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Lusaka, Zambia

→ National Workshop on industrial strategies for Zambia,
organized within the framework of the
Industrial Development Decade for Africa (IDDA)

Background paper*

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INTRODUCTION

THE PROGRAMME OF THE INDUSTRIAL DEVELOPMENT DECADE FOR AFRICA (IDDA)

Evolution of the IDDA concept

As early as 1971, the First Conference of African Ministers of Industry adopted the "Addis Ababa Declaration on Industrial Development in Africa", which reiterated the recognition of industrialization as top priority for African economies. Realizing that unless a major change in the strategies for economic and social development is ushered in, the chances of a better future for their peoples are endangered, subsequent meetings of African Ministers and Heads of State and Government deliberated more on alternative patterns of development and living conditions in the African region. In 1979 the Fifth Conference of Ministers of the Economic Commission for Africa adopted a resolution on a strategy for the African region within the framework of the International Development Strategy for the Third United Nations Development Decade. A call was made at this meeting by the UNIDO delegate in his general statement to declare the period 1980-1990 as the Industrial Development Decade for Africa, for the purpose of focusing greater attention and evoking greater political commitment and financial as well as technical support, at the national, regional and international levels for the industrialization of Africa. In response to the decisions and declarations of the foregoing meetings, the Third General Conference of UNIDO at New Delhi in February 1980 and the OAU Economic Summit at Lagos later in the year endorsed the decision to take appropriate steps to have the years 1980-1990 declared as the Industrial Development Decade for Africa.

The United Nations General Assembly, responding to the requests of the OAU and UNIDO, proclaimed, in its resolution 35/66B of 5 December 1980, the period 1980-1990 as the Industrial Development Decade for Africa thus giving world-wide recognition to the Decade. This was strongly supported at the thirty-third ordinary session for the purpose of focusing greater political commitment and financial as well as technical support, at the national, regional and international levels for the industrialization of Africa.

Objectives of the IDDA

In line with the Lagos Plan of Action and the Final Act of Lagos, the objectives of the Industrial Development Decade for Africa are based on the twin principles of self-sustained and self-reliant industrialization and overall development of African economies.

The principle of self-reliance aims at reducing the dependence of African economies on external suppliers, and the maximum utilization of indigenous resources such as labour; raw materials, management, finance, scientific and technological capabilities first, before resorting to external assistance. Self-reliance also implies the control and determination of industrial structure and investment by the residents of African economies.

The call for self-reliance does not imply isolationism or autarky, but seeks to bring home prominently the fact that, except by some stroke of luck, (and thunderbolts hardly fall from blue skies), one can only win if one controls the game. The international exchange of goods, services, scientific and technological know-how constitutes an important factor in the development process. But then solutions which arise from the relevant socio-economic milieu cannot be

successfully grafted or transplanted from elsewhere without proper adjustments, determined by the direct beneficiaries of such solutions. Therefore, self-reliance must imply selectivity in seeking out the best and most appropriate international techno-scientific and financial arrangements on the principle of equality and equal benefits.

The success of any meaningful development efforts depends on whether or not such effort is self-sustainable through the regeneration of growth and reduction of dependence on exogenous inputs. The Industrial Development Decade for Africa calls not only for industrial development but also growth and a self-sustained industrialization process that continuously satisfies the basic needs and other strategic interests of development. This implies the building and consolidation of production, marketing, administrative, legal, physical, communication and research structures that meet the basic domestic needs and promote useful linkages between various industrial and non-industrial subsectors at the national, sub-regional and regional levels.

Strategy for IDDA

As mentioned earlier, the circumstances of African countries are essentially only variations around similar themes that could warrant general treatment. However, mass production and consumption may be suitable for commodities, but the same motivating principle cannot easily and productively be transferred to the more complex human situations of socio-economic problems. Therefore, the specific solutions for each country's problems must be unique to the peculiar socio-economic environment which first produces the impulse or stimulus for such solutions. The strategy and programmes of the IDDA therefore involve both individual national and collective sub-regional actions aimed at establishing the foundation for a self-reliant and self-sustained development.

The strategy for industrial development includes:

- (i) The building of an industrial structure in each African State capable of meeting changing domestic needs especially in terms of food, building materials and clothing through the preparation and implementation of an integrated industrial development programme, based on the development processing and utilization of domestic natural resources;
- (ii) The establishment of core industries such as metallurgical, engineering, chemical, building material and resource-based industries;
- (iii) The establishment of core market research and development and similar activities which provide the impetus of economy-wide growth processes and facilitate the development of international linkages and complementarities;
- (iv) The expansion and restructuring of domestic markets by integrating the rural economy with the modern sector through the construction of the necessary infrastructure to facilitate production, marketing and consumption;
- (v) The joint planning, financing and location of major educational institutions in countries in the same economic grouping so as to provide for the education and training of engineers, scientists, technologists and other skilled workers on the basis of comparative advantage;

- (vi) The promotion of sub-regional economic integration aimed at developing energy, basic and capital goods industries in integrated sub-regional markets;
- (vii) The full improvement of private and public sector indigenous entrepreneurs in all tasks geared toward a self-reliant industrial development.

Essentially, the strategy for Africa's self-sustained industrial development calls for an integrated approach to and inter-dependence of industrial and allied activities. A close view of the structure of Western industrialized economies reveals that there is a considerable intermediate trade among the various sectors both vertically and horizontally, i.e. among units of different sectors. Each sector receives its inputs from the other sectors and supplies its output to the other sectors. Greater sectoral linkages are necessary for the achievement of a growth-generating industrial system because a stimulus in one sector, for example, an increase in the demand for products in a given sector, is passed on to the other sectors. In such a system, even a small investment has a considerable net or multiplier effect on the entire economy which is greater than the value added by the initial individual sector or unit. At the moment African economies cannot fully avail themselves of such a multiplier effect because of the loose and uninterconnected nature of these economies. Consequently, a greater deal of stimulus is required in the African economies for the achievement of the desired socio-economic goals.

To sum up, the attainment of rapid industrialization in Africa requires a structural transformation toward economies that forge concrete input-output linkages among the various sectors, making them mutually reinforcing. Methods must therefore be found to develop an internal dynamism within each domestic economy to bring into use the local resources available.

Programmes and institutional mechanisms

The IDDA Programme calls for the establishment of institutional mechanisms at national, sub-regional, regional and international levels.

On the national front, national co-ordination committees are to be established to provide overall direction and guidance. Operational focal points are also to be created for co-ordinating and monitoring the implementation of the Programme. These committees are expected to design activities that would generate a greater awareness of decision-makers in Government, the public and private sectors, as well as institutions concerned with industrial development, of the need to develop key areas of their economies that provide essential and strategic inputs for other economic activities.

The activities would include inter alia:

- Workshops and seminars on the IDDA;
- Review of various past and existing national plans, policies, strategies, institutional structures and arrangements with the view to identifying any elements that are inconsistent with the IDDA Programme;
- Analysis of core industries and assessment of their input requirements;

- Review of proposed projects and the possibility of expanding existing production facilities;
- Assessment of resources such as raw materials, energy, finance and labour;
- Review of Industrial Acts, Incentive Codes, Investment Laws, conditions and terms of contracts of foreign investors with the view of using them to direct investments into areas that are consistent with the plan for self-reliance and self-sustainment.

At the sub-regional level, co-ordinating committees and operational focal points are to be established with existing or new sub-regional or regional organizations. These committees are to undertake such activities, as will among other things, provide a framework for identification and selection of multinational core projects. Experts and intergovernmental meetings are to be held to consider projects and issues whose implementation or resolution through joint undertakings will promote collective and national self-reliance. Workshops and seminars for governmental organizations and experts are also expected to form part of the IDDA Programme.

At the regional level, meetings of Heads of State and Government, Ministers of Trade and Industry are to be held to discuss and decide on relevant issues and policies concerning the IDDA. It is also expected that a Follow-up Committee on Industrialization in Africa is to be created to monitor the progress of efforts being undertaken on the continent toward the achievement of the objectives of the IDDA.

The ECA, OAU and UNIDO, within the framework of the Joint Committee of the secretariat of IDDA, are to co-operate in facilitating the implementation of the IDDA Programme.

Expectations of the IDDA

Through the proper implementation of the IDDA strategy and programmes, African countries would have developed a foundation for sound industrial growth by the year 1990.

- The proportion of world industrial production emanating from Africa is expected to reach at least 1.4 per cent;
- It is also expected that the Programme would result in the promotion of sound intra- and inter-sectoral linkages, especially with agriculture, to attain self-sufficiency in food production;
- The rate of development of natural resources particularly, and agricultural mineral resources, as well as human resources, including industrial entrepreneurship, scientific and technological capabilities would have greatly increased by 1990;
- Greater financial resources are expected to be mobilized by or induced into the industrial sector in Africa;
- It is expected that the IDDA activities will facilitate the promotion of intra-African industrial co-operation especially in strategic ore industries including agreement on the establishment of multinational industrial projects based on the principles of self-sustained industrialization and self-reliant development.

UNIDO's role in the IDDA Programme

At the sub-regional level, the UNIDO Secretariat has provided assistance in the formulation of a number of current proposals related to the Decade. As a contribution to the development of core industries, UNIDO, in co-operation with the other two secretariats, organized sub-regional meetings in 1983 and 1984, to promote intra-African co-operation through the identification of multinational industrial projects and their integration in an integrated industrial promotion programme at the sub-regional level.

The IDDA Programme entered its implementation phase in January 1985. The Fourth General Conference of UNIDO held in August 1984 adopted a resolution on the IDDA, and also called on all African countries to intensify their efforts towards the accomplishment of priority actions and on Member States to continue to contribute to the achievement of the Programme. The technical co-operation programme, costed at about \$210 million, prepared by UNIDO for the implementation phase of the Decade, also received the support of the Conference which invited all donor countries and organizations to assist in funding the Programme. The beginning of the implementation phase of the IDDA Programme also witnessed the transformation of UNIDO into a specialized agency of the United Nations.

UNIDO has also assisted African countries in launching the implementation phase of the programme which was enhanced by the special allocation made by the United Nations General Assembly in the UNIDO regular budget. The resources established by the United Nations General Assembly consist of:

- (a) The provision of technical advisory services (mainly expertise for establishment, maintenance and rehabilitation of enterprises, the preparation of pre-feasibility studies, etc.);
- (b) The establishment of pilot and demonstration plants;
- (c) The development of industrial manpower (training programmes, workshops, strengthening of African training institutions);
- (d) Projects related to the reinforcement of the industrial institutional infrastructure including workshops such as this. Similar workshops have already taken place in Mauritania, Uganda, Benin, Burkina Faso and Sierra Leone;
- (e) Activities related to the follow-up to sub-regional programmes;
- (f) The preparation of industrial studies; and
- (g) The publicity for the Decade.

The workshops were organized in co-operation with the National Committee for UNIDO/IDDA or the relevant Ministry in charge of industrial development and were attended by high-level decision makers in the concerned ministries, industry (public and private sectors, chambers of commerce and industry, etc.) and institutions (promotion offices, universities, banks, etc.). In each case, a background document giving an introduction to the characteristics, including constraints and potentials for industrial development in the country concerned, was prepared, utilizing the services of experts in industrial planning and, where possible, a national expert. Participants represented Government, industrial development authorities, public and private sector industries, development and

commercial banks, universities and other training institutions, as well as other non-governmental organizations involved with industrial activities. The participants will examine such areas as:

- Strategy for the development of resource-based industries and sub-regional co-operation;
- Industrial policies and incentives;
- Promotion and institutions;
- Industrial planning machinery;
- Rehabilitation and improvement of management industrial enterprises and many more related areas.

CHAPTER I

GENERAL ECONOMIC DATA ON ZAMBIA

1. NATURAL RESOURCES

1.1. Mining : copper and other minerals

1. Zambia's natural resources consist mainly, but not solely, of minerals. However, economic development has been based almost exclusively on copper mining and exports.
2. Copper resources are estimated to last another 15 to 20 years.
3. Deposits lie deep, making Zambia a high cost producer.
4. Production fell from an average of 700,000 tons in the late 1960s to an all time low of 463,354 tons in 1985/86. Developed and undeveloped reserves dropped from 800 million tons in 1980 to 451 million tons in 1985.
5. Production has been running at a loss since the early 1980s. The combination of low prices, need of extensive repairs and resupply of equipment together with the general foreign exchange shortage put the copper industry in a vicious circle.
6. Hope for relief was provided by a \$300 million rehabilitation programme started in 1983 and financed by the World Bank, the African Development Bank and the EEC. It aims at restoring production to over 550,000 tons and reducing costs.
7. Copper prices rose sharply in late 1987, peaked at close to 1,700 pounds per ton in early January 1988, but were down to 1,160 pounds per ton in late April. Market projections point towards a continued decline, but with the average price level for 1988 still above the 900 pound per ton for 1987.
8. Copper accounts for close to 80 per cent of Zambia's combined export earnings. Minerals account for more than 95 per cent of Zambia's total exports.
9. Other significant minerals include cobalt, lead and zinc with 4,563 tons, 6,793 tons and 22,772 tons produced respectively in 1986/87.
10. Mineral deposits also include amethyst, nickel, monazite, gold, silver and selenium. Large emerald deposits exist on the Copperbelt but production is mainly illegal and smuggled out of the country. Limestone and manganese have become increasingly important commercial industrial minerals, and talc is looked upon as a potentially exploitable resource. Exploration of uranium is under way in the Copperbelt, in the Southern and parts of the Western provinces. Italian, French and Japanese companies by early 1985 had spent ZK 3 million, but found only small exploitable deposits. Unworked resources also include iron ore. Earlier plans for a steel plant in the Northwest have been shelved.

1.2. Agriculture

1. Zambia's climate favours a wide range of crops, but only some 15 per cent of arable land is currently cultivated. Maize is the major crop, covering some 70 per cent of cultivated land. Other significant crops include sorghum, cassava, millet, soya beans, sunflower, rice, cotton, groundnuts, sugar cane, tobacco and a variety of legumes and vegetables.
2. In an effort to restructure Zambia's economy, reduce its dependence on copper, and attain food self-sufficiency a 10-year agricultural development programme was initiated in 1980. The programme gives priority to upgrading traditional farmer production and includes provisions for the development of large-scale commercial farming, either on a private or joint venture basis with the Government. Plans for large-scale state farms have been abandoned.
3. The pricing, tax and other reforms undertaken have resulted in a 20 per cent expansion of the cultivated area, new crops such as cotton, sugar and horticultural products. Farming land has been developed outside the traditional heartland of Eastern, Southern and Central provinces. Even in the drought years of 1983 and 1984, agricultural output increased by a significant 8.6 per cent and 5.6 per cent, respectively, and jumped to 9.3 per cent in 1985.
4. The livestock population was severely affected by drought in the early 1980s. Poor prices contributed to a decline in slaughtering which by 1980 were 50 per cent below the level 10 years earlier. Since then prices have improved and added export incentives have helped increase the number again. A small but significant beef export market has developed. Poultry has also picked up as a result of pricing reforms and also by an improvement in feedstock supplies.
5. About 50 per cent of Zambia's land area is covered by forest, but forestry is not a major industry. Plantations have been established in the Copperbelt district to form the basis of a plywood and paper industry. The indigenous forest has few commercially exploitable species, but continues to be the chief source of supply to the 15 saw mills (mostly parastatals). The equivalent of the output of 135,000 ha is consumed each year as fuelwood.
6. Fish resources are sizeable in Lakes Tanganyika, Mweru Wantipa, Mweru Luapula, Bangweulu and Kariba, the Lukanga swamps and the upper Zambezi and Kafue rivers. Production was 60,000 tons in 1984. Most of the fishing is carried out by some 28,000 artisanal fishermen using simple unmotorized boats.

1.3. Energy

1. Zambia has excess supply of hydro-electricity. About 70 per cent of the power are met by this resource. The copper industry accounts for 74 per cent of electricity consumption, manufacturing 18 per cent and household 8 per cent. Until 1987 about 30 per cent of domestic production was exported to Zimbabwe, which since then, however, has developed its own resources.
2. Coal reserves are estimated at 250 million tons, but production has fallen since the early 1970s and earlier exports to neighbouring countries ceased in 1980/81. Production still covers domestic demand, however, currently estimated at 660,000 tons a year.

3. Oil reserves have not been proven, but exploration is taking place and there is some optimism regarding domestic oil production.

4. Through the establishment of the Indeni refinery Zambia saved scarce foreign exchange to pay for the supply of crude. Financing was provided through a revolving annual credit which was arranged by a consortium of commercial banks. The facility has been inoperative since 1985 due to the acute shortage of foreign exchange, subsequent payment arrears and the fact that pre-purchases under the facility prevented Zambia from benefiting from the oil price collapse in early 1986.

2. GENERAL ECONOMY

1. The Zambian economy is extremely dependent on international trade. Exports and imports constitute up to 48 per cent of real gross domestic product. This situation makes the economy very vulnerable to both international and domestic forces which inhibit trade such as: the fall in commodity prices, increases in price of imports, high interest rates and reduction in the inflow of foreign capital or increase in foreign outflows.

2. During the last three years domestic production of minerals - copper, lead and zinc - has declined. Only cobalt output has increased. This has led to simultaneous falls in the volume of mineral exports. At the same time the world demand for metals and copper in particular has remained depressed due to an increase in the use of substitutes namely optic fibres. Worse still, export diversification into manufactures, agriculture, etc. has not yielded the expected results. During the same period the external debit problem has become acute.

3. All the above factors have exacerbated the foreign exchange constraint which in turn has adversely affected growth of the economy as inputs and machinery cannot be brought in adequate quantities. Those sectors that are most import-dependent have been worse affected and include all the productive sectors of agriculture, manufacturing, mining and construction. Also, the critical shortage of foreign exchange has greatly limited the impact of the domestic policies adopted in the preceding years to revamp the economy.

4. Thus, although the value of the domestic currency has been devalued by 693 per cent between October 1985 and October 1986 neither manufacturing nor agriculture exports have increased significantly. On the other hand, the Kwacha value of debt service, investment incomes, invisible payments, and transportation have gone up proportionately to the depreciation rate. The result has been worsening in the balance of payments, from the 1984 and 1985 already poor position.

5. The other negative impact of exchange rate auctioning as well as the contractionary monetary and fiscal policies has been increases in consumer prices which reached more than 40 per cent in 1986. A more detailed analysis of the various macro-economic variables is given below:

2.1. Aggregate GDP and sectoral performance

1. Gross Domestic Product at current prices grew by 71.6 per cent from K 7,048.6 million at the end of 1985 to K 12,097.9 million during 1986. As compared with 17.9 and 42.9 per cent attained during 1984 and 1985 respectively, this was a big change which reflects the continuing sharp decline in the value of domestic

currency caused by foreign exchange suctioning. Consequently, the annual rate of growth of per capita GDP at current prices increased by 66 per cent from K 1,048.9 million to K 1,740.7 million during the same period. This increase was in spite of the high population growth rate which took place during the year. See table II.2a.

2. Real GDP on the other hand, remained stagnant as it only rose from K 2,041.4 million in 1985 to K 2,052.2 million in 1986 or 0.5 per cent. Thus, the economy could not maintain the momentum of the previous year during which 1.5 per cent growth was achieved. Consequently, constant per capita GDP declined to K 295.3 million from K 299.8 million in 1985, continuing the downward trend which has existed since 1976. This performance is dismal compared with both the annual plan target rate of 3.5 per cent and the two averages for 1984 and 1985 of 0.8 per cent.

3. Several factors contributed to this poor outcome. First and foremost the macro-economic assumptions on which the projections were based changed dramatically. For example the Kwacha/Dollar exchange rate was assumed to stabilize at K 6.50 to one dollar or 295 per cent depreciation. The actual outturn has been much worse as the rate averaged 8.9 Kwacha to the Dollar. Secondly, and quite related to the exchange rate, the individual sectoral performances were below target. Table II.2b and II.2c detail the sectoral performance in real terms, both the annual plan target of 6.0 per cent and the 1984 and 1985 growth of 1.2 and 7.8 per cent respectively. The manufacturing sector has been adversely affected by the devaluation of the Kwacha due to its heavy dependence on import.

