambique and Zambia.

-- The asylum countries' limited administrative and management resources must be shifted from development concerns to refugee problems.

The harsh reality of the refugee situation in southern Africa is that it is and will continue to be in a great state of flux. The number of refugees is growing and outstripping the international community's and asylum countries' ability to handle them. <u>The only long-term solution to the refugee problem in southern Africa is a</u>

<u>resolution of the causes of the problem - majority-rule in Zimbabwe, Namibia, and South Africa. It would be prudent for donors and international agencies to undertake contingency action now for an expanded refugee population.</u>

6. <u>Women in Development</u>

Women in southern Africa, as in most of the developing world, face great challenges in order to gain the full benefits of socio-economic development.

While women play a major role in the traditional economic system, e.g., performing essential agricultural tasks (weeding, harvesting, thrashing and storage); collecting firewood and water; preparing food and care for children and old people, they have received few of the benefits of development. In Botwana, for example, it is estimated that households headed by single women are generally worse off economically than those headed by men. Three-fourths of the female-headed households have no cattle versus one-third of male-headed households.

While the major constraints to development progress in the region are not gender related, solutions to the constraints all too frequently focus on benefits for men while excluding women from program and project planning. As a result, a number of constraints to fully integrating women in southern Africa development have risen. The most important of these include:

- In the agricultural sector, inputs such as improved seeds, fertilizers, extension services and credit are generally not available to women. For example, in Zambia, banks require a man's signature for loans, men receive loans for farming even though much of the farming is done by women.
- In non-agricultural areas, women find it difficult to attain the necessary credit, training and other resources, such as equipment and transport, to engage in income - generating activities. In addition, women experience difficulties in raising mortgage financing or arranging credit in their own name. Almost all banks, commercial establishments, financial institutions, shops, etc., require women to provide a male guarantor.
- A lack of sufficient training opportunities at all levels and of all types, i.e., formal and non-formal, technical, and administrative. For example, in Zambia, women constitute only 15% of those receiving higher education.
- Women's needs and roles are rarely considered when investments are made in designing appropriate technology.

-- Some traditional practices, such as bride prices, forced marriages, polygamy, fertility requirements, and the ease of male divorce, reinforce and legitimize the exploitation of women.

As indicated in the recent Economic Commission for Africa publication, <u>Appropriate Technology for African Women</u> (1978), "agriculture, rural and national development will be a slow and difficult process if the women, who form half of the population and in some countries, represent up to 80% of the agricultural labor force, continue to be denied access to knowledge, credit, agricultural extension, consumer and producer cooperatives, labor saving devices and income - generating activities."

III. Regional Development Needs and Opportunities

A. Rationale for a Regional Approach in Southern Africa

In the past, the region has been characterized by unbalanced growth and dependency relationships. Consequently, it can be anticipated that the independent countries of southern Africa will place increasing importance on the objectives of self-sufficiency and self-reliance to avoid any new dependencies.

These objectives, on the surface, may appear incompatible with the recommendation in this Report that sustained development in southern Africa requires a regional perspective. However, without such a regional perspective, major opportunities to facilitate growth could be missed, blocked, or distorted.

In southern Africa, selective regional problem-solving through national action, and national problem-solving through selective regional approaches should be carefully integrated into the individual strategies of the countries. For instance, the construction and maintenance requirements for the overall regional transportation systems suggest that a coordinated regional outlook on transport is desirable and cost effective. Specific project execution can and probably should take place through national institutions that will be reinforced and strengthened in the process of carrying out a regional transport strategy.

The fragile and vulnerable economies of southern Africa, their natural interdependence, and the unavoidable geographic dependence of six landlocked states on coastal neighbors, make it necessary to examine, as the countries indicate their readiness to do so, development constraints from both regional and national perspectives.

Given the complexity and diversity of the region, there will be a limited number of opportunities for the nine countries of southern Africa to participate in joint projects. Rather, it can be expected that most regional programs will involve two or, possibly, three countries. The planning, design and implementation of such regional programs can take place either in each individual country or through a mechanism common to the countries.

B. <u>Regional Program Opportunities</u>

The following are suggestions in areas where regional programming appears most likely to emerge in the near future. Over time, as more regional questions are raised and political issues are resolved, new approaches and opportunities will emerge.

1. <u>River Basin Development</u>

River basin programs including hydro-electric power, irrigation, and fisheries development will be necessary if the future food needs of a growing population are to be met and if a minimum industrial base is to be established.

Such programs will be a critical component of any long-term employment strategy.

In southern Africa, water is a scarce resource. Equitable sharing of this resource is necessary if balanced growth is to occur in the region. The ramifications of unwise water development can reverberate through virtually all national and regional development programs. For instance, changes in water systems create the potential for the spread of water plants, water-related insects, and disease. With perhaps the exception of the Okavango Delta, little is known in southern Africa about the precise potential of basin development and the risks of environmental degradation. None of the river systems, including the Okavango, have been studied in depth.

There are almost no valid riparian agreements governing the major water systems. Individually, some of the countries are beginning to identify national irrigation activities without consideration of possible environmental impact on the overall water systems. Therefore, as soon as it is politically feasible, appropriate attention should be given to comprehensive planning of the major basins.

One of the major factors discouraging private investment and industrial development in southern Africa is the high cost of energy. Any employment strategy will be meaningless unless power costs can be reduced. Most of the potential of the various basins is untapped. For instance, in the Zambezi, the capacity of the system, including tributaries, is estimated at 11,000 megawatts. This is equivalent to 18 times the present capacity of Kariba dam and equal to the presently installed capacity in South Africa. Approximately 65% of this development would have to occur within Mozambique principally at the Mopanda-Unca site near Cabora Bassa.

Judging from the natural capacity in Angola, Mozambique, and Zambia, eventually all of the countries in the region, could be linked by an extensive grid which could dramatically change their development prospects.

There is an excess generating capacity in both Kariba and Cabora Bassa but a lack of transmission lines. Preliminary discussions are already taking place between Zambia and neighboring countries (Botswana, Malawi, and Tanzania) on the possibilities of power sales from the Kariba. For Cabora Bassa, all current power is used by South Africa (representing 7% of their electricity) since transmission lines only go to South Africa. However, in the near future, Mozambique can be expected to begin using power from Cabora Bassa to develop the extensive minerals found in the Tete/Moatize area and for possible sales to neighboring countries.

Major river basins in the region which might lend themselves to regional and basin-wide development include:

a. Okavango

Although the Okavango Delta has been studied extensively, there has been no overall assessment of the full basin system to determine the potential for water harvest without environmental damage. It is reported that Angola has started plans to irrigate up to 40,000 hectares from the Okavango River. South Africa has prepared a scheme to irrigate parts of Ovamboland in northern Namibia. An independent Namibia will undoubtedly wish to consider this scheme since the country is now a deficit food producer and must rely on South Africa for basic food imports.

As a result of water shortages, Botswana has come under increasing pressure to use part of the Okavango Delta to meet agriculture and industrial needs or for export to South Africa. After several studies (UN, Canada and SIDA), it has been concluded that some agricultural development could take place on the periphery of the delta without ecological damage but that industrial water use could be an environmental risk.

Moreover, given the unique nature of the Okavango, the environmental risks of piecemeal action are great. As soon as it is politically feasible, a phased basin-wide planning project should be established to involve Angola, Botswana and Namibia. Its objective should be to prepare a balanced and comprehensive long-term plan for the Okavango including wildlife, energy, fisheries, agriculture and water conservation.

b. Zambezi

Eventually a series of additional dams on the Zambezi and its tributaries will be required for full water control. Such river control would permit irrigated farming in both tributary and coastal areas. The ultimate potential for cultivation within the Zambezi Valley is estimated to be 2.5 million hectares of which 1.5 million is suitable for irrigation. Given geographic and climatological variations, cattle, citrus and temperate food crops can be grown in the highlands and sugar, cotton and other tropical products in the lowlands. Some early studies completed in the 1960's on the basin (by Merz and McClaren) will have to be updated. There is an accumulation of important, but piecemeal, information completed by the Portuguese in Mozambique, U.K. in Rhodesia and by Zambia. Ongoing studies include an assessment of navigation on the lower Zambezi being financed by EEC.

Majority rule in Zimbabwe will permit all of the riparian states to estabish, if they desire, a

Zambezi river basin commission. Donor assistance can, if requested, assist such a commission to start planning jointly for the complex development and regulation of the Zambezi including power, irrigation, fisheries, navigation, minerals, and health and human resources.

c. Cunene

Portugal and South Africa largely developed this project along the Namibia/Angola border in 1965. It was conceived as a \$258 million hydro-electric and irrigation scheme with virtually all of the major infrastructure to be located in Angola. However, from the standpoint of water and electricity, it was Namibia who was to receive the greatest benefit. Already nearly half of the water for Namibia's Ovamboland comes from the Calque Dam on the Cunene. At Angola's independence, South Africa had already spent \$116 million in major infrastructure for the scheme. Activity within Angola has now been indefinitely suspended. Any future activity is probably precluded until full independence in Namibia and the establishment of new inter-country agreements for the development of this common resource. It is possible that the scale and scope of Cunene could be altered by the process of independence in Namibia and by the state of the economy in the post-independence period. For instance, if there is a substantial departure of whites from Namibia and some drop in the level of mining activity, the country's demands for power and water could be far short of Cunene's potential.

