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Annex A

ZAMBIA

A Report to the Congress on

DEVELOPMENT NEEDS and OPPORTUNITIES for COOPERATION in SOUTHERN AFRICA

United States Agency for International Development/March 1979

ZAMBIA

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I. Summary and Recommendations

For a decade after independence in 1964, Zambia depended on copper earnings to deal with the effects of a number of basic economic and social problems stemming from a dualistic colonial structure. When copper prices fell, Zambia had to re-examine its policies in light of seriously strained circumstances. Zambia has now started to confront its underlying economic problems with more realistic agricultural pricing, monetary and fiscal policy reforms, and assistance from the international community. A number of reforms were initiated in the 1978 IMF standby arrangement and substantial commitments of development assistance followed. Further changes in policy and programs will be required throughout the economy. Fortunately, the GRZ appears to have a firm understanding of its problems and has undertaken to meet them in the context of the Third National Development Plan, which will be promulgated in the near future.

The most important development problems appear to be the following:

1. The economy is overly dependant on copper. It must be diversified to reduce the vulnerability to volatile copper prices.

2. Agriculture is far less productive then it could be. Zambia should be a net exporter rather than a larger importer of food. Traditional farming areas could generate higher incomes and support a better quality of life than they now do.

3. Investment in industry has been inappropriately capital intensive for Zambia's factor endowment. The small industry and informal business sector could generate more employment, substitute for imports and improve the efficiency of the economy.

4. Serious shortages exist in all areas of skilled manpower.

5. Transportation problems of a land-locked country have been exacerbated by border closing and operational inefficiencies. Internal transportation has not been developed to encourage agriculture.

6. The institutional capacity of the GRZ must be improved to carry forward development plans efficiently especially in the agricultural sector.

7. A well defined and coordinated strategy of development is needed to assure the efficient use of human and financial development resources and help mobilize international assistance.

The donor community will have a major role to play in Zambia's effort to mobilize resources for development. A number of multinational and bilateral assistance agencies have been active in Zambia for many years. The role of external assistance in helping to meet these problems will take into account the priorities of the GRZ as they are finally outlined in the Third National Development Plan (TNDP) as well as the capacities and commitment of particular donors.

The principles of Zambian development strategy articulated in the preliminary papers describing the forthcoming TNDP are basically consistent with the policy directions most donors consider appropriate for Zambia given its resource endowment and current economic crises. The scope of Zambia's needs are so broad that all donors should be able to find areas of activity suitable to their policies and comparative advantages. Given this environment, definition of a broad development strategy by donors in Zambia is relatively free of constraints. Doubtless, complications will arise in determining the specific programmatic content of donor programs and how they can be coordinated. But generally speaking, Zambia's developmental needs, its proposed policies and the unique burdens it has shouldered for the benefit of the majority rule movement,at great cost to its own domestic interests, make Zambia a particularly attractive candidate for international assistance.

The analysis presented here is intended to identify a wide range of assistance requirements to which various donors may address themselves in accordance with their policies and capacities. The analysis is intended to encourage discussion of various possibilities rather than to be prescriptive in the specific suggestions offered.

The requirements of Zambia fall into three interrelated phases.

Phase I emphasizes helping Zambia meet the current crises

in balance of payments, transportation and other development-related problems associated with the struggle for majority rule in Zimbabwe. This period hopefully will last only a year or two but may last longer. Donor operations in this context would emphasize fast disbursing programs, technical assistance carefully targeted on crucial short-term problems and support of various kinds to help keep the Zambian economy afloat during a difficult period.

Phase II is coterminus with and supportive of the Third National Development Plan which will be promulgated shortly.

Phase III looks beyond the TNDP to a time when the resources constraints which obviously limit the possibilities of TNDP are relieved and a broadly based basic human needs program reflecting the Humanistic philosophy of Zambia's government can be addressed.

These phases are also referred to in this paper as short, medium and longer term concerns.

Phase I - Helping to Meet the Current Emergency

Phase I requires the tailoring of a program which is both fast-disbursing and consistent with longer-term developmental objectives. Many donors are of course unable to respond to the emergency because of constraints on the nature of their programs. Zambia has complied with the very stringent provisions of the IMF agreement and intends to continue to do so. A flexible and effective response by donors might include the following activities.

1. Commodity import programs including fertilizers and agricultural inputs which have proven to be very effective in increasing

production of staple crops; food aid; trucks to help meet the transport crises; other motor vehicles to assist in mobilizing technical ministry personnel; spare parts; vehicle and road maintenance equipment facilities and training.

2. Financial assistance in mobilizing key ministries (such as health and agriculture) to better utilize existing staff and facilities in extension, preventative health, and other programs designed to help the poor majority.

3. Technical assistance to help overcome crucial problems such as transportation constraints in existing trade channels.

4. Technical assistance to plan Phase II (inlcuding a wide range of feasibility studies and other research and analytical work related to mobilizing resources for development); and to fill specific positions for which Zambian personnel are not available.

B. Phase II - Supporting the Third National Development Plan

Phase II of the donor community effort would support the major policies of the TNDP (although not necessarily all the specific projects identified in Plan). Of particular importance would be:

1. Agriculture and Rural Development institutions;
2. Rural area development projects;
3. Human resources development;
4. Small industry development;
5. Transport projects with special significance for agricultural development and regional integration.

Of particular interest to the donor community might be the following activities:

1. A program of rural area development and peri-urban projects which may or may not incorporate a nucleus of intensive production of certain key crops. GRZ is interested both in intensive production areas with services to "outgrowers" in the area and more extensive rural area development approaches. As Zambia is a highly varied country with a varied rural population, it is assumed that these projects will not be identical in form or objectives. As modalitities suitable to the diverisity of a large and heterogenous nation are developed, they can be applied by GRZ in various areas of the country with the assistance of many donors.

2. Agriculture and rural development institutions suitable to support the diversity of a rural area development strategy will be required. Rather than develop new institutions, the existing institutions in the agriculture sector should probably evolve away from excessive central control to a more decentralized system more responsive to the needs of the rural population most of which will not be affected by formal area projects for many years.

Under the general GRZ agriculture/rural development strategy, support could be provided in selected institutions for:

a. technical assistance for planning, research, extension and marketing operations;

b. agricultural training: formal, in-service and farmer;

c. financial and technical assistance support to help

make key institutions more effective at the local level. (This may require recurrent cost financing.);

d. agricultural research; and

e. support for relatively underdeveloped activities such as fisheries and livestock

3. Small industry development is required both in rural and urban areas to assist in meeting GRZ objectives of employment, utilization of local materials, reducing dependence on foreign manufactures and meeting local needs for farm implements and commodities and developing key linkages in the economy. Some of these requirements can be most efficiently addressed in the context of rural area development projects. However, the institutional infrastructure to support small industry may require support for training facilities, technical assistance and credit programs. An appropriate technology center may be useful to define Zambian technology requirements, access world-wide experience, and adapt that experience to Zambian needs. Improved access of small entrepreneurs to credit, business skills training and technical assistance will be necessary.

A small industry program might be somewhat more broadly conceived that the traditional program of this nature. There may be scope for renewed interest in smaller mining activities to generate employment and more effectively exploit small but economical viable mineral deposits. The construction industry could be expanded through small units operating in local areas. Development of local construction materials presents important opportunities not only for employment

but also for reduction of dependence on imports and lowering of construction costs. A wide range of enterprises related to agriculture, mining and other industries could be promoted by donors in projects and programs of varying scope.

While a small industry program should emphasize "small" operations, it should be open to support of somewhat larger activities which provide important linkages and related economic benefits.

4. Human resources development is perhaps the universal requirement of Zambia. Many donors are engaged in this area either directly or through training components ofprojects in various sectors. The overall human resources requirements of Zambia should be assessed and programs established to meet the requirements. Of particular interest in this connection are technical and managerial skills for agriculture and rural development, industry, mining, health and education.

5. In addition to rural roads components of area development projects, consideration might be given to transportation projects with significant potential impact on agriculture development such as improving the road across the "Pedicule" which would improve the access of northern provinces to Copperbelt urban centers. Projects tieing Zambia more efficiently to the regional transportation system, regional markets and the sea are of great potential interest.

C. Phase III - Broadly Based Basic Human Needs Programs

Any discussion of programs in the post-TNDP period are necessarily quite speculative. However, should an assistance program be appropriate at that time, Phase III programming might focus on assuring that basic human needs of all Zambians are met. This would imply a program emphasizing nutrition, potable water, health services and employment. Consideration also might be given to longer term technical assistance and technology transfer arrangements which would be of value to Zambia whether or not it continues as a recipient of concessional assistance.

Thus, the proposed strategy framework would begin with helping meet the most immediate and pressing problems of Zambia; turns in Phase II to the TNDP with special emphasis on the rural sector and development of the institutional capacity to plan and implement a broad-based program of agricultural diversification and rural development; and, then, in Phase III turns to a broad based development program addressing the basic human needs of the population.

In addition to the more obvious economic and political problems facing Zambia, the country is also passing through a period of reassessment of the modalities through which it must express it's philosophy of Humanism in the practical management of the nation's affairs. Some idealistic policies which could be pursued without serious concern when national income was high have proven more difficult if not impractical in a tougher economic environment. The general direction in which GRZ policy is evolving is quite encouraging even

though particular observers might hope for somewhat different positions in specific cases. This paper is suggests toward a donor policy which is generally supportive of positive trends rather than challenging the GRZ to press beyond its current inclinations albeit in directions generally favored in the development community. The time may come for such an approach and Zambia might well rise to such a challenge then - or even now. But the terrible demands of economic crises and international responsibilities now facing Zambia suggest the desirability of giving Zambia time to work through its reassessment without undue pressure from the international community.

II. Descriptive Overview

A. Geography

Zambia is a landlocked nation bordered by Zaire, Tanzania, Malawi, Mozambique, Rhodesia, Botswana, Namibia and Angola. The country's surface area is larger than Texas - about 290,000 square miles. Its longest axes are roughly 800 miles east-west and 700 north-south.

Only one-third of Zambia is well-suited to agriculture. Two-thirds of the country is infested with trypanosomiasis and other livestock diseases. Forests and game preserves account for about 15% of the land area and about 10% is either permanently under water or excessively rocky. The land surface of Zambia is mainly undulating and flat plateau between 900 and 1,300 meters above sea level occasionally broken by isolated hills or steep escarpments.

Zambia's tropical continental position and its relief have a marked influence on its climate and water resources. Although relatively better watered than many high-elevation tropical areas, the adequacy of the year-round water supply is often a serious problem.

The most developed parts of the country lie along the line-of-rail from Livingstone in the south through the capital, Lusaka, to the Copperbelt in the north. Mining, industry, commerce and the most productive agriculture in the country are

concentrated in this area,[1/] along with most of the population.

Zambia has a relatively well developed physical infrastructure with 25,000 miles of roads, 700 miles of railroad and an 8-inch petroleum pipeline from Dar es Salaam to the Copperbelt.[2/]

The four main ecological zones are described in the following table.

Zone	Ecological Characteristics	Area in thousands Sq. Kms.	Rural Population in thousands	Rural Population per Sq. Kms.
1. Northern (major parts of orthern Luapula, Copperbelt and Northwest Provinces)	High plateau, high rainfall soil of low fertility, large tsetse fly areas.	350	1,220	3.5
2. Western (western parts of Northwest province)	Lowest, driest region, limited plant growth, part Kalahari desert, low agricultural potential, predominantly a cattle area	208	500	2.4
3. Central (Central, Southern & eastern plateau)	Agriculture zone, good soil, adequate rainfall, trypanosomiasis in southern and eastern areas.	94	810	8.6
4. Zambesi-Luangua Rift Valley (divides East Province from others)	Low altitude, low rainfall, hot humid climate, generally not suited to agriculture	101	230	2.3
	TOTALS	753	1,760	3.3

1/ Area Handbook for Zambia, p.3

2/ Area Handbook for Zambia, p. 27

B. History[1/]

Some of the ancestors of the Zambian people came into the area 2,000 years ago but the major immigrations of Africans from what is now Zaire and Angola took place 200 to 400 years ago. As recently as the mid-19th century, groups fleeing Zulu domination entered in the area. Several centuries of pre-colonial history were characterized by shifting tides of political dominance often influenced by Arab and Portuguese weapons and slave trade.

British influence began with the missionary and explorer David Livingstone who worked in the area from 1841 until his death in 1873. Until the 1880's, Britain's interest was largely associated with missionary causes. In the late 1880's England began to charter companies financed by private investors which carried out the task of colonization under broad grants of authority. Cecil Rhodes received such a charter for the area now including Zambia for the British South Africa Company in 1889.

The British South Africa Company not only exploited mineral deposits, built roads and railroads and encouraged white migration, but also maintained order and imposed a system of taxation. To earn money to pay the tax, Africans had to work in the mines in southern Rhodesia and Katanga and later, as the northern Rhodesia mining areas developed, in the Zambia Copperbelt area. The effect of this labor migration out of Zambia continues to impact on the structure of the agriculture sector. Traditional agriculture was not encouraged and did not develop from subsistence levels.

1/ The discussion in this section is based on materials presented in Area Handbook for Zambia, pp.29-57

The economic expansion of the World War I period encouraged the British South Africa Company to promote extensive European settlement. But the downturn in mineral and agriculture prices led to tensions between settlers and the Company which resulted, among other adjustments, in Northern Rhodesia becoming a Protectorate administered by the Colonial Office of the United Kingdom.

When the Protectorate began in 1924, Northern Rhodesia was a poor country. Development of copper mining in the late 1920's attracted new European working class settlers as well as changing the structure of the mining industry. Before 1923, mining in Northern Rhodesia was in the hands of small companies and individual prospectors. Development in response to the economic boom of the 1920's was led by a few heavily capitalized trusts which squeezed out small-scale mining enterprise. New towns were developed and housing built which accentuated class differences between white and black. The rise and fall of copper prices resulted in economic dislocations in the mining industry which invariably fell more heavily on the blacks. They lived and worked under appalling conditions while the all-white union protected its membership effectively.

After World War II, white settlers, irked by British Colonial Office efforts to protect and promote the interest of the blacks, sought various forms of union with southern Rhodesia and greater independence from London. Black labor militancy

formed the core of opposition to union with southern Rhodesia (and later the movement toward independence). Despite black resistance to loosening ties with Britain, the Federation of Rhodesia and Nyasaland was inaugurated in 1953. Rather than promoting a multi-racial society, discrimination continued. Black political activity grew in strength and effectiveness through the 1950's.

In 1960, the Monckton Commission recognized the Federation could be maintained only by force. Several years of political activity and some violence followed. The Federation was finally dissolved by the British Government in December 1963 and independence granted to Zambia in October 1964.

C. Social Structure and Demography

1. Population

Compared to neighboring countries, Zambia is sparsely populated. The estimated 1977 population is just over 5 million and in rural areas there are only about four inhabitants per square kilometer. Almost 40% of the population live in urban areas. Three cities have more than 200,000 residents each, and Lusaka, a half million inhabitants. The population is growing at about 3% per year and should reach 10 million by the turn of the century. Industrialization, especially job opportunities in the copper mines, urbanization, and education have contributed to a high rate of rural-urban migration over the past 20 years, causing a shortage of males in some rural areas and densely populated squatter settlements in several major cities.

More than 98% of Zambia's inhabitants are of African descent. Between 45,000 and 55,000 (about 1%) of its residents are of European ancestry and from 15,000 to 20,000 inhabitants of Asian heritage, mostly from India and Pakistan.

There are more than 70 tribes and 40 languages spoken in Zambia today. In spite of a partial cultural-linguistic consolidation over the years, Zambia's ethnic diversity remains an important facet of social and political life.

2. Social Structure

Tribalism, while still an important aspect of socio-cultural life in Zambia has been modified by historical and comtemporary events. Sectional or regional ties are important today, as are class affiliations based on education, economic status and personal loyalties.

Asians in Zambia dominate the commercial and trading sector and also are vital to the provision of health services. Most are migrants from the middle sector of the spectrum of the Indian class and caste system.

The white European population has always been numerically small, and until independence were politically and economically powerful. Today there is little unity among this group as a whole which is divided into farmers, managers, workers and missionaries. They do, however, live in a world separate from other ethnic groups and maintain elements of British culture through social clubs and residential segregation.

While the policy of the government has been to encourage a united, non-racial society, a legacy of tribalism, colonialism and social hierarchy continues to influence ethnic attitudes and social relations.

3. Modernization and Changing Social Patterns

Since independence, Africans have assumed all important political positions and rely less on European advisors than in the early post-independence years. In addition, Africans have moved into the commercial and shop-keeping roles previously almost exclusively handled by Asians. Changes are most obvious in urban areas where a degree of sophistication, education, type of occupations and material possessions form the criteria for the evaluation of relative status.

Changes in the rural area are more complex and difficult to describe since they involve a combination of tribal and modern values. Cash crop production in areas previously used for subsistence farming, the establishment of more permanent villages, and educational opportunities are modifying traditional forms of social organization. Health services of the government now spread throughout much of the rural territory, but it is difficult to evaluate their impact on traditional beliefs and practices.

President Kaunda has sought to articulate a philosophical stance in modernization emphasizing retention of traditional African egalitarianism and discouraging the emergence of class differences:

"One has got to understand and appreciate that the powerful forces from the West which have been aggressively shattering in their individualistic, competitive and possessive approach, have had serious and grave consequences on the African society . . . "If the distribution of wealth is not done properly, it might lead to the creation of classes in society and the much-valued humanist approach that is traditional and inherent in our African society would have suffered a final blow... the way we plan our villages, towns and cities will have a lot to do with the way our nation is going to develop in the field of classes, that is, whether we shall have high-, middle- and low-class citizens...such divisions of human beings is ungodly and contrary to the philosophy of Humanism in Zambia."