2.2. The early reforms 1981-1983

In 1982 came the international debt crisis. For Zambia the immediate result was a drop in foreign credits from \$570 million per year in 1980-1982 to \$165 million in 1983, making the foreign exchange shortage acute and negotiations for a standby from the IMF necessary.

1. There were signs of policy changes already in 1981, reflected in the frequency of negotiations with the IMF. A first IMF standby credit agreement was signed in 1981. It involved SDR 800 million, which was the second largest credit ever given to an African country. The agreement prescribed a.o. tighter fiscal and monetary policies and quicker payment of foreign debts.

2. The performance criteria could not be fulfilled by the Government and after SDR 300 million had been drawn, the facility was suspended in 1982.

3. In April 1983 a new standby credit of SDR 211.5 million was granted and the Government undertook a set of reforms including:

2.3. The 1985 reforms

1. The IMF facility was suspended in June 1984, with SDR 67 million undrawn. The Government had not been able to cut subsidies as planned or to find other ways to reduce the budget deficit. The direct cause for suspension of the standby credit was, however, non-payments to the Fund. The unpaid debt to the IMF in early 1985 was approximately \$100 million.

2. At the time Zambia had become increasingly dependent upon securing agreement not only with the Fund but with the aid community as a whole. In particular the process of reaching accommodations with the World Bank and the IMF had become interdependent. The Bank's analysis of the problems confronting Zambia strongly influenced many bilateral donor agencies. Increasingly the aid community insisted that the Government should introduce significant economic reforms; otherwise their financial assistance would not assist a process of recovery, but simply postpone further decline.

3. In response to these pressures, and following a protracted dialogue with the Fund and the World Bank, the Government was persuaded to introduce a new set of reforms which were believed capable of achieving structural change and diversification of the economy and a reduction in its dependence on foreign exchange.

4. The new reforms were discussed at the World Bank-sponsored Consultative Group meetings in 1984, where they received the support of the wider donor community and pledges of additional finance assistance. The measures were strengthened by rescheduling of some \$400 million in debt and by rehabilitation loans to the mining, agricultural and industrial sectors from consortia of donors on condition the policy reforms were implemented.

**Table 1: Gross Domestic Product by kind of economic activity
(current prices)**

INDUSTRY	1984+		1985+		1986++	
	K'Mn.	Percentage	K'Mn.	Percentage	K'Mn.	Percentage
Agriculture, Forestry and Fishing	717.2	14.5	925.2	13.1	134.6	10.8
Mining and Quarrying	673.9	13.7	1 101.9	15.6	2 987.1	24.6
Manufacturing	1 010.6	20.5	1 610.0	22.8	2 431.5	20.1
Electricity, Gas and Water	69.7	1.4	71.1	1.0	72.3	0.6
Construction	153.3	3.1	182.9	2.6	304.0	2.5
Wholesale and Retail Trade	520.8	10.6	763.0	10.8	1 049.4	8.7
Hotels, Bars and Restaurants	126.0	2.6	181.1	2.8	243.9	2.0
Transport, Storage and Communications	251.3	5.1	385.5	4.6	598.3	4.9
Financial Inst. and Insurance	172.9	3.5	228.9	3.2	396.3	3.3
Real Estate and Business Services	344.3	7.0	454.8	6.5	631.4	5.2
Community Social and Personal Savings	318.5	6.5	391.7	5.6	480.2	4.0
Import Duties	140.4	2.8	334.1	4.7	1 039.5	8.6
Less Imported Banking Services Charge	49.6	1.9	64.2	0.9	11.1	0.9
Total Gross Domestic Product and %	4 931.0	100.0	7 048.6	100.0	12 097.9	100.0

+ Preliminary
++ Provisional

Source: Central Statistical Office.

**Table 2: Percentage change in GDP over previous year
(constant 1977 prices)**

INDUSTRY	1984	1985	1986 PLANNED	1986 ACTUAL
Agriculture, Forestry and Fishing	5.6	3.5	8.0	5.8
Mining and Quarrying	-9.8	-7.3	-2.0	-6.2
Manufacturing	1.2	7.8	6.0	0.4
Electricity, Gas and Water	-1.8	2.8	2.8	1.9
Construction	0.0	-13.0	1.7	5.2
Wholesale and Retail Trade	-2.3	4.1	5.8	-3.3
Hotels, Bars and Restaurants	12.2	4.7		-4.1
Transport, Storage and Communications	-2.7	-6.5	2.0	-1.5
Financial Institutions	-5.6	-3.0	3.4	-0.7
Community Social and Personal Services	-0.2	3.0	2.0	-1.1
Import Duties	-2.7	10.6	-15.5	10.6
Less: Imputed Banking Service Charges	-5.4	-3.4	0.0	-0.6
Total Gross Domestic Product	0.4	1.5	3.5	0.5

Source: Central Statistical Office.

5. In September the Government initiated a series of radical reforms which eventually succeeded in winning IMF support. These reforms dealt primarily with the financial sector. The first measure was to abolish direct regulation of credit volume and interest rates. The interest rates would freely adapt to changes in liquidity in the economy as reflected on the market for treasury bills.

6. In October 1985, the foreign exchange auction system was introduced. Through this system foreign exchange for most purposes was allocated on the basis of weekly biddings. The highest bid necessary for selling the week's supply of foreign exchange determined the rates for all foreign exchange transactions during the week.

7. Eventually, only the copper industry and payments related to the public foreign debt were allocated foreign exchange outside the auction system - but according to the exchange rate determined at the auctions.

8. Other measures included:

- Further increases in agricultural producer prices;
- Streamlined trade policies;
- Reductions in import restrictions;
- Reduced Government expenditure including a public sector employment and wage freeze;
- An overhaul of the planning and budgetary process.

9. Economically the auction system had mixed effects. On the positive side was a significant and rapid increase in agricultural output, profitability and the capacity utilization rate in industry (according to some sources from below 30 per cent to over 50 per cent). Supply elasticities appeared surprisingly high considering the short time span the reforms had been operative. On the negative side was the fact that the Kwacha, in 18 months from the time of the introduction, fell from 2 Kwacha per dollar to over 20 Kwacha per dollar. As a result, the Kwacha moved from overvaluation to undervaluation.

10. The massive devaluation aggravated an already high inflation rate (averaging 83 per cent in 1986) which eroded living standards for major portions of the population.

11. On 1 May, President Kaunda announced that the foreign exchange auction system had been discontinued and that a fixed rate of 8 Kwacha to the dollar had been imposed. Debt service payments would henceforth be limited to 10 per cent of export earnings net of the foreign exchange needs for mining imports, the airways, fuel and fertilizer imports (this is reported to imply a debt service ratio of 3 per cent). At the same time, interest rates were cut by 5 per cent.

2.4. The 1987 INDP

1. An Interim National Development Plan was published in August 1987, confirming the announcements made by the President in May. The Plan, which is still valid, has the following official and principal objectives:

- (a) To release resources for development by compressing non-essential and luxury imports and by limiting the debt service payments;
- (b) To restore growth by raising capacity utilization in enterprises producing essential or basic goods or goods for export;
- (c) To control inflation (partly by pegging the exchange rate of 8 Kwacha to the dollar);
- (d) To promote enterprises utilizing local raw materials;
- (e) To diversify exports by promoting non-traditional exports and exports of manufactured goods;
- (f) To use foreign exchange as a strategic resource;
- (g) To increase employment through the establishment of village and small industries based on local raw materials;
- (h) To increase the Government capacity to manage the economy;
- (i) To reduce subsidies and target them to the needy.

2. The INDP included detailed objectives, strategies and projections for all major sectors of the economy. For example, GDP was forecast to grow by 2.2 per cent in 1988 with agriculture projected to grow by 1.7 per cent, mining by 1.1 per cent and manufacturing by 4.8 per cent.

3. Allocation of foreign exchange is made by the Foreign Exchange Management Committee (FEMAC) which meets twice a month. A sub-committee meets daily to make allocations under the 50 per cent foreign exchange retention scheme which benefits exporters. There are five categories of allocations: Main Applications, PTA Funds Applications, 50 per cent Retention Applications, No Funds Involved Applications, and Government and Loan Applications. The last category includes parastatal sector requests to utilize external loans and grants. No Funds Involved Applications are those which do not place a demand on the foreign exchange available at the Bank of Zambia. The applicants have their own funds to draw upon and the purpose of the application is essentially to receive clearance from FEMAC to import commodities. The highest priority is given to producers of non-traditional exports. These are defined as exports other than copper, cobalt, lead and zinc.

4. A donor sponsored evaluation of FEMAC found the system to work relatively well. Applications are processed in a timely manner and waiting periods are kept short. There does not seem to have been any significant shift in the sectoral allocation of foreign exchange.

2.5. The 1988 economic out-turn and developments in major economic sectors

1. Real gross domestic product grew by an estimated 2.7 per cent in 1988, representing some improvement over the rate of 2.2 per cent attained in 1987. However, with population growing at an annual rate of 3.6 per cent, real per capita income showed no improvement over the 1987 level. Fixed capital formation also continued on a declining path while government and private final consumption claimed a lion's share of 85.3 per cent of GDP.

2. The agricultural sector grew by 6.4 per cent in 1988 compared to a decline of 2.2 per cent recorded in 1987. On account of good weather that prevailed during the 1987/88 season, the output of a number of agricultural crops went up significantly compared to their previous year's levels. In the lead was maize, the nation's staple food crop whose output reached 16.1 million 90 kg bags as against 11.8 million bags produced in the 1986/87 season, a growth of 36.6 per cent. The output of cotton rose by 190 per cent to reach 58.5 million kg in the 1987/88 season.

3. Growth was also recorded in crops such as paddy rice, soyabeans, tobacco and sorghum. Output of paddy rice increased by about 14 per cent in the 1987/88 season over the 1986/87 season. Soyabean production went up by about 58 per cent over the previous year's level. The production of virginia tobacco, which stood at 3.5 million kg, was 21 per cent higher than that achieved in the 1986/87 season. Sorghum registered a 38 per cent increase in output in the 1987/88 season over the 1986/87 season.

4. A number of factors were responsible for this improvement. The major factor, as already pointed out above, was good weather, and provision of extension services and improved quality and range of seeds. Apart from this, the sector received relatively increased allocation of foreign exchange. At the same time, all agricultural imports continued to come into the country.

5. Another noticeable growth was in the manufacturing sector. This sector grew by 6 per cent in 1988 as against 5.8 per cent registered in 1987. The appreciation and fixing of the exchange rate at K 8 to a dollar in May 1987 as well as the pegging of interest rates between 15-20 per cent following the introduction of the Interim National Development Plan (INDP) was a major contributing factor to this growth. The above measures enabled the business community to make more meaningful production plans (Source: INDECO FIGERS).

6. The other factor behind this sustained growth in the sector is the favoured status it has acquired in the allocation of foreign exchange. This was to improve capacity utilization.

7. This shows that between 45 and 50 per cent of the foreign exchange goes to the manufacturing sector.

8. The growth in the mining sector was rather depressed in 1988. The sector grew by only 2.7 per cent during the year under review as against 4.4 per cent achieved in 1987. A number of factors were responsible for this reduced momentum of growth in the mining industry. Leading among these were the shortage of acid for leaching and the poor state of underground equipment which adversely affected ore production. As a consequence, copper production in 1987 fell to 422,000 tonnes as against 483,000 tonnes in 1987, a decline of 13 per cent. This trend is expected to continue for the rest of the coming decade.

9. The performance of other sectors was mixed. Apart from financial institutions and insurance and electricity, gas and water which grew by 5 per cent and 3.5 per cent respectively, other sectors grew at a slower pace than they did in 1987. Others actually declined. Wholesale and retail trade and transport, storage and communication are in the latter category, as they registered negative growths of -0.8 per cent and -1.9 per cent, respectively.

10. Fiscal developments in 1988 were also a source of great concern. The budget deficit, on a cash basis, is estimated to have increased to 12.6 per cent of GDP in 1988 from 6 per cent in 1987. The 1988 out-turn was about 3.1 per cent above the estimated budget deficit of 9.5 per cent. A number of factors are responsible for the unfavourable out-turn in the budget deficit. Firstly, it is apparent that the GDP figure of K 28,960 million used in preparing the estimates may have been optimistic. To that extent, the targeted budget deficit of 9.5 per cent was understated. However, if a more realistic GDP figure was used, the out-turn could not have been very far off from the target, although showing a larger increase over 1987.

11. In spite of the encouraging real growth in the economy and indeed the improved copper prices during the year, the overall external sector remained weak and thereby exacerbating the country's external debt problem. The current account deficit is estimated to have increased from K 1,305 million in 1987 to K 1,669 million in 1988. Total exports stood at K 9,186 million with copper accounting for almost 86 per cent while imports increased slightly from K 5,638 million in 1987 to K 5,723.

2.6. Economic prospects for 1989 and beyond

1. The analysis of economic development in selected sectors of the economy provides a stage for looking at future prospects for economic development. Future prospects for the economy are not independent of the actions the Government takes in the area of economic policy and the effectiveness of these will be based on an understanding of major constraints which have been in existence in the past.

2. The Fourth National Development Plan which has just been launched sets a number of objectives which are aimed at resuscitating the economy. The following are some of the objectives:

- (a) To achieve an overall growth rate of 3 per cent in real terms during the Plan period;
- (b) To reduce inflation below 20 per cent by the end of FNDP;
- (c) To mobilize and utilize external resources as a supplement to domestic resources;
- (d) To reduce Government budget deficit below 2 per cent of GDP by 1983;
- (e) To increase formal sector employment;
- (f) To diversify the country's export base by encouraging non-traditional exports;
- (g) To restructure consumption pattern so as to conserve foreign exchange and improve balance of payments position;
- (h) To accord high priority to development of agriculture and tourism;
- (i) To achieve self-sufficiency in basic staple food and commercial crops;

(j) To create a strong local scientific and technology base; and

(k) To strengthen both parastatal and private sectors by promoting operational efficiency.

3. Most of the objectives mentioned are long-term. However, in the short-run the Budget for 1989 has set out targets in order to sustain economic growth, contain inflation and also create employment opportunities. The following are the targets set out in the budget:

- 2.9 per cent GDP growth rate;
- Capital expenditure of 24 per cent of total expenditure;
- Reduction of budget deficit from 9.5 per cent in 1988 to 5 per cent in 1989;
- Growth of money supply by 40 per cent;
- Containing inflation to between 30-35 per cent.

4. To achieve these objectives, a number of policies have been put in place.

(i) Exchange rate

5. The exchange rate which was fixed at K 8 to the US dollar in May 1987 and remained fixed at that rate until November 1988 when the Kwacha was delinked from the dollar and linked to SDR and devalued by 23 per cent in SDR terms. The measures are intended to achieve two objectives. First'y, the exchange rate adjustment is intended to promote investment in the economy. Secondly, create an environment conducive to boosting non-traditional exports. As from 1989, the administration of the exchange rate will be the responsibility of the Bank of Zambia who will review the exchange rate periodically, in order to achieve a reasonable level of competitiveness with trading partners.

(ii) Interest rates

6. Interest rates were brought down and fixed between 15 per cent and 20 per cent in 1987. The intention was to make borrowed capital cheaper and affordable by small entrepreneurs. Interest rates have now been adjusted upwards by 5 per cent and more with a view to promoting savings and encouraging investment. The long-term objective is to have positive interest rates. This will be achieved by regular and discreet increases in the rate as well as restraining rapid expansion in money supply. By the end of the Plan period, interest rates may well be in line with the inflation rate of 20 per cent.

(iii) Money supply

7. The rapid growth in money supply has been one of many causes of inflation in the Zambian economy. For 1989, money supply growth is fixed at 40 per cent, the same as in 1988. This level of money supply is not sustainable in an economy that already has high inflation. Stringent measures will therefore need to be taken to ensure that the level of money supply growth is brought down to 20 per cent on an annual basis by 1993. This can be achieved by setting appropriate credit ceilings and reducing the Government budget deficit.

(iv) Budget deficit

8. Government budget deficit has remained too high for a long time. Major sources of the budget deficit have been large expenditures on subsidies for maize and fertilizer and debt service both internally and externally. The subsidy level has grown, in absolute terms, from K 42.1 million in 1978 to K 1,490 billion in 1989. As a share of total budgetary expenditure, subsidies have risen from 5 per cent in 1978 to 15 per cent in 1989.

(v) Debt service payments and external inflows

9. Zambia's debt service problems continue to be a source of major concern. External prospects for the country, in terms of foreign exchange, remain difficult. Total mineral export earnings are not expected to be any higher than in 1988. The projected production levels for 1989 are indicated below together with actuals for 1988:

	<u>1988 actuals</u>	<u>1989 estimate</u>	<u>1989 estimated average price</u>
Copper	422 000	460 000	1 320 per tonne
Cobalt	4 898	4 400	US\$ 6.85 per lb
Lead	6 488	3 600	390 per tonne
Zinc	20 290	15 500	600 per tonne

CHAPTER II

THE MANUFACTURING SECTOR

The Zambian manufacturing sector accounts for over 18 per cent of GDP and about 16 per cent of gross fixed capital formation in the country. Historically it has been dominated by parastatal structure of ownership (State owned and parastatal companies account for about 60-70 per cent of manufacturing value added) and limited to the lighter end of the import substitution process. The sector is heavily import dependent and particularly sensitive to export earnings. With the collapse of copper prices in the 1970s the sector's fragility was manifested in decreased capacity utilization and the inability of enterprises to adjust to foreign exchange squeezes.

Industrial production in Zambia has become increasingly diversified over the years, moving from predominance of consumer goods to a greater share of output in intermediate and capital, goods and with increasing contributions from previously negligible branches of industry. The 1975 and 1985 shares of these major subsectors in total manufacturing are given on Table 3 (see next page):

The remaining subsectors of any significance were paper and printing, rubber products and non-metallic minerals.

The figures show that consumer goods have come to dominate the sector's structure in the course of the 1975-1985 period: the food and textile subsectors now account for more than 50 per cent of output, value added and employment.

1. OVERALL CHARACTERISTICS

The manufacturing sector's share of GDP has fluctuated around 18-19 per cent since the mid-1970s, according to UNIDO data.

Recent World Bank and Zambian data give a GDP share of 21 per cent in both 1985 and 1986. The difference would be a consequence of differences in methodology rather than of a sudden increase in the sector's share.

Total output (in constant 1977 terms) was 420 million Kwacha in 1986; the estimate for 1987 is ZK 440 million Kwacha.

Per capita MVA has decreased from US\$152 in 1975 to US\$110 in 1984.

Industrial production decreased during the 1974-84 period. Negative growth was registered for all branches, and only in 1985 did industrial production again exceed 1978 levels: the production index (1973 = 100) was 103 in 1985 and 112.3 in 1987.

Production growth in recent years is to be attributed mainly to the textiles subsector. Another growth sector is non-metallic minerals, but its role in manufacturing is very limited as yet.

The manufacturing sector employed 62,844 persons in 1985, which is approximately 13 per cent of work force. Another 500,000 are thought to work in small-scale informal sector enterprises.

Table 3: Share of major subsectors in total NVA

	1975 Output	V.A.	Employment	1985 Output	V.A.	Employment
Food, beverages and tobacco	35.6	41.2	28.8	38.6	44.0	34.7
Textiles and wearing apparel	9.7	7.8	17.3	12.1	10.9	17.3
Chemicals	12.4	9.7	8.3	11.4	8.8	8.2
Basic metals and metal products	19.8	18.4	20.8	19.0	18.2	17.2

**Table 4: 1986-1987 Growth in manufacturing production
(index-base 1973: 100)**

	1986	1987
Food, beverages and tobacco	95.5	110.5
Textiles and clothing	142.8	207.9
Wood and wood products	52.5	40.7
Paper and paper products	116.9	253.7
Chemicals, rubber and plastic	87.5	72.5
Non-metallic mineral products	101.3	80.4
Basic metal industries	88.5	57.1
Other metal products	92.1	90.8
Total (1973 = 100)	101.9	112.3

Table 5: Major manufactured imports and exports (US\$1,000)

	1984	1985	1986
Exports			
Textile waste	3 279	8 662	1 310
Non-metallic mineral products	5 762	3 374	7 512
Iron and steel	5 800	10 421	18 483
Machinery	5 792	5 375	6 214
Metal manufacturing n.e.d	1 886	2 022	2 832
Imports			
Petroleum products*	2 316	1 478	2 159
Chemicals	58 159	98 886	137 379
Machinery	257 160	164 870	149 767
Transport equipment	91 768	71 169	63 509

Source: ITC/UNCTAD

* Most probably under-reported - the ITC/UNCTAD data do not show imports from the Middle East (the main supplier of petroleum products) after 1983. The 1982 imports, e.g. were over US\$100 million.