In addition, the Chobe, Limpopo, Ruvoma, Orange and Luangwa Rivers offer considerable opportunity for agriculture, fisheries, and hydro-power, if interestate cooperation can be established. Joint planning and some transportation development has already started between Mozambique and Tanzania on the Ruvoma. Under UNDP leadership, it is possible that the U.S. will be asked to participate in the development of the Ruvoma.

In order for Botswana to solve its urban water problems, a dam may have to be built on the Limpopo River near Gaborone. This would require regional cooperation with South Africa, Rhodesia, and Mozambique, as well as the other riparian states.

From a regional strategy perspective, river basin development is one of the most obvious areas for long-term, intra-regional cooperation. By their nature, river basins cannot be developed without joint action and probably not without the support of multiple donors and international institutions. River basin development schemes are long-term endeavors and the necessary economic, social, environmental and engineering studies will take many years. The financing of costly infrastructure should not be of immediate concern, although the substantive prerequisite planning work should be supported.

2. Transportation and Communications

Conceptualizing transport policy, rationalizing the various systems of the region and seeking efficiencies and economies in system maintenance would seem to be a logical objective for a sub-continent containing six landlocked countries dependent on one another and coastal neighbors for the movement of essential goods.

Moreover, it is now concluded by most experts that the overall system in southern Africa has deteriorated over the last five years and that the trend is continuing. Because of the distortion effect of UN sanctions and conflict in Rhodesia, regional cooperation in transport maintenance and functioning has been disrupted. The most urgent areas for cooperation is in efficiency and commodity movement and removal of the many non-tariff barriers. In this regard, there are some encouraging signs.

-- Within the last year, transport ministers from Zambia, Malawi and Mozambique have met to agree on tonnage allocations for scarce railway cars serving the three countries between the interior and the port of Nacala.

-- Ministries, senior government officials, and railroad representatives from Zambia, Zaire and Angola have held a series of meetings relating to the reopening of the Benguela Railway. Discussion focused on the determining responsibilities for the functioning of the system between the Zambian copper belt and the port of Lobito. Some of these working sessions have included, as interested donors, the UN, British, EEC, and Belgians.

-- There have been renewed contacts between the Mozambique and the Swaziland governments to improve the functioning of the railway between Maputo in Mozambique and Manzini in Swaziland. Such cooperation is essential if redundant investment improvements, such as Swaziland's decision to construct an alternate rail link to the coast at Richards Bay in South Africa, are to be avoided.

-- In November 1978, 17 countries of east and southern Africa met in Swaziland to draft a protocol for transportation and communications for preferential trade in this area of Africa.

-- Mozambique has agreed with South Africa to double the rail line from the Transvaal to Maputo. This extension will be used to export minerals out of South Africa. Mozambique, as part of this agreement, has agreed to purchase 25 U.S. locomotives through the Export-Import Bank.

Some possible new areas of regional transportation cooperation are likely in the near future. Others are dependent on political events. Those of most significant regional importance are:

a. The Benguela Railway

As noted above, discussion are underway between the various parties. An analysis of needs and an appropriate investment program are being developed by a British firm, financed by the U.K. (ODM). For efficient railroad operations, substantial numbers of trained personnel and new rolling stock will be required, as well as spare parts. Moreover, the port of Lobito may need additional handling equipment and technical assistance for port management.

The renewed functioning of this privately owned railroad (Tanganyika Concessions Ltd.) takes on critical new regional importance, given that the Tazara system is functioning poorly. For the economies of Zambia and Zaire, it is critical that efficient routes for exporting copper and carrying essential imports be maintained.

b. <u>The Botswana/Rhodesia Railway</u>

For several years, Botswana has prepared plans to purchase and operate the portion of the Rhodesia Railway which runs through Botswana to South Africa. The Federal Republic cf Germany has agreed to provide grant funds to Botswana for the purchase of rolling stocks and signaling equipment.

However, there is concern that Botswana may not be able, over the long-run, to afford to operate and subsidize. Further study now underway by the British firm, Transmark, will delineate transport options, identify minimum emergency requirements, and analyze financial viability. Ultimately, a regional railway operation, involving Zambia, an independent Zimbabwe, Botswana, Mozambique, and possibly, South Africa, may be the best means to assure efficiency and economic viability. By its nature, this system would need substantial multi-donor and inter-regional cooperation.

c. <u>The West Coast Outlet Through Namibia</u>

Independence in Namibia, if it includes Walvis Bay, will open a new potential west coast outlet for some of the landlocked countries. All-weather roads already stretch far into the north of Namibia to Katima Mullilo near the Zambia/Namibian border in the Caprivi Strip. Only several short stretches remain to be completed and truck traffic could move from Zambia to the rail head at Tsumeb or on to Walvis Bay. In fact, once these stretches are completed, this would constitute the first trans-Africa highway, extending from Walvis Bay on the west to Dar es Salaam on the east.

d. The Botswana-Namibia Road

In the medium-term, another important intra-regional road link to Namibia would be through Botswana from Lobatse to Sekoma Run, to Ghanzi and finally Gobabis in Namibia. Preliminary studies of this road have begun, and the U.S. has indicated a possible interest in financing a portion of the road.

e. The Trans-Kalahari Railway

For the longer-term, a Trans-Kalahari Railway, perhaps from Francistown in Botswana through Maun to the Namibian rail head at Gobabis, could be warranted. For such an investment to be economic, it would probably require considerable new mineral activity in the Magadigadi Pan area or in eastern Ngamiland of Botswana. The EEC has indicated its willingness to conduct a preliminary feasibility study.

f. Tazara (Tanzania/Zambia Railway)

Zambia's link to the sea through Tanzania has encountered a range of management, technical and political difficulties. Because of a payments dispute between the two countries, Tanzania has withdrawn the preferential port handling tariff previously allowed Zambia. Costs to Zambia, payable in foreign exchange, have now more than tripled since 1976, further encouraging Zambia to look to alternate outlets (the southern route through South Africa and the Benguela) for part of its transport needs.

The Tazara route, even after the lifting of sanctions on Zimbabwe, will be important to the region. Both the World Bank and UNCTAD are completing studies designed to outline management and operating steps to improve efficiency of the route. It is possible that the World Bank will then provide the leadership for a multi-donor project for the system as a whole.

g. Mozambique Transport Systems and Port Improvements

The Swedish government has recently financed a comprehensive national and regional study of Mozambique's transportation needs. While the full study has not yet been released by the government, some of the preliminary conclusions with regional implications are known. One of the major conclusions is that Mozambique will be unable to invest scarce equipment, manpower and budgetary resources in both their regional transport links and their national roads program without extensive external assistance.

h. Botswana-Zambian Bridge

The critical Botswana-Zambian road now heavily used will be paved this year under financing provided by the EEC. However, the road is still limited by an unreliable and vulnerable ferry operation at Kazangula.

In the near future, an inter-country bridge across the Zambezi will be needed.

Other projects are also likely and will emerge as further study is done. These may include linking Malawi into the Tazara system, new road links between Angola and Zambia, and between Namibia and Angola. A study now being completed by UNCTAD of 32 transportation corridors for the landlocked states will be valuable in identifying further regional projects.

3. Telecommunications

Telecommunications in the region are characterized by almost non-existent direct service between the countries. This represents a serious constraint to any regional cooperation. Moreover, other regional programs in transport, river basin development, etc., will be hampered unless information can be effectively relayed. While specific projects cannot be suggested at this time, an assessment of the sector suggests that assistance is needed in virtually every country to establish a minimally effective regional system.

4. Research and Specialized Training

A cooperative inter-linking of various institutions in the region now conducting research could reduce duplications and provide a sharing of research results not now available. This could cover a range of special areas including:

-- agriculture research in production systems, appropriate technology, seed development and erosion control methods;

-- sharing of socio-economic experience in employment creation, reabsorption of migrant labor, results of labor-intensive approaches to road building, construction, etc.

The Vice Chancellor of the University of Zambia has expressed interest in developing a cooperative research consortium between universities in Zambia, Mozambique, Tanzania and Botswana.

The primary focal point and responsibility for education and training will rest with the national governments. However, questions of cost and scale suggest that despite the unsuccessful experience of the University of Botswana, Lesotho and Swaziland, specialized or technological education should be attempted on a multi-country basis. This could be particularly important for Namibia where there is no existing institution for higher education. Until local institutions can be developed, external training will be essential and could be less costly if undertaken in neighboring majority-rule countries. The most practical approach would be a regional sharing of institutional capacity based on formulas worked out between cooperating countries and donors willing to assist in enlarging selecting institutions. Some examples are:

-- mining and minerals technology at the School of Mines in Zambia;

-- veterinary training and agricultural economics in Zimbabwe;

-- medical and law training in Zambia at UNZA's schools of law and medicine;

-- railway training at the railway centers in Malawi and Mozambique. This is already underway with EEC assistance;

-- training in animal health at a new tick borne disease center to be constructed in Malawi (see below); and

-- specialized vocational centers in applied technology, hydrology, engineering, electronics, etc., to be located in various countries.