D. Political System

Zambia, since 1973, has been organized as a "one-party participatory democracy." The 1973 party and state constitutions establish a centralized government and a unicameral parliament (National Assemby) with 136 members. The United National Independence Party (UNIP) is the sole legal party, and Kenneth Kaunda is President of the Party and of the Republic of Zambia. The 25-member Central Committee of UNIP formulates national policy which is then implemented by the Cabinet. The person selected to be President of the Party becomes the sole candidate for

President of The Republic. The President selects the Secretary-General of the party, who becomes the second-ranking person in the government, and the Prime Minister. The President is selected by popular mandate to a five-year term. The Zambian Cabinet, including the Prime Minister, is appointed by the President from among those holding seats in the National assembly.

Zambia is politically divided into nine provinces, each administered by a cabinet minister. Provinces are sub-divided into districts; and districts are subdivided into wards. In addition, there are ten special urban districts. At each level there are committees for the Party (UNIP), the government (political), and development activities. District governors are appointees of the President with supervisory political functions. Most development programs, including those in health, community action and education, are administered by local representatives of the appropriate national department.

The Government of Zambia is a strongly centralized, one-party system which has successfully dealt with tribal and regional political forces tending toward dissolution. While some price has been paid in political and individual freedom, UNIP incorporates a fairly broad range of political and economic opinion. Balancing of interests within the party has apparently been successful and political stability has been maintained despite severe economic strains.

The administrative capacity of the GRZ has been a cause of some concern. The shortage of trained Zambian staff has presented a problem in virtually every area relevant to development.

A large number of expatriates are retained in GRZ agencies. Perhaps the key development constraint faced by Zambia is the availability of people to carry out policies and programs.

E. Economy

1. Introduction

Zambia is often characterized as having a "classical dual economy" which calls to mind the image of a modern high income enclave within an otherwise traditional economy. But Zambia is not a "classical" dual economy for the pre-independence mining "enclave" has in a sense metastasized. The problems of dualism previously confined for the most part to the mining sector have, largely as a result of the utilization of copper earnings, spread through the economy resulting in a multi-dimensional dualism. Profound differentiation exists between industry and agriculture; within agriculture between modern and traditional sub-sectors; within the industrial sector between a number of large capital intensive operations and a small industry - informal sector; between wages in modernized and other segments of the economy; between urban and rural sectors generally. These clevages have become so pervasive in the Zambian economy that movement toward a diversified, more economically egalitarian society may take decades to work through.

Complicating the picture is the continuing high dependence on copper revenues and concommitant vulnerability to copper price declines. Erratic copper prices, combined with

inappropriate policies and investment strategies, have led not only to structural discontinuities but also to stagnation and economic crisis in short run.

While much over-simplified, the following brief description of the dynamics of the Zambian economy calls attention to certain counter-productive characteristics more fully described subsequently.

After independence, the flow of copper earnings led not to a broad-based economic development, but rather to a deepening dependence on copper and an extension of dualism into other sectors of the economy. Dualism was extended by:

-- rising urban wages which widened the income gap with rural families;

-- agricultural price policies designed to keep consumer prices low (and which therefore kept produce prices low), thus raising real income in the cities relative to farmers;

-- social investment which tended to benefit city dwellers relatively more than rural dwellers;

-- the growth of urban employment relative to a stagnating rural sector caused by industrial investment, a growing public sector, and the need to service city pouulations and industries.

As a result, the rate of urbanization quickened and the growth of urban-based economic activity out-paced rural-based activity thus widening the dualism started during the colonial period.

Simultaneously, copper earnings permitted a capital intensive pattern of industrial investment to emerge which resulted in creation of fewer jobs per investment dollar than was feasible, and also left industry dependent on imports for raw materials, intermediate goods, spare parts and sophisticated management. Capital intensivity permitted higher wages for some workers but precluded creation of jobs for others. Import dependence made the economy that much more dependent on copper foreign exchange earnings and more vulnerable to copper price declines. Further the failure to diversify the tax base as GRZ recurrent expenditures expanded led to an even greater dependency on copper earnings.

The potential developmental impact of large copper earnings was not fully realized. After Rhodesia declared unilateral independence, a replacement transport link through Tanzania was built, a major investment providing no net addition to pre-border closing transport capacity. Major sums were reinvested in the mines for replacement equipment. Later military and refugee relief expenditures rose even as copper prices fell.

The failure to diversity the economy and dependence on imports left Zambia vulnerable to a shift in her international terms of trade. The fall in copper prices in 1974 suggested a need to reduce demand and adopt a more realistic exchange rate and

domestic price policy. However, the initial response of the GRZ in 1975, based on an optimistic expectation of improvement in copper prices, was essentially to expand the money and credit supply, increase the GRZ budget deficit and increase wages and consumer subsidies.

When copper prices remained low, Zambia's external position deteriorated seriously from a surplus of SDR 63 million to a SDR 543 million deficit in 1975 (the movement equaling 22% of GDP). A stabilization program was adopted in July 1976 including a 20% devaluation of the Kwacha and various measures to improve supply and restrain domestic demand. The program was partially successful but government expenditure remained high and the budget deficit (14% of GDP) far exceeded the target. As a result, excess demand pressures continued, inflation accelerated and Zambia was unable to borrow as much as expected abroad thus increasing external payments arrearrages.

In 1977, the GRZ tried to improve the fiscal situation by increasing revenues and controlling expenditures, an effort which succeeded. However, large increases in lending to the National Agricultural Marketing Board (NAMBOARD) led to another large deficit, again 14% of GDP.

In response to the growing economic crises, GRZ adopted a comprehensive stabilization program on March 17, 1978.

The program includes raising taxes, reducing consumer subsidies, freezing government employment and wages, eliminating losses in mining enterprises, depreciating the Kwacha by 10%, increasing reserve requirements on commercial banks to reduce excess liquidity, limiting credit expansion and other measures.

Assuming that copper prices do not continue to fall, it is thought by the IMF that this program will bring about a "significant improvement" in the economic situation within "a reasonable period of time." The IMF also recommends that:

> " Over the medium and long run, the stabilization effort should be accompanied by an investment program designed to foster a quick expansion of output, especially in the agricultural sector, which would augment the supply situation and contribute to the strengthening of the balance of payments. The investment program should be supported by income policies aiming at a progressive and sustained improvement in the domestic terms of trade of farmers and at containing wage increases in order to improve relative factor prices. The priority attached by the authorities to attaining self-sufficiency in food and gradually reducing over-dependence on copper is appropriate, since little increase can be expected in mineral exports, while the volume of imports needed to sustain a steady growth of economic activity will rise. The effective implementation of such an investment program is, however, feasible only if more resources are generated internally and if sufficient long-term resources

from abroad can be mobilized by creating a favourable investment climate and improving Zambia's credit worthiness through the effective implementation of difficult adjustment policies.

"To have a sizeable impact on exports, diversification will require time, and Zambia will continue to depend heavily on copper in the foreseeable future. Its adjustment effort, though considerable, cannot succeed in restoring a rate of economic growth comparable with that of the early 1970's, unless it is supplemented by financial assistance from abroad on favourable terms or by a sustained recovery in copper prices. The latter, however, will depend to a large extent on a faster rate of growth in industrial countries than seems likely at present" 1/.

Zambia is reported to be in full compliance with the rigorous provisions of the current standby arrangement, a major accomplishment for a country so hard pressed financially and economically.

The following paragraphs provide information on general characteristics of the Zambian economy. Information on particular sectors is provided in Section VII.

1/ IMF SM/78/107 April 18, 1978, "Zambia - Staff Report and Proposed Discussion for the 1977 Article XII Consultation".

2. Macro-Economic Framework[1/]

a. Gross National Product

The GDP of Zambia in 1977 was K1921.3 at current prices and K978.8 at 1965 prices or roughly $440 per capita.[2/] The per capita GDP figure, however, masks a number of structural problems which make Zambia's economic conditions worse than that statistic suggests.

Given the shocks experienced by the Zambian economy from external events, a poor growth record in the GDP reflected in Table I is not surprising. In constant prices, the growth rate of the GDP since 1965 has been about 2.5%, or less than the 3.0% growth rate of the population. If the deteriorating terms of trade are also considered, the effective growth rate is even lower from 1965 to 1975, with an absolute decline in GDP after 1971.

For the ten-year period, 1965-75, the economy expanded about 25% -- that is, GDP in 1975 was 1.25 times the GDP of 1965. Ie the six-year period, 1965-71, growth was 14%, while in the period 1971-75 growth was only 10%. This amounts to only a modest increase in output of about 2.3% a year for the ten years.

1/ The discussion in this Section is based on the World Bank Report 1586b-ZA, "Zambia: A Basic Economic Report," Ontober 3, 1977' "Transition in Southern Aqrica; Zambia,"February 1977; and related materials.

2/ Central Statistical Office,Monthly Digest of Statistics January/February 1978 (hereinafter referred to as "MDS"). These statistics are not consistent with statistical series based on World Bank Economic Report sources.

Over the period examined, however, Zambia's terms of trade have also changed substantially. Table II shows Zambia's GDP adjusted for the terms of trade -- that is, the relationship between the prices of Zambia receives for exports and the prices she pays for imports. Since these prices are determined by forces almost entirely external to Zambia, governmental policies can have almost no impact upon Zambia's terms of trade. Over the ten-year period, the terms of trade improved initially but subsequently declined precipitously. 1/

b. National Income Accounts

The National Income Accounts set out in Table III reflect the impact of the flow of vast copper wealth into the GRZ treasury followed by the drop in copper prices; a rapidly growing ratio of government to private consumption; and a stagnating and later declining ratio of gross investment to GDP.

The sectoral shares of real gross domestic product are reflected in Table IV and the growth rates of those sectors in Table V. Slow growth in transport, agriculture and construction and decline in mining have more than offset satisfactory growth in manufacturing and services. Commercial agriculture, manufacturing and services, all "modern sector" activities, spurt ahead while other sectors, reflecting the productivity of the mass of the people, stagnate.

c. External Sector

Copper production accounts for more than 90% of Zambia's export earnings and about a third of GDP. Hence, Zambia's economic performance is necessarily highly dependent on copper prices. Fluctuations in the world price of copper cause major fluctuations in the economy (Table VI). The volatile nature of the world copper market and its linkages to the domestic economy suggest the likelihood that the economy of Zambia will continue to exhibit a substantial degree of instability. A one cent change in the average annual copper price

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1/. Transition in Southern Africa-Zambia (hereinafter TSA) Table II.

results in a $14.2 million change in foreign exhange earnings. The decline of 37 cents a pound in average copper prices -- from 93 to 56 cents a pound -- between 1974 and 1975 was responsible for a $525 million reduction in foreign exchange earnings. The level of production and exports is largely unresponsive to price changes because of the need to contribute to overhead and maintain employment. Table VII represents Zambia's balance of payments since 1965.

The rapidly growing level of imports also contributes to payment deficits of course. But import levels are responsive to export levels (and hence copper prices) with about a one-year lag. Since the most of the industrial sector plant is highly dependent on imports for raw materials and intermediate goods, low copper prices limit the importation of material necessary for production. Thus, low copper prices have a serious retardant effect on the industrial sector and aggravate the copper price impact on the economy as a whole.

A disturbing element of Zambia's balance of payments experience is the inability in recent years to accumulate foreign exchange reserves in times of high copper prices as Zambia was able to do in the 1960's when favourable copper prices prevailed. In theory, Zambia could insulate its economy from the volatility of copper prices through careful management of its foreign exchange reserves with accumulations during years of favourable copper prices and draw-downs during poor years. However, during 1973-74 accumulations did not occur.

d. Government Budget

The vulnerability of the Zambian economy to copper price levels can be traced through the GRZ budget to its impact on development related investment and recurring expenditures.

Table VIII demonstrates the inability of non-mining revenue to cover the loss in mining revenues leading to large deficits, stagnating financial commitments to development related expenditures (Table IX) and capital investment (Table X). Given inflation and deteriorating external terms of trade, substantial declines in social and economic services have resulted.

Growing deficits have been financed with expanded domestic and foreign borrowing (Table XII) with substantial negative impact on the reserve position (Table XIII).

3. Some Limensions of Dualism in Zambian Economy

a. Employment and Wages

From 1965 to 1970 formal sector employment grew at a 5.1% rate led by services (7.6%), transport and communication (6.8%), manufacturing (5.6%) and construction (5.6%). But from 1970-74, the employment growth rate declined sharply to 1.4% a sharp drop from the 1965-74 rate to 3.6%. An expanding labour force (about 1,320,000 in 1974) is adding to an unemployment rate estimated at no less than 16% in 1974. 1/

Wage rates increased rapidly (3.3% real) from 1965 to 1972 as wage differentials between whites and Africans fell from 7.4:1 to 6:1. However, real wages have been deteriorating by 3.4% annually from 1972-74.

As labour productivity did not rise as rapidly as wages (Table XIV), domestic prices tended to rise which was unfavourable both for poorer consumers and for businesses which found it more difficult to compete. 2/

In short, after independence, real wages rose for some Zambians in key industries but not for everyone and not for long. The differential was especially disadvantageous to the rural population.

b. Investment Characteristics 3/

The capital stock has grown at average annual rate 8.2% from 1964 to 1972 with high rates of capital accumulation in manufacturing (30.2%) construction (18.5%) and commercial agriculture (17%) and a low rate in

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1/ World Bank Basic Economic Report, pp. 24-27

2/ Ibid, pp 27-29

3/ Ibid, pp 31-34

mining (3.5%). Slow production growth during this period implies declining productivity of capital. Capital output ratios rose in all modern sectors of the economy (from 2.0 in 1965 to 2.8 in 1973, overall). The sectors with the most unfavourable incremental capital output ratios (mining, transport and construction) accounted for one-third of net investment from 1965-72.

A tendency toward increasing capital intensity (capital per worker increasing from 4,900 to 6,400 Kwacha in 1965 prices) was experienced from 1965-73, especially in the previously most labour intensive sectors: commercial agriculture 826 to 2,911; manufacturing 944 to 3,658; and construction 336 to 783 (Kwacha/worker 1965 to 1973 respectively).

Thus the pattern of investment has tended to exacerbate rather than alleviate the dualistic structure of the economy.

c. Income Distribution

Zambia's income distribution is highly skewed toward the upper income and urban classes and appears to be worsening (Table XV).

Based on several studies, 64% of rural households and 19% of urban households have incomes below a "poverty line" based on basic nutritional requirements and other necessities (K490 urban and K370 rural). The price levels for all income groups have risen more or less proportionally (Table XVI).

4. Summary

The tendency of GRZ policy and investment decisions to increase rather than decrease the dualistic structure of the Zambian economy may be inferred from the macro-level data presented. It appears to be generally agreed that investment has not been optimal for the country's factor endowment. Additional data examining this problem at the sectoral and micro level, if available, would probably show great disparaties which have limited the abilities of some groups such as women and the rural poor to contribute to Zambia's development.

The macro-level data clearly demonstrate the need for greater diversification of the economy. As a general matter, significantly greater investment and policy support for groups previously left behind may yield optimal economic results in the medium to longer term quite apart from any claims to equitable treatment they may have under Zambia's policy of humanism. In any event, policy and investment should be better alligned with the nation's factor endowments.

III. Participation of the Poor in the Development Process

Statistics at the national level suggest that Zambia is a relatively well-off developing country (GNP per capita $440 in 1976) which has invested heavily in social services. Thus, for example, 96% of the primary school-age children are in school (1975); adult literacy is 42% (1974); the life expectancy is 45 years (1975) and rising; 42% of the population has access to safe water (1975). However, behind the aggregate statistics lies evidence of considerable poverty and inequality of income, access to services and quality of life.

Inequality of income appears very pronounced (see Table XV). In 1973, 10% of households received 46% of household income, while 50% of the households received 15% of household income. The distribution of income is apparently becoming worse over time.

Within a general pattern of income inequality in the population as a whole, it appears that certain groups are differentially disadvantaged. These groups may be identified by rural-urban residence, sex, traditional rather than modern farming methods, and tribal affiliation.

The dualistic structure of the economy reflects itself in various dimensions of differentiation of the poor from the rest of the population. Some 72% of rural households in 1973 had incomes of 360 Kwacha or less, while only 14% of urban households has incomes at that level. Even adjusting for lower rural cost of living, the disparity is striking.

The condition of women in terms of income, adequacy of nutrition and access to services appears to be a major concern. Among other problems noted are distribution of food and work within the rural households, access to training, credit and other services in a rural economy in which women play an especially important role because of labour migration of males.

Another dimension of differentiation lies between traditional farmers on the one hand and commercial and "emergent" farmers on the other. Ninety-five percent of all farmers working 75% of all cultivated land are traditional farmers. From 1972 to 1976, the contribution of traditional agriculture to GNP fell from 11.1% to 8.7% while that of commercial agriculture rose from 2.6% to 5.5% 1/. While traditional farmers cultivate 1,600,000 hectares against 65,000 hectares cultivated on commercial farmers, only 40% of crops grown for sale are grown by traditional farmers.

Some tribes have apparently not participated as extensively in the development process as others although this may be attributed more to regional than strictly social considerations.