Year	Total weighting 237	Food, Beverages, and tobacco 73	Textiles and clothing 28	Wood and wood products 9	Paper and paper products 12	Chemicals, rubber, and plastics 44	Non-metal mineral products 16	Basic metal industries 5	Metal Products and others 50
1970	81.8	89.8	90.2	83.7	71.7	71.5	95.1	103.6	69.9
1971	89.5	96.7	90.8	77.8	93.8	78.7	98.8	102.1	83.6
1972	94.5	96.3	102.3	81.5	99.2	86.8	108.4	95.2	91.0
1973	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1974	110.6	106.3	118.9	119.5	101.1	119.2	110.2	131.6	103.6
1975	105.5	104.0	117.9	88.9	115.5	107.8	114.4	98.0	97.1
1976	101.6	101.5	118.9	69.6	94.1	106.7	102.7	100.5	95.0
1977	98.5	98.1	100.4	76.9	102.6	105.8	134.5	109.8	81.9
1978	102.6	99.3	140.7	75.4	123.3	103.5	132.7	121.0	73.8
1979	96.2	91.2	147.1	75.0	96.8	107.1	121.5	114.8	59.1
1980	94.7	93.6	165.4	79.8	32.9	92.6	81.3	114.2	66.4
1981	101.9	100.4	184.7	108.1	82.0	119.2	95.8	98.9	62.8
1982	100.1	96.0	195.0	93.3	88.9	96.2	90.2	84.2	66.8
1983 ^b	94.5	92.7	167.7	45.3	83.9	89.8	197.1	91.5	67.7
1984 ^b	94.9	90.6	160.7	45.1	78.5	92.6	79.9	97.1	82.8
1985 ^{b-c}	106.0	90.3	199.4	47.4	94.7	87.4	170.5	94.5	83.0

a. Excluding copper refineries.

b. Provisional.

c. First six months average.

Sources: Bank of Zambia and Central Statistical Office.

Table 6: Index of manufacturing production 70 - 85

Table 7: Investment in the manufacturing industry

(K'000)

Programme/Project	1937 Budget Allocation	Interim Plan Provision	Funding		Donor Agency
			Local	Foreign	
<i>Priority A</i>					
1. Mulungushi Textiles	2,900	3,500	3,500	—	—
2. SIDO	20	15,000	15,000	—	—
3. Kawambwa Tea Scheme	—	4,800	4,800	—	—
4. Zambia Sugar Company	7,300	8,030	—	8,030	—
5. Zambia Coates Project	—	8,270	—	8,270	—
6. Nitrogen Chemicals of Zambia ..	15,000	100,700	80,000	20,000	KFW Loan
7. Consolidated Tyre Services	—	12,000	12,000	—	—
8. Kafue Textiles of Zambia	3,900	4,290	4,290	—	—
9. Mwinilunga Cannery	800	880	—	880	—
10. Kabwe Industrial Fabrics	10,500	6,500	4,700	800	IBRD Loan
11. ZAFFICO	800	800	800	—	—
12. Village Industry Service	30	5,000	5,000	—	—
13. Zambia Bureau of Standards ..	50	100	100	—	—
<i>Sub-Total (A)</i>	41,300	168,170	131,070	37,100	—
<i>Priority B</i>					
13. General Pharmaceuticals	—	4,800	4,800	—	—
14. Ox-drawn Plough Project	2,000	1,670	1,670	—	—
15. Maize Germ Oil Production	2,200	2,420	2,420	—	—
16. Zambia Breweries	12,200	13,420	13,420	—	—
17. Brass and Bronze Products Manufacturing	—	6,400	6,400	—	—
18. Ndola Milling Plant	8,000	—	—	—	—
19. Billet Casting Facility	—	1,600	1,600	—	—
20. Malambo Milling Plant	17,000	7,700	7,700	—	—
21. Manufacture of Irrigation Equipment	—	2,100	2,100	—	—
<i>Sub-Total (B)</i>	42,000	40,110	40,110	—	—
<i>Priority C</i>					
22. Lambert Saw Mills	3,800	4,180	4,180	—	—
23. Glycerine Recovery Plant	6,000	6,600	6,600	—	—
24. Vacoer Project	4,800	—	—	—	—
25. Parts Mover Tyre Retreading Project	4,610	70,257	70,257	—	—
25. Copper Magnet Wire Plant	1,271	1,398	1,398	—	—
27. Zamox Expansion Project	5,300	5,830	5,830	—	—
28. Ndola Stockfeed	1,000	1,100	1,100	—	—
29. Lusaka Stockfeed	1,600	1,760	1,760	—	—
30. Norgroup-Extruder and Printing Project	1,000	1,100	1,100	—	—
31. Nakezabala Sugar Estate	10,000	10,000	—	10,000	ADB/ADFL Loan
<i>Sub-Total (C)</i>	29,681	104,236	94,236	10,000	—
<i>Priority D</i>					
32. Iron and Steel Project	—	80,885	80,885	—	—
33. Leather Tanning and Shoe Manufacturing	—	2,100	2,100	—	—
<i>Sub-Total</i>	39,681	82,985	82,985	—	—
<i>Grand Total .. (D)</i>	152,561	395,600	348,400	47,100	—

Table 8: Production and targets for selected products of major industries

		1986/87 Production	1986/87 Capacity utilization (percentage)	1987/88 Production target
Food, beverages				
Maize flour	(MT)	219,869	19.5	252,953
Cooking oil	(MT)	17,500	-	24,400
Raw sugar	(MT)	119,263	79.5	140,117
Beer	(HL)	818,264	56.4	-
Textiles				
Plain and dyed cotton	(million M)	8.27	-	5.8
Printed cotton	(million M)	6.83	-	7.6
Yarn	(million M)	0.3	-	0.5
Jute	(MT)	92,000	"low"	240,000
Wood and wood products				
Block board and plywood	(sheets)	46,000	38.3	56,000
Doors	(pcs)	29,800	22.1	32,000
Sawn timber	(m ³)	641	9.0	1,220
Sleevers	(m ³)	2,315	43.7	1,480
Chemicals, rubber, plastics				
Retreated tyres	(pcs)	19,242	37.9	26,236
Soap and detergents	(MT)	11,160	-	15,220
Plastic containers	(MT)	170,000	"low"	225,000
Oral rehydration salts	(sachets)	500,000	50.0	792,000
Batteries	(thousand)	7,104	16.1	7,200
Oxygen	(million M ³)	1.5	60.0	1.8
Fertilizers	(MT)	101,335	-	151,000
Non-metallic mineral products				
Cement	(MT)	166,000	36.1	335,000
Stone products/limestone	(MT)	119,000	"low"	207,900
Basic metals				
Drums	(pcs)	13,000	2.6	75,000
Cans	(thousand)	166	2.8	2,000
Copper rod	(MT)	6,899	69.0	7,400
Wire cables	(KT)	1,382	62.8	1,950
Welded wire products	(rolls)	15,000	26.5	14,150
Geysers	(pcs)	3,000	75.0	6,350
Other metal industries				
Saloon cars	(pcs)	293	12.7	574
Pick-ups	(pcs)	49	-	48
Bicycles	(pcs)	12,696	15.9	18,000
Trailers	(pcs)	885	"low"	982

Source: 1987 Economic Report

2. MAIN INDUSTRIAL (MANUFACTURING) SECTORS

2.1. Food industries

<u>Table 9</u>	Gross output (ZK 1 000)	Value added (ZK 1 000)	Employment
Food processing	659 016	178 021	17 676
Beverages	461 350	374 693	3 681
Tobacco	140 149	113 191	423

In contrast to beverages and tobacco, much of the food processing takes place in relatively small-scale enterprises; food processing is also the most important single artisanal industry.

The relative contribution of the branches to the subsector have changed little over the 1980-1986 period.

The food products industry is known to have intensive links with other branches, and with other sectors of the economy. The proportion of imports in the subsector's total purchases fell by 50 per cent between 1975 and 1980. No recent information on linkages is available.

Very few products of the food subsector are exported. Although tobacco and its manufactures constitute an important category in the ISC/UNCTAD trade data, tobacco is mainly exported in leaf form for further processing.

1. The flour milling industry

The bulk of the grain is processed by the National Milling Corporation (NMC) and mills belonging to the Industrial Development Corporation, INDECO, which is a subsidiary to the Zambia Industrial and Mining Company (ZIMCO).

There are also some private enterprises in the milling industry.

2. The oil milling industry

According to a recent study, the present cultivation of oil seeds, sunflower, groundnuts, soyabeans and cotton covers approximately 150,000 hectares with a total crop yield which is estimated at about 80,000 tons.

Increasing the production of oil-bearing seeds is aiming at realizing self-sufficiency in edible oils by 1990. A major part of the investments, which include seed production, research, extension, credit, marketing and processing, will be covered by the FAO/ADB oilseeds development project.

The overall rated processing capacity in Zambia for sunflower seed and soyabeans is stated as 123,800 tons/year.

The major part of the oil mills are owned and operated by Refined Oil Products (1975) Limited (ROP), a parastatal organization. Private industry is also involved, although on a small scale. A few plants, notable one in Katete and one in Choma, are owned by the co-operative.

In addition, two plants for processing of cotton seed are presently under construction, or have just commenced operations. Both have an installed crushing capacity of 12,000 tons/year, one located in Ndola (ROP) and one in Kabwe and owned by BRR Industries.

In total, the oil crushing industry appears to be under utilized at present. It may also be that the capacity achieved, due to various constraints, is not capable of processing very much more than the current production of oilseeds.

3. The dairy processing industry

Government policy

In the previous National Development Plan (NDP) much emphasis was placed on the development of the state dairy sector to compensate for the departure of expatriate farmers. In the Third NDP (1979-83) renewed interest was directed to the potential of private farmers with less emphasis on the state sector.

The development was geared to both production of marketed milk from the traditional sector and the commercial sector for supplies to urban areas. Major programmes for rural milk production and collection were formulated.

Strategy

The strategy in the current investment plan is designed to reverse the decline in per capita consumption and reduce the disparities in consumption levels in the major urban markets. Milk production will expand from commercial, parastatal and smallholder dairy units.

Priority will be given to consumer milk, both fresh and recombined.

Consumption of milk and dairy products

The per capita consumption is generally low with significant differences between income groups in the urban areas, 42 l of milk or milk products (expressed in milk equivalents) for the high income group compared with 9 l for low income group people. Infants 1-5 years old in the high income bracket get about 0.25 l per day, whereas the low income children get only about 0.25 per day.

In the rural areas the variations are notable, from 4.3 l per capita to 32 l depending on whether the region is a traditional cattle district or not.

Potential for increased consumption

All observers agree that there is a considerable potential for increasing the milk production in the commercial sector. Yields per cow can be increased, existing herds can be larger, and new dairy farms can be established.

Rapid improvements are difficult to attain. A number of dairy schemes, in particular settlement schemes, were launched in the 1970s. They have all faced difficulties and progress has been slow.

A Dairy Development Programme (FAO/WB) was formulated at the beginning of the 1980s, including a total of 1,800 farms families in the Southern and Central Provinces. The farmers were divided into three categories - most advanced, emerging dairy farmers, and those who would start selling milk and marginally increase their level of production from indigenous cows.

The project was apparently too ambitious. The target of including 1,800 farm families now seems to be redesigned and focused on 150 farms in the Mazabuka and Monze areas in the southern Province.

Major constraints to increased milk production

The reasons for the discouraging results from dairy development are likely to be rather complex. The time element necessary for transition to more advanced production patterns has obviously not been considered sufficiently.

The major constraints, however, may be summarized as follows:

- Poor economic return from milk relative to that obtained from other livestock farming alternatives;
- High investment costs in stock and equipment for medium to large scale dairy farms;
- Difficulty in obtaining required inputs for dairy farming, e.g. vaccines, drugs, spare parts;
- Uncertainty as to the long-term future of large scale private commercial farming;
- The commercial dairy farms must have a high level of performance to be economically viable; this requires a high managerial standard which is difficult to find.

Government role in dairy processing

The Dairy Produce Board (DPB) is a parastatal organization which has the monopoly of buying, manufacturing, processing and marketing milk and dairy products in certain selected areas. These are principally the peri-urban areas of the line of rail, that is along the railway from Livingstone in the south to Ndola in the copperbelt.

With the exception of sales from the indigenous cattle herds, some dairy settlement schemes, authorized producers/retailers and the Zambezi Co-operative Dairies Limited (appendix 1:3, 3), all marketed milk and dairy products are officially supposed to be channeled through DPB.

DPB operates a number of dairy plants. The Lusaka plant was upgraded in 1973 and is equipped for processing of both fresh and recombined milk. Provision has been made for UHT packing of the milk but glass bottles were reintroduced in 1980. Capacity utilization in 1979 was stated at 22.5 per cent of the rated capacity, 12,000 l/hour.

The Kitwe plant in the Copperbelt has a similar production pattern, a rated capacity of 8,000 l/h which was utilized to 60 per cent in 1979.

No information has been obtained regarding the present degree of utilization of the two plants. Development of dairy farming in the past 5-6 years and the present difficulties with foreign exchange do not indicate any improvement.

In 1982/83 two small dairy processing plants were established in Chipata Dairy (Section 4.4, para. 4.4.6) with a rated capacity of 6,000 l/day. So far, 2,500 to 3,500 l of fresh milk has been processed per day and the balance has been made up from recombined imported milk powder and butterfat.

DPB is suffering from heavy financial losses which are partly related to the repayment of losses from the past. This is expected to have serious repercussions on its ability to function as a processing and marketing operation. Continued even though involuntary, neglect of plant, machinery and equipment maintenance will contribute significantly to this.

4. The Slaughtering and Meat Processing Sector

Number of livestock

The cattle population in Zambia is very unevenly distributed between the different parts of the country. The total number was estimated at some 1.8 million in 1979, with about 800,000 head in the Southern Province, 380,000 in the Western, 220,000 in the Eastern and about 200,000 in the Central Province. All other provinces have considerably less, in particular Luapula with barely 5,000 head.

The numbers of sheep and goats are insignificant in terms of slaughter potential, 32,000 and 325,000 head respectively.

Pig production has decreased during the 1970s and the total number of pigs in 1979 was some 120,000 head, with the majority of about 70,000 in the Eastern Province.

Cattle off-take

Calculated from the assumptions made in the Food Strategy Study, i.e., an annual off-take from the commercially oriented farms of 16.4 per cent with an annual herd increase of 5 per cent per annum, these cattle farms have today about 440,000 head with a production of 72,500 slaughtering animals.

The traditionally managed herds which use communal grazing, under either sedentary or transhumant systems, were assumed to increase by 2 per cent per annum and have a net off-take of 5.9 per cent, 5.1 per cent of which is marketed. The total number is thus calculated at 1.73 million head for 1986, about 88,000 being slaughtered. This may be an over estimation depending on the drought which has struck the country over a number of years.

The slaughtering and meat processing industry

The Cold Storage Board, CSB, which is a parastatal organization, operates slaughterhouses for cattle in the major producing areas, Lusaka, Mongu in the Western Province, Livingstone and Choma in the Southern Province. Depots are established in other places.

Municipal abattoirs exist in a number of towns, like Ndola, Luanshya, Kitwe and Chingola in the Copperbelt, Kafue in Lusaka Province and Mazabuka in the Northern part of the southern province.

Large areas of the country thus lack organized slaughtering and the animals are presumably killed, handled and marketed in a traditional manner.

The total slaughtering capacity in CSB abattoirs is stated to be 142,500 head per annum and the total national capacity about 240,000 head per annum. This should be compared with the present estimated off-take of about 16,000 head.

All CSB slaughterhouses were under-utilized in 1982; Lusaka 20 per cent utilization, Mongu 30 per cent and Livingstone 6 per cent (1981). Whether the situation has improved in recent years is not known. It is concluded from available documents that the national slaughtering capacity is adequate until 1990.

A suggestion is apparently being discussed which may eventually lead to the Mongu slaughterhouse being taken over by the Western Province Co-operative Union.

It is worth mentioning that the hygienic conditions in the Municipal abattoirs, and certainly also the traditional slaughtering in the rural areas, leave much to be desired.

Zambia Pork Producer, also a parastatal organization, operates a pig slaughterhouse in Lusaka with a capacity of 400 pigs/day. Twelve per cent of this capacity was utilized in 1982 and with the decline of the pig industry as a whole the degree of utilization is not likely to have improved.

Poultry

There is also a chicken slaughterhouse in Lusaka operated by the Poultry Development Company Limited, PDC, a subsidiary to the Rural Development Corporation. The capacity is 1,000 birds/h and the capacity utilization in 1982 was 20 per cent. Since there is a trend to fewer and larger producers, the position for PDC may look brighter today.

The prospects for future initiatives by the Co-operative Movement in the slaughtering sector do not seem to be particularly good.

In time, depending on the future engagement by the Co-operative Movement in livestock co-operative societies, a platform may be created for an integrated co-operative involvement in the livestock sector including a viable co-operative slaughterhouse industry.

Meat processing is mainly carried out on a small scale by the private sector. The plants are all located in Lusaka or in the Copperbelt and use each only about 0.5 to 3.5 ton carcass weight per day as raw materials.

An exception as far as the capacity is concerned is Brooke Bond/Lyons, a multinational company in Ndola. They produce pork luncheon meat and corned beef, apart from many other tinned products such as peas, pineapple, jams, etc., in total 32 products.

Meat processing for local supply is likely to be a sound project idea in many urban areas when the need arises. It may thus be combined with small sized hygienic slaughtering facilities which can supply meat and meat products to the co-operative stores. Such development should then be integrated and cover the whole chain of activities from the Investment Co-operative Societies to establishment of suitably planned and managed meat shops with adequate chilling facilities.

5. Vegetables and fruits

No statistical figures have been obtained for production or marketing of vegetables and fruits. The large volumes are handled by small merchants on the local markets.

In the Western Province tomatoes and mangoes are grown quite extensively and there is a mango processing plant in Mongu with a capacity of 400 tons/year. The potential for increased production is reportedly quite high.

In the North Western Province large quantities of pineapple are grown in the Ikelange area. The fruit is transported to the Mwinilunga Cannery Factory operated by the District Council.

The factory has reportedly encountered several problems including transport difficulties, erratic electrical supply and sub-standard quality, causing marketing problems.

Brooke Bond produces a variety of juices and fruit preserves and there are also several private firms in the Copperbelt and Lusaka areas which are engaged in vegetable and fruit processing, some on quite a large scale, e.g. Farm House brand tomato ketchup.

Okra, eggplants, avocado, papaya and guava do well in many areas but production is not properly organized. They are changes, complementary training of personnel, financial and economic planning.

6. Cooperative food industry

Framework

The co-operatives are key elements in the party and its Government's strategy for development. The Zambia Co-operative Federation (ZCF) is the apex organization for the nine provincial co-operative unions and co-operatives such as Commercial Farmers Bureau, Zambia Agriculture and Trading Co-operative, ZATCO, and National Marketeers Co-operative Union.

Five of the provincial co-operative unions are more developed than the others, i.e. those on the line of rail - Southern, Lusaka, Central and Copperbelt Provincial Co-operative Unions plus Eastern Co-operative Union. The Northern, Luapula, North Western and Western Co-operative Unions are lagging behind in development and thus in line for more government support in future.

Strategy

Each co-operative union is autonomous as far as internal decision-making is concerned, and has a General Manager and a Board of Directors.