5. Livestock Disease Control

Recent outbreaks of hoof and mouth disease, and east coast fever in Swaziland, Botswana, and Mozambique are likely to reoccur and intensify due to a breakdown of disease control in Rhodesia due to the fighting there. There is a lingering threat of rinderpest and trypanosomaisis which also moves easily across borders. Contingency programs of a regional nature need to be conceptualized.

The new vaccine laboratory in Botswana can produce in excess of its own needs. A tick borne disease center is to be constructed in Malawi as a result of recommendations made at the recent ECA-sponsored meeting in Botswana. In addition to these two institutions, additional veterinary training is needed and facilities in an independent Zimbawe may provide a new alternative to the overcrowded veterinary school in Nairobi.

6. Intra-Regional Trade

Inter-dependence in southern Africa depends to a large degree on diversification of trade. An analysis of trade patterns demonstrates that the trade of the majority-ruled states is largely with countries external to the region or with South Africa. Trade with each other is negligible.

Suggesting trade as the first step in any regional approach is risky since in any first steps, such as a preferential trade area, the foundation could be set for unbalanced growth. Experience in the Central African Federation and East African Community would suggest that in any trading arrangements, the primary benefits will go to the most advanced country to the detriment of others. In the case of southern Africa, any trading arrangements would have to include Zimbabwe, yet Zimbabwe's economy and industrial base is sufficiently well advanced that unequal benefit would accrue to Zimbabwe in any such arrangements.

Despite a series of ECA-sponsored meetings concerning a preferential trade area for east and southern Africa, this seems not to offer great promise. Tariffs between these countries are the least serious barriers. Longer term trade development will depend on production diversification.

As a preliminary step, national efforts to pluralize trade relationships will have to be successful. The countries might study their current imports from South Africa and other countries to see if productive capacities could be pooled to economically produce selected manufactured goods. This approach could proceed in the absence of any formalized attempt at economic integration or preferential trade arrangements.

7. A Southern African Development Bank

One logical area of regional cooperation would be in mobilizing development financing by matching such funds with projects aimed at regional cooperation or eventual integration. If agreement could be reached, a development bank could act as one mechanism to balance growth in the region by avoiding the creation of excessive growth poles in one country. This could be done through a lending policy with a compensation mechansim designed to benefit the poorest participating members.

IV. Country Specific Development Overviews

A. Introduction

The following sections integrate selected country strategies to the major conclusions regarding development needs described in Section I of this paper. The programs discussed or inferred do not necessarily represent the official assistance plans of AID. They do, however, reflect what is believed to be a reasonable approach to the removal of some of the major country-specific development constraints. With the exception of Angola, Namibia, and Zimbabwe, the development analyses and possible program strategies have been reviewed with the governments concerned and revised accordingly.

The individual country papers, which have been submitted as annexes to this report provide greater detail.

B. Botswana

Botswana is a landlocked country. It has a population of 731,000, which is increasing at an annual rate of 3.3%. Eighty-five percent of the country's citizens are located in rural areas, although urban growth is very rapid. Botswana's long-range development potential is constrained by its narrow agricultural resource base. Per capita Gross National Product (GNP) is only $410 per year, but grew, during the first half of the 1970's, at the impressive rate of 8.4%. This rapid growth was largely attributable to an accelerated program of mineral exploitation, particularly in diamonds, coal, copper, and nickel.

1. Expanding Food Production Capacity

a. Situation - Agriculture is the main economic activity of the people of Botswana. However, farmer productivity is low and tending to decline. Food production is restricted by inadequate rainfall, unavailable surface water, and poor soils. Periodic droughts pose a particularly damaging threat. Optimum livestock carrying capacity appears to have already been reached. Soil erosion, due to overgrazing and the use of unappropriate traditional farming technologies, is becoming a significant problem. Continued imports of food from the Republic of South Africa, Botswana's traditional supplier, may not be possible in the future due to population and other pressures on the agricultural sector of the larger nation.

b. Strategy - Emphasis should be placed on farm system research and adaptive research on drought resistent varieties. Sector planning, extension services, and agricultural education should be strengthened and expanded to enable the delivery of more productive appropriate technologies to small farmers. Land tenure issues have already been investigated. The subsequent reform programs should ultimately result in more efficient utilization of Botswana's scarce land resources. Improved range management and farming techniques must be implemented to bring about a stop to soil erosion. In addition, further increases in livestock production will necessitate better animal husbandry practices, and may require new, more intensive systems of livestock production. Expanded food production, in general, will rely on the strengthening of the national rural road and marketing network and services to rural dwellers.

An arable lands development policy should be developed with concurrent investment in irrigated agriculture where possible. With independence in Namibia, Botswana should begin a program of joint development of the Okavango basin for irrigated food production in the Ngamiland region.

2. Reducing Economic Vulnerability

a. Situation - Botswana's economic vulnerability is attributable to its landlocked geographic position; its reliance on the Republic of South Africa for energy, transport, communications, key imports, migrant employment (and the resultant wage remittances), government revenues, etc.; and its susceptibility to drought. For the country to be able successfully to manage its own economic affairs and to gain a degree of control over its development prospects, it will be necessary, to the extent practicable, to reduce its vulnerability to these external factors.

b. Strategy - To the degree that it is economically viable, Botswana should seek to diversity further the markets for its most productive sectors (e.g., livestock and minerals). Because of the conflict in Rhodesia, vital rail service from Botswana to coastal shipping outlets cannot be considered reliable. The feasibility of assumption of the operation of the Rhodesian railroad within Botswana territory must be carefully studied. Consideration should also be given to the benefit of establishing new road and/or rail linkages to Walvis Bay, in Namibia. Dams, reservoirs, and other means of water management should be developed to provide greater resistence to recurrent droughts. Any decline in the employment of Botswana nationals in South Africa will require the creation of new job opportunities for those put out of work. Possible areas for employment generation include labor-intensive road construction and water management projects, exploitation of small mineral deposits, and small rural industries.

3. Manpower Needs

a. Situation - The lack of middle and upper level skilled and managerial manpower is a key obstacle to development in all of the major sector of Botswana's economy. Botswana relies heavily on skilled, expatriate personnel. However, the political sensitivities concerning such individuals and their high financial costs make the indefinite continuation of this dependence unacceptable. In contrast, only 10% of the nation's labor force is employed in in-country wage labor. Botswana thus faces, simultaneously, the problems of large-scale unemployment <u>and</u> a critical shortage of skilled personnel.

b. <u>Strategy</u> - To achieve greater self-sufficiency in managing its own economy while guaranteeing a continued level of competence, Botswana must accelerate programs to train and educate its citizens so that they are able to assume greater responsibilities. To accomplish this, formal education at the primary, secondary, and university levels must be expanded and qualitatively upgraded. In addition, similar attention must be directed to the expansion and improvement of vocational training programs, particularly in the areas of agriculture and administration. Finally, consideration must also be given to the means and desirability of attracting the return of already trained and experienced Batswana who are currently employed in South Africa or elsewhere.

C. Lesotho

Lesotho, which has a per capital GNP of $170 per year, is included on the United Nations' list of the 30 least developed countries. The Republic of South Africa completely surrounds this tiny nation and dominates its economy. While Lesotho is predominately agricultural (90% of its population earn their livelihoods through agriculture), its land resources, modest to begin with, are increasingly impoverished. Annually, erosion claims approximately 1% of the country's limited arable land availability. The population of the country is 1,176,000 and is growing at an annual rate of 2.1%. Such rapid growth is exacerbating the problems of unemployment and urbanization.

1. Manpower and Unemployment Problems

a. Situation - Lesotho's labor force is expanding faster (10,000-12,000 persons annually) than new jobs are being created (2,000-3,000 annually). Yet, the country does not have a sufficient number of skilled workers, entrepreneurs, and persons who can plan and execute the programs essential for development. While formal education in Lesotho is, relative to other developing countries, rather widely available, it does not meet the people's need for employment preparation nor for resolving other problems (e.g, health) they may face. Large numbers of unskilled Lesotho workers who have been employed in South Africa are beginning to return home and must find jobs. Future prospects for employment in South Africa are problematical. The depleted soil resources and general eco-system severely limit employment opportunities in the rural sector.

b. Strategy - Attention must be given to strengthening the formal education system by emphasizing the improvement of curricula (heightening relevancy) and upgrading teacher training. In addition, non-formal and adult education courses should be offered in a wide variety of subjects, with an initial emphasis on reading and writing skills to compensate for the weak preparation given in the formal education system. In the agricultural and industrial sectors, there is a need to focus on employment generative enterprises. Research and feasibility studies can be utilized to ascertain optimal capital/employment ratios. Credit policies can be adjusted to favor entrepreneurs who employ more people per unit of investment. In agriculture, the possibility should be investigated of increasing labor input by utilizing more intensive production systems and by growing crops which have end-use employment potential through agro-industry and reducing cultivation of marginal lands. An important facet of this manpower/employment strategy should be an integrated health/family planning program so that population growth can be slowed.