Constraints on the poor and their opportunities to participate in the development process vary to some degree from group to group and area to area. However, the following very rough generalizations are offered to highlight certain problems of the poor which will require further examination and systematic analysis.

Contraints on resources are real enough in some places but generally good soil and water are or could be available in adequate amounts. Adequate nutrition levels have not been reached for all and malnutrition is a threat to some but, on balance, food would not be viewed as a key constraint to development. It remains a "basic human need" for many.

1/ Joint GRZ/SIDA Agricultural Sector Support Programme : Report and Appendice, 1978

Access to health and education services while a problem has been and is a priority concern of the GRZ. Zambia's performance in these areas since independence has been notable. Again, health is a "basic human need" but probably not now a serious constraint to Zambia's overall development. Education, on the other hand, is clearly a developmental constraint as evidence by severe shortages of Zambian personnel in all skill categories.

There may be significant social constraints to development in some tribes but there does not appear to be a general problem other than the role and status of women.

The availability of suitable technologies may in the aggregate present a serious constraint on national development as well as an obstacle to the productivity of any of the poor majority. Clearly, a great deal of investment in forms inappropriate for the factor endowment of the country has been made. At the local level, the spread of appropriate technology to improve the productivity of the poor could be encouraged.

A number of structural problems probably bear differentially on the poor. The landlocked location and transport problems of Zambia raise costs in the market place which presents a special burden on low income people. Both the external and domestic terms of trade have turned against the interests of rural population. Infrastructure is differentially available to assist the growth process of urban in contrast to rural people. Employment opportunities favour the urban and educated population.

These structural characteristics are reinforced rather than alleviated by government policies in areas such as factor pricing, incentives, budget allocations, wages, state monopoly of key industries and restrictions on the private sector. A special burden on the rural poor has been the subsidizing of the urban population through price policies. The GRZ has recognized these problems and important shifts in policy are being carried forward.

The institutional capacity of the GRZ must be viewed as a significant constraint to the participation of the poor in the development process. In an economy in which so much responsibility has been taken by the public sector, the efficiency of public organizations in promoting change is of heightened importance. Yet it is recognized that key functions such as agricultural research and extension, management of agricultural prices and marketing have not functioned well. The highest price for these deficiencies is paid by the poor who must rely on such institutions to create a framework for their development.

Generally speaking, the GRZ has demonstrated its commitment to development, its concern for equity, and an interest in the participation of the poor in the development process in its social services programs, but has followed economic policies which often have had a counter-productive impact on the poor majority. The GRZ had always been mindful of the problems of the poor but on the whole, has done far better in providing services than encouraging productivity. It would seem that the GRZ has been more concerned about what it can do for its people than what the people could do for Zambia given adequate opportunities to do so.

If these general impressions are valid, it would suggest that greater efforts in the direction of encouraging the economic activity of the private sector and the poor would be desirable. This appears to be generally consistent with the direction of the Third National Development Plan.

IV. Progress and Commitment to Development Since Independence

President Kaunda has articulated a philosophy of "humanism" which stresses traditional values of co-operation, mutual assistance to meet people's needs, the worth of the individual and the duty of the state to serve the people. Humanism rejects exploitation of the individual by the state or by other individuals and therefore, both capitalism and communism. The state, under the humanism philosophy, directs the development process for the benefit of all individuals.

The policy of humanism has provided Zambia with strong philosophical underpinning for its struggle for national unity. It doubtless contributes to the moral authority of Zambia as a leader of the majority rule movement in southern Africa. It is a political philosophy that demands more than a mere shift of power from white to black, but rather a qualitative shift in the role of the state and the citizen in meeting the needs of individuals. It has encouraged Zambia's notable efforts in health and education.

While there has been real progress in building the social and economic infrastructure for future growth - transport, power, education and health services - the economic results have been disappointing.

The First National Development Plan (1966-70) and the Second National Development Plan (1972-76) set out these objectives:

a. raising the general level of economic welfare;

b. diversifying the economy to lessen dependency on copper;

c. narrowing the gap between the rural and urban living standards;

d. improving educational levels and developing technical and managerial skills to reduce dependence on expatriates (Zambianization).

There are many reasons why progress toward these objectives was limited. Zambian government plans allocated more resources to modern sectors than the rural sector. 1/.

1/ Table XVII

Further, actual expenditures in the construction, transportation and power sectors exceeded planned outlays. (These increases were at least partly a response to the external situation at the time. For example, the Rhodesian Unilateral Declaration of Independence forced Zambia into heavy expenditures on the Great Northern Road to Dar es Salaam). The institutional structure of the government, burdened by lack of skilled personnel, was often not equal to the planning, organization and implementation demands of its undertakings. 2/.

Zambia can recognize the nature of the problems it has encountered and devise means to improve the effectiveness of its development policy in the future. Advance information available on the Third National Development Plan suggests that the GRZ has indeed recognized many of its problems and plans to deal with them. The following section considers aspects of the forthcoming Zambian development plan based on currently available information.

V. National Development Plans

Formal economic planning has characterized Zambia's approach to development since independence.

While both the first and second national development plans reflected a strong philosophical orientation toward participation of the masses in the development process, the results were disappointing especially in rural areas.

2/. Patrick Ollawa, for example, criticizes ad hoc decision-making preference for short-term goals and failure to perceive the impact of short-term decisions on long-term planning and in rural development programs. "Rural Development Strategy and Performance in Zambia : An Evaluation of Past Efforts"; XXI, African Studies Review, p. 101 September, 1978

Although some significant achievements were recorded, the Second National Development Plan (SNDP) period produced disappointing economic results. For example, instead of the target GDP growth rate of 6.8%, an actual rate of 3.4% was reached. In part, the results were due to factors beyond GRZ control such as lower than the expected copper production and prices, external transport problems and the impact of rising political turbulence in southern Africa. Internal constraints on manpower, managerial capacity and the institutional framework for implementing development programs were underestimated. Foreign exchange shortages limited importation of spare parts and other goods which hurt manufacturing, construction and transport. The growth impact of high gross fixed investment (averaging 28% of GDP) during SNDP was diluted by many factors including large sums committed to replacement investment, investment in social and economic infrastructure and a bias toward capital intensive investments which were inappropriate to Zambia's factor endowment.

Zambia appears to have recognized that "trickle down" does not work. Rural development, and more productive small holder agriculture and small industry sectors are now seen as necessary to improve the standard of living of the poor. The thrust of new thinking is toward growth, equity, diversification, job creation, use of local resources, labour-intensive methods and Zambianization.

The Third National Development Plan (TNDP) has not been officially promulgated. However, it is understood that it will call for a comprehensive reorientation of development priorities. The balance of this section is based on recent GRZ statements outlining the current understanding of the content of the TNDP.

The principle objectives of the plan are expected to be:

a. to improve the overall growth performance of the economy; the growth rate target for GDP for the 1979-83 period is 4.8% on average;

b. to diversify the economic structure particularly in the agricultural sector in order to reduce the economy's dependence on copper;

c. to ensure a broader distribution of the benefits of growth through emphasis on rural development, concentrating on the lowest income groups in the rural areas;

d. to reduce the import dependence of the economy by developing industries based on local resources;

e. to reduce the capital-intensity of production and to generate increased employment through the adoption of more appropriate, labour-intensive technology;

f. to increase the export orientation of the non-mining directly productive sectors of the economy;

g. to accelerate the pace of Zambianization in the key sectors of the economy;

h. to use planning as an instrument for attaining the socio-economic objectives of Humanism which implies the primary of the public sector, but ensure that the private sector, both domestic and foreign, has a rightful place in the country's development so long as it adheres to the economic and social priorities laid down in the Plan.

The following paragraphs summarize key elements of TNDP's macro-economic and sectoral strategies through which these objectives will be pursued.

Investment:

TNDP will call for a continued gross investment level of 28-30% of GDP to support rate of 5% per annum. A similar level of gross investment under SNDP led to a much lower growth rate. However, a number of crucial changes in investment strategy designed to promote higher GDP growth and employment creation are proposed including:

a. greater allocation of investment funds to other productive sectors than copper mining. The share of copper mining in total investment is expected to decline from 20% in 1977 to 14% in 1983. At the same time, the shares of agriculture in the Government's capital budget is expected to rise from about 20% during the Second Plan to over 30% during the TNDP. The share of industry will be increased from 13% to 17%;

b. a reduction in the share of investment in transport since the main transport network is substantially completed and the need for investment which duplicated existing capacity will be substantially reduced;

c. a reduced share of investment going to social infrastructure;

d. concentrating investment on more labour-intensive projects in agriculture, industry and infrastructure, which will serve to raise the marginal efficiency of capital;

e. improving the effectiveness of investment through better feasibility studies and pre-investment surveys;

f. strengthening the machinery for implementation and monitoring of development programmes at all levels of Government and in all sectors of the economy.

Fiscal Policy

Effective fiscal policy is of crucial importance in influencing aggregate demand and domestic savings because GRZ expenditures account for such a large share of GDP 23% and GRZ savings (recently dissavings) account for 28% of overall savings based on 1976 figures.

Concerted efforts will be made to diversify the tax base by increasing the share of non-mineral tax revenues in total receipts. Strict discipline is called for on the growth of Government recurrent expenditure (which more than doubled between 1970 and 1976), particularly on all types of non-developmental recurrent expenditures, including subsidies which favour consumption at the expense of growth, and on non-essential private consumption expenditure.

To protect the Government's development program from fluctuations emanating from erratic changes in copper prices, the TNDP is expected to call for the creation of a Budget Stabilization Fund. The purpose of this Fund would be to build up a financial cushion which will reduce the need for cuts in development expenditures during periods of low copper prices. Accordingly, the appropriate rate of expansion of Government recurrent and capital expenditures will be determined on the basis of long-term forecasts of mineral and non-mineral revenue together with appropriate net flows of Government foreign and domestic borrowing. Then, the Budget Stabilization Account would be managed counter-cyclically, mainly in response to copper price fluctuations.

Agriculture and Rural Development

The TNDP will give the highest priority to rural development in general and to increased agricultural production in particular. This policy calls for a co-ordinated program for the development of agriculture, agro-industries, feeder roads, marketing services and related social services in rural areas. The overall objectives are to increase opportunities for productive employment and to raise levels of living in the rural areas. A growth rate of 5.5% is hoped for.

The focus will be on achieving higher levels of self-reliance and self-sufficiency in staple foods and the provision of adequate supplies of raw materials for the needs of the country's domestic agro-based industries. In addition, the export potential of certain crops, e.g. tobacco, cotton, sugar, rice and a wide range of fruits and vegetables will be exploited.

The strategy will be geared to meeting the needs of middle sized and emergent farmers, organized small holders and traditional farmers. Commercial farmers will be encouraged through pricing policy.

While both area expansion and intensive cultivation are to be used to contribute to increased production, greater attention than hitherto will be paid to raising yields from the very low levels obtained at present from traditional and emergent groups. Increases in production for these groups are viewed as obtained at very low costs.

Subject to ecological conditions, crops such as maize, rice, cotton, tobacco, groundnuts and sunflower will continue to be grown mainly by small-scale farmers while crops such as wheat and soybeans which require higher level management will be encouraged among large scale farmers. Attention will also be given to the development of the livestock sub-sector. A particular need of this sector will be improved management and stockfeeds and disease control.

The plan will stipulate a package of policy measures which include:

a. Greater allocation of investment

The investment budget's share in the Government budgetary allocations is expected to rise from under 20% during the SNDP to over 30% in the TNDP.

b. Remunerative producer prices based on economic costs

Agricultural producer prices have been raised substantially in recent years with encouraging effects on production. The Government is committed to maintaining adequate incentives to farmers through a process of annual reviews already in operation.

c. Extension of credit facilities

This will be done through the Agricultural Finance (AFC) (a parastatal company) and other banking facilities.

The major tasks of AFC will be to :

(i) improve its facilities;

(ii) improve its administrative capacity for loan processing; and

(iii) improve the organization's loan recovery performance so that it is self-financing.

Based on encouraging experience of the Credit Union and Savings Association, the development of credit and savings unions will be encouraged.

d. Increased and assured supply of agriculture inputs

The manufacturing sector will be encouraged to provide for the local supply of agricultural inputs such as farm implements, stockfeeds and fertilizers.

e. Improved extension services

The number of professional agricultural officers will be increased from 88 in 1976 to 120 in 1983 and technical staff from 434 to 688 respectively. This program will be supported by:

(i) the current expansion program of Farmer Training Centers and Institutes for the construction of 19 new Farmer Training Centers and 7 Institutes in addition to improvements to 20 Centers and 8 Institutes;

(ii) the establishment of a rural campus of the University of Zambia to include Schools of Agriculture and Veterinary Sciences.

f. The Development of Production Units

Rural Reconstruction Centres have now spread out to all districts in

the country and, in addition, schools have established Production Units. It is the Plan's objective to use these facilities, including State Farms and Ranches, as focal points for rural development and for the organization of production activities and training. These activities will be integrated with the development of self-help projects such as construction of simple dams, weirs and roads.

g. Development of Livestock Sector

The livestock industry will benefit from some of the measures above. A number of feasibility studies are currently under preparation, with external assistance, for the development of dairies and ranches. 1/

Industrial Sector

In conjunction with rural development, the manufacturing sector is to be developed as a major vehicle for diversifying the economy and generating growth. The following will be the main basis of the GRZ strategy for the sector:

a. to develop industries using local raw materials, both for import substitution and export;

b. to develop more labour-intensive techniques; and

c. to foster the growth of small-scale and village industries.

A key instrument for the reorientation of industry is the Industrial Development Act of 1977 which provides incentives for priority industries according to the following criteria:

1/ The Current Economic : Government Response and Approach to the Third Plan, May 8, 1978

a. maximum utilization of domestic raw materials;

b. production of intermediate goods which are used by other industries;

c. diversification of the industrial structure;

d. creation of substantial opportunities for permanent employment;

e. improvement of domestic industrial skills and fostering the development of domestic technology;

f. promoting industrial development in rural areas.

Specific incentives are provided for exporting enterprises, for providing training facilities for Zambian citizens, and for research and development. Other specific incentives are for enterprises utilizing foreign investment. These incentives include income tax relief, customs rebates, and preferential treatment for import licensing and purchasing agreements.

The Act induces a bias towards labour intensive techniques through a licensing requirement. Import substitution, export promotion and use of local materials have been encouraged through initiative in various industries.

Small-scale industries are viewed as particularly attractive because they:

a. generate more employment per unit of investment;

b. rely more on local raw materials, hence create greater multiplier effects and help save on scarce foreign exchange;

c. encourage the development of local entrepreneurship.

Small-scale industries will be eligible for various benefits under the Act as well as access to financial, purchasing and advisory services.

Mining Sector

The TNDP emphasizes prospecting, exploration and exploitation of minerals other than copper. A number of prospecting, exploration and mining licenses have already been issued and these include such minerals as iron, diamonds, emeralds, slate, ceramic and refractory raw materials and phosphates. In spite of the rising importance of minerals like uranium and emeralds, copper will continue to play the key role in the Zambian economy in the TNDP period and every effort will be made to make copper mining and processing a more profitable enterprise. In this connection, the following steps will be taken:

a. to secure stable and remunerative prices of copper in the world market through arrangements such as buffer stock financing;

b. various measures like leaching of tailings, recovery of refractory ores, gold, silver, selenium, etc., from slimes slugs of copper are being envisaged with a view to reducing costs of production of copper. A project is under consideration to recover copper from flue gases. The inventory holding policy of the mines is under review so as to reduce the lead time for imported inputs. This will also reduce financial charges and the need to keep a large working capital blocked in inventories;

c. the processing of copper, lead, zinc and tin will be further encouraged during the TNDP and cobalt processing will be expanded in view of its present favourable price;

d. the substitution of imported sulphur by sulphur dioxide from flue gases of the smelters will be further expanded in order to lower the cost of production inputs and improve the environment.

Transport

Considerable investment has been undertaken in this sector over the

past 12 years. A network of trunk roads has been built up and a rail line to Dar-es-Salaam is operational. Zambia Railways rolling stock has been strengthened, but further additions to capacity and improvements in capacity utilization are still required. While the emphasis in the TNDP shifts to directly productive sectors, complementary transport facilities to agricultural and manufacturing sectors will be ensured through building up of essential feeder roads. Further strengthening of rail and road transport and possible further outlets to the sea are under consideration.

Maintenance and expanding management efficiency of existing systems are thought to be important but it is too early to tell what priority they will give when the TNDP is officially published.

Social Services and Training

The TNDP will be launched against the continuing constraint of skilled manpower. In spite of shift of emphasis to productive sectors in investment outlay of the Government sector, steps will be taken to ensure adequate investments in technical and vocational training and health.

Government has already carried out a comprehensive review of the whole educational system with a view to making it more responsive to the needs of the country. Final decisions on the proposals are now under consideration. In the meantime, it has been decided to develop the University of Zambia on a federal basis with new campuses at Ndola on the Copperbelt, comprising Schools of Industrial and Environmental Studies, while the rural campus at Solwezi will consist of the Schools of Forestry and Wood Technology, Veterinary Sciences and Agricultural Sciences.

In the case of housing, the TNDP assigns priority to low and medium cost housing and lays greater emphasis on socially integrated housing schemes. Here too, emphasis will be laid on substitution of imported materials by greater use of locally available construction inputs. Labour-intensive, self-help housing projects will be encouraged to reduce housing costs. 1/

1/ Current Economic Crises, p. 27-28

Plan Implementation

The TNDP envisages:

a. strengthening the overseeing and co-ordinating role of the National Commission for Developing Training;

b. establishing and strengthening, where these exist, of planning machinery at Provincial levels, particular attention will be paid to the Ministry of Lands and Agriculture;

c. building up systems of monitoring plan progress and of statistical feedback at all levels of the machinery of Government and parastatals;

d. making annual planning (including annual provincial plans) an operational tool of plan implementation 2/.