Initially the unions were engaged in marketing and collection of, e.g. maize on behalf of the National Agricultural Marketing Board, NAMBOARD.

Other crops, like sunflower in some provinces, paddy rice in others, soyabeans and groundnuts, are increasingly adding to the crop mix handled by provincial co-operative unions, handling of maize and fertilizer will, however, remain the backbone activity for a long time.

In 1985, the Government decided to withdraw subsidies from the co-operative unions and instead focus their efforts on market-controlled commodities like maize and fertilizer.

The unions were directed to re-orient their activities to income generating operations and to strengthen their ideological principles of member participation and member promotion.

The diversification was to be geared toward involvement in food processing industries at both society and union levels. This is a drive to transform the union from the status of being "middlemen" in commodity trade to that of processing entities.

According to available publications, three of the nine provincial unions are at present engaged in some kind of agro-industrial activity, either on their own, through subsidiary companies or through co-operatives within their area of jurisdiction. Two other provincial co-operative unions have stated as their objectives to "process any agricultural products collected from member societies".

Difficulties

The co-operative food industry has hitherto been concerned only with flour milling and processing of oil-bearing seeds.

The processing plants are often underutilized due to frequent breakdowns, lack of spare parts, weak management, inadequate maintenance, insufficient quantities of raw materials and transport problems.

The frequency of breakdown depends to a very large extent on the quality and standard of the mechanical and electrical installations in the plants. This, in combination with difficulty in obtaining spare parts and inadequate maintenance, reduces the productivity below what is acceptable.

The spare parts problems are to a great extent caused by the present foreign exchange situation.

Future measures to remedy the current shortcomings and provide a good basis for successful development of the co-operative food industry include the following:

- Acquisition of funds for rehabilitation of existing plants through international agencies and bilateral aid;
- Technical assistance for preparation of an inaugurated programme for each food industry subject to rehabilitation;

- Provision of management support and technical assistance during a transitional period of time for operation and maintenance of food processing plants;
- Strengthening and expansion of the Research and Development Section within ZCF in order to provide qualified technical and economic services to the co-operative movement in the country;
- Development of a better understanding and awareness of the importance of food hygiene in the integrated chain of activities in food processing industries.

Substantial strengthening of the Research and Development Section with ZCF including establishment of a Technical Department. The personnel resources should be capable of providing the following main services to the co-operative movement and take full responsibility for:

- Qualified techno-economic pre-investment and feasibility studies including project formulation;
- Elaboration of technical specifications to form the basis for procurement of food industrial projects, regardless of mode of procurement;
- Assistance in contractual matters and negotiations with suppliers, donors, etc.
- Provision of technical expertise capable of supervising and controlling the commissioning procedure and taking part in guarantee inspection and tests.

A strengthened Research and Development Section would be a key element for the future successful development of the co-operative food industry. The responsibilities of the Section must be linked to adequate professional competence with integrity. The recruitment of well qualified staff members with suitable personal character is essential and will largely determine if the targets set are to be reached.

In order that the Research and Development Section may gain sufficient knowledge and experience, substantial multi-discipline technical assistance will be necessary over a number of years.

2.2. Textiles and wearing apparel

For the two branches that make up this subsector, the following 1985 figures are available:

<u>Table 10</u>	Gross output (ZK 1 000)	Value added (ZK 1 000)	Employment
Textiles	220 572	99 840	4 595
Wearing apparel	175 691	65 393	6 273

There has been little change in the relative shares of these industries.

The wearing apparel industry is presumably larger than the available data indicate, as a considerable number of non-registered small-scale (artisanal) wearing apparel producers is known to exist.

The textile industry, on the contrary, is made up of medium/large-scale establishment.

The textiles subsector mainly serves the domestic market. In recent years, textiles waste has been among the major exports.

For the textiles industry, linkages with domestic cotton cultivation would be essential. Little information on these was available at the time of writing.

2.3. Chemicals

The chemicals subsector is composed of industrial chemicals. In all other sectors, however, the industrial production index decreased. These include the important chemicals and metals subsectors.

The influence of the reforms on the operations of parastatals appears to have been positive, in a number of ways.

Out of INDECO's nine enterprises that were making losses in 1982/83, three were able to balance their books by Nitrogen Chemicals of Zambia, long a heavy loss-maker, was sold after considerably improving its financial performance in 1986/87.

"Other" chemicals (a.o pharmaceutical products), rubber and plastic products.

The main 1985 figures to the individual branches were:

<u>Table 11</u>	Gross output (ZK 1 000)	Value added (ZK 1 000)	Employment
Industrial chemicals	83 487	42 897	1 602
Other chemicals	292 421	90 488	3 591
Rubber and plastic products	145 194	52 109	2 116

The relative shares of those branches within the subsector have changed very little during the 1980s.

Performance in the industrial chemicals branch would to a large extent seem to depend on the performance of Nitrogen Chemicals of Zambia, which in the past was a high-deficit fertilizer manufacturer. The most recent information indicates a considerable improvement of performance; the plant's long-term viability would however seem far from certain.

The subsector mainly serves the domestic market. However, as indicated above a certain expansion of chemical exports (mainly consumer chemicals such as paint) to the region was brought about by the structural adjustments of the mid-1990s. Most of the supplies for the chemical industries are imported from abroad; the subsector is therefore extremely dependent on foreign exchange availability.

Import coefficients are highest in the chemicals and basic metals industries, which imported 72 per cent and 77 per cent respectively, of their intermediates in 1980.

2.4. Metals industries

The table below shows the key 1985 figures for the branches within the subsector.

<u>Table 12</u>	Gross output (ZK 1 000)	Value added (ZK 1 000)	Employment
Iron and steel	38 457	19 615	1 165
Non-ferrous metals	9 647	3 356	120
Fabricated metal products	228 676	96 268	5 381
Machinery, electric	115 112	51 427	1 838
Transport equipment	115 095	53 561	1 382

Over the years, the significance of iron and steel and non-ferrous metals production within the subsector has decreased in value-added terms. Their 1980 shares were 15 and three per cent, respectively; in 1986 the shares were 10 per cent and less than two per cent respectively.

The most conspicuous growth in shares took place in the transport equipment and fabricated metal products branches: the value added shares increased from 34 per cent and 25 per cent (1980) to 50 per cent and 37 per cent import coefficients are highest in the chemicals and basic metals industries, which imported 72 per cent and 77 per cent, respectively, of their intermediates in 1980.

High import dependence within the context of increasing foreign exchange constraints has been a major reason for the decreasing levels of capacity utilization in the manufacturing sector, as indicated above.

3. ROLE OF THE PRIVATE SECTOR

The role of private sector investment is relatively modest. Foreign direct investment is uncommon. During the 1979-1983 Third National Plan, the private sector was expected to contribute ZK 30 million top investments in small and medium-scale manufacturing. No details were available on the actual amount of private investment that took place.

Details on investment during the mid-1980s - in either public or private enterprises - were not available at the time of writing.

Under the 1987-1988 Interim Development Plan, ZK 395.5 million are to be invested in public sector manufacturing enterprises (both parastatals and Government-owned units). This is 12 per cent of the total Plan expenditure. The private sector was to contribute ZK 235 million to industry and trade.

Manufacturing investment has tended to fluctuate with general levels of Government expenditure which again is to a large extent determined by movements in international copper prices, and the availability of foreign funds (loans).

Capital expenditure on industry decreased from ZK 30.0 million in 1980 to ZK 4.2 million in 1981, then rose to ZK 51.5 in 1982, and fell to less than ZK 1 million in both 1983 and 1984.

4. ZAMBIA INDUSTRIAL AND MINING CORPORATION (ZIMCO) AND INDUSTRIAL DEVELOPMENT ORGANIZATION (INDECO)

Shortly after gaining independence, Zambia came up with new economic reforms, popularly known as the 1968-69 Matero and Mulungushi reforms. The primary objective of these reforms were to transform the wealth of the country from foreigners to Zambians. This process of transferring wealth from non-Zambians is normally referred to as nationalization.

In some cases companies were 100 per cent nationalized while in other cases the State retained majority or minority shares.

As a result of the nationalization process, a parastatal company called INDECO which is 100 per cent State-owned was formed to run the nationalized companies on behalf of the Government. INDECO was thus a holding company of various subsidiaries involved in industry, banking, transport, energy, agriculture and other sectors of the economy.

To streamline the operations of INDECO, it was decided to establish a multi-divisional structure headed by one holding company. The year 1970, therefore, witnessed the formation of ZIMCO which is 100 per cent State-owned, and is now controlling 80 per cent of economic activities in the nation. ZIMCO is a group of diverse enterprises. Its sectoral departments are agriculture, communications, energy, finance hotels, industry, mining, construction and real estates, trading and transport. Under ZIMCO there are a number of sub-holding companies of which INDECO is one of them. Each sub-holding company has its own management as do its subsidiaries.

As a sub-holding company, INDECO has been charged with the sole responsibility of promoting industrial development and it is now controlling 75 per cent of industrial activities in the nation. INDECO has 41 subsidiary companies: 17 companies in food and agro-based activities, three in non-food consumer products (clothing, batteries and fishing nets), in engineering, six in construction-related activities, three transport-related activities, four in packaging, three in drugs and chemicals and two in property and real estate (see Annex 1).

4.1. Capacity Utilization of INDECO Group

Mean capacity utilization achieved by the group during the year 1988 compared to the budgetary capacity utilization of 55 per cent, 26 products manufactured by 14 companies in the group achieved a capacity utilization of about five per cent during the year. On the adverse side, 23 products in the group achieved a capacity utilization below 25 per cent.

This was by large due to shortage of foreign exchange, shortage of raw material and short planning.

It is therefore suggested that INDECO should include also maintenance and repair concepts in planning programme. Figures shown in table 3.2 reflect capacity utilization by industry 1982-1983 and for INDECO 1984-7).

Once again this year capacity utilization remained below economic levels, with many products registering a decline. Only 30 of the 57 products registered utilization of over 50 per cent of installed capacity. In a few cases the poor state of machinery had been the cause of such low capacity utilization, while paucity of foreign exchange for procuring raw materials was the single major contributory factor in most of the companies (INDECO 1985-7).

This problem is endemic throughout the entire manufacturing sector, with an estimated overall capacity utilization of 58 per cent during 1982-83. Only non-metallic mineral manufactures - which closely depend on the mining industry - and textiles, garments, and leather achieved utilization levels above 70 per cent.

Table 13: Capacity utilization by industry, 1975 and 1982-83 (per cent)

Industry	Average capacity utilization	
	1975	1982-83
Food, beverages and tobacco	69	58
Textiles	63	72
Wood and wood products	50	30
Paper and paper products	62	35
Non-metallic mineral manufactures	73	73
Chemicals and chemical products	65	70
Metal manufactures, machinery, etc.	62	50
Total average	n.a.	58

Source: Republic of Zambia (1984-1985b).

The problem of low capacity utilization is closely linked to the capital and import intensity of the manufacturing enterprises. Among manufacturing subsectors, food, beverages, tobacco and non-metallic mineral products have the lowest import content. The least capital-intensive sectors are food, beverages, tobacco and textiles.

Low capacity utilization in the parastatal often stems from the Government's inspiration to the appropriateness of imported technology, plant and machinery to Zambian industry. Many times the technology came into the country in the form of foreign aid, and, as the saying goes, Zambia did not look a gift horse in the mouth.

One of the numerous examples is in Mansa Batteries Limited. Through Finnish Aid, it set up a plant designed to produce 44 million units annually in response to a 1974 feasibility study by a Finnish company.

4.2. Significant adverse variances in production

Significant adverse variance in production is i.e. below 75 per cent of the budget are analysed below:

Food and agro-based

1. EC Milling Company (ECM)

Production of stockfeed was only 47 per cent of the budget due to stock-out of both local and imported ingredients.

2. Mwinilunga Cannery Company Limited (MCCL)

Production of cannery products was only 50 per cent of the budget. Lower availability of proper ripe fruits.

Due to competition from soft drink manufacturers as well as poor transport facilities restricted the collection of fruits from farms, resulting in poor through-put.

3. Cooking oil

Cooking oil production during the year was 16500MT compared to the budget of 24400MT. Shortfall of 7900MT or 32 per cent arose due to lower availability of oil seeds for crushing at Premium Oil and lower availability of imported crude oil coupled with stock-out of other imported input in Premium Oil.

Premium Oil Industries Limited (POIL)

Production of cooking oil and soaps were only 37 per cent and 39 per cent of the budget respectively.

Poor availability of oil seeds for crushing and lack of crude oil restricted the production. Major breakdown at Solvent Extraction Plant and Rovolex Dry Extrusion as well as power disruption affected the operation.

Initial delay in restructuring the company also had its adverse impact on procurement of foreign exchange and importation of necessary raw materials and chemicals.

4. Washing powder

Washing powder produced during the year was 45600MT against the budget of 8220MT. Shortfall of 3660MT or 45 per cent was due to the continuous breakdowns of the machinery.

ROP (1975) Limited

Washing powder production was only 55 per cent of the budget due to the poor state of NSD plant and stock-out of packing materials and cartons.

5. Flour

Production of bread at two million was lower than the budget by 21 per cent due to flour shortages at both the bakeries during the March 1988 quarter and water shortage at Kitwe Bakery.

6. Stockfeed

Production of stockfeed during the year was 70106MT compared to the budget of 74960MT. Shortfall of 4854MT was contributed to by INDECO Milling and E C Milling. Poor state of plant, stock-out of ingredients and sub-economic pricing were mainly responsible for lower production.

7. Chibuku

Production of chibuku at 2.3 million hectolitre during the year was only marginally below budget.

8. Lager beer

Lager beer production was 22 per cent below budget due to the poor condition of plant at both the breweries.

9. Zambia Coffee Company Limited (ZCCL)

Production of clean beans was 28 per cent below budget. Lower crop was due to paste infestation and bi-annual bearing.

10. Zambia Pork Products Limited (ZAPP)

Pork products production was 39 per cent below budget due to non-availability of pigs.

Packaging

1. National Drum and Can Company Limited (NDCCL)

Production of Drum and 84MM cans were 57 per cent and 69 per cent respectively. Low demand for drums, stock-out of raw materials and organizational problems resulted in unsatisfactory performance.

2. Norgroup Plastics Limited (NGP)

Jerry cans, plastic crates and plastic bottles production were only 64 per cent, 32 per cent and 14 per cent respectively. Stock-out of imported raw materials, unreliable suppliers, longer lead times and inadequate foreign exchange allocation resulted in poor performance.

Transport

1. Livingstone Motor Assembler (LMA)

Company assembled only 95 Fiats, 72 Peugeot and 24 Mercedes Trucks throughout the year. Virtually non-allocation of foreign exchange by FEMAC resulted in non-availability of Fiat CKD sets. Availability of contractee's CKD sets was also very low due to the same reason.

Engineering

1. Lusaka Engineering Company Limited (LENCO)

Production/assembly of trailers and buses were very low due to non-availability of CKD sets and lack of orders.

2. Monarch (Z) Limited

Window/door frames, geysers, wheelbarrows and welded wire products production remained substantially below budget due to stock-out of raw materials and breakdowns of machinery. Lower forex allocation and unreliable suppliers mainly caused the stock-out situation.

3. Metal fabricators of Zambia Limited (ZAMEFA)

Production of wires and cables was only 56 per cent of the budget due mainly to lower production of magnet wire and copper and brass billet cast. The related projects were completed only in August/September 1987 opposed to earlier expectation of completion by June 1987.

4. Batteries

Nine million batteries was produced during the year which exceeded the budget by 26 per cent.

Construction related

1. Crushed Stone Sales Limited (CSSL)

Aggregate stone production was 55 per cent of the budget while production of limestone was 64 per cent of the budget. Frequent breakdowns of mobile equipment, drilling rig and loading and off-loading facilities limited the operation. The company has been crippled with the breakdown of various machinery and equipment of one or other kind for past several years. One crushing plant, however, was successfully rehabilitated and the rehabilitation of another is almost complete. New compressor was bought and installed. A humble beginning has also been made on other areas of replacement and maintenance.

2. Zambezi Saw Mills Limited (ZSM)

Sawn timber production was only 35 per cent of the budget due to breakdown of caterpillar equipments. Zambezi Saw Mills has also been plagued with the continuous breakdowns of mobile equipments to the extent of crippling the operation for the past several years.

3. Zambia Ceramics Limited (ZGL)

Production of sanitary ware was only 56 per cent of the budget due to lack of imported raw materials and demand constraints.

4. Zambia Steel and Building Supplies Limited (ZSBS)

Production of door was only 51 per cent of the budget due to inadequate supply of door skins from vaneer plant.

5. Cement

Cement production was 380000MT which not only exceeded the budget by 13 per cent, but also recorded the highest production ever achieved by the company.

4.3. INDECO plan for 1989-90

1. Objectives

- A minimum growth in real terms of not less than five;
- Higher capacity utilization and improved standard of efficiency;
- Uninterrupted supply of goods and its proper distribution;
- Determined efforts to improve the quality of goods produced;
- Promotion of a high degree of import substitution through increased utilization of domestic resources;
- Increasing the forex earning through developing export market for non-traditional export goods and intensification of existing export markets;
- Evolving a planned maintenance and rehabilitation programme to keep the plant and machinery in the proper state of repair;
- Placing greater emphasis on completion of on-going projects and rehabilitation projects;
- Investment in new economic ventures which are viable and profitable and involve maximum utilization of local resources;
- Implementing more vigorously a human resource development programme;
- Bringing about greater discipline and accountability among enterprise managers;

- Improving the profitability to a level that a return on capital employed will not be less than 25 per cent, so as to sustain production efficiency, service the debit obligations and be able to obtain phased replacement of productive assets;
- Turnaround loss-makers and sustain their viability.

2. Strategy

Strategies adopted for formulation of the Group Plan are:

- An integrated cost reduction programme, increasing exports in real terms and enhancement of capacity utilization;
- To maintain and where possible improve INDECO's supervision of its subsidiaries through the mechanism of corporate planning, annual budgeting and quarterly reporting;
- Giving greater autonomy to the subsidiaries in the day-to-day running of the companies;
- Strengthening the Boards of subsidiaries by appointing more experienced Directors and by redefining the role and the responsibility of the Directors;
- Introduction of productivity-related incentive schemes to ensure higher production;
- Imposing sanctions on poor and sub-standard performance;
- Improving remuneration packages with a view to retaining qualified and committed personnel;
- Creating conditions for excellence and efficiency in the quality of service rendered;
- To ensure a pragmatic review of prices with a view of not passing the cost of inefficiencies onto the consumer;
- Improved forward planning on procurements;
- Investment decisions to be made on the basis of strict financial and economic analysis and to secure a minimum, financial rate of 20 per cent after providing for borrowed costs;
- Replacement of productive assets and plant maintenance should not be lower than the cost of wear and tear of such assets;
- To ensure insurance policies are cost-effective and to consider the advisability of being "self-insured" in low risk areas;
- Improve the working capital management vis-à-vis the need to raise Kwacha funds to finance the foreign exchange requirements;

- Restricting the Group's borrowings to a sustaining level;
- Optimize the utilization of training programmes and facilities within the country so as to reduce the high cost (and drain on foreign exchange) of training abroad.

5. THE SMALL SCALE INDUSTRIES

In recent years due to miserable states of large-scale import has generated increasing interest and awareness in Zambia for small-scale industries.

Small- and medium-scale industries have received some recent attention, as the Government has attempted to promote them as a vehicle for increasing the use of local resources. The Small Industries Development Organization (SIDO) is addressing itself to many important constraints on the development of small and medium enterprises. SIDO provides assistance to small enterprises, such as technical services and improving input supplies, management services, etc.