2. Inadequate Exploitation of Existing Natural Resources

a. Situation - Unlike most other countries in the southern Africa region, Lesotho does not possess impressive quantities of exploitable mineral wealth. Lesotho's major concern must be with using those resources it has to maximum advantage. Most critical of these is arable land. Inefficient farming techniques and overgrazing are resulting in the rapid ecological deterioration of existing agricultural land, resulting in declines in productivity. One resource that Lesotho has not yet fully exploited is its abundance of free-flowing water. Such water could be better utilized for the generation of relatively inexpensive hydro-energy and for use in agricultural irrigation.

b. Strategy - The erosion of existing farmland can be reversed through basic changes in agricultural production systems, conservation of programs, the introduction of range management, and siginificant alterations in the patterns of land tenure and use. Only by the application of improved ecological practices will the present trend in declining levels of production of food and other agricultural products be reversed. Some marginal lands should be taken out of production as the shift to more intensive methods is made. The altered land use could provide improved controlled pasture for expanding and improving mohair production, so that greater domestic employment and augmented foreign exchange earnings are achieved. It is possible that, under this strategy, food production will decline for a period of time. If such is the case, active consideration should be given to PL 480 Title III program. Concomitantly, research and extension can be expanded so that land resources can be more intensively utilized and made more production, thus providing more food, employment, and income for the nation's populace. Efficient exploitation of water resources, through the development of hydroelectric facilities, could provide Lesotho with greater energy independence from the Republic of South Africa, an especially critical consideration given the recent cessation of Iranian oil exports to that country. In addition, water used for irrigation could serve to enhance Lesotho's agricultural programs.

3. Economic Vulnerability

a. Situation - Lesotho, in effect, is an island surrounded by the Republic of South Africa. Remittances from Lesotho's migrant workers employed in South Africa account for over half of the country's GNP and foreign exchange earnings. The principal supplier of food, oil, energy, and manufactured goods is also the Republic of South Africa. Should the Republic, for political or economic reasons, be unable or unwilling to continue its economic role in Lesotho, the consequences for this tiny nation could be catastrophic.

(b) Strategy - Efforts to reduce Lesotho's present vulnerability could follow a variety of approaches: 1) Lesotho can make its relations with the Republic more reciprocal (e.g., by exporting hydropower); 2) it can increase domestic employment opportunities; 3) where feasible, it can become more self-reliant in the production of food and essential manufactured goods; and 4) it can expand cooperation and trade with other countries, particularly those of the southern Africa region. Programs included in the support of this strategy would strengthen education, increase employment opportunities of unskilled workers, attract the return of skilled Lesotho citizens working abroad, increase foreign and domestic entrepreneurial investment, and lessen national reliance on public sector income received from the South African Customs Union.

D. Swaziland

Swaziland is a landlocked country which shares borders with the Republic of South Africa and Mozambique, its two principal economic partners. The population of Swaziland, which is growing at an annual rate of 2.8% (the second highest in the region), was 518,000 in 1976. Eighty-four percent of its citizens derive their incomes from rural, mostly agricultural, activities. Swaziland's economy, which in the 1970's has been growing at an average annual rate of 7% and has resulted in a per capita GNP of $470, is sharply dualistic. The benefits of growth have not been equitably distributed. This pattern has been recognized by the Government, which this year has expanded its development budget by 105%.

1. Manpower Needs

(a) Situation - As with the other countries of the region, Swaziland's development is constrained by a shortage of medium and highly skilled technical, managerial, and professional personnel. Despite considerable attention and investment by the government, the education system does not fully prepare Swazis either for their personal needs or for the needs of the national economy. Those people that do receive a good education are frequently lured from the country by the higher wages offered in South Africa. Because of Swaziland's high rate of population growth and South Africa's decreasing demand for imported unskilled labor, unemployment is becoming a significant problem. It is estimated that approximately 7,000 persons will be entering the job market every year, but only about 3,000 of these will be able to find employment in the modern sector. Even this level of labor absorption assumes a continued real growth rate of about 7%, which may be optimistic.

(b) Strategy - Curriculum improvements and teacher training are necessary to ensure that Swazi students are being adequately prepared to meet the needs of the employment market. Vocational subjects which merit additional emphasis include agriculture and business administration. With an increased flow of qualified Swazi nationals, the country will be able to reduce its rather substantial reliance on politically and economically costly expatriates in both the public and private sectors. As in many nations, family planning programs are somewhat controversial in Swaziland. However, it is likely that the receptivity for such activities, if they can be integrated into a full program of health services, will improve within the next several years. Education efforts can be initiated now to gain the support of traditional leaders and to prepare public health workers. Finally, government programs in the agricultural and industrial sectors should focus much more on increasing employment opportunities than has been the practice in the past. This will be essential both for the stimulation of the nation's economy, for reducing the dualism that has resulted in income distribution inequities, and for reabsorbing labor that may no longer be employable in South Africa. The development of methods for slowing urban growth or managing it better is an important adjunct to the strategy.

1. Food Production

(a) Situation - While the farms of Swaziland are among the most productive of the region, productivity is declining and food imports continue to grow. Productivity decreases can be attributed to the extension of agriculture to progressively more marginal farmland as a consequence of population growth. In addition, the overstocking and overgrazing of cattle and traditional farming techniques have resulted in serious soil erosion which is reducing farm output. Many experts are of the opinion that, with a controlled population growth rate and the utilization of appropriate agricultural technology, Swaziland could become virtually self-sufficient in food production and export a sizable quantity of farm commodities (e.g., maize and garden crops) to the rest of the region.

(b) Strategy - Swaziland's primary conduit for agrarian activities is the Rural Development Areas Program (RDA), which has the objective of assisting Swazi farmers in making the transition from subsistence to semi-commercial and commercial agriculture. The program includes land allocation and encourages increased food self-sufficiency (especially in maize) and the production of cash crops. Activities in planning, extension, research, marketing, and transport are all important components of the program. Additional and complementary emphasis should be placed on range management and animal husbandry which are improving productivity and protecting agricultural ecology. Successful execution of this strategy will require a significant qualitative improvement in Swaziland's development planning capacity.

3. Economic Dependencies

a. Situation - Swaziland's economy relies heavily on relationships with the Republic of South Africa and Mozambique. South Africa has been the traditional source for vital manufactured goods, electrical energy, and employment for unskilled Swazi laborers. More than half of Swaziland's foreign exchange earnings are derived from participation in the South Africa Customs Union. Both South Africa and Mozambique provide transport outlets to the sea for Swaziland's commerce with the rest of the world. Mozambique also offers a significant market for maize and other Swazi agricultural commodities.

Political and economic pressures may not allow South Africa to continue to import labor from Swaziland. Population pressures in the Republic and an increasing tendency toward capital intensive technology in the mining sector have already begun to reduce the demand for Swazi miners. The recent cessation of Iranian oil shipments to South Africa is certain to have negative repercussions on the economy of Swaziland. While Mozambique has urgent need for basic food supplies, a weak foreign exchange position restricts its capacity to import grains from its neighbor. Furthermore, financial limitations allow for only partial improvement of transport linkages between the two countries.

b. Strategy - Swaziland should continue to pursue its current objective to enhancing self-sufficiency, while maintaining cooperative economic relationships with South Africa and improving those with Mozambique. Agricultural productivity should be strengthened. New trading partners, both within the region and beyond (e.g., East Africa), should be cultivated. External assistance will be necessary to upgrade road and rail connections between Swaziland and Mozambique.

E. Zambia

Zambia is situated in the north of the region and is one of the six landlocked countries. While its per capita GNP is $440 (1976), average annual growth in the first half of the 1970's has been only 0.9%. The population, which has been increasing at an accelerated rate of 3.1% per year, totaled 5.4 million in 1978. Zambia's economy has traditionally relied on the export of copper, although in recent years, policies of diversification, particularly into agriculture, have been adopted. Economic development within the country has been somewhat dualistic, with marked inequities in income distribution.

1. Minimizing the Impact of Regional Turmoil

(a) Situation - Ongoing political unrest in Zimbabwe (Rhodesia) and Angola have had a disasterous impact on the economy and quality of life in Zambia. Angola's Benguela Railroad, once one of Zambia's principal means of exporting copper, has not been in full operation since 1975 and its return to service within the near future is highly unlikely. Furthermore, another major export corridor, the Rhodesian railway, was not used for a period of time because of Zambia's decision to enforce U.N. sanctions on trade with that country. While this route was recently reopened, its operation is subject to shutdowns by both political decision and guerrilla activity. The Tazara route through Tanzania has been so plagued by inefficiencies, port congestion and payment delays, to the point that service to and from Zambia is limited and sporadic. The consequence of unreliable transport on Zambia's economy has been severe, and its ability to conduct vital trade with the rest of the world has been drastically reduced. In addition to copper exports, imports of food and fertilizers have also been affected. In addition to the negative impact that the turmoil has had on trade operations, Rhodesian military raids on Zambia's rural and urban areas have also significantly disrupted the economy. Serious difficulties in earning foreign exchange have severely restricted budget allocations for maintenance and upkeep on vital infrastructure, such as roads. This had impeded the movement of commerce within the country.