It will be difficult to assess the TNDP until its detailed provisions become available. Information about the Plan now available considered together with steps the government has already taken are most encouraging. Of particular importance are plans:

1. to increase emphasis on the agricultural sector;

2. to improve traditional and emergent farmer opportunities;

3. to diversify agricultural and industrial activities with a view to more efficient utilization of capital and more labour intensive methods;

4. to improve management of fiscal and foreign exchange resources;

5. to emphasize opportunities for small scale industries and small entrepreneurs.

2/ Current Economic Crisis, p. 28

Plan objectives appear to be valid in principle and generally compatible with A.I.D. policy objectives and progressive trends of thought in the development community. Nonetheless, there must be concern on the question of the attainability of these objectives. The short run constraints on funds and foreign exchange; combined with longer term constraints on trained manpower and institutional capacity; and the permanent disadvantage of location and the attendent impact on transportation costs do not permit an optimistic outlook. However, should Zambia achieve a significant portion of the ambitious goals of TNDP, much will be accomplished.

VI. Role of Foreign Assistance for Development Plans

A. Donors and Their Roles

Zambia has received assistance from many countries -- East and West -- and international agencies. Development assistance since Independence totals well over a billion dollars. Balance of payments assistance has been provided in recent years as copper prices deteriorated. Zambia is presently operating under an IMF standby arrangement. (The World Bank made two $30,000,000 program loans to Zambia in 1973 and 1976.)

Zambia has attracted the interest of a wide range of donors. This reflects not only the importance of Zambia in African affairs and the difficult problems its people face but also the fact that Zambia as perhaps the key "frontline" state has borne far more than its share of the burden in the struggle for majority rule in Southern Africa.

The composition of commitments of assistance in 1977 according to "Report on Development Assistance to Zambia - 1977" (UNDP, Lusaka) were as follows:

Technical Assistance	$ 40,500,000
Capital Assistance	$123,000,000
Commodity Assistance	$ 71,500,000

(These amounts do not, of course, include the IMF standby arrangement.)

The current and planned flow of assistance generally comports with GRZ priorities in agriculture, transport and industry. GRZ

policy focuses on short term stabilization and transport requirements and longer term requirements for development of productive investment and manpower development. Assistance programs of major donors are summarized in Table XVIII.

B. Absorptive Capacity

The capacity of Zambia to absorb foreign assistance is subject to multiple constraints: shortage of counterpart funds, of trained manpower, of technical expertise and instutitutional capacity. A recent statement by Minister of Finance Mwanakatwe noted several key problems:

1) The urgent need for quick disbursing balance of payments support as opposed to assistance tied to projects.

2) Requirements of small scale farmers for implements, tools and inputs of seed and fertilizers, and the limited capital inputs of small scale or cottage industries which might best be covered by the ready availability of foreign exchange for the purchase of the necessary items by the commercial distributon outlets.

3) Local cost financing becuase of constraints on the Government budget.

4) Practical problems in the mobilization of experts for technical assistance including administrative problems, housing and counterpart personnel.

5) The physical constraint of the transport crises.

6) The need for more effective planning and coordination of foreign assistance.

Hon. Mrs. L.A.W. Monze, Minister of State for Economic and Technical Co-operation, summed up the situation in February 1978 in the following words:

"A point of major importance is the administrative set up which Zambia employs in regard to the identification of the need for and coordination of the utilization of foreign financial and technical assistance. It is obvious that lack of such coordination must have contributed to the comparatively lower level of assistance received by Zambia in the past. It is for this reason that 2½ years ago His Excellency the President created the Ministry of Economic and Technical Cooperation . . . to perform this important function. This decision has already begun to yield results, even though the Ministry is still in the process of being fully established. A system of full and effective coordination is still being developed with the cooperation of sister Ministries and parastatals."

Minister Monze also added that there was "need for more personnel to man this Ministry so that its coordinating role can be played even more effectively."
The GRZ has requested large scale technical assistance to fill the manpower gap in Government and parastatal organizations.[1/]

It is clear that attention must be paid to the sequence and forms of assistance provided to Zambia lest donors contribute to an

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1/ Statement of Minister of Finance Mwanakatwe to June 1978 Consultative Group meeting.

increasingly indigestible pipeline of assistance.

In the short run, the dominant constraints appear to be financial and physical. In the medium run, the dominant constraints appear to be institutional. In the longer run, the dominant constraint is one of education and human resources.

It seems to be generally recongized that the transportation bottleneck must be relieved in order for effective development assistance to flow in and to allow Zambia to earn what it can from its copper export opportunities. Even the generation of local currencies for development purposes through commodity assistance will be negated if the complex transport problem is not addressed effectively.

The development of the institutional capacity of Zambia to mobilize its own resources and utilize foreign assistance while requiring immediate attention is a longer term problem. The GRZ has requested massive aid in technical assistance manpower to help government and parastatal organizations function more effectively. Ideally, such assistance should be provided in the context of on-the-job counterpart training. This may not always be possible, however. It may be useful, in coordination with other donors, to carry out a study identifying in detail specific requirements for technical manpower. The IBRD is already working with GRZ in development of a group to identify and develop projects. It may be useful to mount a multi-donor effort to address crucial problems in administration in the agricultural sector. Other donors might be encouraged to provide in-depth assistance in other areas such as the Ministry of Economic and Technical Cooperation, Transport and Education.

Until minimum levels of efficiency are achieved in key administrative areas, the impact of foreign assistance will be seriously eroded. This may be particularly discouraging to the large number of smaller donors whose individual project impact must be limited but which in the aggregate could be very important provided that efficient utilization is assured.

C. Donor Coordination

The need for more effective donor coordination is obvious. The first meeting of the Zambia Consultative Group was viewed as an effective and promising first step which should be built upon with regular in-country coordinating efforts.

There appear to be no serious obstacles to cooperation. Indeed, the assistance philosophies of other donors appear to be entirely compatible with GRZ strategy and USG objectives.

The GRZ, UN and World Bank should be encouraged to press forward with development of effective mechanisms for donor coordination with assurances of USG support. This coordination should not be limited to national problems becuase Zambia, with eight countries on her borders is now more than ever subject to the impact of Regional problems and regional issues. When the political transition is completed in Zimbabwe and Namibia, it would be in Zambia's interest to take a strong leadership role in bringing southern African countries together to review such questions as regional transport efficiency, re-absorbtion of labor, opportunities for trans-national training, river basin development and regional health issues.

VII. Sectoral Development Strategies

A. Overall Strategy Considerations

The TNDP lays out a program which is consistent in principle with policy directions most donors and other observers would support for Zambia given its resource endowment, current difficulties and longer term opportunities.

Appropriate emphasis is placed on agriculture and rural development without unduly limiting allocation of resources to other sectors.

A three-phased donor strategy focusing first on emergency problems, then on support of TNDP and still later on broad basic human needs interests follows the lead of GRZ planning without compromising policy interests of the donor community generally. For analytical purposes, a number of alternative appraoches were considered but were viewed as less attractive for reasons briefly set out below.

Exclusive concentration on the agricultural sector was considered too narrow because:

1. Other sectors, especially transportation and human resources, present very serious constraints in the long and short-run to both economic growth and development.
2. Zambia is so urbanized already that the problems of the poor majority cannot be addressed in rural areas alone; and

3. The employment problem must be addressed on a broad basis to avoid economic, and social dislocations in the near future.

A general budget support approach is inappropriate for most donors, problematical because of inherent management difficulties and inconsistent with a perception of the need for careful targeting of resources on selected priority problem areas, particularly agriculture.

A program of institution building, particularly in the agricultural sector, is incorporated, in part, in the strategy. However, the longer-term objective, as well as a great deal of short and medium term activities focuses on area development approaches. Building central ministry capacity without carefully balancing those agencies with local units runs the risk of attracting too much talent, resources and power to the center. Decentralization and local participation appear to be necessary to effect rural development in Zambia. Hence, building institutions is encouraged but in a way which does not encourage centralized control, "top-down" planning, and the dominance of the bureaucratic center over local decision-making. Hence, the balance of agriculture and rural operations is encouraged although crucial central institutional requirements are not ignored. In some sectors other than rural development, the emphasis on decentralization may be less crucial.

A narrow crop production program as an agricultural strategy would not seem to assist Zambia in dealing with underlying structural problems in rural areas. Experience with crop-oriented programs has demonstrated that they are more effective when they support an area development approach with more localized integrated services and decentralized planning rather than operating exclusively as centrally controlled and administered operations without the influence of local decision-making.

In a number of sectors including industry, mining and construction, the GRZ's policy shift toward facilitation of private enterprise is encouraged. However, the philosophical, political and technical problems associated with that development suggest that its appropriate pace may be determined most effectively by the GRZ itself.

The following sections identify problems in the various sectors of the economy and outline strategy options in those areas.

B. Sector Problems: Constraints and Suggested Approaches

1. Agriculture and Rural Development

a. Structure of the Sector

Zambia's agricultural sector is highly dualistic. There is a marked differentiation of production by agricultural sub-sector between commercial type operations as compared with traditional farmer; by geographical area between the central and southern provinces and the remaining (non-line-of-rail) provinces; and therefore a marked discontinuity of income levels between larger farmer and small-holders in their rural provinces. At one extreme are about 600,000 small-holder subsistence farmers, widely dispersed through the countryside on land of varying quality, using hand tools and generally unassisted by either animal or mechanical power, following traditional methods of farming. About half the subsistence small-holders produce primarily for their own requirements; the other half have cash sales of about K50-60 per year. The major crops they produce are maize, cassava, millet, groundnuts, sorghum and free-grazed beef. Despite their relatively small share of marketed production, small-holders account for a large share of total production, estimated for example, at 85% of all cereals (80% of maize) and 90% of all domestic cattle slaughtered.

At the other extreme are large state farms and some 800 commercial farmers. These are located under leasehold of state land mainly near the line-of-rail or other major arteries with

access to markets. These farms are large and generally located on the best soil. Commercial farmers use modern, increasingly capital-intensive methods to produce cereals, dairy produce, beef, poultry and eggs for the urban market and tobacco for export. State farms are engaged mainly in maize, beef and dairying.

Between the subsistence and commercial farmers is a small but rapidly growing group of Zambian "emergent farmers" who are using improved seeds and oxen or tractors to produce the same range of crops as commercial farmers, plus cotton. Between them, commercial, emergent, and state farms supply over 55 percent by value of marketed domestic production (about 35 percent of market demand) including over 60 percent of the national staple--maize, 35 percent of beef and over 50 percent of the country's milk, pork and tobacco. Gross annual sales from commercial farms average about K25,000-35,000, while those of emergent farmers vary widely but lie typically in the range of K1,000-3,000.

b. Goals and Performance

The Zambian Government's goals for agricultural and rural development are: (a) achieving self-sufficiency in basic foodstuffs and agricultural raw materials (particularly cotton); (b) making a contribution toward diversifying the economy and the export base, hence reducing dependence upon copper; and (c) promoting a more equitable distribution of income by reducing the rural-urban income gap.

Despite plentiful land resources for crop and livestock development, the agricultural sector's contribution toward the achievement of the government's goals has been far below its potential. Zambia does not meet its domestic requirements for foodstuffs and raw materials and continues to import wheat and barley, rice, vegetable oils, cotton, dairy products and potatoes. All are products in which Zambia has the potential for substantial increases in domestic production. Imports have accounted for more than 25 percent of the value of marketed food in recent years.

c. Development Strategy in Agriculture and Rural Development

The Zambian Agricultural Sector has been analyzed recently by World Bank (Agriculture and Rural Sector Survey, 1977) and FAO (Perspective Study of Agricultural Development for Zambia, 1976). These studies provide both an analytical framework of policy choices and development interventions and a coordinated strategy of specific policy changes and projects aimed at increasing production in the short run and the productivity of traditional farmers in the longer run.

While, as noted above, the TNDP has not yet been promulgated, various official statements concerning GRZ plans for the rural sector indicate a general convergence of views by the government and the donor community on broad objectives if not detailed means.

A recent statement by the Zambian delegation to the Consultative Group provides a very useful articulation of the direction of GOZ thinking on the new development plan:

"The Government intends to stimulate agriculture at three levels. Firstly, the largest section of the population, the small

scale farmers will receive financial assistance and incentives together with technical advice in the form of extension services, in order to encourage them to produce cash crops. This group of farmers is by far the largest and will form the backbone of the rural development strategy. Secondly, existing medium-scale commercial farming will be encouraged. For this group, the most important incentives are the provision of reasonable prices and the availability of adequate credit facilities. Thirdly, it is envisaged that very large-scale estate type farming will be undertaken for crops such as wheat, coffee and sugar which are suitable for this type of development. For all these groups of farmers, it is essential that basic services are provided, including marketing, input supply, land clearing, mechanization, and so on.

"The TNDP strategy for the agricultural sector is primarily focused on achieving a higher level of self-reliance and self-sufficiency in staple foods and providing adequate supplies of raw material for the needs of the country's domestic agro-based industries. In addition, export potential will be exploited where feasible. To attain these objectives, the following policies will be pursued:

"(1) a greater proportion of Government expenditure allocation will go to agriculture. The proportion is expected to rise from 8 percent in the SNDP period to 16 percent during the TNDP;

"(2) producer prices will be used as a means of stimulating production, a policy which is being pursued at present through the practice of annual price reviews;

"(3) the availability of credit facilities will be improved particularly by rationalizing the agricultural finance company and by taking various measures to increase its loan funds;

"(4) extension services will be substantially improved, by an increase in the number of technical and professional agriculture officers. It will also be necessary to provide better supporting services for these officers such as transportation and housing;

"(5) agricultural research will continue to be undertaken on all commodities to ensure that production is increased by all types of farmers. Multidisciplinary research teams for all commodities will be established during the TNDP. These will work much more closely with the extension services than has been the case in the past;

"(6) the manufacturing sector will be encouraged to produce intermediate inputs, such as fertilizers, tools and equipment required by the agricultural sector;

"(7) it is part of the overall TNDP strategy to establish small-scale local resource based industries in the rural areas which would use the products of agricultural project in the vicinity. This marks a departure from the present situation in which most industry involved large-scale, high technology production and is based almost exclusively in urban centres on the line of rail;

"(8) the Government intends to strengthen various key institutions in the agricultural sector, including the Ministry of Lands and Agriculture and its associated parastatal institutions, particularly

with regard to the planning and project preparation and implementation capacity.

"While agriculture will play the central role, the TNDP visualizes a coordinated programme of rural development which, besides agriculture, will also cover establishment of small-scale and village industries, rural electrification, construction of feeder roads and spread of health and educational facilities in rural areas. The essence of the whole approach is to make agriculture and allied activities more rewarding and to build a strong and self-reliant rural society."

The statement goes on the emphasize the importance of strengthening key institutions. While the GRZ has not developed its plans in this regard in detail, it has defined the following objectives:

"(1) To strengthen the planning functions of these institutions, by recruiting more experienced personnel, while at the same time increasing the level of training of Zambians;

"(2) to improve the efficiency of the marketing and distribution systems;

"(3) to allow a greater degree of decentralization in project implementation, but maintaining planning and policy-making functions at the central Government level;

"(4) by improving the provision of credit facilities to farmers at every scale of production throughout the country."

The World Bank developed an "Agricultural and Rural Water Survey" (October 20, 1975) which proposes a two-pronged strategy supported by certain general reforms. This strategy recommends that immediate increases in production be induced (principally by policy improvements) from commercial farmers and smallholders in areas with the greatest comparative advantage - i.e., the line-of-rail area. A longer-term transformation of the traditional farm sector would be accomplished by concentrating social and production investment and recurrent expenditure in high potential areas referred to as Rural Growth Areas (RGA). Both prongs of the strategy would be supported by certain improvements including price policy and marketing system reform, more effective use of agricultural staff, re-orienting research efforts and developing research-extension linkages.

GRZ, World Bank and other analysts are generally in agreement about a number of key problems affecting agricultural policy and institutional requirements.

Price Policy Strategy

Minimum and maximum prices are fixed for most food products in Zambia, which tend to become set producer and consumer prices. Doris Dodge[1/] and the World Bank Report[2/] make a good case that in the past, these prices have often in effect been a tax on farmers in favour

1/ Dodge, Doris. Agricultural Policy and Performance in Zambia. Berkeley, 1977.
2/ World Bank, Report No. 841a-ZA, Vol.II, October 20, 1975.

of the consumer, reducing farmers' real income and production incentives. In conjunction with rising urban wages, price policies have increased the rural-urban income gap, induced migration and aggravated the dualistic characteristics of the economy.[1/] The Zambian Government has recognized this, and beginning in 1972 and 1973 started increasing agricultural prices for maize and later groundnuts and cotton. The responsiveness of Zambian farmers to price signals suggest price policy reforms should be an effective instrument for agricultural development.

In defining price policy, the GRZ may wish to examine a number of aspects of its earlier practices such as the incidence of benefits and burdens of the policy; nutritional implications of alternative policies; and the effects of uniform pricing country-wide and year-round.