Small-scale industries could make to the pursuit of rapid self-reliant and self-sustained industrial and overall economic development. The strategies of import substitution and export promotion are pursued in developing economies with very similar socio-economic structures. If these strategies have not worked satisfactorily, it would be unfair economic analysis to conclude that they are bare in themselves. If there are certain basic conditions, the lack of which made these strategies a failure, the creating of these favourable conditions becomes the obvious rational solution. Alternatively, another solution that readily comes to mind is the introduction of a strategy that is less vulnerable to the impact of those basic requirements necessary for the success of the earlier strategies. The important questions, therefore, influence the success or failure, respectively of the earlier strategies and what are the likely repercussions? How does one operate the new strategy within the same old environment without having the effect of pouring new wine into old pots? Is the new strategy really less vulnerable to the influence of those conditions that militate against the success of the large-scale industry import-replacement and export promotion strategy? Does the new strategy call for total or partial abandonment of the old ones?

The emphasis on the development and promotion of small-scale industries in developing countries is primarily based on the assumption that the developing economies have certain characteristics that provide a greater comparative advantage for the operation of small-scale industries over the running of large-scale ones. Therefore, the first steps in the pursuit of this strategy are:

- To identify those areas of comparative advantage and assess their potentials and roles within a framework of redefining the entire problem of industrialization;
- To make conscious efforts at achieving a higher degree of structural linkages among the various sectors of comparative advantage;
- To make greater efforts at developing greater inter-developing country trade;

- To establish workable institutions which must be given all necessary support, incentives and political good-will to carry out the task of developing and promoting small-scale industries;
- Finally, to adopt a product development strategy. This strategy calls for organizing science and technology to support production within the sub-region with emphasis on the use of local resources and the satisfaction of local needs first.

These steps, it is hoped, will help boost small-scale industry in conjunction with others, will lead this country on to a more worth-while and self-sustaining development path.

Product development

There have been several resolutions and proclamations, both in governmental and international circles concerning the recognition of the need for small-scale industry development. But the effort on ground to improve the small-scale industry scene has not yet gone beyond some stray pilot projects. Where further action has been taken, it has also stopped at dishing out small amounts of money as credit to people to undertake "small enterprises" under the same conditions that made the articulation of individual initiative for small industry development rather difficult. The lack of capital, thus, still being considered as the primary setback to the development of small industry. In the developed countries individual initiative is enhanced and helped to succeed not only by the provision of money, but also by the provision of several institutional support services and facilities. At the present level of development, the promotion of group or individual initiative in Zambia must even more be buttressed by government supportive instruments. Therefore, the establishment of an internal dynamism in Zambian economies entails the development of an effectively organized scientific base to support production and promote the development of economies. It is important to realize that the products developed or used in an economy, among other factors, shape the pattern of subsequent development of that economy. When products are developed in the economy itself, the designers use the existing products, resources, services and other conditions in the economy as their frames of reference and therefore design the new products based on the availability of these other products. In this way, the use of the products stimulate the production of other products while at the same time they increase the demand and satisfy the needs for which they have been developed. This is the important reason why product development activities must be organized and encouraged.

Secondly, imported technologies can have immense benefits to these economies if they are used as sources of knowledge rather than as consumption products. That is to say, with the existence of well-organized and purposive, i.e. mission-oriented, scientific research institutions and national plans to encourage innovation, engineers to attempt to study the imported products and try to modify them in ways that make them more relevant or convenient to the economies into which they are imported. As a result, an accumulation of knowledge is ensured. The problem with transfer of technology from the developed countries to developing countries, like Zambia, has not only an administrative dimension, i.e. how to reduce the cost of transfer. Its utility to the economy is more a question of how it is made to fit neatly into the general development plans and goals of these economies instead of distorting them. This aspect of the problem is basically technical as such it is worth considering to take assistance of National Council for Research and institution.

Consortium of financial institutions

1. An alternative to the Development Bank for medium- and small-scale industry could be the formation of a kind of Federation of Financial Institutions in this country to finance the medium- and small-scale industry development programme. The operation of such a proposed consortium would play a key role in the medium- and small-scale industry programme. The broad objective of the Federation would be to assure a reasonable balance between the prompt utilization of foreign exchange from external sources and local currency counterpart capital for financing the programme. It would also undertake the identification of sound projects to be financed in the medium- and small-scale industry sector and the follow-up of loans to ensure the effective use of funds. The most prominent advantage of the proposed consortium of financial institutions over the development bank of medium- and small-scale industry is that it would involve not only one but several commercial and development banks spreading their risks and liabilities together. A demerit of the federation, however, is that the commercial objectives of the banks could affect their operations towards medium- and small-scale industries. The banks may lend more easily to the retailing sector for quick returns unlike small-scale manufacturing industry which requires a longer gestation period for the investment capital to mature and yield reasonable returns. The success of the federation achieving these objectives would depend on whether or not some prerequisites could be met. First, there must be agreement among the participating banks and government agencies on the definition of medium and small-scale industry. This is needed to make sure that local currency and foreign currency exchange capital are channelled to medium- and small-scale industry and do not gravitate toward larger, better established firms that are more capable of arranging their own financing.
2. The participating institutions must agree on medium- and small-scale industry goals, such as the yearly amount of capital to be provided by the financial institutions as well as an amount-financing timetable for urban and rural small-scale industry.
3. There must be easy continued access to Central Bank Credit Guarantee Schemes by which commercial banks and Government-owned lending institutions are protected against borrower defaults.
4. Local currency capital must be pledged or allocated to finance local costs and to purchase foreign exchange.
5. Foreign exchange must be made available to supplement the expenditure already made from the country's own resources. Without supplementary foreign exchange resources, there will be little incentive on the part of the local financial institutions to support a working federation of banks.
6. A special institute for medium- and small-scale industry LEDA would play a vigorous role in finding and encouraging entrepreneurs; making sure that candidate projects have been properly appraised before they are submitted to the banks; correcting lags in the medium- and small-scale industry programme implementation and identifying weak projects and bringing them back to economic wealth through counselling and technical assistance, that is loan follow-up.
7. The Central Banks would have to conduct continuous review of the spread between lending rates offered by the commercial banks and the cost of capital to these banks in order to assure their active participation. Obtaining the necessary capital

resources and subsequently channelling the credits liberally through either a Federation or Financial Institutions or the Development Bank for Medium and small scale industry it not itself an adequate form of assistance to medium- and small-scale enterprises. The entrepreneurs need guidance and counselling on the proper use and management of credit. They need information about types of machinery or material inputs to purchase, types of building structures to put up and where to do so. Above all they must be able to instill in themselves a character of trustworthiness and personal discipline. Thus, supervised credit becomes important. Under such a scheme, therefore, credit would become integrated with technical and management assistance so that the small entrepreneurs are also to obtain the maximum advantages from the loans they receive. A successful form of supervised credit is the supply of capital equipment on a hire purchase basis, which has been introduced in industries, selecting locations and estimating capital requirements and potential markets.

There has been a gradual shifting of population from the rural to the urban areas and nobody can blame the youth for leaving those drab environments for the cities.

The proposed small-scale industry programme for rural industry could be addressed to two major problems. The first is under-utilization of rural labour force, especially the youth. Much of the rural labour force is idle for most of the year round. The enforced idleness, especially of the youth, aggravates the problem - namely urban drift. Development of rural industry, for example, processing of farm produce and the provision of outlets for recreation and for the rural residents to spend their incomes would contribute to the solution of the above problems.

Urban industry components

The urban small-scale industry must be addressed to basic problems affecting the country. First, is the growing demand for consumer goods in urban markets attributable in part to the growth of urban populations.

The second is the weakness of the business community of small-scale entrepreneurs. This weakness is apparent in terms of low productivity, poor financial management and accounting habits, high retail prices, often low quality standards, absence of effective linkages with other manufacturing activities, inadequate supply of credit and a general inability to procure materials and spare part inputs needed to supply the consumer with the required goods and services.

Policies within the framework of the small-scale industry. The programme should also be co-ordinated to ensure concept of maintenance and repair.

6. MANPOWER RESOURCE DEVELOPMENT

Collaboration between training institutions and industry

The rehabilitation of industries is very important in the programme of Zambian industrial development. A number of industries had been unable to carry out even the most basic of maintenance in their factories in recent years, because of unfavourable exchange and interest rate regimes in operation. Although the IMF

exchange and interest rate policies were aimed at forcing enterprises to switch sources of supply from foreign to local through the price mechanism it was noted that the necessary skills were not available to facilitate the switch in sources of supply.

These skills, unfortunately, are still lacking and what is happening is that industries are importing the spares and machinery because the controlled exchange and interest rate policy under the New Economic Recovery Programme has reduced the cost of importing these items.

In order to control the situation and therefore prevail the importation of even those spare parts that can be produced locally, the mechanism of allocation of foreign exchange is applied in such a manner that items produced locally cannot be imported. It is quite evident that unless further effort is made to intensify collaboration between training institutions and industries on the one hand and manufacturing industries on the other, it may take a long time before the objectives of a home bond rehabilitation of industries can be realized.

Design development

Experience of Zambia has shown that for engineering training to have the desired impact, there must be close collaboration between enterprises and training institutions. The whole training process must take place in both training institutions and the workplace and it must be designed as part and parcel of the same process, to produce skills in both maintenance as well as design and production of spares and production of spares and machines. It is also clear that unless more funds are voted to engineering training in all its various forms, skills development will be severely hampered and this affects industry adversely.

Research and development institutions as supportive instruments for manpower resource development

The mention of research and development institutions evokes in the minds of many policy-makers in developing countries a rather sophisticated proposition that should be left to academicians and laboratories with all types of funny gadgets. The major preoccupation of such decision-makers is how to get problems solved today, to stave off unrest and therefore maintain their positions. Industries spend scarce foreign currency, and virtually bolt profitable or essential operations until even the most simple spare parts are shipped from overseas. A technical industrial development levy could be collected from all industrial establishments directly into some bank account for such an institution to upgrade it into some kind of technology centre. Imported machines could be broken down, studied, re-assembled and some attempts made to rebuild them or parts of them from available local materials like scrap, and tested. Companies contributing to such a levy could send their technicians and designers to such a centre for regular retraining and exposure to new ideas. They could also submit their worn-out machine parts to such a centre to see whether they could be improvised. There must be no secret made of the availability and capabilities of such a centre. Inmates of such an institution could cover limitations and deficiencies in the working of some of the imported technologies and could initiate research into making them more adaptable. Thinking about products to be developed or promoted in developing countries one can first look at the needs whose satisfaction will raise productivity of the majority of workers in these countries, increase the volume of products that most satisfy the basic needs (with basic need not restricted to

nutrition, shelter and clothing but in addition transportation, health care and education) of the users and also contribute significantly to structural linkages. A review of some of the predominant needs in the developing economies will illustrate how relevant this approach is to their industrial development. This suggests that research and development activities are necessary not only to develop simple and more improved new tools but also to find ways and means of satisfying existing product demand that is not already being satisfied. One could conceive of easily manoeuvrable yet efficient tools for the peasant farmers and artisans in order to raise their productivity and to reduce the physical hazards and tedium that such production processes entail. For example, one can conceive of simple mechanical tools for farmers which would replace the traditional tools like the cutlass (machet), hoe and axe (like the chainsaw) for farmers to cut down trees, clear weeds, make mounds, plant seeds, harvest crops, draw water for irrigation and store their produce. Unlike the large farming machines produced in developed countries, such smaller and simpler implements would be suitable for the small landholdings of the peasants. No elaborate land tenure reforms would be immediately needed to proceed their use.

Along the same line of thought, a study of the type of consumer goods needed by the low income group could lead to the development of new products or improvement on old ones that best satisfy these needs and can be produced by the small-scale producers for whom improved tools have been developed.

Product development

At present very little or no effort is made to promote industrialization through the adaptation of existing or development of new products. Despite frequent Government statements that indicate their awareness of the important role that even simple scientific research can play in the development of their economies, very limited or no practical steps are taken to translate this awareness into economic benefit. There are no centres or organizations in the country that help young people to develop their innovative talents and give practical realization to their abilities. This lack of concern for the development of domestic scientific supportive institutions to support production does not only limit the economic use of domestic resources but also restricts the accumulation of technological knowledge which can also come about by a careful study of the mechanisms of industrial tools, machines and other equipment. Invariably, such a situation also limits the extent to which local artisans, engineers and craftsmen can design even simple improvised spare parts for the repair of their broken-down tools and machinery, let alone adapt imported technology to suit local needs.

Finally, from the foregoing, it would be evidently imperative for Zambia to initiate a comprehensive programme to promote and encourage the application of art and science to production. This implies the reorganization or development of institutional frameworks that will cater for research for providing the necessary support. It is not only sufficient to undertake sporadic and isolated research projects (most of which will be discontinued anyway for lack of funds or other problems). Rather, conscious efforts need to be made to ensure and arouse interest of all people concerned or interested in developing their innovative capabilities. Secondly, local specialists must be encouraged to take a critical look at the needs of these economies, e.g. production processes of the small-scale manufacturers, peasant farmers, oil-mill entrepreneurs, small carpenters, local textile producers, etc. and develop tools and equipment to meet their needs. Above all, there must be developed a system for effective dissemination of information on whatever is going

on in such supportive institutions to potential users and to encourage the use of whatever new products or adaptations that may evolve.

All these requirements cannot develop in an economy fortuitously. What is to say, to be successful, they cannot be an aggregation of isolated incohesive micro-economic activities to be undertaken by individuals. It is essential that the Government formulates scientific and technological programmes, present them as a national plan of action and give adequate support to them throughout their gestation periods. The validity of this approach becomes obvious when one notes that industrial and economic development policies of this country have been staved away from local product development, adaptation and production.

7. GENERAL PROBLEM OF THE MANUFACTURING SECTOR : MAINTENANCE AND SPARE PARTS

Spare Parts

Shortage of spare parts is a constant problem for all the companies. Shortage of spare parts is also a major problem for the manufacturing industry in general. The resulting stoppages are a major source of economic loss.

1. There are many reasons for the shortage of spare parts in Zambia. Firstly, the country has no built-up sufficient domestic capacity, for spare parts for machinery have to be imported, and because there is insufficient foreign exchange for the purpose. As a result, it is not uncommon in Zambia for parts of small value themselves to be unavailable and to cause partial or even total shut-down of a plant.

2. The effects of wear and tear of machinery and equipment are generally greater under Zambia's climatic and environmental conditions than in the industrialized countries where the machinery and equipment were originally made. This implies that Zambia requires more spare parts - and in the absence of domestic production has to import more spare parts - than would normally be the case. Moreover, imported machinery frequently does not incorporate design and technical considerations that take into account the conditions likely to be experienced in the Zambian manufacturing sector.

3. The sector often lacks buyers of sufficient experience and technical sophistication to buy machinery and equipment suitable for Zambian conditions. This frequently results in purchase of machinery with inadequate technical documentation and improper codification to identify parts responsible for machinery failures. There is also the not uncommon problem that machinery documentation is often written in a foreign language. Spare parts requirements are not usually included for plant and equipment in feasibility studies or in purchasing contracts.

4. There are often difficulties experienced in finding the right supplier of spare parts, and especially suppliers of spare parts for machinery that it no longer produces.

5. There are difficulties in the timely importation of spare parts, due to payment terms and conditions (such as letter or credit and the necessity of obtaining firm quotations), in obtaining import licences and other documentation, the length of time taken to deliver spare parts, the length of time taken to clear customs and other bureaucratic hurdles.

6. Even if spare parts are eventually obtained, they are frequently damaged or lost due to inadequate storage, handling or organizational control.

7. There are difficulties due to the fact that equipment is often old, maintenance staff are inexperienced or inadequately trained, and planned maintenance procedures are lacking. The result of these factors is that there are frequent breakdowns of equipment which require the acquisition of spare parts.

8. With very few exceptions, imported industrial machinery and spare parts are subject to customs duties. These customs duties increase the cost of maintaining plants in good working order. As a result, plant maintenance is discouraged and capacity utilization is reduced. However, at the same time, progress is being made in the production of some spare parts in Zambia.

Quality of Inputs

Raw materials such as maize and sunflower seeds, supplied to industry, are of poor quality as far as cleanliness is concerned. In general, maize and sunflower contain 5 to 10 per cent impurities which result in substantial extra costs for transport and handling, wear and tear, and breakdown of processing equipment. With the present system of payment, the producer has no incentive to deliver clean products. This creates serious problems for many manufacturers.

According to Final Crop Forecasts 1983-84 to 1987-88 (MAWD, Statistics Section, 20 May 1988), actual sales of maize and sunflower seed in 1986-87 were 663,612 tons. Assuming an average of 5 per cent impurities, which could have been removed, 33,180 tons of waste were transported. The average transport distance may have been about 150 km, at a cost of ZK 1 per ton kilometres, adds up to a total transport cost for waste of close to ZK 5 million. About ZK 1 million to ZK 1.5 million of this directly relates to imports, that is, fuel and vehicles.

The repercussions spread throughout the sector, and back into agriculture. When input prices increase and output prices are fixed, profits shrink - or even turn into losses. In such cases, the reactions can vary, depending on the type of activity in question. Private sector companies are threatened with closure. Parastatal companies may survive longer with INDECO support but this can hardly be guaranteed indefinitely. Ultimately, selling prices have to cover costs and a level of profits that enables a firm to maintain its plant in good working order and replace its plant over time.

The cost-plus method of pricing manufactured products, which PIC has established, may encourage inefficiency in the parastatal companies and discourage such companies from minimizing their costs of production. Even if it is acceptable as an approach, it is clear that some parastatal companies are not sure whether or not they are maximizing profits. In the case of companies with more than one product line, individual costings and profits are often not calculated, thus making it difficult to know whether one line is subsidizing another. On the other hand, there are cases in which the Government is inadvertently subsidizing the production of some goods. This can occur when a plant with a number of product lines has at least one line whose price is subsidized and therefore may be easier to make a profit; another line, with prices subject to PIC approval, may suffer temporary losses because of delays in authorizing price increases.

If impurities were removed at source the benefits would include:

(i) Reduced transport costs and savings of foreign exchange - ZK 5 million and ZK 1.5 million respectively;

(ii) Reduced handling costs of about ZK 0.2 million;

(iii) A saving of 50,000 M3 storage space in warehouses or under tarpaulins, which could be used for clean produce and not for waste;

(iv) Reduced losses of produce during storage; although difficult to assess, this is likely to add up to several million Kwacha;

(v) Reduced wear and tear and breakdowns in industry. This can be assessed in terms of lower maintenance costs, lower import requirements of spare parts and improved capacity utilization of processing industries. The total benefit here may be assessed in terms of millions of Kwacha per annum, a substantial portion of which would be in foreign exchange.

Because Zambia pursued a strategy of import substitution industrialization, the manufacturing sector became extremely import-dependent over the years. Although the goal of industrial policy is now aimed at reducing such dependence, this will take some time to achieve. Meanwhile, companies in the manufacturing sector are dependent on imported machinery and spare parts - in many cases for the bulk of their raw materials as well - in order to keep their plants operating.

The Zambian manufacturing sector is presently subject to a complex battery of price distortions. These distortions are due to the fact that some products are subsidized, some are subject to price controls, increases in the prices of others must be approved by PIC, while others have their prices determined freely in the market. The lack of synchronization between movements in the prices of the various categories of hidden subsidies, where they occur, should not be blamed on individual companies; rather, they may be a short-term method of survival. Their emergence is a reaction to the widespread existence of price distortions, the ultimate cause of which is an over-complex policy on pricing and an institutional mechanism which is incapable of coping with it.

The level of company taxation, which was raised in the 1988 budget, seems high for a newly-industrialized country. At 40 per cent of profits, especially in situations of tight liquidity and import dependence, the tax rate leaves too little to be set aside for reserves or for rehabilitation. The rate is also higher than in some neighbouring SADCC countries with which Zambia competes for exports of manufactured goods.

The overriding constraint in the Zambian economy in the short run is shortage of foreign exchange. This shortage affects the ability of manufacturing companies to import. Given the level of import dependence in the Zambian manufacturing sector, the foreign exchange constraint is impeding the import of essential transport and machinery.

Policy on repair and maintenance

Presently on-going technical assistance to industries in Zambia has not taken necessary steps to introduce the maintenance concept. Integrated development programmes should incorporate a maintenance policy component. This involves a plan

of action to keep manufacturing facilities, buildings and other services of Small Scale as well as large Industries in the most economic operating conditions. This will ensure maximum availability of machinery and equipment.