(b) Strategy - Early resolution of the problems in Angola and Rhodesia could result in a gradual return to economic normalcy in Zambia. Other important factors are the stabilization of copper prices and increased diversification of the economy. Until this occurs, international assistance will play an important role in the prevention of economic chaos and extreme human suffering. Critical elements of such aid will include the importation of food and other vital commodities. Continued support for Zambia's badly deteriorated balance of payments will also be essential. If such aid is not forthcoming, a possible consequence could be virtual economic collapse for the country.

2. Enlarging Internal Transport

(a) Situation - Once political turmoil is less of a factor influencing Zambia's economy, there are a number of major constraints which will merit immediate attention. Zambia's land resources offer excellent potential for diversified agricultural production. However, present inadequacies in farm-to-market road systems and marketing infrastructure do not serve to stimulate increased production. Even in the long-run, beyond present political considerations, agricultural development is essential to reducing Zambian vulnerability to the economic consequences of relying excessively on copper and to disruptions that may face its neighbors.

(b) Strategy - A plan for the expansion and upgrading of the nation's rural road and marketing systems should be undertaken, and, once complete, implemented. Special consideration should be given to emphasizing labor-intensive approaches to generate much needed employment. To ensure that new infrastructure has the effect of promoting agricultural production, the efficiency of extension and other services should be evaluated. In addition, programs to stimulate more decentralized rural-based industries should be formulated. Such industry will further motivate agricultural production, while, at the same time, create new jobs away from the traditional urban centers. New or improved roads will also ensure that other services, such as education and health, will be more available to rural dwellers.

3. Urbanization

(a) Situation - The percentage of the Zambian population resident in urban areas increased from 20% in 1966 to 36% in 1975. The result has been greater pressures placed on the existing food supply (there are fewer producers per consumer without a concomitant gain in productivity), increased unemployment, insufficient housing, and related shelter and service problems. Because of the "distractions" of political turmoil and a shortage of trained staff, the government has given relatively little attention to urban planning. Such planning is essential if quality of life and economic growth goals are to be attained.

(b) Strategy - In theory, improved small farmer agricultural incentives (e.g., better farm-to-market roads) and increased rural employment opportunities (through the stimulation of rural based manufacturing) should slow the rate of migration to the urban areas. "Urban areas" are not necessarily large cities, but are markedly different from the traditional rural village. The Government is already investigating means to foster new urban employment opportunities. Industries that are developed to meet this objective can also make the country less dependent on imports for critical low-technology manufactured goods. Great care should be exercised in developing new industries until such time as improved and efficient transport outlets provide Zambia with some opportunity to establish new or expanded external markets.

A plan will also be necessary to meet the housing and basic services needs of the urban poor. Because such infrastructure is expensive, foreign assistance will be essential to avoid prolonged delays.

4. Agricultural Production and Diversification

(a) Situation - Despite plentiful land resources for both crop and livestock production, the contribution of the agricultural sector to the achievement of national development goals has been far below its potential. Zambia does not meet its basic supply requirements for food, although in recent years, self-sufficiency has been achieved in maize. Zambia continues to import, at a substantial cost in foreign exchange, large quantities of grains and other foodstuffs. Local agriculture is highly dualistic. While ethnically European farmers produce more than one-third of the basic food grains, the productivity of traditional farmers is largely stagnant. Zambia's agricultural pricing policies subsidize urban consumption, thus contributing, through large urban/rural wage differentials, to the high rates of urbanization.

(b) Strategy - The upward adjustment of agricultural prices, part of an IMF reform package, has had a noticeable positive impact on maize production until the drought in 1979. Further stimulation to the sector should come at three levels: small traditional farmers, medium-sized commercial farmers, and larger unit estate farms. Producer prices and the development of farm support institutions should be the primary strategy tools for the agricultural diversification effort. Such programs should be decentralized into a series of area development schemes, which include village industries, localized research and extension services, marketing cooperative, non-formal education and health facilities, and local credit institutions. The nuclei of these development efforts could be small urban centers scattered throughout the country, which could serve to reduce the present growth rate of Zambia's larger cities.

F. Malawi

A per capita GNP of $140, the lowest in the region, has placed Malawi on the United Nations' list of the world's 30 least developed countries. Nevertheless, since 1970, Malawi's average per capita GNP growth rate has been 7%, one of the highest on the African continent (excluding OPEC nations). Eighty-five percent of this landlocked nation's population of 5.7 million persons is employed in subsistence agriculture. The Government of Malawi is firmly committed to development, which, in large part, accounts for its virtual self-sufficiency in food production. There are no known exploitable mineral resources in Malawi.

1. Reducing Economic Vulnerability

(a) Situation - As a landlocked nation, Malawi must rely solely on the ports of neighboring Mozambique (Nacala and Beira). While there is room for improvement in the political relations between the two countries, the shipment of goods has not been affected. Nevertheless, Malawi's vulnerability to trade isolation has had a marked impact on its development policies. In recent years, Malawi's apparent principal development objective has been self-sufficiency - especially in agriculture. In determining development priorities, the government must balance what it perceives to be the element of the risk of foreign dependencies against what might otherwise, in purely social and economic terms, be considered the most productive expenditure of its limited resources.

(b) Strategy - Malawi has few viable options to the Mozambique ports. The cost of the construction of rail and road linkages capable of handling large volume shipments to Tanzania will be costly but should be studied. Thus, the only apparent means for Malawi to reduce its economic vulnerability is to 1) continue its policy of increasing national self-sufficiency, 2) work for cooperative economic relations with Mozambique, and 3) look for alternative regional transport routes. In this context, Malawi's strategies are to: 1) continue priority support to increase the production of both small-holder and estate agriculture, 2) stimulate industrial manufacturing of essential goods, especially those which make use of domestic raw materials, 3) promote more balanced regional development, and 4) diversify economic relationships. In recent months, Malawi and Mozambique have initiated periodic talks of mutual interest including transport and livestock disease control.

2. Expanding Food Production

(a) Situation - As described above, self-sufficiency in food production is a basic element in Malawi's development posture. Agricultural productivity increases are viewed as a means to raise the standard of living of the rural poor and to augment foreign exchange earnings. Because

Malawi has no other significant natural resource advantage, agriculture must continue as the basis for its economy. However, it may be difficult to sustain the success in recent years due to the country's high population growth rate (2.6%), the pressure that is being placed on fixed amounts of arable land, soil erosion problems and deforestation due to local needs for firewood. Overall, the direction and success of other development sector initiatives must rely on what is accomplished in agriculture.

(b) Strategy - The principal tool for achieving improved agricultural productivity is the National Rural Development Program, which stresses rapid development with a minimum capital investment. Because of land shortages the program could emphasize intensification of production by 1) providing high yielding crop varieties and appropriate technological practices, 2) improving accessibility to inputs and marketing facilities, and 3) making available upgraded and expanded research, extension, and rural credit services. Improvement and extension of the rural road network is also viewed as vital, not only as a stimulus to overall rural development, but also as a key element of national social and economic integration. These efforts should be supplemented with assistance in renewable energy and manpower development.

3. Manpower Needs

(a) Situation - A shortage of trained personnel is the most significant short-term limitation on Malawi's rate of development progress. A compounding factor is that, although there is an urgent priority for rapid development, there are strong pressures to decrease reliance on the public and private sector services of expatriate personnel. An estimated 17% of skilled workers in the country are non-Malawian, a statistic which increases sharply at senior managerial levels. Government capability to plan and implement priority development programs is sharply constrained by the lack of trained personnel.

(b) Strategy - Educational opportunities for Malawi nationals must be expanded and improved. Four priority areas have been identified: 1) preparation of more middle-level manpower, 2) reorientation of primary and secondary curricula to meet the pragmatic needs of the people, 3) vocational training and farmer training. The development of teachers should also be upgraded and expanded. Agricultural subjects are included in the primary school curriculum. Present plans project an increased enrollment at the secondary level, the strengthening of the national agricultural college, and the establishment of a polytechnic college.

G. Mozambique

Mozambique gained independence from Portugal in 1975. With an annual per capital GNP of approximately $170, it is one of the poorest countries in the southern Africa region. Nevertheless, Mozambique does have substantial economic potential once a series of essentially historically-based constraints in food supply and trained manpower are removed. The country, which has a population of 9.8 million persons, possesses a long coastline that has a number of fine, natural harbors, an asset of great importance to its landlocked neighbors (Malawi, Zimbabwe, Swaziland and Zambia). Mozambique's new government is committed to a policy of equitable social and economic development in a society which offer broad-based popular participation.

1. Enlarging Food Production Capacity

(a) Situation - Colonial agricultural policy did not place high priority on the modernization of traditional farming. Thus, the combined effect of low traditional productivity, abandoned commercial farms (by departed Europeans), and the post-independence collapse of the food marketing system has caused severe food shortages in Mozambique. These shortages have become worse over the past two years by widespread flooding conditions which have destroyed villages and farmland. As a result, Mozambique's expected 1979 food deficit will be over 300,000 tons. In terms of land, water, and climate resources, the country's agricultural prognosis is excellent. Not only does it have good potential for self-sufficiency in food production, but there is also a possibility that Mozambique can become a net exporter of agricultural commodities, a vital asset to the region. Fishing, once a major source of export earnings for the country, has fallen in production and Mozambique ocean fisheries are now being exploited by foreign fleets.