Specific recommendations on pricing policy are not explored here as the subject is both highly technical and dependent on the nature of the overall sector strategy of which price policy will be a crucial operative mechanism. However, the theoretical optimal of pricing policy, world or border prices plus transportation costs, might be an effective approach in Zambia given the relatively good transportation network and record of price responsiveness of the agricultural sector. As Dodge demonstrates, such an approach would not only improve agricultural production but also lead to a more

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1/ World Bank, Report No. 1586b-ZA, October 3, 1977.

equitable distribution of income. However, care must be taken that rising food prices not impact too severely in the urban poor. This problem should be examined promptly with a view to consideration of a compensatory food assistance program during the transition from food subsidies to production inducing higher food prices.

Institutions

A major improvement in agricultural production will require significant improvements in the existing institutional structure:

-- The marketing structure is dominated by parastatal organizations which monopolize trade in commodities such as maize, dairy products and vegetable oils. The role of these organizations could be reduced over time to that of buyers of last resort backing up a system incorporating less restrictive pricing policies, less subsidies, improved storage, and use of traders and cooperatives to encourage efficiency in marketing.

-- Greater decentralization of the decision-making process with more authority in provincial and lower levels to allocate resources and implement programs would facilitate more effective participation of the population in development.

-- Better training of agricultural and rural development professional, technical and managerial personnel is necessary to achieve the ambitious goals of the TNDP.

-- Extension services must be improved

-- Agricultural research must be focused more on the requirements of small-holder agriculture.

-- The nutritional and income producing potential of livestock and fisheries development should be exploited

-- Improved access to credit and savings facilities, especially in the traditional sector, would promote mobilization of rural savings which could be significant especially if agricultural prices rise in the short to medium-term.

On the foregoing matters most observers appear to be generally in agreement. However, there seem to be differences between interested observers, at least in emphasis, in several area including:

- The nature and degree of decentralization required with the GRZ apparently inclined to maintain stronger centralized control over planning;

- The nature and characteristics of local operational structure. (The GRZ, apparently reacting against earlier experience with an "Intensive Development Zone" concept, seems inclined to follow existing lines of central ministry control with local "coordination". The World Bank suggests use of a "Rural Growth Area" concept, correcting defects in the IDZ concept but retaining the basic notion of area-based development operations with greater local control over planning and implementation.)

- The degree of resource concentration to specific geographical areas. (Some favor selective commitment of resources to high potential RGAs with the GRZ apparently inclined to allocate resources more equitably thus implicitly accepting lower production payoffs and less efficient use of available resources.)

Given the existance of sound analytical work and fairly clear indication of GRZ strategy, donors might plan their assistance efforts along the following lines:

(1) Short term (1978-79)

(a) Commodity assistance for agricultural inputs such as: farm implements, fertilizers, pesticides and equipment.

(b) Technical assistance in planning and operations in key agencies.

(c) Financial and commodity assistance to mobilize existing staff and facilities.

(d) Training

(2) Medium term (1980-85)

(a) Area development and production projects

(b) Technical assistance in agriculture and rural development institutions emphasizing:

(1) assistance in current oprations management;

(2) assessment of previous experience and new operational data with a view to working out organizational decentralization and other technical problems;

(c) Training Zambians for various functions in agricultural institutions

(d) Support for selected research and extension activities.

(e) Credit and Marketing.

(3) Longer term (1986-90)

Help carry forward the GRZ rural development strategy to promote the productivity and meet basic human needs of the rural population.

This should involve a significant agro-industry base generating employment outside the now dominant mining sector.

The donor program could support operations in a number of discrete rural areas. These operations might be relatively limited in scope (perhaps providing resources to local government units for rural works, roads and agricultural credit, or might involve fully elaborated integrated rural development operations. The nature of such operations would, of course, depend on the overall strategy, local conditions, production possibilities and the desires of the people in the area.

The foregoing program could be designed to shift away from donor institutional support as Zambians take over functions for which they have been trained and toward an expanded area development program in which a larger number of area project operations are implemented. This assumes that an improved institutional base in developed in the medium term which expands GRZ absorption capacity. Long term area development projects may provide greater emphasis than now contemplated for off-farm employment and the range of social services needed by the rural population.

2. Health Sector

A. Introduction

Zambia's mortality and morbidity profile reflects a very high percentage of death and illness from environmental and behavioral causes. Malnutrition, diarrhea, diseases of the digestive system, measles, and accidents account for a high percentage of health facility visits. Other common diseases include upper respiratory ailments, infections, venereal diseases, meningitis, malaria, hookworm, and various nutritional disorders.

Medical/health services are primarily curative. Less than 7% of the health sector budget is allocated to disease prevention and control. However, the scope of health services is impressive. During the 1972-75 period, about 10% of the population each year were in-patients in a hospital or health center.

B. Food and Nutrition

The health status of any population is to a large extent related to the overall nutritional status and the environmental, water and sanitary conditions of cities, towns, and individual homes. National and regional statistics regarding food consumption, while providing a general comparative picture, must be used with caution since there are often significant inequalities of distribution and consumption within communities and in households. For example, in some areas, adult men have priority during meals and women and children consume what remains after the men have finished.

In 1970-1971, the UNDP and FAO supported a survey project (National Food and Nutrition Programme: Zambia) to identify patterns of food consumption, nutritional status, and related health problems, and to suggest a strategy for a national nutrition program. According to this study, the diet of the average Zambian is heavily dependant on cereal and root staple-maize, millet, cassava, sorghum, and rice. Over 80% of the calorie intake

is from these sources. Consumption of vegetables is at a relatively high level throughout the country but consumption of fruit, eggs, milk, fats, and oils are generally low. In four of seven provinces surveyed fish is a major source of protein and much more important than meat in the local diet.

This survey and later works based on it reflect an overall deficiency of calories of about 20% when compared with the 2,050 figure cited as the daily requirement. In light of unequal food distribution and consumption it has been estimated that over half the population does not consume half the food they require. Severe protein deficiencies were also noted.

Malnutrition clearly remains a significant problem.

Among infants and children up to 4 years of age, the main problem is protein-calorie malnutrition (primarily calories). Marasmus exceeded kwashoirkor, and growth retardation began at 4 to 6 months of age. Anemia was found to have a high prevalence in this age group, due probably to iron deficiency and malaria. Also, anemia is usually associated with parasitic infections such as malaria, hookworm, and bilharzia. In the 5 to 15 year age group, severe PCM is uncommon among those visiting clinics. The fact that it sometimes occurs suggests there is a more general problem of undernutrition. The percentage of underweight children visiting children's clinics was almost 7% in 1974 and 12% in 1975. Among pregnant and lactating women, there is evidence of protein deficiency and anemia.

C. Environmental Health

Poor habitat conditions are considered by most observers to be a contributing factor to poor health status. This generalization is probably more applicable in the urban context where a shortage of housing has increasingly led to multiple-family households and crowded shanty towns which lack basic water, sewerage, and sanitation services. In rural areas, homes are spread out, separate buildings have distinct functions (e.g.

sleeping, cooking, storage), and new units are built easily and inexpensively with local labour and materials.

About half of the 900,000 dwelling units counted in the 1969 census were made of poles, grasses, and mud, while the other half (including 90% of the urban structures) had more permanent walls of sun or kiln dried bricks or concrete blocks. Thatched roofing predominates in rural areas and may contribute to the density of malaria and other communicable disease vectors. Asbestos, corrugated iron, and other modern materials are found mainly in urban settings.

The availability of an adequate supply of uncontaminated water is vital to the health of any population. In 1973, approximately 75% of the urban and 10% of the rural population had access to piped water systems. The estimated number of wells in rural Zambia in 1977 is between 2,500 and 3,000. In addition, there are between 1,400 and 1,700 boreholes in rural areas. The 1974 ILO advisory commission calculated that about 19% of the urban households (about 48,000) and about 44% of the rural households did not meet the minimum required need for an adequate water supply.

The lack of adequate treatment of water from lakes and slow moving streams contributes to the high prevalence of bilharzia and other parasitic infections. Many wells and boreholes need occasional chlorine treatments.

A sixty-three percent of the urban population and 7% of the rural population had no sanitation/sewerage facilities in 1969.

Assuming that a good pit latrine is a minimal standard for sanitation, a 1974 ILO commission calculated that 28,000 urban households and 430,000 rural households did not meet this minimum level. In addition, in view of the large growth rate of urban areas, the government must continue to rapidly expand services just to maintain the current level of sewerage and sanitation facilities.

Rat infestations present another environmental health hazaard that in some densely populated areas in increasing in severity.

D. Occupational Health

The major occupational health issues are those related to work in the mines. The mines run their own hospitals and medical services, and provide relatively thorough coverage and detailed reports. Mine-related accidents and pneumonia are the principle health problems in the mines.

E. Health Delivery Systems

Zambia has made significant progress in increasing the number and kinds of health personnel and in the Zambianization of all but the highest level positions. While the number of health professionals in Zambia has more than doubled in the past 11 years, there is still a large demand for all types of health workers.

Traditional medical beliefs and local healers are major factors influencing the health behavior of Zambian citizens in urban as well as rural areas.

Three of the major health manpower issues are: an overall shortage of trained personnel; a low percentage of Zambians in senior professional and technical posts; and uneven distribution of medical, nursing, and mid-level and front-line workers; and excessive workloads, especially in rural areas, which reduces the role of many health workers to dispensing pills and shots and simple administration, rather than effective diagnosis and treatment.

The key issue, however, is that less than 10% of Zambia's professional, para-professional, and technical manpower are directly involved in public and preventive health activities whereas a review of morbidity statistics reveal that major morbidity causes are related to situations which can be effectively and efficiently dealt with through preventive programs

(e.g. malaria, diarrhea, upper-respiratory infections, measles, malnutrition and gastro-intestinal disorders).

Hospitals, clinics and rural health centers are the major health facilities in Zambia. They are run by the government, the missions, and mines, and there are a few private clinics.

The development of health facilities since independence has emphasized the growth of hospitals. There were 81 hospitals functioning in 1976 primarily in urban and "semi-urban" areas.

The basic health facility in Zambia is the health center and this is the level for which support is most needed. Rural Health Centers provide essential curative and preventive services including MCH, nutrition and immunization clinics. The number of health centers has more than doubled from 1964. By 1975, 670 health centers were operated by the government, the missions and mines. More than two-thirds are located in rural areas.

Hospitals and health centers are located in places where populations are concentrated. However, in view of the fact that the population density in rural areas is about four per square kilometer, the problem of access is obvious and exacerbated by a deficient transportation system. Estimates based on 1972 data, indicate that about 63% of the rural population is covered by existing facilities and that between 200 and 300 additional centers need to be constructed to cover the remaining widely scattered inhabitants.

There are inadequacies of laboratory facilities and a shortage of qualified laboratory personnel.

Almost all medical and surgical supplies are imported as are more than 90% of the pharmaceutical products. There are shortages of essential drugs, especially in smaller facilities. A drug manufacturing plant in Lusaka presently supplies less than one-eigth of the country's drug requirement.

import substitution investments may be useful from an economic as well as a medical viewpoint.

Since 1972, health services have been made available at no cost to the Zambian population and includes facilities and services operated by the MOH, the mines, and the missions. It covers non-citizens as well as Zambians.

From 1965 to 1976 the recurrent expenditure of the MOH was between 6% and 7% of the total government expenditure. The level of per capita expenditure is among the highest in Africa. In addition to the MOH costs, one must take into account the recurrent costs met by the mines and missions. Precise figures are not available but a conservative estimate of the additional mine and mission expenditure would be from 15 to 20 million Kwacha and possibly higher. That would result in a total recurrent cost of between 62 and 67 million Kwacha for health in 1977.

The University Teaching Hospital in Lusaka absorbs 18% of the recurrent budget and more than 20% of the capital expenditures. Together, UTH, the two central hospitals and the three specialist hospitals account for almost 38% of the recurrent budget. Only 41% of the recurrent budget goes to support the remaining provincial and district hospitals, and urban and rural health centers.

In view of the high percentage of morbidity due to causes which fall into the category of preventable diseases, and the high demand on facilities for curative services, the low allocation of funds for disease control and prevention suggests a serious waste of scarce resources.

F. Zambia's Health Plans

1. General Objectives

Health planning in Zambia has been incorporated into three National Development Plans and has dealt with all major areas of health and medical services, training, and research.

Zambia has made excellent progress in developing an effective health service in a relative short period of time. The major shortcoming appears to be the lack of balance in resource allocation between curative and preventive services, and among urban and rural facilities. Preventive programs, manpower and supplies for preventive services are small compared to those allocated for curative services, and increases in services to urban areas have far outpaced those in rural regions.

The overall objectives of the government are to improve and expand health services to cover all areas of the country and to maintain the present policy of providing these services free to all people of Zambia. These objectives are to be met by improving and expanding primary and environmental health services through integrated programs, especially in the rural areas. The specific strategy adopted by the government for the Third National Development Program reflects the goals and policies stated above, but adapts them to financial and manpower constraints.

The preliminary objectives of the TNDP are:

the continued development of an effective and integrated national health care system;

the development of basic health services in rural areas, priority being given to those areas where no such facilities exist;

the attainment of higher levels of Zambianization through expanded training programs, during the TNDP the distribution of workers will be carefully examined;

movement toward complete integration and expansion of curative services;

provision of health protection to an increasing number of mothers, infants, school children and certain vulnerable categories of workers;

decentralization of basic health services;

providing for the nutritional well-being of the population with particular attention to vulnerable groups *

In view of Zambia's overall economic situation, it is unlikely that the MOH will have sufficient funds to both maintain current levels of services and training and expand rural and preventive facilities and programs. The government has, however, set priorities for the completion and implementation of certain types of programs. These are:

Uncompleted projects in the Second National Development Plan (mostly funds to the provinces to complete construction and improvements for hospitals, health centers and training institutions);

Projects which will aid solving Zambia's manpower problems;

Projects that contribute to integrated social and economic development programs in specific localities, and

Projects and programs using low cost technology and maximizing efficiency in the use of all types of resources.

2. Co-ordination of MOH Policy and Programs with Other Agencies (Public and Private)

More effective use of existing resources can be achieved through administrative changes and more effective planning and co-operation between the Ministry of Health and other development agencies in the public and private sector. The TNDP calls for such co-operation between the MOH and church missions, mines, community action programs, school health services and industry.

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* Children under 14 years of age, women of child-bearing age.

3. Preventive Health and Nutrition Services

A number of shifts of emphasis could pay large dividends in the effectiveness of GOZ health expenditures. Increased emphasis on health education at the community level; environmental sanitation and hygiene; improved housing; expanded immunization programs, stricter surveillance and guarantive measures; regulations for more effective quality control of food and drugs; and more effective enforecement of regulations. Other useful changes would include:

adding nutrition education to all health training programs;

in-service, nutrition training to all para-medical staff and district public health officers;

the employment of public health nutritionists and dieticians;

measures to protect against blindness caused by vitamin A deficiency, and

other food supplements directed primarily to children and pregnant and lactating mothers.

4. Hospitals and Health Centers

The TNDP calls for an expenditure of almost 13 million Kwacha to complete capital projects begun during the Second National Development Plan period and improving and consolidating existing structures and the construction of new district hospitals and rural health centers. Over 10 million Kwacha will go to the provinces for hospitals and training facilities. The largest share will go to the provinces for hospitals and rural health centers. The patient capacity of hospitals and health centers is expected to increase from 19,800 in 1977 to 21,-60 in 1983 -- a 9.9% increase.

5. Transportation

A major problem which cross-cuts many sectors, including health, is the lack of transportation. Adequate transportation impacts on the health problem in the following respect:

insufficient numbers of vehicles especially at the provincial and district levels;

the lack of spare parts (complicated by the many different manufacturers of vehicles);

the lack of trained vehicles mechanics;

the centralization of vehicle repair services in the ministry of works; and

the extraordinary long periods of time taken to repair vehicles (from several weeks to more than two years).

Adequate transportation is essential for health supervision at all levels; referals of emergency and seriously ill patients to hospitals; supply of drugs and other medical stores; administrative co-ordination and interagency co-operation. Even without any other changes in the health system, improving the transport capabilities of medical and health officers would contribute significantly to more effective services.

6. Training and Research

The government will explore research possiblities in areas related to traditional medical beliefs, practices, and the role of healers in order to determine the most effective way of incorporating the positive aspects of traditional health services.

Research on parasitic diseases (malaria, trypanosomiasis, schistosomiasis, filariasis), leprosy and cancer will be carried out in collaboration

with WHO and other international organizations. A major Tropical Disease Research and Training Center will operate out of Ndola and will serve as a resource for all of Africa.

Training of medical, nursing, and para-medical personnel in Zambia and abroad will continue to receive priority. The goal is Zambianization of training for nurses and para-medical workers. For most categories of health workers, Zambia will continue to have a health manpower shortage even if the TNDP goals are met.

In addition to the physicians, dentists, and pharmacists which Zambia will continue to recruit from outside the country, other categories of health workers will remain in short supply. Senior level nurses trained as educators, public health specialists, administrators, and additional registered nurses will be needed. There will also be a serious lack of an adequate number of medical assistants, health assistants, lab and x-ray assistants, and short-falls in other categories.

H. Recommendations

The major issue in the health sector is the relative allocation of resources between curative service that requires fully training physicians and specialists and preventive/environmental primary care services using medical assistants and nurse midwives. To date, those favouring hospital-based, physician services have been relatively favoured. The Third National Development Plan is oriented toward expanding preventive approaches and community based primary care. This shift in balance should be encouraged.