The institutionalization of a maintenance component involves the setting up of an agency responsible for maintenance activity. Such an agency could be part of the administrative machinery to implement the whole Industry development programme. As a measure of ensuring efficiency, the maintenance agency could employ written procedure systems in its deliberations. The duties and responsibilities as well as expected results of such job maintenance activity should be described and specified in detail. Job descriptions of each position are also necessary so that maintenance personnel can be fitted to the jobs. Repair and maintenance activities may range from preventive maintenance, repairs, major overhaul, new construction and manufacturing. The organization of a maintenance component would involve planning and scheduling: job planning and estimation, tool and equipment requirement projections, performance reporting and manpower planning including backlog determination and skill requirement projections. Such a maintenance agency may also undertake cost controls by preparing a maintenance budget as part of the programme implementation machinery. It is important that maintenance policies are within the framework of an industrial development programme to ensure that they are neither in conflict with each other nor in conflict with private maintenance and repair policies of firms.

The absence of a maintenance tradition has inflicted crippling costs on industries and the economy as a whole. Industries suffer from a high rate of depletion of capital assets and a chronic waste of production capacity.

CHAPTER III

PLANNING IN ZAMBIA

Zambia gained its political independence in 1964 and it inherited a mono-economy which was based on the production of copper for exports. To establish a balanced economy, the Government came up with a deliberate policy aimed at diversifying the national economy. The concept of diversifying the national economy is understood to mean lessening the country's dependence on copper by developing the agricultural and the manufacturing sectors. In this context, industry is a synonym for manufacturing which is defined as "the commercial transformation of raw materials or semi-processed raw materials into finished or semi-finished products, and includes the assembly of inputs into finished or semi-finished products but does not include mining or recovering of minerals. In line with this definition, industrial planning refers to the total process of preparing and implementing manufacturing objectives, strategies and programmes of action.

Basically, there are two types of planning being practised, namely the five-year planning and the annual budgeting. At macro-level, the Government prepares five-year plans which are followed by annual budgets up to the end of the plan period. From Independence to date, the Government has prepared three five-year plans:

- (i) The First National Development Plan (1966-1970) and the Second National Development Plan (1972-1976) which, among other things, were designed to provide the basic economic and social infrastructure for diversifying the agricultural and industrial base of the economy;
- (ii) The Third National Development Plan (1979-1983) whose objectives, among other things, were "to diversify the economic structure in order to reduce the country's economic dependence on copper by promoting agriculture and industry based on local raw materials and the establishment of the necessary capital goods industries; to promote village and small industries as an integrated part of rural development".

At micro-level, companies prepare five-year plans annually on rolling bases and they also prepare annual budgets.

1. CENTRALIZED PLANNING (1964-1979)

Although the 1968-69 economic reforms allowed the Government, through ZIMCO, to control 80 per cent of economic activities in the country, these reforms were introduced at a time when institutional capabilities in both the Government and parastatal sectors were still inadequate largely due to shortage of skilled local manpower. The desire to control the commanding heights of the economy coupled with the need for balancing national development partly explains the Government's decision to resort to centralized planning.

The type of planning carried out at micro-level was that of annual budgeting. Since companies were not preparing long-term plans, at national level there was no proper link between national plans and enterprise plans. Consequently there were difficulties in monitoring and controlling economic activities in the nation.

2. DECENTRALIZED PLANNING (1979 TO DATE)

To overcome the problems experienced with the centralized planning system, in 1979 the President of the Republic of Zambia directed all companies to produce long-term (five-year) plans.

The Government introduced the Decentralization Act in 1980. The objectives of this decision was to decentralize the planning process so that provinces, districts, wards and sections could initiate and implement development plans.

In 1986 the Investment Act made a provision which obligated all enterprises to furnish the Investment Co-ordinating Committee with periodic reports, records, returns, samples and data relating to the operations of the business enterprises. The Act thus provided a mechanism by which the Government could evaluate, monitor and control the planning activities of private and public companies.

The introduction of corporate planning in 1979, the Decentralization Act of 1980 and the new Investment Act in 1986, thus provide a legal and institutional framework which permits industrial planning to be a two-way process.

Under the decentralized planning system, guidelines are issued through NCDP and the Government objectives are specified.

These objective are usually open-ended to allow lower-level institutuions to come up with quantified and realistic targets.

For government institutions, the directives are from NCDP to ministries, to provincial councils and to district councils. As regards the parastatal companies the guidelines are from NCDP to ZIMCO and ZIMCO issues those in the same way to sub-holding companies as to subsidiary companies.

Institutions which depend on Government funds, such as ministries and local governments, submit their proposals to the Ministry of Finance normally in October or November for discussions. Proposals go through a screening stage and are then tabled before Parliament for approval in December or January each year. Once the plans are approved by Parliament, the concerned ministries or local governments then go ahead to implement them.

For the INDECO group of companies, the General Manager or the Chief or Executive Officer are responsible for the presentation of consolidated plans to the Board of Directors for consideration and possible approval. The five-year corporate plans that are approved by the Boards of Directors are then submitted to INDECO which, in turn, submits them to ZIMCO. ZIMCO, after receiving a plan from its subsidiary companies, prepares a consolidated ZIMCO Group Corporate plan which it then submits to NCDP which considers it in its preparation of the Government annual budget.

3. COMPONENTS OF INDUSTRIAL PLANS AND THEIR CO-ORDINATION

The components of industrial plans to a large extent depend on whether the given institution is dealing with industrial policy matters or is involved in implementing projects at micro level.

At national and sectoral levels, industrial plans concentrate on policy formulation and their implementation, while at micro level they are grand totals or divisional or departmental plans.

4. PLANNING CONSTRAINTS

Since 1964 the Government of the Republic of Zambia (GRZ) has made efforts to establish a clearly-defined framework for planning and implementation of development policies as presented above. During the first three national development plans, however, this objective has been compromised by such problems as:

- Inadequate institutional framework for planning and implementation, whereby the main GRZ planning organ, the National Commission for Development Planning, did not command the needed authority;
- Poor project implementation and monitoring;
- Absence of well-conceived planning units at corporation, ministerial and provincial levels;
- Inadequate professional and skilled planning manpower; and
- Weak linkages between parastatal and private sectors, on the one hand, and the national planning machinery, on the other.

Against these weaknesses, GRZ decided under the Fourth National Development Plan (1989-1983) to strengthen the institutional machinery of national, sectoral and regional planning. This is made under the realization that development plans are important in the attainment of the set goals and policies of GRZ. While five-year development plans are considered useful in this respect, GRZ perceives annual plans as being the main principal instrument through which a development plan is implemented. During the Fourth National Development Plan, (FNDP), a National Investment Committee, under the chairmanship of the Prime Minister and composed of representatives from GRZ, parastatal and private sectors, is envisaged and intended to, inter alia, co-ordinate the parastatal and private investments.

Other factors which hinder industrial planning in Zambia include poor or, in some cases, non-existent data bases. Often the process by which the development plans or strategies are formulated or elaborated does not allow the plan to benefit from popular national participation. The determination of specific goals, policies and programmes for industrial development cannot be undertaken only by one relatively narrow group of urban-based officials or bureaucrats. The broad decisions related to what should comprise total national goals, industrial and socio-economic development are so vital that these must benefit from the popular opinions of the majority of citizens. Therefore, informed popular participation in determining the broad and specific goal of national development is vital for the achievement of chosen socio-economic goals. The best of all available approaches to popular participation in industrial as well as socio-economic decision-making would be the decentralization of political and economic administration to the provincial, district and village levels. If economic decision-making is decentralized so as to permit realistic participation from the village level right through the district, provincial or regional levels to the national levels, the projects so determined would reflect the priorities as seen by the potential beneficiaries of the country's total national socio-economic planning effort.

Simultaneously, as these priorities are fashioned, the relevant strategies and associated costs or sacrifices to be made by the beneficiaries would also be determined.

The task of Government, therefore, is to create the right atmosphere that allows for individual and local initiatives and participation. This type of environment cannot be achieved when most of the people are unaware of the supposed goals of the society and the associated strategies and costs for achieving them.

Generation of projects

The ability to prepare sound projects which are the basic elements for development is important. This capability is seriously lacking. Many times the absence of bankable projects designed to meet donor requirements constrains the flow of aid and other investment funds to the country. The need to strengthen this capability within the various planning units in Government and other public institutions cannot be over-emphasized.

Implementation of projects

The most relevant and highly-demanding task in plan formulation and implementation is the work that follows after the plan document has been produced. Thus, existing projects and those sanctioned by the plan and need to be implemented have to be subjected to continuous review or reappraisal. In this current world situation characterized by erratic upward movement of prices, including interest rates, projects which were considered highly feasible, under earlier prevailing interest rates, prices of inputs and outputs, etc., might, with subsequent developments, turn out to be losing propositions, unless some changes in strategies are affected. Through this process, contemporary solutions can be designed to deal with current problems in the general direction of reaping increasing benefits (or reducing losses) for the nation and the various elements of the population.

A list of critical economic variables must be identified for which performance data should be presented by the planning units of various ministries at regular intervals, e.g. monthly and quarterly. The list should be occasionally refined with the necessary corresponding statistical information. There certainly are some logistical problems in Zambia. However, the aim of these recommendations is to help decision-makers (Cabinet Members, Ministers, business community, local and international operational agencies, etc.) to have some rough indication about what is happening in the economy. From such information, warning signals can help devise remedies for problems long before the latter become manifest. Information of this nature could reveal the effect of any Government policies on the business and other communities.

There may also be a great need for the structuring of the work schedules among the planning staff of ministries and other public institutions regarding the machinery for preparing planning documents (i.e. current sectoral plans) and some anticipation of the type of work which needs to follow after these sectoral plans have been published. Work programmes for staff need to be better delineated and structured so that responsibilities can be clearer. Tasks in the various planning units can then be outlined for the whole year and then broken up into smaller time horizons or perspectives. Arising from this should be regular progress reports, strategy meetings, etc., that would help increase the productivity of the staff of these units.

CHAPTER IV

INDUSTRIAL POLICIES AND STRATEGIES

The industrial sector clearly has an important role to play in Zambia's future economic development. If the economy is to become more independent of both copper exports and imported goods, industrial and agricultural production must expand in a balanced, integrated way so as to meet a larger share of demand through efficient use of domestic resources and to generate new export revenues. The critical question at this point is what set of policies can lead the industrial sector in this direction.

Zambia enjoys a relatively diversified industrial sector for a country at its level of income. Production is primarily concentrated in consumer goods, but two sectors producing intermediate and capital goods - chemicals and metal products - stand out for their relatively large shares of manufacturing output. In the case of chemicals, this is due to the presence of two large-scale capital-intensive facilities, a refinery and a nitrogenous fertilizer plant. The metal products sector comprises a relatively large number of small- and medium-sized firms producing engineering goods and metal fabrications linked to the mining sector. This concentration of producers in engineering goods and fabricated metal products provides an unusually high level of technical competence for industry in sub-Saharan Africa.

1. PATTERN OF INDUSTRIAL GROWTH

The pattern of industrialization in Zambia has positive aspects - relatively large size, diversification, and a base of technological competence - which are not found in many other African countries. Nevertheless there are some problems which cannot be ignored. The overriding issues are growth, capacity utilization and productivity. The rapid growth of industrial capacity has been accomplished at high resource costs, and by the rapid decline in the overall productivity of inputs, is due to deteriorating levels of capacity utilization in industry in response to the depressed levels of aggregate demand and imports, but it also indicates a more fundamental problem in selection and implementation of efficient industrial projects.

The structure, rate and efficiency of industrial growth in Zambia are heavily influenced by the decision of the Government to limit external competition faced by the industrial sector. Trade policy is the principal instrument used to limit external competition for industry. In effect the whole industrial sector has been treated as an infant industry and sheltered from competing imports by high and rising barriers to international trade.

The structure of trade protection is formed by the tariff system and working of the system of foreign exchange control. Taken together, these two instruments of trade policy exercise substantial influence over decisions made regarding capacity expansion, new investment, production for domestic or export markets and the choice of technique. The present structure of protection in Zambia is characterized by high extremely variable effective protection to value added.

The results of the protection and the tariff structure and the system of exchange control provide cascading effective protection. Consumer goods receive the highest levels of protection - often in excess of 100 per cent - followed by light intermediate goods, capital goods industries and heavy intermediates. In many intermediate and capital goods industries, there is substantial negative effective protection, indicating that resources are discouraged from entering those activities.

Structure of industrial protection

A major problem with the current structure of protection is that reliance on quantitative restrictions on imports to control foreign exchange use created a situation in which protection varies in response to the level of imports and may vary among firms in response to changes in the allocation of import licences. Thus, the incentive effects of the trade régime are not predictable and can vary over time, among sectors, and among firms according to the decisions made by the exchange control authorities. Moreover, protection can become automatic in the sense that with quota restrictions on imports the level of protection generally rises with increases in domestic production costs, providing little incentive for cost discipline.

The high levels of protection to import-substitution industries offer strong incentives for investment in these activities, and the absence of competing imports has permitted domestic prices to rise to levels well above those of traded equivalents. As a result, trade policy has been heavily biased against exports. Industrial exports account for less than one per cent of total exports and have not grown in volume or number for over a decade.

Public/parastatal sector

The public/parastatal sector has come to play a leading role in industrial development. Purchase of controlling interests in existing firms, together with new investments, resulted in a major change in the structure of ownership in manufacturing between 1968 and 1972 from predominantly private (mainly foreign) to one in which the parastatal enterprises accounted for 75 per cent of industrial output.

Between 1970 and 1980 the public sector represented primarily by the Industrial Development Corporation (INDECO), grew at rates exceeding those for the economy as a whole and those for private manufacturing.

Notwithstanding the above positive developments, the parastatal sector suffered from a number of factors inhibiting better economic performance. Some of these, for example pricing and investment decisions, were the result of policy actions taken outside the firm, but poor corporate performance was also related to management practices and the organization of the public sector.

In general, public sector organizational and management changes have been designed to reduce political interference in the operating decisions of firms and to increase the autonomy and accountability of individual firm managers. These efforts at decentralization of decision-making were further reinforced by the decontrol of prices in 1982.

Investment criteria

A major area of concern for the manufacturing sector remains the use of appropriate investment criteria for selection of new projects. Past public sector investments have been characterized by high (and frequently excessive) capital intensity and dependence on imports. These characteristics have contributed to the sector's relatively poor performance in terms of the domestic resource costs of generating or saving foreign exchange, and indicate that more effective criteria for screening investment proposals must be implemented in the sector. The Government is moving toward establishing tighter economic and financial criteria for project selection and the evaluation of the performance of existing firms. A critical need remains, however, to increase the capacity of investments.

Although stressing the role of the public sector, the Government of Zambia has in practice maintained a mixed economy with a relatively large and dynamic private sector. Private industry in Zambia has grown up in an atmosphere of control and regulation, coupled with incentives to selected firms and sectors.

Incentives

Incentives provided under the 1986 Investment Act should be limited to fairly narrow objectives for restructuring industry and should be focused as directly as possible at offsetting specific costs of distortions that inhibit private investors. Consideration should be given to providing incentives in the forms of grants or credits rather than a long list of exemptions from (or rebates of) taxes. This would help to make the level of incentives explicit and would facilitate treating them as temporary assistance rather than as a quasi-permanent entitlement.

Public policy in the financial sector establishes an important set of incentives for private producers via the structure of interest rates. Nominal interest rates relative to the prevailing rate of inflation yielded persistently negative real rates on deposits and small positive real rates on loans of the banking system.

2. THE EXCHANGE CONTROL SYSTEM

Impact of the exchange control system on effective protection of the sector

The foreign exchange control system in Zambia consists of both a foreign exchange budgeting and allocation system administered by the Bank of Zambia and an import licensing system administered by the Ministry of Commerce and Industry. It is necessary to have both an import licence and foreign exchange backing prior to importing any item (in general decisions with respect to the sectoral allocation of the Foreign Exchange Management Committee (FEMAC)). The administrative allocation of foreign exchange to some extent has a bearing on the structure of protection for individual industrial activities, since it establishes the level of competing imports which will be permitted.

In allocating foreign exchange, FEMAC gave priority to companies that import the following items:

(a) Intermediate inputs of domestic producers of "essential" consumer goods, including milled grain products, edible oils, soaps and pharmaceuticals;

(b) Final consumer products in the same set of essential commodities;

(c) Intermediate inputs for the copper sector, public transport, coal mining and nitrogenous chemical production;

(d) Intermediate inputs for existing industrial enterprises and capital goods for industrial sectors which "generate or save foreign exchange"; and

(e) Commodities which support the development of transport and communications and tourism.

In principle, foreign exchange and import licences are not available for goods which are locally produced and import licences are not available for goods which are locally produced and for which productive capacity is available in Zambia, although in practice licences for the importation of essential competing imports have been issued when local producers have been unable to supply the market.

Notable among the goods for which the Committee will not normally grant import licenses are processed food preparations, tinned fruits, vegetables and juices, vegetable oils and oil seed cakes, paints, cleanser, some paper products, tyres and plastic products, made-up textiles, cement, galvanized steel, certain metal products, batteries, and motor transport vehicles. Thus, the import licensing system reinforces the basic structure of protection established by the tariff structure. By largely excluding a wide range of competing imports of consumer goods from the domestic market, the import licensing and foreign exchange allocation systems provide open-ended protection to domestic import substitution activities.

In general, tight restrictions on imports should cause domestic prices to rise in those activities which are most protected. When competing imports are not available, the linkage between domestic prices and the tariff-inclusive price of imports is broken, and prices may rise to the level which will clear the domestic market. In these circumstances, nominal protection is established by the relationship between the domestic market price and the border (CIF) price of a potential or actual import. Such price comparisons are difficult, particularly in the absence of actual competing imports. Because the domestic price is set in each individual market, the degree of extra protection afforded by the exchange control régime varies from product to product. It is more modest for essential consumer goods such as corn meal and textile products but is quite substantial for vegetable oils and solids, soaps and detergents, and bicycles. Similarly, the level of nominal protection for such intermediates as cement, polyethylene bags, and jute products, as well as the level for structural steel products is permitted to rise substantially by the restrictions on imports. High nominal protection on final goods resulting from the import control régime, when coupled with low or zero duties on intermediate inputs which are directly imported, will accentuate the effective protection afforded to final goods producers. Thus, the structure of effective protection implied by the existing set of tariffs is reinforced and accentuated by the exchange control régime.

It is likely that the same hierarchy of effective protection prevails - with the highest effective rates accorded to non-food consumer goods, followed by light intermediates and capital goods. The variance among sectors, which was large under the tariff system, is likely to have increased further under exchange control. Moreover, without competing imports to enforce a ceiling on prices and cost discipline on producers, protection under the exchange control régime will increase if there is a rise in production costs.

An exception occurs when public sector enterprises sell their output at prices below the market clearing price, either as a result of price control or as a result of price restraint. In this case the rents accruing from access to import licences are divided between consumers and producers. The Government does not capture any of the windfall gains as tariff revenue, but they may be reflected in the profits of the public enterprise.

Exchange Control and Incentives to Individual Enterprises

The non-availability of imported intermediate inputs constrains the level of capacity utilization of virtually all industrial firms in Zambia. Incremental allocations of foreign exchange, therefore, constitute an important instrument of incentive policy since they permit individual enterprises to achieve higher levels of capacity utilization and lower unit costs of production. Changes in the inter-firm allocation of foreign exchange can thus alter the relative profitability of individual enterprises within the same industry.

Allocation decisions which were made at the level of the Import Licensing Committee can be reversed or modified by the commercial banks, should they be unable or refuse to provide foreign exchange to holders of valid import licences. Given the overhang of valid licences, the commercial banks must inevitably choose among applicants for foreign exchange cover according to their own criteria. These may reflect the history of banking relations with the applicant and other commercial banking criteria, and need not conform to the priorities established by the Import Licensing Committee. Applicants unable to obtain foreign exchange cover from the commercial banks have a final recourse to the Bank of Zambia which can direct commercial banks to provide foreign exchange cover out of an incremental foreign exchange allocation. Clearly the introduction of two additional actors in the exchange control process multiplies the administrative costs to enterprises and increases the uncertainties associated with the import licensing system. It also extends the range of rent-seeking activities given by the exchange control system to individual enterprises.