(b) Strategy - Mozambique's agricultural objective is to increase the production of food crops to pre-independence levels in order to feed the population adequately, to supply raw materials to industry, and to increase foreign exchange earnings through exports. These objectives are to be attained through improved agricultural planning; development of infrastructure for cooperatives; expanded transport, marketing, and storage infrastructure; and research oriented toward supporting basic production needs. Although initial priority was given to the requirements of the state farms (organized or abandoned Portuguese agricultural properties), recent policy statements and actions indicate that a greater emphasis will now be placed on production support for communal agricultural villages (*aldeias comunais*) and family farms. At present, the inefficient marketing of farm products is felt by the Government to be the major cause of urban food supply problems. Until Mozambique's most critical agricultural constraints are resolved, large-scale food assistance from a variety of international donors will be required.

Over the longer term, Mozambique in cooperation with neighboring riparian states, should consider developing river basins and water resources for irrigated agriculture. This has already started in the Limpopo Valley and will be expanded later to the Ruvoma and Zambezi Valleys. Fisheries must also be developed as a protein source for the local population.

2. Manpower

(a) Situation - Mozambique's most critical limitation is a shortage of trained and experienced manpower. At independence, the national illiteracy rate exceeded 90%. Colonial policy provided few education opportunities for non-white sutdents. Similarly, or perhaps as a consequence, non-whites also held few positions that required skills or involved administrative responsibilities. Thus, after independence, with the departure of most of the country's European or European-descended population, there were inadequate numbers of fully qualified individuals to manage either the country or its economy. The trained manpower shortage affects such diverse elements of the society as schools, commerce, hospitals, industry, transport, and government.

(b) Strategy - The education policy of the Government of Mozambique is to provide every child and adult with access to all levels of schooling, thus supporting the economic and social development of the country. Initial emphasis is to be given to literacy training and primary education. Action will also be taken with regard to secondary education and vocational training (e.g., agriculture, mechanics, industry). A special challenge facing the government is to provide equal education opportunity in the more remote rural areas of the country. By 1980, the government hopes to train 1,500 new teachers per year.

3. Resource Exploitation

(a) Situation - Mozambique possesses a wide variety of exploitable resources. Its farmlands not only can provide for the needs of the people but also offer excellent commercial opportunities. Crops which show good potential are cashew nuts, sugar, and cotton. There are known deposits of such minerals as coal, natural gas, iron ore, gold, asbestos, bauxite, tungsten, titanium, and copper which can provide the country with new sources of foreign exchange earnings, as well as jobs for unskilled labor. Mozambique's ports and railways represent potentially important sources of income from transit trade with its landlocked neighbors, who view these facilities as essential economic lifelines. Finally, the free-flowing waters of Mozambique's rivers can be harnessed to provide low cost hydro-energy for mineral exploitation and eventual industrialization.

(b) Strategy - The Government policy is to exploit resources in accord with the nation's priority needs and ability. While each of the areas cited above present significant opportunities for development, relatively little information is available for analysis. Plans indicate that both public and private sector investment will be utilized. Agro-industry, as a means for providing basic consumer needs, stimulating farm production, and enhancing the value-added worth of primary products will receive special emphasis. The Cabora Bassa Dam is already furnishing electricity to the Republic of South Africa. The addition of new generating capacity to this facility could offer inexpensive energy to Mozambique and, potentially, other neighbors. Furthermore, assuming that the demand and financing exist, there are other excellent opportunities for the development of hydro-electric power projects. In mining, coal comprises Mozambique's most promising current activity. An inventory of other mineral resources has been planned. Once this is complete, a policy on mineral exploitation must be fully detailed. Finally, the improvement of road, rail and harbor facilities will be necessary to meet the increased demands of both Mozambique and its neighbors. A recent agreement with the Republic of South Africa will add a second track on the Maputo-Johannesburg line and improve port and harbor facilities. Other activities in the transport sector will be planned in greater detail once a recently completed Swedish survey is analyzed.

H. Angola

Angola, which has both a low population growth rate (1.0%) and density (11.8 persons per square mile), gained its independence from Portugal in 1975. Since that time, the nation has suffered a civil war and continuing internal disorder, a factor that has had a profoundly negative impact on the country's development progress. Angola is a potentially wealthy nation. It possesses significant proven reserves of petroleum, diamonds, and iron ore. Other minerals are also known to exist in exploitable quantities. While the agricultural environment is not ideal, the potential for self-sufficiency in major food crops is excellent. Nevertheless, there is extreme poverty and major food shortages are expected in 1979. At the present time, the standard of living in Angola, as measured by the Physical Quality of Live Index, is the lowest in southern Africa.

1. Minimizing the Impact of Turmoil

(a) Situation - The struggle that preceded independence and the civil strife which has followed it have had a marked negative impact on Angolan development progress. It has resulted in a strain on already inadequate human and material resources. Moreover, the situation has retarded the return of full productivity in all sectors, particularly agriculture. Of Angola's principal pre-independence exchange earning activities (which included diamond mining, coffee production, and iron ore extraction), only the exploitation of petroleum (by the Gulf Oil Co.) has recovered to its former level of output. The Benguela Railroad, an important conduit for the exports and imports of Zambia and Zaire, has not been fully operational since 1975, with serious consequences for the economies of the two landlocked nations. The departure from Angola of the Portuguese bush traders and their vehicles eliminated most of what had been the traditional agricultural marketing system. Farmers have, consequently, been somewhat discouraged from producing in excess of their family's subsistence needs because of the lack of effective market demand for their surplus production. The delivery of services, such as health and education, is being limited to some extent because scarce financial resources and the attention of over-burdened government personnel are diverted by what is perceived to be the greater urgency for national survival.

(b) Strategy - The Government of Angola, with the support that is available to it, seeks political tranquility for the country, while continuing its counterinsurgency efforts against internal opposition groups. Once this is achieved, its first priority will be to restore vital social and economic infrastructure and services. The basic precept of the development program, as described by the Government, will be the equitable participation of all of the elements of Angola society. First priority will be given to increasing agricultural production (for domestic consumption) and making available primary and literacy education. Programs in these sectors have already been initiated. The restoration of industry will give emphasis to those entities which produce essential consumer needs (e.g., textiles, shoes, processed goods). Reconstruction of infrastructure (roads, bridges, electrical and water systems, etc.) will be costly and restricted somewhat by finances and the limited availability of skilled human resources.

2. Manpower

(a) Situation - Few educational opportunities were available to native Angolans during the colonial era. Today, one of the major constraints confronting the Government of Angola is the extremely insufficient supply of trained and experienced persons to operate and manage the nation's farms, industries, schools, hospitals, and, perhaps most significantly, the government itself. Because the human resource base is so inadequate, it is difficult to implement the basic programs that are necessary to expand and upgrade the education system.

(b) Strategy - As mentioned, Government policy has placed a priority on primary and literacy education. An impediment to the execution of these programs is the restricted number and availability of qualified teachers, a problem that can be expected to continue for several years. Another problem that will merit prompt attention is that of curriculum and teaching materials. It is the Government's objective to relate all education to the pragmatic needs of the people and the country. Such subjects as agriculture, health, and nutrition must be incorporated into the educational experience. Beyond what is considered to be basic education, in virtually every sector (e.g., industry, agriculture, mining) there is an urgent need for job-specific vocational training. Government plans indicate that foreign assistance may be required to meet this need. Furthermore, for the most efficient use of available opportunities, a coordinated national vocational training plan is needed.

3. Regional Cooperation

(a) Situation - A peaceful Angola represents a valuable asset to the economic well-being of the southern Africa region. Its ocean ports and railroads provide a West Coast egress to neighboring landlocked nations (e.g., Zaire, Zambia). Its water resources offer potential for irrigation and low-cost electrical power to countries such as Botswana and Namibia. If reactivated, Angola's industrial base is capable of providing a nearby source of essential manufactured goods to other countries of the region. From Angola's perspective, such trade may be essential if certain industries are to attain an economic level of production. In agriculture, Angola may eventually be able to offer a chronically food deficit Namibia and, possibly, to Botswana a convenient supply of staple imports.

(b) Strategy - Peace in both Angola and Namibia is an inherent precondition to most of the possibilities outlined above. When regularized transit trade is again possible, railroad and port improvement, and possibly, expansion will be desirable. If this is to be achieved, international assistance will be a virtual necessity. Work on the massive southern Angola Cunene hydro-electric and irrigation project was initiated a number of years ago by Portugal and South Africa. Though work has been interrupted, the first stage is near completion. Again, foreign expertise and financing will be essential to the future of this project. A possibility of cooperation between Angola, Namibia, and Botswana for the development of a basin-wide water management project to benefit the Okavango Delta region should be investigated with foreign donor assistance. The pragmatic approach of the Angolan Government towards industrial recuperation will, to some extent, rely on private foreign investment, although certain vital industries will remain in the hands of the state.

I. Namibia

Namibia (South-West Africa) is expected to attain full independence by 1980. Because Namibia has been administered as an integral part of the Republic of South Africa, specific data on and analysis of its development prospects are notably incomplete. In 1977, the country's population was estimated to be 1.25 million. Fifty percent of its export earnings were from mining activities, particularly diamonds, copper, and uranium. Namibia's climate is very dry, thus imposing severe limitations on agricultural activities.