In view of the anticipated fiscal situation, it would be unrealistic to encourage too much expansion before facilities in operation or under construction are more adequately staffed and supplied. Thus assistance should be directed towards maximizing the effectiveness of current facilities and staff. There are many areas for possible donor aid including:

-- health and planning and administration;

-- health statistics;

-- training of health personnel;

-- transportation;

-- pharmaceutical supplies and medical equipment;

-- preventive/environmental health;

-- co-operation with traditional health practitioners;

-- integration of health programs with other development activities; and

-- health education.

New program development in the health sector should focus on support rather than further institution building. Given the existance of a basic institutional structure in health, an impressive GRZ record of development of the sector, and numerous sources of technical assistance, in the short-run (1978-79), external donors might focus attention on improving the utilization of existing staff and facilities. This can be accomplished by provision of assistance such as vehicles, spare parts and other support facilities, pharmaceutical supplies and medical equipment. Technical assistance to support utilization activities should also be provided.

In the medium-term (1980-85), as the GRZ enters a program of rural area development, assistance in the health sector might be offered as an element of area projects or in specific instutional development activities suggested above.

In the longer-run (1986-90), assuming that linkages between the existing structure and rural area programs are developed, health care might be expanded to include a nationwide program of preventative and curative care.

3. Human Resouces Development Sector

British authorities neglected education in Northern Rhodesia. At independence, only one percent of the population had finished primary school, 1,200 people had secondary school certificates and 100 were university graduates. There were in government services only four Zambians in professional jobs and 25 Zambians in higher administrative positions. Thus, Zambia had both to cope with a very low base of educational development and a rapidly expanding demand for higher level personnel as the economy and the responsibilities of the government grew.

Zambia has had to rely heavily on expatriates to fill professional, managerial and technical posts. But it has also taken great strides in developing the human resources of the country.

Zambia has given high priority to education to develop its labor force and reduce dependence on foreigners. From 1965 to 1975, the GRZ committed 16.5% of recurrent and 10.6% of capital expenditures to public education. This amounted to 5.1% of GNP during te period - two-thirds more than the average of all countries in the $251-$750 per capita GNP range.[1/] The results have been impressive. In 1976 there were 950,000 students enrolled in primary schools, 78,000 in secondary schools, and 3,000 in teacher training program. The University of Zambia has produced more than 1,000 graduates and has an enrollment of about 3,000.

1/ World Bank, Education - Sector Working Paper (December, 1974)

Only as the education system provides wider training opportunities and more Zambians become available for positions requiring higher levels of training, can the process of Zamianization, a key aspect of GRZ social policy proceed.

Expatriates continue to dominate highly skilled posts including 65% of professional and technical posts in government and 80% in the private sector. The progress of Zambianization has been especially slow in mining.

While Zambia has made remarkable progress since independence in human resources development, a recent World Bank study notes several problems yet to be resolved:

1. some inequality in access to educational opportunities;
2. difficulties in designing and implementing a curriculum appropriate to Zambian needs;
3. the quantity and quality of teachers; and
4. the lack of employment opportunities for school leavers at some levels of education.[1/]

Human resources requirements forecast for 1974-1984 project an increase in formal sector employment of some 150,000 jobs. To fill new jobs and to replace departed expatriates and other personnel losses in additional manpower requirements through 1984 are estimated to be:

Professional and technical	38,200
Administration and managerial	27,400

1/ "Zambia. A basic Economic Report", October 3, 1977, p. 120.

Clerical and related	26,300
Sales	9,500
Service	57,800
Production and related	100,450
	259,650 1/

Education system output projections show a balance with demand at higher skilled levels but a large oversupply at lower skill levels. Over 1,250,000 school leavers will compete for 200,000 formal sector jobs. This suggests a very serious problem which can best be addressed through expanding employment in the small industry - informal and rural development sectors.

Educational Reform

Zambia has undertaken a borad-ranging review of educational programs with a view toward preparing the student population more effectively for self-reliance and national development The review was based on guidelines provided by UNIP entitled "National Educational Policies for the Decade 1974-84" which, in part, stated:

" Education is the basis of national development to which every individual should have a right. It is crucial to the development of the individual and is an invaluable social investment which guarantees the expansion of society's productive capacity through provision of scientific technological and technical skills; it is also an essential precondition for a viable demoncratic system. Over

1/ World Bank staff estimates.

the last decade tremendous achievements, which will provide a strong base for even greater performance, have been made. To this end, the Party will therefore:

> (1) expand and improve the whole system of learning to provide full education for every Zambian...
>
> (2) restructure the system of education and provide for a compulsory basic ten years of education leading to the Junior School Certificate....

The major themes of the reform such as "education for development", and its implications for combining study and work at various educational levels have been elaborated in principle. The Third National Development Plan will define an investment program to carry out the reform which is expected to take a decade to implement. However, serious constraints are presented by shortages of teachers and financing.

Strategy

The World Bank in a recent study concluded that the following priorities exist for human resources development in Zambia:

> "(a) expansion and improvement of professional, technical and administrative training for both the high and middle levels with emphasis on preparation for science-based occupations and for jobs in commerce and agriculture; and
>
> (b) recorientation of primary and junior secondary education to prepare school leavers for a productive life on the land as a part of a well-conceived

development program." 1/

The development of a program of international assistance in this area awaits the definitive statement of plans by the GRZ in the TNDP. Programs of education and training are obiously of great importance to the development of the country and warrent priority support.

Given the continuing need for expatriate assistance in staffing key positions in the GRZ, it is assumed that donors will continue and, as necessary, expand their support activities in this area.

Agricultural manpower and training will be of particular importance. Agricultural manpower targets at both the professional and technical levels in the first two national development plans were not met. Given the renewed emphasis on agriculture and rural development in the TNDP, attention must be addressed to developing and upgrading agricultural, technical and professional personnel. Among the activities which would be desirable are:

A. Improving in-service training programs in agriculture related institutions;

B. Improving formal agricultural education through:

1. Improving teacher training capabilities;

2. Curriculum revision to focus more attention on practical, agriculture courses and communication

1/ Zambia Basic Economic Report, Annex 3.

and teaching skills;

3. Upgrading facilities at National Resource Development College and Zambia College of Agriculture;
4. Introduction of graduate training opportunities for Zambians.
5. Introduction of agriculture related courses at the business school at Ndola and related assistance;

C. Improve coordination of agriculture education and training within the government and between donors to assure optimal use of financial and human resources;

D. Increase the number of women employed in agriculture institutions and assure the relevance of training provided at all levels to women on the farm.

Human resources development is a crucial constraint in all sectors. Training should be included wherever feasible in all development projects. Coordination of donor activities in education and human resources should be effected in order to assure that the most effective use is made of external resources and that the potential of individual Zambians is fully utilized.

The educational reform will present donors with a wide range of opportunities for assistance. This field may be especially attractive for donors whose policies or resources do not permit operations which can impact on the economy in the short run.

4. Manufacturing and Small Business

a. Intoduction

Zambia's manufacturing sector performed relatively well over the 10-year period 1964-74 but since then, reflecting the fortunes of the mining sector, production has fallen in most industries. Manufacturing now accounts for 18% of GDP at current prices. Industry is concentrated largely in the Copperbelt and, increasingly, in the Lusaka and Livingstone areas.

The development of large-scale industry in Zambia has taken place almost entirely under the auspices of the Government-owned Industrial Development Cooperation of Zambia (INDECO). INDECO's main task is to organize and manage State investments either as wholly-owned subsidiaries or as companies established on a joint-venture basis, with majority equity held by the Zambian Government.

Development of small-scale industry has not been directly encouraged until recently. Nonetheless, small business is an economically significant sector involving thousands of enterprises and employing probably 200,000 people. GRZ policy has recently moved toward a more supportive approach to small private enterprise. This policy shift points the way to significant opportunities to assist development of the institutional structure and manpower base supporting small-scale enterprises, especially those located in rural areas and providing crucial linkages in the agricultural production-processing-marketing chain.

b. Current Problems

Recently, the manufacturing sector in Zambia has been in a depressed state. There are a number of reasons for this condition, both short-term, and hopefully, transitory, as well as long-term and structural.

A short-term but severe problem is the lack of foreign exchange. The manufacturing sector has been hit hard by the foreign exchange crisis because Zambia's manufacturing is highly import-intensive. Severe restrictions on the issue of import licenses and the deferred payment of foreign suppliers cause foreign exporters to lose interest in exporting to Zambia. As a result, it has been extremely difficult for Zambian manufacturers to obtain the necessary inputs to keep industry producing near capacity. Low utilization of existing capacity has severely hindered further development of Zambia's manufacturing sector and has added to the already high rate of unemployment.

The foreign exchange shortage has hit the private sector particularly hard. Industries such as food, beverages tobacco, textiles and clothing, wood and wood products, and machinery and equipment are predominantly private sector activities. These industries have experienced a particularly serious decline in output and employment. The average annual growth rate for food, beverages and tobacco, for example, fell from 15.7 percent between 1975 and 1970 to 0.8 percent between 1970 and 1976, and the average growth rate for textiles fell from 17 percent to 8.8 percent for

the same years. As the private sector tends to be relatively more labor-intensive than the parastatal sector, slow growth in private sector manufacturing has especially serious implications for the level of employment.

The manufacturing sector faces other problems of a chronic if less severe nature.

(1) Lack of Skilled Manpower

Zambia's manufacturing sector is constrained by a shortage of entrepreneurship and skilled technical and managerial manpower. In spite of the relatively high degree of investment in education since independence, Zambia has failed to provide the number of quality of trained upper-level manpower needed to staff modern industry. University education has expanded considerably since independence and the number of Zambians educated has consequently been substantially increased. But the needs remain great, especially if the Zambianization program is to move forward.

(2) High Cost of Production

Zambia's manufacturing has been constrained by the high cost of production and the high cost of finished products. The rate of inflation in Zambia exceeds that in most of the neighboring countries, which make Zambia's manufactured exports uncompetitive. In addition, Zambia's manufacturing has been designed primarily to satisfy the domestic market, which confines the level of demand to a total population of about five million and thus reduces the ability of the economy to take advantage of economies of scale.

To aggravate the cost problem, Zambia's manufacturing sector is highly dependent on imported raw materials and intermediate inputs, the cost of which has rapidly increased because of high transport costs and transport difficulties price increases in the world market in general, relatively high modern sector wages, and because of the difficulties in obtaining supplies due to Zambia's foreign exchange problems.

(3) Lack of Development of Natural Resource Linked Activities

Zambia has an enviable resource base not only in minerals but in agriculture. Apart from copper, however, mineral deposits of lead, gold, iron ore, zinc and other minerals have not been vigorously exploited by the GRZ. The agricultural potential of the country similarly has not been fully developed. Industries linked to these resources (such as agro-business and mineral related enterprises) have not emerged. Resource development and manufacturing are inter-dependent. The low level of development in the resource sectors has doubtless constrained growth of the manufacturing sector. Conversely, manufacturing in the past has not paid sufficient attention to utilization of indigenous raw materials.

(4) Structure of Industrial Plant

Zambia's industrial investment has proven to be inappropriate for the country's factor endowment. Excessively capital-intensive production methods have not only created less employement

than needed but have often left the country with a continuing need for imported raw materials, spare parts, intermediate goods, and technical support, which require now scarce foreign exchange. High-cost, low value-added assembly operations, excess capacity, and concentration of manufacturing activity in a few areas result in a low payoff from a large capital investment in manufacturing.

(5) Climate for Investment

The GRZ has at various times displayed a negative attitude toward both foreign investors and private domestic entrepreneurs. This attitude is perhaps an outgrowth of both Zambia's experience with colonialism and the philosophy of Humanism, which reflects the fear that an elitist class will arise as a result of successful local busniess ventures. Actually, Zambia has put less of its industrial sector under state control than many other developing countries. Nevertheless, the articulation of Zambia's economic philosophy has contributed to an atmosphere of uncertainty concerning investment policy. These political issues, combined with uncertainties over the country's economy, have doubtless dissuaded much needed foreign investment.

c. New Industrial Policy

Unsatisfactory performance in the industrial sector has led the GRZ to re-examine its policy. The Industrial Development Act of 1977 and the forthcoming Third National Development Plan will effect a significant shift in the GRZ approach in the sector. The

following paragraphs are quoted from a recent official GRZ statement[1/] on these new policies:

"In conjunction with rural development, the manufacturing sector is to be developed as a major vehicle for diversifying the economy and generating growth. The following will be the main basis of the strategy for the sector:

(i) to develop industries using local raw materials, both for import substitution and export;

(ii) to develop more labor-intensive techniques; and

(iii) to foster the growth of small-scale and village industries.

"(a) Industrial incentives

The Industrial Development Act, 1977, provides incentives for priority industries according to the following criteria:

(i) maximum utilization of domestic raw materials;

(ii) production of intermediate goods which are used by other industries;

(iii) diversification of the industrial structure;

(iv) creation of substantial opportunities for permanent employment;

1/ "The Current Economic Crises: Government Response and Approval to the Third Plan." 1978

(v) improvement of domestic industrial skills and fostering the development of domestic technology;

(vi) promoting industrial development in rural areas.

"Specific incentives are provided for exporting enterprises, for providing training facilities for Zambian citizens, and for research and development. Other specific incentives are for enterprises utilizing foreign investment. These incentives inlcude income tax relief, customs rebates, and preferential treatment for import licensing and purchasing agreements. It is appreciated that some of these provisions, for example, rebates on imported capital goods and raw materials, may run counter to our stated objectives for the sector. Therefore, the Plan calls for a review of the pattern of tariffs structure and various tax incentives to ensure smooth implementation of the policy objectives of labour-intensive production based on local raw materials.

"(b) Choice of technology with a bias towards labour-intensive techniques

The Industrial Development Act, 1977, provides under its Part III specific provisions for the registration of technology and expertise agreements. Each application for a manufacturing license must contain a description of the technology to be employed. The Plan's preference for small and medium-scale projects is biased towards labour-intensive techniques.

"(c) Import substitution and export promotion

The policy basis here is the maximum utilization of local raw materials. In line with this policy, several initiatives

have been taken (in such industries as sugar, alcohol, maize milling, vegetable oil, timer, products, semi-manufacture of copper and its alloys, stockfeeds, fertilizer, agricultural implements, and small industry development).

It is, of course, difficult to comment on the GRZ's new policies for the manufacturing sector until they are promulgated officially and in detail. Clearly, Zambia is interested in adjusting its policies to improve the investment climate. Some areas in which it is hoped that the new policy will provide sufficient reorientation are the following:

- a clearer stand on the government's intentions to encourage foreign private investment
- implementation of measures to make its state-controlled industries more efficient;
- measures to stimulate an increase in agricultural outputs and exports to provide alternative sources of foreign exchange and reduce dependence on copper;
- measures to achieve the fullest utilization of existing capacity. Manufacturing subsector priorities must be set and import licenses and foreign exchange for raw materials, intermediate goods, and spare parts allocated so as to assure priority areas of continuous supply of resources;
- encouragement of labour-intensive industry that utilizes domestic raw materials;

- encouragement of intermediate goods industry to replace imports and increase sectoral linkages;
- incentives to attract foreign capital;
- institutional development to provide both financial and technical aid to support small and medium-scale industry, both in the urban and rural areas;
- development of training institutions to meet the requirements for managerial and technical skills in the sector; and
- a capacity to carry out feasibility and other planning and implementation studies to assist decision making and promotion.

d. Small Business Sector

Small businesses could play a much greater role in the development of the Zambian economy. The possibilities are extensive: Zambia has a relatively developed economy favored by a sizeable market, high disposable incomes among both Zambians and a large landlocked geographic position, and a favorable agricultural resource base. Small business development in agricultural services, distribution and processing as well as in many consumer items would spur the national economy by making available vital consumer products and reducing the high import bill for these products. Small businesses would generate employment opportunities and increase income.

The potential of the small business sector for development in Zambia has begun to be recognized by the GRZ and the donor

community. While data is scanty and unreliable, especially from rural areas, it is apparent that:

- a very significant small business sector exists;
- it generates a great deal of employment (around 100,000 jobs in 1969; perhaps 175,000 by 1974);
- it is expanding rapidly (8-12% annually);
- worker income is low (typically 60% below formal sector wages);
- investment cost per job is far below the formal sector;
- small enterprises are a valuable complement to large-scale operations in areas such as manufactured goods used in construction, household goods, clothing and services; and
- the informal sector could produce many items now imported.

The constraints to small business development in Zambia are numerous, however. Potential entrepreneurs are unsure of the stability of the investment environment. Price and licensing policies are especially burdensome.

Stagnation in the agricultural sector, attributable to past pricing and subsidies policies, constitutes a particularly important constraint for small business development. Often locally available products such as meat, milk, vegetables, etc. cannot be profitably produced under existing price structures. Modifications of these policies would open important possibilities in agro-industry.

The geographic position of Zambia, while protective of local industries, constitutes a constraint in their establishment. One advisor estimated a time lag of three years between investment and actual production owing to slow procurement. Political reprecussions on Zambia's transportation routes (sanctions on Rhodesia, the Zaire-Angola conflicts, the disruption of ports in Mozambique, delays at the port at Dar es Salaam and the closing of the Kenya-Tanzania border) have had serious effects on the entire Zambian economy.[1/]

The current limited availability of foreign exchange also constitutes a major constraint on small as well as large businesses.

The multiplicity and lack of coordination of institutions and activities supporting small business is a further constraint. These programs are costly in terms of financial and human resources. Many programs, both current and proposed, could be overlapping or competitive.