3. PRICE CONTROLS

The administration of price controls was hindered by a number of problems. Continuing shortages of imports, both consumer goods and inputs needed for local production, created strong upward pressure on prices of goods in limited supply and encouraged black markets and smuggling. Staff inadequacy in administering controls meant long delays in processing requests for changes and arbitrariness in enforcement. The setting of prices on a cost-plus basis did not encourage efficiency and cost reduction. To the extent that controls were effective, incentives to engage in productive activities (especially agriculture) were reduced relative to trading. Parastatal firms tended to suffer relative to private producers because their prices could be more stringently controlled, resulting in weakened financial positions and occasional cutbacks in production or investment. The Government was increasingly caught in a contradictory position between the pressure to hold consumer prices low and the desire to put parastatal firms on a sound financial footing.

Within the parastatal sector, ZIMCO at present requires prior administrative review before firms change prices of the following commodities: sugar, cooking oil, margarine and fats, clear and opaque beer, stockfeeds, fertilizer, soaps and

detergents, and locally assembled motor vehicles. All other products are subject only to review of INDECO management, and proposed price changes can be implemented if no objection is raised, upon approval by the company's Board. Export prices and certain directly-negotiated contracts are exempted altogether.

The new system raises the questions of whether parastatals have abused it through excessive increases or have been unable to take advantage of it because of pressure to keep prices low.

While maintaining some degree of control and downward pressure on prices, the new system has nevertheless allowed prices to rise toward more remunerative levels.

It remains to be seen whether the price increases that have been permitted will induce a sufficient increase in supply to maintain this downward trend in inflation rates and whether parastatal firms will in fact follow through to cut costs by improving efficiency and productivity. Inflationary pressures are still strong with continuing supply shortages, depreciation of the Kwacha, and wage demands. Coping with these pressures requires that the Government develop a comprehensive prices and incomes policy which states its objectives and its strategy regarding the interplay of market forces and regulation as they affect price and wage increases. The Prices and Incomes Commission can play an important role in developing this strategy and in administering it, at least with regard to wages. It needs to develop the capacity both to carry out its responsibilities for collective wage agreements effectively and equitably and to analyse macro-economic trends as they affect prices and incomes.

Structural Reform

The public industrial sector has been the leading force in recent industrial development in Zambia. Public capital and management resources are limited, however, and the time has come to define the relative roles:

- (a) To strengthen the existing industrial structure by increasing capacity utilization, by making firms more competitive at international prices through restructuring investments, of those that cannot operate economically, and by enhancing managerial skills and productivity;
- (b) To promote industrial exports by providing incentives designed to offset the present bias in the protective structure against exports;
- (c) To limit new projects in the public sector and to exercise strict economic criteria in their selection.

Investment Act 1986

The Government has undertaken the following measures to promote exports. They have been outlined in the Investment Act of 1986.

Common incentives for investors are as follows:

- (a) For a period of five years, a deduction from taxable income for each tax year of 50 per cent of the total salaries paid to Zambian manpower employed in the enterprise during that tax year;

(b) For a period of five years, full exemption from tax on dividends;

(c) For a period of three years, exemption from payment of selective employment tax;

(d) For a period of 10 years, a deduction from taxable income of 50 per cent of the expenses incurred during each tax year on any training programme to train Zambian employees and any research and development programme conducted by the enterprise itself or through a recognized research institution;

(e) The above deductions (a) and (d) are in addition to any allowance or deduction provided for in the Income Tax for the same or similar purposes.

Facilities, in addition to the above incentives, for certain exporters (business enterprises which are net earners of foreign exchange through export of non-traditional products and services) include the following:

(a) Retention of such percentage of their foreign exchange earnings and the utilization thereof for such purposes and on such terms and conditions as the Minister responsible for finance may determine;

(b) Such preferential rates of taxation on such part of their income as Parliament may provide;

(c) Access to any foreign exchange revolving fund which may be set up to promote exports from Zambia;

(d) Access to any free trade zones which may be set up in Zambia;

(e) A drawback of duties and sales-tax paid on imported inputs used in producing goods for export;

(f) A deduction from taxable income of 50 per cent of the cost of any programme of export promotion and foreign marketing, provided that such deduction shall be in addition to any allowance or deduction provided for in the Income Tax for the same or a similar purpose.

In addition to the above-mentioned common incentives for investors, facilities for agriculturalists (enterprises which generate income from husbandry, pastoral, poultry, fish-rearing, agricultural or forestry activities) are as follows:

(a) Such preferential rates of taxation on such parts of their income as Parliament may provide;

(b) Such exemption from the payment of selective employment tax as the Minister responsible for finance may prescribe;

(c) Access to such preferential borrowing as may be decided by the Government.

Additional incentives by way of income tax relief for enterprises in rural areas are as follows:

Table 14: Price index changes before and after de-control
(Percentage change during period)

Period (year/month) or (year/quarter)	Low Income	High Income	Food, Beverages and Tobacco <u>a/</u>	Clothing and Footwear	Furniture and Household Goods
Six-month periods					
Consumer Price Index					
1979/12-1980/6	9.4	7.6	12.9	4.4	2.9
1980/6-1980/12	1.1	1.9	0.7	6.8	6.9
1980/12-1981/6	12.1	7.7	14.1	0.8	10.3
1981/6-1981/12	1.0	3.2	2.4	5.1	10.3
1981/12-1982/6	10.0	9.2	16.5	4.2	4.5
1982/6-1982/12	3.3	3.3	1.1	3.0	9.1
1982/12-1983/6	12.9	12.9	13.7	7.3	18.3
Monthly periods					
1982/12-1983/1	3.8	2.9	3.7	1.5	4.3
1983/1-1983/2	3.2	4.0	5.6	1.1	2.2
1983/2-1983/3	2.3	2.0	3.3	1.2	2.2
1983/3-1983/4	3.4	1.1	1.8	1.8	2.9
1983/4-1983/5	0.3	2.7	-0.3	1.5	3.2
1983/5-1983/6	0.0	0.2	-0.4	0.2	3.6
Wholesale Price Index					
Six-month periods					
All items					
Consumer durables					
1979/IV-1980/II				6.1	
1980/II-1980/IV				-0.1	
1980/IV-1981/II	3.3	1.9	6.7	7.1	
1981/II-1981/IV	1.6	0.1	-0.8	1.6	
1981/IV-1982/II	3.9	14.3	11.0	9.9	
1982/II-1982/IV	3.0	4.6	-0.3	-0.2	
1982/IV-1983/II	18.3	14.2	14.0	22.0	
Three-month periods					
1982/IV-1983/I	11.8	12.5	14.7	21.7	
1983/I-1983/II	6.6	1.8	-0.7	0.3	

a/ Non-manufactured items (i.e. food) are included in the consumer price index, but not in the wholesale price index.

Source: CSO, Monthly Digest of Statistics.

(a) For the first five years of operation, one third of the prevailing rate of tax for companies;

(b) For the next five years of operation, one half of the prevailing rate of tax for companies;

(c) For ensuing five years of operation, two thirds of the prevailing rate of tax for companies.

Additional incentives for small-scale and village enterprises are as follows:

(a) Exemption from income tax payment for the first five years of operation;

(b) Payment of one half of the prevailing rate of income tax during the next five years of operation.

4. ECONOMIC SETTING FOR INDUSTRIAL STRATEGY

Zambia is in the midst of a deep economic crisis in which a severe shortage of foreign exchange is both a symptom and a cause. In the short run, foreign exchange availability is clearly the principal binding constraint on the industrial sector. Export earnings are low because world prices for copper and other metals remain depressed, and foreign financial credit generally has become both more scarce and more expensive. As a consequence of the reduced supply of foreign exchange, the economy and in particular the industrial sector is operating at less than full capacity, because firms cannot import all the intermediate inputs required for full capacity utilization.

Given the immediacy of the crisis, it is understandably difficult for policy makers to think about the long term. Yet the shortage of foreign exchange is not due entirely to exogenous factors such as cyclical variations in the terms of trade. The problem also has its origin in the structure of the Zambian economy, which is heavily dependent on a single export commodity - copper - with few linkages to the rest of the domestic economy. Copper revenues have traditionally carried a large component of resource-based rents representing a transfer, whose magnitude bears little direct relationship to productivity, wages and resource growth in the non-copper domestic economy. Moreover, the transfer accrues in the form of foreign exchange and therefore confers immediate command over goods and services which are tradable in the world market.

As the economy adjusts to this situation, the relative price of non-traded goods rises, thereby stimulating increased production of non-tradables and a reduction in demand for them. ^{1/} An economy which has fully adapted to a constant level of foreign exchange inflows of this type will therefore exhibit a higher relative price of non-traded goods and a larger proportion of total output devoted to their production than an economy with similar levels of income but without the foreign exchange inflow. The counterpart of the higher prices for non-traded goods is a lower relative price of tradables - including non-resource-based export - resulting in lower incentives for their production.

Trade policies in Zambia were used to offset low relative prices for one segment of the traded goods sector import-substituting industries. Other activities that produce traded goods, notably agriculture and manufactured exports, did not benefit from the policy of protection, and the net result of the combined adjustment to the inflow of resource-based rents and trade policy interventions was a severe bias against agriculture and non-traditional exports.

Zambia now confronts a situation in which the prospects for further growth in resource-based rents are limited. Mining conditions are complex and ore depths are increasing. It is unlikely that presently developed reserves are sufficient to maintain the current annual production level of around 600,000 tons into the next century. Moreover, there is some evidence to suggest that there is a long-run decline in real copper prices. The combination of these factors constitutes an important challenge to the Zambian economy, which needs to shift from a structure based on growth of earnings from natural resources to one based on more.

^{1/} The impact of a transfer of foreign exchange on the structure of an economy may be described with the help of a simple two-sector model. The economy is viewed as consisting of two producing sectors:

(i) Tradables - those commodities which represent potential exports or imports;

(ii) Non-tradables - commodities, such as services, construction, utilities, and transport, which do not ordinarily enter international trade.

In this simple two-sector framework, the large transfer of foreign exchange from the copper sector increases consumption possibilities and hence the demand for both traded and non-traded goods. Because the mining sector is largely isolated from the remainder of the domestic economy, however, production possibilities do not (immediately) change, since the capacity to produce other tradables and non-tradables is not affected in the short run by the magnitude of the foreign exchange inflow. The increased demand for traded goods can be serviced by the foreign exchange inflow, but the economy's ability to consume non-traded goods remains constrained by productive capacity diversified expansion of domestic production and of productive domestic employment.

A long-run strategy for growth and diversification will require both high levels of saving and productive investment and rapid expansion of efficient exporting and import-substituting activities. Foreign exchange earnings will increasingly have to originate in the non-mineral domestic economy. This need for structural change must be met by policies designed to promote balanced industrial and agricultural development. Only by steady improvements in economic efficiency and total factor productivity will it be possible for Zambia to meet the challenge of restoring sustained economic growth.

5. INDUSTRIAL PLANNING

Objectives

The objectives, policies and strategies for the country's industrial development since Independence were reflected in the country's First National Development Plan as well as in the Second and Third National Development Plans. They include the following:

- Initiating and sustaining a process of rapid industrial growth;
- Mobilizing (generating) resources;
- Generating substantial employment opportunities to contribute significantly to a reduction of urban unemployment;
- Making sufficient contribution to foreign exchange earnings through export promotion or import substitution;
- Developing indigenous entrepreneurship and managerial labour skills.

Policies

In order to attain the above objectives the Government's industrial strategy was to expand the modern industrial sector by:

- Establishing industries for processing agricultural and other indigenous raw materials;
- Increase output through expansion and/or more efficient utilization of capacity in the existing industrial enterprises and through encouragement of labour-intensive assembly units.

Several measures were designed by the Government to operationalize its industrial strategies set out in all Economic Development Plans. Among these are:

- The expansion of parastatal organizations;
- Encouragement of the private sector to go into production of sectors not undertaken by parastatal organizations.

A new industrial policy was also designed for the plan which revised existing duties on imported goods, and other benefits for export. Other strategies for achieving rapid industrial development included the establishment of the National Development Bank (NDB), promotion of Industrial Co-operatives, creation of a

Handicrafts Emporium and other supporting institutions were established. By the end of the Second and Third National Development Plans, rising oil prices, unpredictable exchange rate fluctuations of major world currencies and rampant domestic inflation along with the fall of copper prices, the nation's most important source of earning hard currency and agricultural production failed as well. With no compensatory gains in output from other sectors of the economy, a long period of economic and industrial decline became inevitable. Against this background the country has prepared another Development Plan for 1989.

Strategies for Industrialization

The Government's plans for industrial development cannot be implemented or even discussed in isolation from the country's overall economic development strategy. Continuous review of the programme and monitoring of projects throughout the plan period and, in addition to these, the following major specific actions for the plan to undertake, among others:

- Avoiding suppliers' credits and contractor financing which would aggravate the nation's payment problems;
- Strengthening the capabilities for preparing feasibility studies for and implementation of projects in key ministries in order to accelerate the rate of utilization of external and aid commitments;
- Promotion of agro-based and other small-scale industries;
- Establishment of strong linkages effects between primary and industrial sectors of the economy;
- Expanding output in forestry and agriculture to feed industries;
- Promotion of import substitution industries;
- Development of export trade through processing of the food industry;
- Industries have become saddled with problems and the value of the country currency has also deteriorated drastically against other major currencies.

6. STRATEGIES AND POLICIES TO SUPPORT SMALL-SCALE INDUSTRY

Measures to improve the efficiency of small-scale industries may be ineffective and mere partial solutions in the long run without corresponding attention to the socio-economic aspects which affect the efficient performance of industry. The critical strategy for solving the gross inefficiency problem of any small-scale industry is therefore a commitment to rational and efficient utilization of scarce resources.

A very careful study of the operational behaviour of the small-scale industries could provide a range of approaches that could be employed for directly increasing efficiency in the informal sector and reducing the rate of under-utilization. These may include the following:

Material and spare parts

The most common problem of small-scale industry is the frequent unavailability of material inputs and spares. A solution for this could be a rationing system for imports and domestically procured materials. Unfortunately, such systems tend to favour the economically and politically powerful, thus putting the small-scale entrepreneurs at a disadvantage. Small-scale producers often must purchase materials from the large ones. This both raises their costs and puts them in a highly vulnerable position when supplies become scarce and large firms begin to conserve their stocks. There is, therefore, a critical need to ensure supply of necessary inputs to the informal sector enterprises. The inputs may be classified in three categories, namely: materials locally produced and sold new, inputs discarded by public and private sector concerns, for example accident cars and broken-down unserviceable machinery and equipment which eventually furnish second-hand spare parts, and imported inputs. Provision of inputs through specific allocations to small enterprises would seem desirable because the survival of the enterprises critically depends on the availability of such inputs.

A preliminary study to assess the range of such inputs and the quantities needed is, therefore, in order. With regard to discarded materials, an element of exploitation may prevail in the sense that middlemen would purchase such material inputs and resell them to small enterprises for considerable profit. It is therefore worthwhile for any small-scale industry programme to investigate this likelihood and explore the possibility of encouraging direct sales to small enterprises. To this end it would be recommended that a National Agency for Procurement be established of SIDA may undertake this function among others to sell directly to the small-scale enterprises at controlled prices.

A general solution to the inadequate supply problem of material inputs would be to move to market rationing rather than direct allocations so that all firms will have equal chance to purchase the materials and spares. Perhaps a still better way out is for the small enterprises to organize themselves into industrial co-operatives and manufacturers associations and pool their resources to acquire the required material inputs.

Associations of small-scale enterprises can improve marketing prospects as well as provide better access to material and capital. They can act as intermediaries between individuals and wholesalers, large contractors, exporters or government purchasers. This process may lead to self-standardization which is more likely to be successful than standards imposed by outside authorities such as the Government.

Technical advisory services

Technical advice to small-scale industry in Zambia like in other developing countries is essential because the small-scale entrepreneur is, in most cases, unable to deal with the complex problem of operating his establishment adequately without external assistance. The need to modernize an enterprise and attain satisfactory standards of efficiency makes technical assistance even more necessary to small-scale industry. Technical assistance would aim at increasing efficiency in the organization of production and administration even though it is difficult to organize and finance. Advice to existing industries could cover operation, maintenance and repair of machinery, methods of production, testing and quality procedures, improvement of design and quality, technological improvements and storage distribution system. Technical advice is also necessary in the standardization of machinery and equipment, vehicles and other capital assets.

Maintenance

Planning of industrial development programme for small-scale industry cannot be confined to the simple installation of machinery and equipment. The cost of maintenance and repair, and the manpower needed in these activities are considerable. Therefore, the Government should deliberately train maintenance personnel within an overall manpower planning programme. Training for maintenance could have a double aspect. One is training of technical skills, the other is the creation of a maintenance habit.

Industry survey

If data are weak on small- and medium-scale industries, they are virtually non-existent on the very small establishments that are variously referred to as the informal sector (especially in the urban areas). A UNIDO study suggests that there may be in the order of 30,000 informal sector manufacturing or service artisans in Lusaka alone - considerably more than in villages and rural areas.

It is necessary to carry out a sample survey to obtain basic information on the size and characteristics of the sector. Such a survey would indeed be desirable, and could be combined with one to serve as a baseline for the activities of SIDO. Similar surveys in smaller towns and villages were also needed as a basis for efforts to stimulate rural industrialization, since little is known about what types of industries presently exist or might be suitable for rural areas in Zambia.

The informal sector is important in Zambia as a proving ground for entrepreneurial talents, which could form a basis for future expansion of the small- and medium-scale sector. Given the historical lack of entrepreneurship skills and experience among Zambians, it is important to stifle activities in which this tradition can be developed. It is difficult, however, for the Government to assist directly activities which are characterized by very small size, mobility, the restruct of authorities. The most positive contribution the Government can make is to establish an atmosphere in which these activities can be carried out freely with minimum interference by the authorities. Small enterprises below a minimum investment or number of workers should be explicitly exempted from registration requirements under the IDDA (unless they wish to benefit from its provisions or from SIDO's services). Restrictions on where business may be carried out should also be minimized, to allow small businessmen the advantage of operating close to their clientele.

CHAPTER V

THE INDUSTRIAL ENVIRONMENT

There are institutions which are concerned with the formation of national industrial plans and policies and with the determination of industrial priorities as part of the overall national plans and economic policies. These institutions or bodies are the National Commission for Development Planning and its Executive Committees, the Ministry of Planning (Planning Commission), the Ministry of Industries and other concerned ministries, departments, and agencies of the Government.

A second set of institutions include the various public corporations set up by the Government for the development, administration and supervision of the different sectors or subsectors of the industrial economy. Under a public corporation, come the many companies formed for the operation and management of individual industrial enterprises.

The third category of institutions includes the financing bodies or corporations which finance industries in both the public and private sector. These institutions undertake studies of projects and evaluation and are approved by the sponsoring agencies and the licences are issued by the Government for the starting of the project.

The fourth category of institutions are concerned with the training of management personnel as well as with on-the-job training of persons.

The fifth category of institutions are concerned with such specific responsibilities as determination of standards and qualities of products.

1. INSTITUTIONAL SETTING

The institutional structure for industry at present consists of the following:

- The Ministry of Finance and the National Commission for Development Planning;
- The Ministry of Commerce and Industry;
- Small Industries Development Organization (SIDO);
- Zambia Co-operative Federation Ltd to Village Industry Service (VIS);
- Zambia Forestry and Forestry Corporation (ZAFFICO);
- Zambia Bureau of Standards;
- Management Services Board;
- Zambia Industrial and Commercial Association;

- National Development Bank of Zambia;
- Bank of Zambia;
- Zambia Association of Manufacturers;
- Prices and Incomes Commission;
- Ministry of Agriculture and Water Development;
- Zambia Industrial Mining Corporation (ZIMCO);
- INDECO Ltd.