1. Regional Cooperation

a. Situation - Namibia presents some excellent opportunities for cooperation within the southern Africa region. Because of the desert-like climate which extends over much of the country, traditional agriculture may never be sufficient to meet the minimum demands for food. Namibian crop yields are, at present, among the lowest in the world. This is partly due to the fact that indigenous agriculture has been discouraged by South Africa in favor of mining and livestock. Irrigation in the northern region that would serve both small farmers and larger growers (e.g., cooperatives, commercial farms) could help in closing this food gap. Namibia must also confront the problem of inadequate energy supply. Energy needs are now met largely by imports from South Africa. It is possible that South Africa may be either unable or unwilling to continue energy exports to independent Namibia. In another area, if Namibia is to consider maintaining or expanding its mineral export base, it may have to consider alternative marketing mechanisms to current arrangements with South African entities.

(b) Strategy - The vital water resources that are in short supply in Namibia exist in abundance in southern Angola and along the Angola/Namibia border. Prior to Angola's independence, South Africa and Portugal began construction of the Cunene hydro-power project. This project, already partially operational, has the capacity to furnish Namibia with relatively inexpensive electrical energy and water for use in agricultural irrigation schemes. Once political problems are resolved, the Cunene project could be completed, possibly with the support of international donor assistance. (It must also be noted that Cunene could also be utilized to the benefit of neighboring Botswana.) Namibia may be able to provide a market for the manufactured goods of its regional partners who wish to industrialize and in return supply livestock to those deficient in meat. One of Namibia's most attractive assets to the landlocked countries in the region is its direct access to the Atlantic Ocean. New road and rail links, if deemed desirable and financial viable could be attractive options to landlocked Botswana and Zambia.

2. Political Turmoil and the Transition to Independence

(a) Situation - The still unresolved issues of Namibia's transition to independence are well known. The legacy of more than a half-century of South African rule can be expected to have immediate implications for the new nation. It is possible that the withdrawal of South Africa may include with it some of the capital and skilled technical personnel necessary to maintain the forward movement of Namibia's economy. Few of the persons who will be responsible for the country's future development will have the requisite skills or experience. South African policies have severely limited opportunities for Namibians to gain the necessary expertise to continue existing public and private sector activities.

(b) Strategy - Subject to the wishes of the new Namibian government, the initial emphasis of assistance should be on short-term technical assistance and on-the-job training courses. Once the immediate urgencies of nationhood are met, longer term training will be possible. Other assistance must focus on the establishment of national development institutions that are able to plan and implement strategies and projects that will enhance the welfare of Namibian citizens. Extensive technical assistance, along the lines of the U.N. Nationhood Program for Namibia, will be important for minimizing economic disruption after independence. In this regard, a number of pre-independence projects that are of a planning nature should be executed through the U.N. Donors, such as the United States, may be called upon to support this program.

3. Food Supply

(a) Situation - Given South Africa's low priority for the agriculture sector, Namibia's food production potential has yet to be evaluated. The most fertile soils and available water are in the north where military activity and the effects of the South African contract labor system have adversely affected agricultural development. While the country is now far from self-sufficiency in food production, careful organization of dryland farming areas, selective use of irrigation in the north, and further development of the livestock and fishing industries could close the food gap.

(b) Strategy - The extensive mineral resources of Namibia provide a basis for using the earnings of this sector to finance diversification into agriculture. Land use potential will have to be carefully evaluated; rural roads constructed intc areas of high agricultural potential; research, extension, and marketing institutions established; and a system of agricultural input distribution organized.

Such undertakings will probably be preceded by a land reform program to redistribute good farm land to Namibians who now must cultivate marginal soils in the designated "homelands". Off-coast fisheries have been badly depleted by foreign fishing fleets and will have to be reconstituted and protected. As a first step, strict fisheries legislation designed to permit various food species to regenerate will be essential. New markets for livestock, such as West Africa (Nigeria, Gabon, Ivory Coast), should be investigated.

J. Zimbabwe*

The timing and process of majority-rule in Zimbabwe are still in question. This uncertainty makes it difficult to determine the development needs and priorities of a majority-ruled Zimbabwe. However, the following development issues will probably face any independent government of the country. The suggested strategy options are in no way intended to be prescriptive or comprehensive.

Rhodesia's population is approximately 6.7 million people. Per capita GNP is $550, the highest in southern Africa. Nevertheless, substantial disparities in income distribution disguise the poverty of most of the country's black population. Agriculture is the predominant employment sector in Rhodesia. Most of the high quality agricultural resources are now in the possession of the country's white citizens (3.7% of the total). Rhodesia is endowed with a variety of valuable mineral resources, e.g., chrome, iron ore, coal, and gold. In 1977, mining contributed a total of approximately 7% to the country's GDP.

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*"Zimbabwe" is used to indicate an independent Zimbabwe. "Rhodesia" is used in reference to the British Crown colony of Southern Rhodesia, whose unilaterally declared independence in 1965 has not been recognized.

1. Recovery from Political Turmoil

(a) Situation - Although growth related to import substitution has been noteworthy, Rhodesia's economy has, in recent years, been severely disrupted by UN supported sanctions levied in 1966. Export performance has been weakened, capital has left the country, and the supply of vital imports (e.g., petroleum) has been tenuous at best. Productive sectors of the economy have lost key personnel, and agriculture has suffered from the periodic violent conflict in the countryside. Disruptions have also resulted in hundreds of thousands of refugees and displaced persons. The reabsorption and resettlement of these people will be a massive task. Once the fighting subsides in Zimbabwe, the government in power will have major obstacles to overcome in the areas of food supply and employment. Meeting the urgent basic needs of a large segment of the society will be a pressing challenge.

(b) Strategy - A first priority will be the resettlement of refugees and displaced persons, who must be reintegrated into the economy and society of the country. Basic services, such as health, education, and extension, must be restructured to serve the needs of all the people. In the first months, maintenance of food supplies may be extremely important. While Zimbabwe has the capacity to achieve self-sufficiency in food production, disruptions could cause a short-term supply crisis. If such a crisis does materialize, international food aid may become important.

2. Food Production and Manufacturing

(a) Situation - Once U.N. sanctions are removed and there is an end to disruptive political turmoil, Zimbabwe may have the greatest economic potential of any country in the southern Africa region. Previously, Rhodesia has demonstrated a capacity to produce exportable quantities of food. Such a capacity would be very important in a region with several chronically food deficit nations. However, in recent months, food production has been severely disrupted by the war and there are reports of serious food shortages and malnutrition.

If Zimbabwe's industrial resources are maintained, the country could become a principal supplier of essential manufactured goods in southern Africa. This would be especially important if there is a declining trend in trade relations with the Republic of South Africa.

(b) Strategy - Land redistribution will be essential for many Tribal Trust Lands where over-crowded and traditional agricultural practices are resulting in soil depletion and erosion. In addition to access to more fertile lands, farmers will require better extension services than they may have received in the past. Improved technologies and inputs will be necessary as well as expanded training programs and services, such as agricultural marketing, credit, research, etc.

The maintenance of industrial capacity will depend on the extent to which capital skilled personnel leave the country prior to independence. The composition of manufacturing output may have to adjust to the demands of the less affluent. An important requirement under virtually any circumstance, will be for the training of skilled technical and managerial manpower. While there does exist a relatively sizable number of well-educated Rhodesian blacks, there will not be enough to replace those whites who may leave the country and who previously held the more sophisticated jobs in the industrial sector.

3. Regional Cooperation: Tranport

(a) Situation - Rhodesia's railways have traditionally performed an important role in moving the trade of Botswana and Zambia. Disruption in service, as a result of U.N. economic sanctions and armed conflict, has harmed the economies of the two client nations, particularly Zambia. Rhodesia's ownership, operation, and maintenance of that portion of the railroad which passes through Botswana, is increasingly an issue of concern for that country.

In the past, much of Rhodesia's trade passed through the ports of Mozambique. Because Mozambique has respected the U.N. sanctions, it has lost substantial foreign exchange revenues from such transit trade.

(b) Strategy - When internationally supported sanctions are lifted and a reasonable degree of tranquility returns to Zimbabwe, railway operations between Mozambique and Zimbabwe, and Botswana and Zimbabwe can be expected to return to normal once necessary repairs are completed. Repair and/or replacement of equipment and track that was either damaged or destroyed by hostile acts or lack of use may also be required. An assessment of the capacity of Mozambique's port and rail facilities to efficiently process a substantially increased volume of transit trade should be made. If the Botswana Government assumes, with external assistance, control of the railroad within its own borders, a joint operating arrangement with independent Zimbabwe should be considered.

Appendix A

DONOR FLOWS TO THE SOUTHERN AFRICA REGION

The eight countries of the southern African region[1] have received increased foreign assistance over the past several years. Although donor flows have varied significantly from recipient to recipient, in general, both public and private financing to the region have shown a marked increase. The principal characteristics of donor assistance to the southern Africa region include the following factors:

-- In the global context (flows to all developing countries), the eight southern African countries received, during 1975, 1.3% of total flows to all countries and 2.2% of Official Development Assistance (ODA). These figures take into account flows from the OECD countries and multilateral agencies including multilateral funds from OPEC countries.