A number of activities are being undertaken to improve conditions for small business:

1/ Teams from the IBRD and UNCTAD are formulating emergency projects to attempt to rectify the current problems in Dar es Salaam port and in Tazara operations. A Chinese team may also be assisting on the latter.

The Rural and Commercial Industries, Ltd. (RUCOM), a subsidiary of INDECO, is in charge of fostering Small Scale Enterprises (SSE) and commercial ventures in rural areas. (There is no promotional organization for SSE in urban areas.) RUCOM's aim is to provide capital assistance, technical know-how, and management experience to rural entrepreneurs.

To improve its future operations, RUCOM is undergoing reorganization. To achieve this, RUCOM will identify operations which are economically unprofitable even in a healthy economy and close them. Efforts will seek to identify profitable units to develop. In addition, RUCOM will provide more advisory services, carry out project feasibility studies, and provide more training in accounting, technological design, and marketing.

The Rural Development Corporation (RDC) Ltd., is responsible to the Ministry of Rural Development. As of April 1975 the RDC had 10 subsidiary companies with 67% to 100% RDC control. These companies engaged in livestock/dairy, mixed farming, aerial spraying, agricultural equipment, pork processing, agricultural credit. Agricultural credit is still channeled through the Agricultural Finance Company, which finances agro-industries as well as agricultural production.

Two other institutions are in the planning stages. A Small-Scale Industries Corporation is expected to be established for the promotion of small industries under the aegis of the Ministry of Mines and Industry. Credit and feasibility studies are planned

as services of the SSIC. It is not known when the SSIC will be established with what source of financing and with what precise mandate.

A Village Industries Services Organization is also being developed. This organization will be based on the Indian system of promoting cottage industries in the areas of milling, oil extraction, methane gas from animal waste, natural fertilizer, sugar, honey, pottery, silk, furniture, wood carving, matches, soap, paper, leather and tanning, lime, cotting fabrics and copperware.

Small businesses receive what limited financing they can obtain from the Zambia Commercial Bank and from private banks. Barclay's Bank has been operating the ZamDev Loan Scheme to provide K500 to 10,000 to small businesses without security. Only 5% of borrowers were behind in their repayments, according to a recent World Bank report. The major constraint on further lending appears to be the paucity of suitable borrowers who can keep accounts and demonstrate their credit worthiness. A business extension service would help alleviate this constraint.

The paucity of business skills in the business sector is widely recongized to constitute a primary constraint. Parastatal and private firms are encouraged to train their personnel, and receive tax deductions for doing so. There also exist technical college and university courses in business management. Nonetheless,

over 30% of managerial positions are held by non-Zambians.

In response to the skill problem, the GRZ requested the ILO to establish a Management Development and Advisory Service (MDAS) attached to the Office of the Prime Minister. The long range goal of the MDAS is to develop effective Zambian managers and organizations capable of achieving Zambia's economic and social goals, with main emphasis on the parastatal sector.

The Norway and Canada Rural Development Fund in the Zambia Development Bank are active in the small business sector. The World Bank has recently completed a preliminary study of the agro-business sector, which outlines numerous profitable opportunities for agro-industry investment.1/ Indian assistance in the establishment of small industrial estates may also be forthcoming in the near future.

Finally, it appears that the small commercial sector has received almost no support. Commerce and particularly the private informal sector is vital to rural and urban economies as cash becomes more available and as the rural sector becomes more dynamic. The problems of management, credit, inventory, etc. for small commercial enterprises are similar to those of small industrial or service enterprises.

A strategy to deal with these problems and opportunities must involve both policy and specific project interventions.

1/ Zambia Agri-Industrial Development, June 1978.

e. Sector Strategy

There are vast opportunities for development in the industrial sector. Some major questions of industrial policy have been addressed by the GRZ. It seems desirable to undertake a comprehensive study of development opportunities in the small business sector, perhaps as a follow-on to an AID-financed Arthur D. Little report recently completed. The study should examine questions such as employment possibilities, import substitution and export opportunities and linkages for Zambian resource development across the entire range of small business sector.

The study should deal not only with small industry in rural and urban areas but also construction and construction materials; small mining and quarrying; commerce of all types and possibilities for moving selected activities from parastatals to the private sector. The study should also examine the possibility of developing an objective methodology for selection of import substitution investments as some inappropriate import substitution projects have been noted in the recent past.

Once the prospects for industrial sector expansion are clear, donor assistance can be directed toward technical assistance and financial support with greater confidence. In this connection, the growth of regional markets can be of significant importance.

There are very real technical and political problems associated with defining the role of the private and public sector

in Zambian industrialization. There can be no question, however, that any strategy for industry is tightly constrained by the availability of skilled personnel in all categories. Major efforts in this area will be required for the foreseeable future.

Another long-term strategic problem will be the selection, acquisition and utilization of industrial technologies suitable for Zamiba's resources endowment.

f. Assistance in Zambian Manufacturing Sector Development

Development of basic policy in the industrial sector is a subject subsumed under continuing negotiations between GRZ, IMF and World Bank. Other donors might encourage private sector investments in Zambia with emphasis on:

(1) employment creation possibilities of small industry; and

(2) agro-business development.

In the short term (1978-79), the small industry sector assessment discussed above should be undertaken from which a broader strategy of small industrial development might emerge. Based on this analysis, consideration should be given for medium term implementation of a multi-donor program in rural industry components of rural area projects should be given high priority once policy and incentive issues for local small-scale industry have been finalized.

In the longer run (1986-90) a continuation of such area based small industry efforts focused on employment creation

and agro-business development might be considered as components of an overall rural development program along with promotion of intermediate credit institution facilities.

5. Mining Sector

Mining activities account for 20-25 percent of GDP and consist mainly of copper mining and smelting, with zinc, lead and cobalt as by-products. Copper production reached 715,000 tons in 1976, down from the peak level of 748,000 mined in 1969 and considerably less than the target of 900,000 tons established in the Second National Development Plan.

Zambia's share of world copper production dropped from 12% in 1965 to 9% in 1976. Various factors are responsible for the decline. The most important have been rising costs of production in relation to copper price development (which have prevented the inauguration of capital projects), the shortage of skilled labour in the mines, and increasing difficulties in mining the ore. As much as 70% of the copper in Zambia is mined from underground deposits, a high proportion in comparison with other copper-producing countries.

The vast majority of Zambia's copper deposits are found in an area 75 miles long by 35 miles wide in the north central part of the country along the southern border of Zaire's Shaba Province. Commonly referred to as the Copperbelt, the area contains the majority of the country's business and industrial enterprises. Proven reserves total 860 million short tons -- nearly a quarter of the Free World total -- with a copper content of 3.06% or 26 million tons of contained copper.

Copper has been mined in Zambia for nearly 50 years. The mines employ over 50,000 Zambian and about 4,000 foreign workers (of whom in 1975 about one-third had been working in Zambia for more than 5 years and about 15% for more than 10 years).

Ore is produced from both underground mines (70%) and open pits (30%) and fully processed into the sales products (refined cathodes, refined wirebars, blister and residues) at the mines. About $200 million needs to be spent each year to maintain and perhaps slightly expand existing capacity. However, the low copper prices and the adverse effect of the

transport delays on the mining companies' cash flow have caused cuts and postponements in capital expenditures which will affect production capacities.

The need to mine ore at deeper levels underground, to mine lower grade ores, to hold higher inventories, and the lower productivity of labour (due partly to overmanning and partly to greater turnover of expatriate labour with a consequent decline in the average level of experience) has led to higher cost of production. It has been estimated that real unit production costs have risen at an average annual rate of 2.7% since 1970.

Transport difficulties have been a constraint for Zambia's copper industry. After the closure of the Rhodesia border in 1973 the capacity of the road route through Tanzania was limited by weight limitations on trucks to prevent break-up of the road. Then in 1975 the Benguela Railway was closed to Zambian copper, which negated a large part of the advantage of the opening of the TAZARA Rail Route to Dar es Salaam. Congestion at Dar es Salaam in mid-June 1978 was so bad that the amount of copper in transit between the Copperbelt and Dar was 76,000 tons larger than normal. The value of this is about $100 million, and is a measure of the magnitude of the effect of transport problems on Zambia's economy.

Zambia's Second National Development Plan had a target of 900,000 tons of copper production by 1978. It was an unrealistic target, since it assumed no current production problems nor any technical difficulties with expansion programs. In fact, there were technical difficulties which, added to the financial stringencies, have limited output to virtually the same level throughout the Plan period. The investment climate has also been severely hurt by the delays in overseas payments caused by shortage of foreign exchange. Thus, expansion of Zambia's copper mining capacity is dependent upon the general economics and financial difficulties (caused mainly by low copper prices) being overcome.

The copper industry produces a significant amount of cobalt as a by-product, and the recent substantial price increase in this metal have

stimulated plans to recover much more in the near future. Lead and zinc are refined at the mine site at Kabwe and small amounts of silver are recovered from that operation.

Zambia also produces a significant quantity of coal (753,000 metric tons) for local consumption. Other important minerals include limestone and widespread manganese deposits, of which at present there is only small-scale production.

The Metal Marketing Corporation of Zambia Limited (MEMACO), was established in 1973 as the sole marketing agent for all metals produced in Zambia.

The Government Geological Survey Department is responsible not only for the basic resource survey and mapping work in the country, but the evaluation, up to the exploitation stage, for industrial minerals and also, because of its strategic importance, of uranium. The rest of the minerals, once they have deposits targeted by the Geological Survey, are evaluated by MINDEX, the exploration company of MINDECO. This is the mining sector parastatal body, but it is no longer responsible for the government interest in the two copper mining groups.

After evaluation by MINDEX commercially promising prospects are offered to private mining companies to exploit, usually as a joint venture with the Zambian Government, although, this is not mandatory.

The Geological Survey Department has been systematically extending the coverage of the geological mapping of the country, but the department still has 95% expatriate staff at the professional level, mainly because Zambian geologists, when qualified, are more attracted to the mining groups and MINDEX, which pay higher salaries than government. Some of the foreign staff have been with the department for 15 years and thus have an extremely good knowledge of the Zambian mineral prospects.

There are several worthwhile industrial mineral deposits in Zambia which could support viable projects for import substitution and possible export to neighbouring countries. There are deposits of structural clay for bricks and ball clay and china clay for ceramics. Flourspar and feldspar are mined in small quantities. There is good potential for talc, limestone, gypsum and phosphates.

Recommendations

In mining, as in all other sectors, the greatest need is for training. Filling key positions with expatriates until Zambians can be trained will be a continuing requirement.

The GRZ and the donor community could encourage private industry to take a more active interest in new mineral activities. One effective approach would be assistance to improve the efficiency of the transport sector. It may also be useful for donors to provide technical and financial assistance to the minerals exploration agency. Better developed prospects can lower the geological risk of private exploitation and thus encourage companies to run other risks associated with mining in Zambia.

Opportunities for small mining ventures may hold promise for expansion of the mining sector. In this connection, labour intensive technologies may create employment opportunities without an excessive loss of productivity. Small deposits of various minerals might provide raw materials for construction materials and other small business ventures. This may be a useful area for specialized donor assistance.

On regional level, combining Zambian phosphate with urea production in Namibia and or Mocambique may hold important possibility for fertilizer development and reducing import costs for fertilizers.

6. Transportation Sector

a. Introduction

Zambia's transport sector poses a very serious constraint to the functioning of the economy. International transport is currently in a state of crises. Domestic transport, blessed with an enviable road and rail infrastructure endowment, is rapidly deteriorating because of problems with maintenance of facilities, vehicles and rolling stock, trained personnel and institutional capacity.

Zambia's landlocked geographic location, the dominant role of copper exports, and heavy reliance on a variety of imports makes adequate transportation routes essential to the survival of the economy. The dependence upon transportation links with non-African markets together with the political uncertainties on a number of its borders resulted in placing a high priority on transportation infrastructure in Zambian development plans.

b. Railroads

Zambian railways were developed in order to exploit the copper deposits. The transport network was tied to mineral development. Subsequent development and population growth concentrated along the north-south line of rail.

At independence in 1964, Zambia received a colonial legacy of a reasonably well developed primary transport infrastructure. The unilateral declaration of independence by Rhodesia, however, and the subsequent separation of the old Northern (Zambia) and Southern Rhodesia transport and rail systems (1967) resulted in most of the rolling stock falling under the control of Rhodesia. Zambia was required to rebuild her transport capacity. Subsequently, the closing of the Rhodesian border in 1973 eliminated traditional routes to the sea upon which passed more than 50% of Zambia's external trade. Another important rail link through Zaire and Angola was cut off in 1975. Much of Zambia's transportation infrastructure development

effort has been in response to these adverse developments.

Until the re-opening of the Rhodesia corridor in October, Zambia's lifeline to the sea was essentially through Tanzania. Other routes were only of marginal significance. It was thought that the opening of the Tanzania-Zambia Railway (TAZARA) would relieve the problems caused by loss of access through Rhodesia. But Tanzania corridor transport proved to be so inefficient as to cause major disruptions in Zambia's international trade. Reopening the Rhodesia border was finally compelled by the threat of catastrophic food shortages if fertilizers were not imported in time.

Notwithstanding the reopening of the Rhodesia border, improvement in the efficiency of TAZARA and the port operations in Dar es Salaam are important for Zambia's future. A program should be implemented to speed up the flow of goods along the TanZam corridor. A program should provide additional trucking capacity, including new trucks, improvements in the supply of spare parts and the availability of maintenance personnel to keep the trucks operational, and additional emergency road maintenance expenditures to improve the road link on sections where it has deteriorated. The program also should improve TAZARA's performance in the short term by using technical assistance to improve maintenance of locomotives and equipment, by acquiring spare parts and additional mechanical handling equipment to improve loading and unloading, and by improving the scheduling of TAZARA's operations to minimize turn-around times and effect a higher utilization of available rolling stock.

For the longer-term, improvements must be made in the existing system and new investments made to develop Zambia's access to the regional transportation system.

Possibilities for development of new linkages to the transport systems of neighbouring countries both by rail and road are under consideration. An effective regional integration of transport facilities would have the greatest importance to all countries in Southern Africa. Among the rail and road linking projects which are being considered are the following:

(a) Katete-Tete to link to the port of Beira in Mocambique

(b) Through Kalabo to Namibia and Walvis Bay

(c) Through Mwinilonga to Benguela Railroad and Angola

(d) Bridge at Kazanguela to Botswana

(e) Link Malawi rail system to TAZARA giving Zambia access to port at Nacola.

Successful efforts to remedy the transport problem will require a co-ordinated approach by all the relevant parties. Physical improvements obtained from new investments will not solve the transport problem on a lasting basis, unless accompanied by efficient logistical planning for the system as a whole.

(c) Roads

Zambia's primary road network is one of the most highly developed in Africa in terms of quality, density per square mile and density per inhabitant. There are about 36,000 kms. of improved roads maintained by the Roads Department and some 16,000 kms. of unclassified earth roads maintained by rural councils with funds allocated by the Ministry of Local Government.

The major road route is an 885 km. link from Tunduma in the north-east to Livingstone in the south-east. Major trunk routes include: the Great North Road (810 kms) to Tanzania; the Great East Road (585 kms) to Malawi; and branches toward Angola to Mongu (585 kms) and to Solwezi (180 kms). A road also has been constructed parallel to the Namibian border and connects Livingstone and Sesheke. There are a few roads in the western half of the country. Links with Namibia and Angola cannot support heavy traffic and are sometimes impassable.

Responsibility for highway construction falls to the Department of Roads of the Ministry of Public Works, formerly constituted with the Ministry of Power and Transport as the Ministry of Power, Transport and Works. The department is manned at only 50% of projected staff needs. The planning function of the department is seriously deficient and design responsibility can only be handled for Class III roads.

Although the road system was regarded as in generally good repair in the early 1970's, maintenance has become an increasing problem. The 1977/78 rains left 45% of the road system in need of repair. This is a substantially higher percentage than normal and is regarded by the government as reflective of combined weather and maintenance deterioration.

Included among the reasons for substandard road maintenance are:

-- a shortage of vehicles for the transport of labour to work sites;

-- a shortage of heavy road equipment;

-- a low availability rate on equipment; estimated at 20% to 35% due to

  --- shortage of spare parts

  --- inadequate servicing

  --- scarcity of lubricating oils;

-- a high cost of fuel

In conjunction with the Third Highway Project financed by the IBRD, a special road maintenance project is planned. This project involves:

-- the rehabilitation of the entire Zambian road network;

-- the provision of technical assistance personnel, including advisors and mechanics.

The National Transport Corporation (NTC) a parastatal, operates half the vehicles engaged in public transport of freight. These vehicles represent the larger vehicles in the fleet, resulting in the direct control by NTC of the majority of total transport carrier capacity.

NTC suffers from the absence of management training, poor organization, low level of manpower qualifications, a scarcity of spare parts, inadequate maintenance, and poor driving habits. Assistance in this field would be useful.

A major effort in rural roads construction will be required as part of the agricultural diversification program. Rural roads should be developed in the context of area development schemes to assure the most effective resource utilization in road investment, employment effects and road maintenance arrangements. In this connection, the capacity of provincial government to maintain roads will be an important factor in longer-term rural development efforts.

Improvement of the road across the Pedicule should be considered as it would open the urban centers of the Copperbelt to Luapula and Northern Provinces.

(d) Strategy Recommendations

The transport sector is of great importance to Zambia and will doubtless be an appropriate focus of international assistance for years to come. Among the problems which the donor community might wish to address are:

1. Resolution of immediate transport bottlenecks in the region. (Perhaps the most important short term help for Zambia may be assistance with transport problems of Angola, Mocambique and Tanzania).