INDECO, as the holding company for the parastatals sector, exercises considerable decision-making control over investment and production decisions of enterprises accounting for 70-80 per cent of Zambian Manufacturing Value Added. The Ministry of Commerce and Industry, although representing the Government on the INDECO Board, does not exercise significant influence on policy making or day-to-day running of the INDECO Group which operates quite independently within the overall policy guidance of the National Commission for Development Planning and the actual resources allocated by the Government to its parent company, the Zambia Industrial and Mining Company (ZIMCO).

The private sector is organized within the Zambia Industrial and Commercial Association (ZINCOM), which is the umbrella organization for the Chamber of Commerce and Industries in Zambia. ZINCOM acts as a link between the Government and the private sector and is represented in various committees established by the Government.

An Investment Co-ordination Committee was established, under an Act of Parliament in 1986, to promote both foreign and local investments. This Committee grants investment permits, manufacturing licences and certificates for incentives. It is a statutory body under the Ministry of Commerce and Industry.

1.1. Ministry of Finance and National Commission for Development Planning

The Ministry is responsible for preparation and co-ordination of national plans. Other functions of the Ministry are as follows:

1. Economic and financial policy and strategy;
2. Fiscal and monetary policies;
3. Foreign exchange control;
4. Taxation;
5. Multilateral and bilateral economic and technical co-operation.

1.2. Ministry of Commerce and Industry

Statutory functions and portfolios of the Ministry of Commerce and Industry have been defined as follows:

1. Environmental protection.
2. Industrial and commercial policy.
3. Industrial pollution control.
4. Import and export policy.
5. Companies and business names.
6. Foreign trade.
7. Industrial co-operatives.
8. Patents, trademarks and design.
9. Price control.
10. Trade charges.
11. Trade fairs and shows.
12. Trade licensing policy.
13. Weights and measures.

Statutory Bodies

1. Export Promotion Council.
2. Standards Institute of Zambia (Zambia Bureau of Standards).
3. SIDO.
4. Tariff Advisory Body.
5. Village Industry Service.
6. Investment Co-ordinating Committee.

Out of the above statutory functions the Department of Industry is directly responsible for the following:

1. Environmental protection.
2. Industrial policy.
3. Industrial pollution control.
4. Industrial co-operatives.

To some extent, the Department of Industry is involved in import and export policy.

The activities of the Department of Industry under the Industrial Development Act of 1977 were concentrated on the functions connected with issuing of manufacturing licences without creating a long-term industrial policy, planning the industrial policy and monitoring it.

Since the function of issuing manufacturing licences has been transferred to the Investment Co-ordinating Committee, there is need for the Department to concentrate on formulating and implementing industrial policies. This calls for strengthening of the Department of Industry.

Plans are under way to restructure the Department into six units, namely, industrial policy and planning, industrial promotion and monitoring, small industrial development, engineering unit, evaluation and data processing unit, and general administration unit.

Functions

(a) Prepare long-term industrial policy indicating the objectives, strategies and measures for industrial growth and development;

(b) Plan, evaluate and implement projects, conducting sectoral, subsectoral and regional studies, techno-economic studies and profiles for new industrial projects, and demand and supply studies;

(c) Prepare industrial sector plans, both long-term and short-term, and co-ordinate their implementation;

(d) Monitor and evaluate industrial enterprises;

(e) Promote the growth of small and village industries, and utilizing local raw materials;

(f) Prepare periodic and annual progress reports on industrial performance;

(g) Establish an industrial statistics data bank and industrial information exchange;

(h) Establish linkages with the National Commission for Development and Planning, concerned sectoral ministries, parastatal organizations, etc., to co-ordinate plan implementation.

In June 1985, UNDP/UNIDO was requested to provide technical assistance in establishing and strengthening an Industrial Planning Unit (IPU) within the Ministry of Commerce and Industry.

1.3. Small-scale Industries Development Organization (SIDO)

One of the important features of SIDO is its emphasis on the development of medium- and small-scale industries (SSIS) which are based on local resources. Major constraints to SSIS include inadequate space for production activities,

inadequate access to credit facilities, and difficulties involved in penetrating markets. To alleviate the problems faced by SSIS it was found necessary to establish institutions which could provide specialized services to SSIS and was established by an Act of Parliament in 1981.

SIDO caters to enterprises with capital assets in the range of K 15,000-250,000 (up to K 350,000 for "ancillary enterprises" that have a sub-contracting relationship with a large manufacturing unit). Much of its activities are oriented toward helping potential investors through economic and market surveys of investment opportunities, feasibility studies, and technical services for plant design and planning. The Industrial Extension Services of SIDO are particularly oriented toward establishing common facility workshops to provide specialized facilities to a group of industries, including those for training purposes. SIDO also helps investors to obtain financing by assisting in preparing their dossiers (including feasibility studies, etc.) and perhaps through a guarantee scheme. Assistance is also provided in procuring raw materials and machinery, e.g. through a hire purchase system. Campaigns to publicize the objectives of SIDO and to try to identify potential entrepreneurs are another phase of activity. SIDO is also concerned with training and technology research and development that is appropriate to small enterprises.

SIDO is hampered in its work by the lack of data on the small-scale sector in Zambia. An extensive survey on the size distribution of manufacturing firms by branches of industry, the characteristics of employees and entrepreneurs, and their problems is essential. Such a survey would (a) provide better information on the nature of the small-scale sector in Zambia; (b) identify potential users of SIDO's services; and (c) establish a baseline for future evaluation of SIDO and other efforts to promote the sector's growth.

1.4. The Village Industry Services (VIS)

VIS was established in 1976 and it is mainly concerned with rural development. It aims at promoting labour-intensive, agro-based cotton and village enterprises. The functions of VIS, inter alia, include:

- (a) To provide advisory and information services on all aspects of village industries;
- (b) To promote village industries through church and other social bodies;
- (c) To provide training to the youth by establishing training schemes;
- (d) To act as procurement wholesalers for supplies of equipment and raw materials;
- (e) To promote the sale of village industry products.

A close look at the functions of SIDO and VIS will show that the two institutions are doing similar and overlapping functions. The main difference between the two is that while SIDO is a quasiparastatal organization offering services to the formal SSIS, VIS is a non-governmental organization (NGO) and its activities cover the informal sector.

1.5. Small-scale Enterprises Promotion Limited (SEP) and the Bank of Zambia Credit

As mentioned above, SSIS do not have adequate access to credit facilities mainly due to lack of track records and insufficient collateral securities. It was therefore found necessary to establish institutions which could provide financial assistance to SSIS.

SEP was established to provide a package of services to SSIS. The major component of SEP services is financial lending. SEP carried out an independent evaluation of projects submitted to it and those which satisfy their economic viability conditions are provided with funds to buy equipment and raw materials.

To further alleviate the financial problems faced by small-scale enterprises, the Bank of Zambia Act was revised in 1985 to include a Credit Guarantee Scheme. Under this scheme, the Bank of Zambia can guarantee loans given to small enterprises by commercial banks.

1.6. The Co-operative Society

The Co-operative Society provides another mode of assistance for medium- and small-scale industries. The 1968 Act provided the formation of a co-operative society. Each province has a co-operative union which administers the activities of several primary co-operative societies. Most of the co-operative unions are engaged in manufacturing activities, particularly food processing.

1.7. Other institutions

Other institutions involved in industrial development include the Zambia Bureau of Standards for improving the quality of locally produced goods.

The Government of Zambia would like to see complementarity in the activities of the two sectors, mainly agriculture and manufacturing. For example, the manufacturing industry should process agricultural products while it should supply the tools, machinery and equipment required by the agricultural sector. The agricultural sector in this regard will be supplying the raw materials for industry as well as the market of the products of the industrial sector.

Although the Zambian economy is dominated by State enterprises, the Government would like to see most State enterprises being transferred to the people through co-operatives. The Government, therefore, has a policy of decentralization of the economy through self-managed enterprises. This is what is enshrined in the national philosophy of humanism.

Another fundamental issue underlying the policy of decentralization is the need to create employment among women and youth (unemployment in this sector is estimated at 60 per cent). Workers co-operatives can play a very important role in this regard.

The Government of Zambia would like to see serious programmes worked out to promote collaboration between co-operatives in Zambia and co-operatives in other developing countries to realize this initiative.

The potential areas of collaboration are in four areas:

1. Transfer of technology.
2. Training of Zambian personnel for productive workers co-operatives.
3. Consultancy services and back-up support for starting productive co-operatives.
4. Inter-co-operative trade.

The Government on one hand will provide back-up support for these initiatives through facilitating loan guarantees of the actual commodity loan arrangements, payments-in-kind arrangements and any other actions which might be necessary to realize such a programme.

The programme concept

The programme is intended to have an overall effect of promoting a mass-based industrialization process. It is believed that although the mining industry has contributed to the development of technology and industrial skills, the heavy industry nature of mining has made it difficult for the industrialization process to spread to the broad masses to be used as a basis for an industrialization programme. There is a need to develop workers co-operatives with a small-scale industrial base in order to allow quick assimilation of technology. Workers co-operatives are most suited for such an initiative.

Programme focus

The programme will be focused on a number of critical issues. These are:

- (a) Unemployment - employment creation;
- (b) Manufacturing of consumer goods;
- (c) Processing of agricultural produce; and
- (d) Provision of working tools and farm implements.

2. BANKING AND FINANCIAL INSTITUTIONS

The Zambian financial sector is still in a relatively early stage of development. It is dominated by a commercial banking system consisting of commercial banks such as five private banks (Standard, Barclays, Grindlays, Bank of Credit and Commerce, and Citibank) and the publicly-owned Zambia National Commercial Bank. In addition, there are several specialized credit institutions whose operations include credit activities in the manufacturing sector. The two most significant are the Development Bank of Zambia (DBZ) and the Zambia State Insurance Corporation. There is no organized equity market.

Commercial banks have granted medium-term loans (three to five years) for industrial investments, subject to liquidity constraints, but they prefer in general to concentrate on short-term and foreign trade financing. DBZ is the principal development finance institution providing medium to long term credit to the private industrial sector (although it has also made loans to parastatal firms).

Regulated ceilings on deposit rates combined with the prevailing rates of inflation have resulted in persistently negative real returns on deposits in the commercial banking system. Investment funds may therefore have been diverted away from the commercial banks into other assets with higher real rates of interest. There is some evidence of this.

Others are the National Building Society, Zambia National Provident Fund, National Savings and Credit Bank, and the Agricultural Finance Corporation.

Monetary developments

One of the basic functions of a central bank is to keep control on monetary aggregates and regulate the money supply in order to restrict excess liquidity which causes inflationary pressure on the economy. In Zambia's situation characterized by a very large build-up of liquidity and phenomenal growth of money supply, the central bank faces an uphill task of keeping the excess liquidity in the economy under control. The growth rate of broad money supply (M2) comprising currency in circulation (i.e. currency outside the banking system) and demand savings and time deposits had shot up to the record level of 93.1 per cent in December 1986 as against 23.5 per cent in December 1985. Although the broad money growth declined in 1987, it was still quite high (over 50 per cent in 1987). The excessive monetary growth coupled with the low level of domestic production and insufficient supply of imported goods due to foreign exchange constraints has manifested itself in high inflationary pressure on the economy. The average inflation rate for 1987 was about 45 per cent.

Fiscal and monetary policy vs. monetary growth

The major contributing factor in accelerating the monetary growth is the heavy budget deficit financed largely through borrowings from the banking system. The 1988 budget seeks to restrict the money supply growth to 40 per cent and inflation to 30-35 per cent. The achievement of these laudable key economic targets seems unlikely in the existing economic scenario unless drastic measures are taken by the Government to contain the budget deficit. This would call for heavy curtailment of current expenditure on administration expenses, personal emoluments, etc., drastic reduction (if not total withdrawal) of subsidies on mealie meal, etc. which are very high (18.2 per cent of the total current expenditure) and substantial increases in revenue through additional taxes and efficient tax administration.

As the monetary authority, the Bank of Zambia also needs to take supplementary measures to restrict the growth of the money supply. This could, illustratively, be done by directing the commercial banks to maintain large reserve balances with the central bank. Presently, commercial banks have to keep reserves at the minimum level of 25 per cent of demand deposits and 17 per cent of savings and time deposits. As an additional measure to restrict the monetary growth the central bank might prescribe sectoral ceilings on bank credit. The credit control policy has, however, to be designed prudently so that adequate bank credit is made available for all productive purposes and priority sectors of the economy, but availability of bank credit for unproductive purposes or building up of unwarranted inventories is discouraged.

Interest rate policy

Considering the very high rate of inflation, the existing interest rates tend to discourage savings and encourage borrowings with consequent monetary implications. There seems, therefore, a case for review of the existing interest rate policy with a view to fixing interest rates at a higher level. If the policy objective is not to increase significantly the cost of borrowings for certain priority sectors of the economy, such as export-oriented activities, the lending rate for such sectors could be fixed at a relatively lower level. The dual interest rate policy would seek to encourage development of the specified priority sectors (i.e. agriculture) of the economy and could reasonably be justified on that ground.

Credit developments

The need for some measure of credit control to moderate the monetary growth in the economy has to be viewed in the context of large expansion observed in recent years. The total domestic credit, i.e. the loans and advances granted by the banking system, increased by 15.9 per cent in 1985, 33.3 per cent in 1986 and 16.7 per cent in 1987. The Government has a major share in the credit made available by the banking system. In 1987, for instance, 60 per cent of the total bank credit at K6.3 billion was granted to Government, the share of private and parastatal sectors being only 40 per cent. Evidently credit expansion has been necessitated more for financing the large budget deficit than for meeting the credit requirements of the industrial and commercial sectors. Such disturbing imbalances in bank credit need to be corrected for the overall benefit of the economy.

Developments in the commercial banking sector

At the time of its independence Zambia inherited a commercial banking system comprising only four banks, all of which were foreign-owned and manned predominantly by expatriate personnel. Their lending operations were confined mainly to the mining industry and commercial farming by expatriates and were dictated solely by profit considerations. The share of the Zambian (indigenous) sector of the economy in bank credit was hardly 20 to 25 per cent of the total credit. There have been, since then, significant structural and operational developments in the banking system. All commercial banks which were operating as branches of overseas banks were compulsorily required to get themselves incorporated in Zambia with at least half the board of directors comprised of Zambian nationals. In terms of the Banking Act, a commercial bank is required to have a paid-up equity capital of at least K2 million. The minimum paid-up equity requirement is, however, only K500,000 in the case of a bank in which the Government holds all or some of the shares.

Operationally, commercial banks have increased and diversified their activities in recent years consistent with the growing needs of the country's developing economy. Besides the traditional commercial banking functions, banks are now participating in agricultural development efforts on a larger scale by granting increased credit facilities to commercial and small-scale farmers. Their role in providing finance to small-scale industrial enterprises has, however, not been very significant so far. This could be attributed largely to the small

borrowers' inability to comply with the lending norms, particularly those relating to acceptable security. It is, however, expected that with the introduction of the Credit Guarantee Scheme by the Bank of Zambia, commercial banks' contribution to the development of the small-scale industrial sector, which is vital for the diversification and growth of the country's economy, will increase significantly in the coming years.

The existing commercial banks are operating through a network of 132 branches, sub-branches and agencies located in different centres (mostly major urban centres) of the country. In relation to the total population of about 7.2 million and considering the growing needs of the country's developing economy, the number of bank branches is rather small. Another noteworthy feature of the banking sector is the excessive concentration of bank branches on the Copperbelt whereas several other areas of the country have inadequate banking facilities. There is thus considerable scope for geographical expansion of the banking sector, particularly in semi-urban and rural areas which need banking facilities for mobilizing untapped public savings and channelling them for productive purposes. The opening of more branches in relatively unbanked areas would also promote the banking habit among the people and facilitate large monetarization of the economy.

Notwithstanding the limited number of bank branches, the growth of the commercial banking sector as a whole in terms of deposits, advances, etc. has been phenomenal. The growth of bank deposits, advances, etc. could, however, be attributed partly to heavy depreciation in the value of Kwacha and the inflationary impact on the economy over the years.

The banking system will have to play an increasingly important role in the economic development of the country. This will necessitate the opening of a large number of new bank branches throughout the country, particularly in areas which presently have inadequate banking facilities. The banks have also to diversify their operation to meet the growing financial requirements of agriculture, small-scale industrial units and exporters, especially those exporting non-traditional goods. To be able to provide the required credit facilities on a large-scale banks would have to strengthen their financial resources by mobilizing public deposits. For a sound and healthy development of the banking system a much larger base of paid-up equity capital and free reserves is equally essential.

In this context the requirement of K 0.5 million or K 2 million paid-up equity capital prescribed in the Banking Act over 25 years ago is evidently too low, particularly when one takes into account the heavy depreciation in the value of Kwacha during this period. The minimum paid-up capital requirement needs, therefore, to be raised at least five times of the existing monetary limits, if not more, by a suitable amendment of the Banking Act. With the expansion of their operations banks would also need to improve their functional efficiency by developing the skills and expertise of their personnel.

ANNEX I

INDECO COMPANIES AND PRODUCTS

<u>COMPANY</u>	<u>PRODUCT</u>
Milling Companies	Mealie meal
Rop & Premium Oil	Cooking oil
R.O.P. (1975) Ltd	Soaps
Zambia Sugar Co.	White Sugar
Zambia Breweries	Beer (Larger)
National Breweries	Beer (Opaque)
Zambia Pork Products	Pork and Beef
Zambia Coffee Co.	Coffee
Supa Baking Co.	Bread
Kafue Textiles	Materials (various)
Kabwe Industrial Fabrics	Polypropylene bags Polythylene & jute
Nkwazi Mfg. Co.	Fish nets, twine, rope
Zambezi Sawmills	Wooden sleepers and sawn timber
Zambia Steel & Building Supplies	Veneer block board and plywood doors
Kafironda Explosives	NG Explosives Anfo Capped fuses IEDS
Norgroup Plastics	Plastic crates jerrycans bottles
Consolidated Tyre Services	Tyre retreading
Mansa Batteries	Batteries Zinc callots manganese
General Pharmaceuticals	J. Fluids GRS
ZAMOX	Oxygen acetylene Nitrous oxyde Carbon dioxyde
Chilanga Cement	Cement Klinker

ANNEX I

INDECO COMPANIES AND PRODUCTS (ctd)

<u>COMPANY</u>	<u>PRODUCT</u>
Crushed Stone Sales	Aggregates Limestone products
Kapiri Glass Products	Glass products
Zambia Ceramics	Table ware Sanitary ware Tiles
ZAMEFA	Copper rod Copper wire and cable Copper Aluminium shapes
LENCO	Nails W/D frames Furniture Trailers and buses
MONARCH	W/D frames Geysers Galvanized hardware welded Wire products Wheelbarrows Cans
National Drum and Can Ltd	Drums Tins
Livingstone Motor assemblers	Cars
Luangwa Industries Ltd	Bicycles

ANNEX I

INDECO INVESTMENT DURING JULY 87 TO 31 MARCH 1988

<u>COMPANY</u>	<u>PRODUCT</u>
ZAMEFA	Magnet wire, brass and bronze castings
ZAMOX	P630 oxygen and carbon dioxide
National Milling Co.	Kabwe SIDO
Kafue Textiles	Expansion
Zambia Breweries	Replacement of bottling line
Zambia Sugar Co.	Factory expansion
INDECO Limited	Barley project commenced

OTHER PERFORMING INDICATORS (INDECO)

Group turnover	K2 182 million	K3 471 million
Group profit before tax	K 250 million	K 350 million
Forex earnings	US\$ 28 million	US\$ 32 million
Employment	23205	24311

ANNEX II

VILLAGE INDUSTRIES ESTABLISHED

<u>PROJECT</u>	<u>NO. OF UNITS</u>	<u>TOTAL COST (K)</u>
Maize milling	9	360 000
Carpentry	14	350 000
Handicrafts	8	24 000
Tailoring	11	420 000
Timber	3	60 000
Metal work	1	20 000
Knitting	3	45 000
Ox carts	6	150 000
Soap	13	39 000
Food processing	5	60 000

ANNEX III

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ANNEX IV

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