-- In most cases, the level of total receipts was considerably higher than the level of Official Development Assistance. Table 1 indicates the level of total receipts (financial flows) and of Official Development Assistance in 1970 and 1976.

[1]Angola, Botswana, Lesotho, Malawi, Mozambique, Rhodesia, Swaziland and Zambia. Namibia is excluded for the purpose of this dicussion.

TABLE I

OFFICIAL DEVELOPMENT ASSISTANCE

to the Southern African Countries

1970 and 1976

	1970		1976	
	(in millions $)			
	ODA	Total Receipts	ODA	Total Receipts
ANGOLA	-	3.5	17.7	63.8
BOTSWANA	13.8	14.1	46.6	57.5
LESOTHO	10.0	10.0	29.9	29.9
MALAWI	36.2	42.9	61.3	[illegible]7.6
MOZAMBIQUE	0.1	4.7	69.9	113.0
RHODESIA	0.7	14.7	6.3	29.5
SWAZILAND	5.4	10.7	10.5	20.8
ZAMBIA	12.8	26.9	56.5	133.0

Note: The donors represented in these tables are the members of the Development Assistance Committee of the OECD and international organizations.

Source: Organisation for Economic Cooperation and Development, Development Assistance Directorate

Total assistance has increased between 1970 and 1976. For the eight countries in question, the volume of assistance (in current terms) has increased at an annual rate of 31% for total flows and 28% for ODA flows. Given an inflation rate of approximately 10%, the annual rate of increase for the period is about 16%. These increases are somewhat misleading given that the assistance to Angola and Mozambique from the OECD and the international organizations was at a minimum level in 1970 ($3.5M and $4.7M, respectively), and thus any increase in assistance imples a very high percentage increase. (For example, ODA to Mozambique was $0.1M in 1970 and $69.9M in 1976.)

-- The geographic breakdown of assistance is uneven in the region. This is not surprising given the population, economic, political and physical differences among the countries involved. During 1976, the percentage breakdown of total flows and ODA disbursements to the region were as follows:

	% Total Flows	% ODA
Angola	12	6
Botswana	11	16
Lesotho	6	10
Malawi	15	21
Mozambique	22	23
Rhodesia	6	2
Swaziland	4	4
Zambia	25	19
	100	100

-- There exists considerable variation in assistance per capita figures among the eight countries considered. The following table outlines the wide variation.

Assistance Per Capita Figures, 1976

(in $)

	Population in millions	ODA per Capita	Total Flows per Capita
Angola	5.5	3	12
Botswana	.7	67	82
Lesotho	1.2	25	25
Malawi	5.2	12	15
Mozambique	9.5	7	12
Swaziland	.5	21	42
Zambia	5.1	11	26
Rhodesia	6.5	1	60
Average		9	15

There are evident dangers in comparing one developing region to another. Development problems and potential differ from one country/region to another. It is nevertheless of interest to compare the level of assistance to southern African to that of other developing regions.

For comparative purposes, the following figures represent the per capita assistance figures for total receipts and ODA for the southern African region (eight countries) and sub-regions:

	1975 Per Capita ODA	1976 Per Capita ODA
Southern African Region	9	9
excluding Rhodesia	11	11
excluding Rhodesia, Angola and Mozambique	21	16

-- During 1976, disbursements of Official Development Assistance to the eight countries of the Sahel region from the OECD countries and multilateral donors equaled $567 million or $21 per capita ($695 million or $26 per capita when including flows from OPEC bilateral and multilateral donors). This may be contrasted with total ODA assistance of $299 million or $9 per capita for the eight southern African countries during the same period. Since then assistance to the Sahel has risen substantially.

-- Comparing with the southern African countries with two other geographical regions indicate higher flows for these areas than for southern Africa.

  * The Central American states receive a high level of total assistance per capita, totalling $64 per capita for total flows and $13 per capita for ODA (1975). Note that while per capita assistance to this region is higher than that to southern African countries, at the same time, per capita income is almost twice as high in this region ($788 for the central American countries in 1975, $410 for the eight southern African countries).
  * The countries of the Middle East (Jordon, Syria, Lebanon and Israel) receive over twice the per capita assistance (both total receipts and ODA) than the southern African countries. In 1975, total receipts equaled $1.2 billion or $71 per capita total receipts and $622M or $39 per capita ODA. Here is a second example of a region where annual per capita income is almost twice that of the southern countries and yet assistance is much higher.

APPENDIX B

STATISTICAL TABLES

TABLE 1: BASIC INDICATORS

	POPULATION (millions) Mid-1976	AREA (thousand square Kilometers)	GNP PER CAPITA (US Dollars) 1976	GNP PER CAPITA Average Annual Growth (percent) 1960-76	Index of per Capita Food Production 1965-67 = 100 Av.1974-76	ENERGY Average Annual Growth of Production (percent) 1960-75	ENERGY Per Capita Consumption (Kilograms of coal equivalent) 1975	AVERAGE ANNUAL RATE OF INFLATION (percent) 1960-70	AVERAGE ANNUAL RATE OF INFLATION (percent) 1970-76
Malawi	5.2	119	140	4.1	107	28.2	56	2.3	9.8
Lesotho	1.2	30	170	4.6	102	-	-	2.5	8.8
Mozambique	9.5	783	170	1.4	95	3.3	186	2.8	6.9
Angola	5.5	1,247	330	3.0	92	30.0	174	3.3	13.5
Zambia	5.1	753	440	1.7	104	34.1	504	7.6	3.8
Rhodesia	6.5	391	530	2.2	107	0.6	764	1.3	7.5
Botswana	0.7	600	410	6.0	-	-	-	3.4	9.5
Namibia	1.2	-	-	-	-	-	-	-	-
Swaziland	0.5	17	470	6.8	-	-	-	2.6	12.1

TABLE 2: GROWTH OF PRODUCTION

	Average Annual Growth Rates (percent)							
	GDP		Agriculture		Industry		Services	
	1960-70	1970-76	1960-70	1970-76	1960-70	1970-76	1960-70	1960-76
Malawi	5.2	8.9	2.9	5.5	13.9	12.4	8.9	11.4
Lesotho	7.0	4.3	-	-	-	-	-	-
Mozambique	4.8	-2.0	2.1	2.1	10.8	-3.8	5.8	-2.1
Angola	5.1	1.0	4.0	-0.7	9.8	11.6	3.9	3.0
Zambia	4.0	3.1	2.0	3.2	-0.1	3.4	8.1	4.4
Rhodesia	-	-	-	-	-	-	-	-
Botswana	5.5	16.1	1.6	11.8	11.9	16.8	7.3	18.6
Namibia	-	-	-	-	-	-	-	-
Swaziland	8.3	5.6	7.1	5.4	12.5	3.2	6.2	7.3

TABLE 3

POPULATION AND LABOR FORCE GROWTH

	Average Annual Growth Rates (percent)					
	Total Population		Urban Population		Labor Force	
	1960-70	1970-75	1960-70	1970-75	1960-70	1970-75
Malawi	2.6	2.3	4.8	5.3	1.8	1.9
Lesotho	2.2	2.2	8.3	6.7	1.5	1.4
Mozambique	1.9	2.4	6.4	6.1	1.9	1.5
Angola	1.3	0.1	5.8	6.2	1.7	2.0
Zambia	2.9	2.9	8.7	6.8	2.4	2.4
Rhodesia	3.3	3.5	5.2	5.9	3.3	2.7
Botswana	1.9	1.9	10.0	-	1.1	-
Namibia	3.8	2.8 1/	7.7	-	-	-
Swaziland	3.0	3.2	8.5	-	3.3	-

1/ 1970-1974

TABLE 4

STRUCTURE OF POPULATION

	Percentage of Population						Percentage of Labor Force in Agriculture	
	In Urban Areas		Below Age 15		Of Working Age (15-64 years)			
	1960	1975	1960	1975	1960	1975	1960	1970
Malawi	4	6	40	45	56	51	93	88
Lesotho	1	3	38	38	57	56	93	90
Mozambique	4	6	42	43	56	54	81	74
Angola	10	18	43	42	55	55	69	64
Zambia	18	37	47	48	51	50	79	73
Rhodesia	16	20	48	48	49	51	69	64
Botswana	4	9 1/	44	46	52	50	91	82 1/
Namibia	9	12 1/	40	-	53	-	-	-
Swaziland	10	15 1/	-	48 1/	-	49 1/	55	50 1/

1/ 1970

Table 5

OECD TOTAL FINANCIAL FLOWS (net) 1976
(U.S. $ millions)

	Angola	Botswana	Lesotho	Malawi	Mozamb.	Swaz.	Zimb.	Zam	TOTAL
Official									
DAC Bilateral	9.6	43.6	17.9	51.6	92.4	9.5	6.2	93.2	324.0
Multilateral	7.1	9.1	12.0	20.0	35.7	10.6	-4.2	76.6	166.9
Private									
Bilateral	47.0	1.8	-	0.5	-3.8	-1.1	-0.2	-62.5	-18.3
TOTAL	63.7	54.5	29.9	72.1	124.3	19.0	1.8	107.3	472.6

Source: OECD, Geographical Distribution of Financial Flows to Developing Countries (Paris 1978).