2. Rural roads to support agricultural and rural development.

3. Road maintenance and the development of government capacity at all levels to maintain roads.

4. Assuming studies demonstrated feasibility, the building of the major projects to develop transport linkages with Angola, Zaire, Mocambique, Botswana and Namibia and across Zaire at the Pedicule.

Near term investments and external assistance in the transport sector should be selective and generally supportive of broader strategic objectives. Investment in transport should probably be handled under World Bank leadership.

In the short term (1978-79), a program of commodity assistance in trucks, spare parts, maintenance and related technical assistance should be considered to help meet immediate crisis. A priority area for technical assistance would be improvement of the efficiency of the existing transport system and planning of future projects and institutional development activities.

In the medium term (1980-85), in addition to rural road components of area development projects, financial participation with the World Bank's road maintenance program should be given high priority by external financing sources. Other projects, the feasibility of which need to be studied (such as links to Angola, Walvis Bay, Botswana across the Kazanguela Bridge, and a direct connection to the Benguela Railroad) might also be considered.

In the longer run (1986-90), assistance in the transport sector would probably reflect the requirements of the rural development program of the GRZ and thus focus on rural roads.

7. Housing and Urban Development

a. Pattern of Urban Development

Zambia is the most urbanized country in Africa. Roughly 40 percent of the population is urban. The most rapid urban growth occurred between 1963 and 1969 when restrictions on migration were lifted and import substitution programs expanded urban employment opportunitites. During this period, the urban population growth rate was nearly 10 percent per year. Since that time, urban growth has slowed to the current rate of 6.4 percent per year. The urban population at present totals 2.2 million, and is projected to comprise 44 percent of thenational population within five years.

Lusaka, the capital, is both the largest and fastest growing city in the country, with a population of 579,000 in 1978. The growth rate of Lusaka is 7.7 percent per year. Six other cities have populations in excess of 100,000, and these are growing at about 6 percent per year. Three cities have populations from 50,000 to 75,000 with growth rates varying from 2½ percent to 6 percent per year. Most of the urban growth occurs in the eight largest cities. Thus Zambia has an urban sector of unique proportions in Africa -- both larger in size and more decentralized in form than any other nation on the continent.

b. Shelter Situation

The housing stock as of December 1977 totalled 1,078,000 units, of which 20 percent were constructed houses or flats, 4 percent were on serviced sites or upgraded squatter sites,

and 76 percent were in traditional unserviced squatter areas.

The location of the housing stock was as follows: 29 percent (317,900 units) in large urban areas, 2 percent (23,700) was in urban areas of 5,000-50,000 (small urban), and 68 percent (736,400) was in rural areas. The percentage of homes with services was 69 percent in large urban areas, 51 percent in small urban areas, and 5 percent in rural areas. In 1974, 80 percent of urban units had a private or shared tap water supply, 46 percent had a flush toilet, and another 43 percent had either aqua privy or pit latrines sewage disposal.

As a consequency of rapid rural-urban migration and rapid growth of unserviced squatter developments in urban areas, from 1971 to 1977 the proportion of dwelling units that are not serviced has increased from 29 percent to 31 percent in large urban areas and from 41 percent to 49 percent in small urban areas.

Virtually all urban land is owned by the Government. Long-term leases are granted for houses and multi-family dwellings, and are acceptable to Zambian financing institutions for lending purposes. Sites-and-service plots and improved squatter plots do not have legally supportable long-term leases, however. Land outlying the urban areas and in rural areas is to a great extent privately owned. One of the impediments to development of newly serviced areas around Lusaka is that the acquisition of land is proceeding slowly.

Housing need in the eight major urban centers is estimated at 18,500 units in 1978 and 103,600 from 1979 through 1983. Fully

55 percent of this total need (68,000 units) is for families whose income can only provide for partly serviced self-help and upgraded plots. Another 122,000 plots are judged to be needed to accommodate existing inadequately serviced homes of families whose income can pay for partly serviced sites. Thus, there is a total need of 190,000 partly serviced plots in large urban areas by 1983. About 68,000 of the families in need might be served by existing formal sector low-cost housing through continuation of subsidies. If formal programs reach that group, then there would be a net need of 122,000 partly serviced plots by 1983. Another 5,000 partly serviced plots are judged to be needed in small urban areas.

According to a World Bank analysis, the shelter sector performance gap was caused by financial constraints on the budget, limited implementation capacity outside Lusaka and progressively higher housing and infrastructure standards.

The only major low-cost housing project in the country is a World Bank project in Lusaka, which is expected to reach 31,000 households (41 percent of Lusaka) including 19,500 squatter plots to be upgraded; 7,800 new squatter plots, and 4,000 site and service plots.

The major source of mortgage finance is the Zambia National Building Society which was established in 1970. Financing for low-cost housing is provided to individuals through the government. The cost of a serviced plot is currently estimated at about K1,500 and is repaid by a monthly ground rent of K6 to K7. Loans for materials for

self-help housing are also provided through the government.

c. Construction Industry

The construction industry in Zambia employs an estimated 70,000 persons of which an estimated 12 percent, or 8,400, are employed in the residential construction sector.

There are a number of constraints on the construction industry in Zambia including dependence upon imported building materials, the resulting need for foreign exchange for construction, and lack of technically skilled manpower.

National stocks of building materials decreased greatly in 1977, and current economic prospects do not suggest a national capacity for restocking the building materials inventory.

The foreign exchange component in construction is thought to account for 7.2 percent of the cost of settlement schemes, 20 percent of low-cost housing, and 28 percent for high-cost housing schemes. The housing need for 1978-83 totalling 150,000 units (mostly partly serviced self-help) would require K53 million in foreign exchange, substantially higher than the K26-37 million of foreign exchange estimated to be available for housing in the same period. The availability of trained manpower is also a serious constraint.

d. Housing Policy

Government programs for the 1972-76 program focused overwhelmingly on the provision of sites for self-help housing and construction of low-cost units. The Third National Development

Plan is expected to pursue the same basic goals established in the Second National Development Plan period. Policies stated at the National Housing Policy Conference in March 1978 are:

- home ownership, minimal standards, emphasis on self-help; government and council housing to be transferred to owner occupancy as rapidly as possible;
- reduction (or possibly eventual elimination) of housing subsidies; use of subsidies in rural areas to reduce rural-urban migration;
- substitution of local building materials for imported materials;
- ceiling on mortgage lending for high-cost homes; establishment of a housing bank for provision of low-interest loans for low-income and rural homes;
- water supply development and reticulation to get major share of infrastructure funds; roads to be de-emphasized.

It is expected that the GRZ will focus resources primarily at very basic services operations in cities consisting of road access, plot identification and piped water for groups of 25 families until resources for more elaborate services operations become available.

e. External Assistance

Zambia is one country within the SADAP region where assistance to expansion of shelter and supporting services warrents consideration in donor development strategy. Zambia is the most urbanized majority-ruled country in Southern Africa. There is no

sign that rural-urban migration and its attendant socio-economic consequences and facilities needs will abate. Clearly attention to settlement assistance would be desirable. An extensive amount of planning and policy analysis has been employed in establishing housing and community services programs. But the GRZ's performance in producing shelter, even at minimal standards, has fallen far short of established targets. There are several "opportunity areas" for international support which might be explored in addition to financial commitments for shelter and support services.

1. Manpower and Training. Although Zambia has planned and programmed shelter efforts, especially in Lusaka, to provide sites-and-services and squatter upgrading at a scale far above the efforts of other countries in the region, the delivery system has not apparently been unable to produce at the required level. Performance targets in the most recent five-year plan have been many times higher than production. Financing difficulties are only a part of the cause. The availability of skilled Zambian manpower--especially at middle-management levels, from project supervisors, to community development workers, to construction foremen--has been clearly insufficient. In this sense, the shelter sector is comparable to others in the Zambian economy which have shown heavy relaince on expatriate personnel for planning and implementation responsibilities. A survey of manpower needs might be made for the shelter sector to assist planning of an expansion of training capacities within Zambia. Technical assistance would be helpful in performing the necessary analysis, in setting targets for training, and in staffing institutions

and in-service programs to provide an expansion of skilled personnel.

2. Regional Development and Urban Decentralization. Technical assistance may well be warrented in helping Zambia to articulate a spatial development policy. Such a policy would provide a framework for ordering investments on a regional basis and for strengthening the economic base (as well as the housing and service supply) of secondary cities and towns. Because the imminent Third National Development Plan places heavy emphasis on strengthening rural areas and rural productivity, a complementary spatial policy can provide guidance on economic linages between the cities and towns of Zambia and their rural hinterlands. Zambia has reached a level of urbanization where many of its economic and social problems are intimately tied with its settlement patterns. Housing is but one component of the complex issues to be addressed, but Zambia's formulation of housing policy has apparently proceeded far in advance of comparable treatment to other issues directly related to settlement; e.g. the location of modern-sector jobs, the training of administrative and social service personnel in secondary cities and rural areas; the availability of water, sanitation and other services to support housing investment and economic development; and the marketing of agricultural produce.

The need for some form of spatial developement policy was expressed by several participants at the recent (March 1978) National Housing Policy Conference held in Livingstone.

3. Peri-Urban Agriculture. Zambia faces a serious food shortage and has a large urban population which provides a market for increases in domestic production. One of the ideas evidenced by several participants at the March Housing Conference was creation of intensively-farmed agricultural settlements at the edge of existing urban areas. Successful implementation of peri-urban agriculture will, however, involve many issues--from land allocation, to selection of crops, to establishing marketing and distribution systems, to the impact of agricultural settlement of the orderly expansion of urban areas. Elaboration of the idea and testing of its feasibility may also be an appropriate priority for international technical aid.

4. Construction Materials. Zambia is a heavy importer of construction materials both for housing and other activities. Import requirements for all construction over the period 1978-1983 may range between K60-80 million and may represent between 25-30 percent of required investements in construction. This may be a serious constraint, especially during a period of foreign exchange shortage. Zambia has a large and concentrated urban market which may be of sufficient size to support domestic industries directed towards import substitution. Building material production could be an extremely promising field for an emphasis on diversifying the Zambian economy and on increasing opportunities for small business. It could warrant international assistance in feasibility studies, financial assistance, and training of entrepreneurs and production workers.

5. Updating of Information in the Shelter and Settlement Field. Prior to formulating any long-term international assistance strategy in the shelter field, a more up-to-date package of information is desirable. Many changes have occurred--in economic conditions, policy, and institutional structure--since the 1976 AID sponsored Shelter Sector Assessment and the 1977 World Bank second project appraisal report. With the increasing interest in decentralization of development to secondary cities and rural areas, more extensive documentation of existing conditions in these areas and the performance capacities of their present institutions is needed. Deployment of a study team, perhaps under the sponsorship of more than one international agency, to up-date information on shelter and settlement in Zambia could be a useful prerequisite to any new policy initiatives.

VIII. The Role of Zambia in a Regional Development Strategy

Zambia's land-locked position, bordered by eight other nations, invariably results in an inheriting of economic problems from her neighbors. Zambia is both the lynchpin and the prime potential beneficiary of any regional development strategy which can accelerate development progress and economic stability in the region.

Zambia should be a leader in regional development activities for many reasons. It shares borders with all the countries in the region except Lesotho and Swaziland and it has been a political and moral leader in the majority rule movement. Its economy is well enough developed to be a significant market for other countries. On the other hand, Zambia has needs which regional cooperation can help meet.

It is a long-term goal but the process of greater sub-regional cooperation, so essential to optimizing the region's economic potential, can start now in certain areas. Understandably, removing the anomaly of minority-ruled Rhodesia and the distorting effect of sanctions would create an improved atmosphere for regional collaboration. In the meantime there are several areas where there exists a convergence of interest between Zambia and her neighbors and where regional development activities should be considered.

a. Transportation

As noted earlier, every effort must be made to assure Zambia efficient access to the sea. To accomplish this, it is possible that Zambia must take a more active consulting and possibly

financial responsibility with Mozambique, Angola and Namibia to render existing transport routes more effective and to open others. Specific areas have been suggested in the transport sector.

b. Education and Training

Zambia's well-developed facilities provide a logical center for some specialized training and education that could be useful to smaller countries in the region. Among other areas, regional training initiatives in mining, technology, industry, transportation skills, urban development, engineering and construction might be considered.

c. Agriculture

Zambia's ambitious program for diversification into agriculture will require a range of agricultural inputs, some of which might be available in neighboring countries. For instance there would appear to be cooperative potential for Zambia and Mozambique in joint fertilizer development.

d. River Basin Development

Assuming internationally recognized settlement in Zimbabwe, starting a process of comprehensive development of the Zambezi basin represents a major opportunity for regional cooperation. This should include:

1. Navigation
2. Irrigation
3. Flood control
4. Hydro-electric power

5. Fisheries development

6. Health Programs

7. Livestock

e. Animal Health

There are indications of possible outbreaks of several livestock diseases (East Coast Feaver, Rinderpest, Hoof and Mouth) which can only be effectively controlled through regional action. Building on the recent ECA (MULPOC) initiatives it is suggested that Zambia take an active part in new regional programs that are being identified.

f. Trade

A common denominator of all the Southern African countries is to alter economic and trade relationships with South Africa. Zambia should investigate with its neighbors (Mozambique, Botswana and later at independence Zimbabwe) the possibilities of new trade patterns.

g. Health

Recently completed sector studies in health demonstrate that there may be numerous areas of potential cooperation between Southern African countries, particularly in malaria control, water borne disease control, vaccine and pharmaceutical development and more localized research on communicable diseases.

h. Refugees

Zambia is host to a substantial number of refugees. The GRZ officially recognized 15,889 refugees as of May, 1978, but representatives of the United Nations High Commission for Refugees

estimated 60-65,000 refugees receiving some form of assistance from international donors or national liberation movements. An additional 25,000 were estimated to have settled "spontaneously" with friends or in villages where they have some ethnic affinity.

If peaceful settlement of the transition in Zimbabwe is not achieved, Zambia may be called upon to receive many more refugees in the near future. The impact of growing tensions in South Africa on the refugee problem in Zambia could be extensive in coming years.

These problems must be dealt with in a regional context.

POSSIBLE PROGRAM ELEMENTS OF A LONGER TERM STRATEGY

PROGRAM ELEMENTS	PHASE I - 1978-1980	PHASE II - 1980-1985	PHASE III - 1985-1990
Agriculture	Commodity Assistance for agriculture inputs. Mobilization of existing ministry staff and facilities. Technical Assistance - planning and operations Training.	- technical assistance in planning and operations to agriculture institutions. - training - rural areas development projects. - selected agricultural research and extension activities.	Basic Human Needs activities generally in context of rural area development projects.
Health	Commodity assistance for support facilities, pharmaceutical supplies, medical equipment, spare parts. Improve utilization of existing staff and facilities.	- health activities particularly as related to rural area development projects.	Health activities in rural area development projects.
Industry	Sector assessment and project planning.	- rural industry technical assistance, credit and training - rural industry components of rural area development projects. - training	Rural industry components of rural area development projects

POSSIBLE PROGRAM ELEMENTS OF A LONGER TERM STRATEGY

PROGRAM ELEMENTS	PHASE I - 1978-1980	PHASE II - 1980-1985	PHASE III - 1985-1990
Housing & Urban	- Housing and construction sector assessment.	- spatial planning for regional development and urban decentralization. - market town and district center facilities components of rural area development projects. - training - semi-urban agriculture	Shelter investment.
Human Resources Development.	- Training	- training	training
Transport	- Commodity assistance - trucks, spare parts, & facilities - Assist in making existing systems more efficient. - Technical assistance in planning and road maintenance. - Plan future projects.	- Rural roads components of rural area development projects. - Participation in major transport projects improving regional transport system. - maintenance. - technical assistance on system efficiency.	Full scale rural roads components of rural area development projects
Mining	- Feasibility studies for small scale mining. - Feasibility study for local development of fertilizers.	- Facilitate flow of private sector capital into new mining ventures. - training - technical assistance to minerals exploitation agency.	

TABLE XVIII

Donor	Planned Investment (Million US unless otherwise indicated) Amount Million	Sector	Programming Period	Remarks
African Development Bank (ADB)	$30-36	Agriculture	1978-81	
United Nations Development Program (UNDP)	$15	Agriculture	1977-81	Additional $10M to prepare regional development projects which benefits Zambia is part
European Economic Community (EEC)	$84	Agriculture Transport Food Aid	Four year cycle	Lome Convention - Two-thirds grant
France	$50-60		indefinite	Loans and commercial credits
Federal Republic of Germany	DM100	Agriculture Transport	Two year cycle	
Italy	$33	Transport		Mineral research, agriculture, mechanization and food aid also under consideration
Netherlands	$20	Rural water supply, infrastructure, agriculture	1975-78	Additional allocations planned for agriculture, infrastructure and food aid
Norway	$7	Rural Development	1978	Increased from $4M in 1977

Donor	Planned Investment	Sector	Programming Period	Remarks
Finland	$20			Grants and credits
Sweden	$21	Education, Rural health, Rural development	1978	Untied grants
United Kingdom	$52		Two years to 1980	Also possible project aid
Canada	$Can 63	Agriculture, Rural roads, Potable water, Transport	5 years	
Japan	Y16 billion	Telecommunication, railroads, technical assistance		Balance of payments assistance and grant aid in health, agriculture and education under consideration.
World Bank	$50	Primarily agriculture and industry	Annually	IFC planning increased activity. IBRD has committed over $500,000,000 since Independence

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