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UNITED NATIONS INDUSTRIAL DEVELOPMENT ORGANIZATION

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

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SPEECH TO BE DELIVERED BY THE HON. CABINET MINISTER OF COMMERCE AND INDUSTRY HON. R. M. CHONGO, MCC, MP AT THE OFFICIAL OPENING OF THE NATIONAL WORKSHOP ON INDUSTRIAL STRATEGY

MR. CHAIRMAN,
YOUR EXCELLENCY THE UNDP RESIDENT REPRESENTATIVE,
THE DIRECTOR UNIDO,
THE CHAIRMAN ZACCI,
DISTINGUISHED GUESTS,
PARTICIPANTS,
LADIES AND GENTLEMEN,

IT IS MY GREAT PLEASURE TO BE ASSOCIATED WITH TODAY'S OFFICIAL OPENING OF THE NATIONAL WORKSHOP ON INDUSTRIAL STRATEGY. AS MOST OF US MUST BE AWARE, THE PERFORMANCE OF THE MANUFACTURING SECTOR WILL TO A LARGE EXTENT DETERMINE HOW SUCCESSFUL OUR EFFORTS WILL BE IN RESTRUCTURING OUR ECONOMY.

MR. CHAIRMAN, MAY YOU THEREFORE ALLOW ME TO OUTLINE THE HISTORICAL CHARACTERISTICS OF THE MANUFACTURING SECTOR IN ZAMBIA.

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AT INDEPENDENCE THE CONTRIBUTION OF THE MANUFACTURING SECTOR TO ZAMBIA'S GROSS DOMESTIC PRODUCT (GDP) WAS A MERE SEVEN PER CENT (7%).

AFTER INDEPENDENCE, THE MANUFACTURING SECTOR EXPANDED RAPIDLY. THERE WERE SEVERAL FACTORS THAT STIMULATED THE RAPID EXPANSION OF THE MANUFACTURING SECTOR:-

(i) THE DECLARATION OF UDI, IN RHODESIA IN 1965 BROUGHT A NEW SENSE OF URGENCY TO THE DEVELOPMENT OF LOCAL MANUFACTURING CAPACITY.

(ii) THE HIGH COPPER PRICES OF THE 1960'S ENABLED GOVERNMENT TO EXPAND INVESTMENT IN THE MANUFACTURING SECTOR.

(iii) AS WAGES AND SALARIES ROSE IN ALL SECTORS, DEMAND FOR CONSUMER GOODS EXPANDED, THIS DEMAND PUSHED FURTHER INVESTMENTS INTO THE SECTOR.

COMRADE CHAIRMAN, DESPITE THIS RAPID GROWTH IN MANUFACTURING SECTOR, A CLOSE EXAMINATION REVEALED SEVERAL UNDESIRABLE FEATURES OF THE SECTOR:-

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(i) IT BECAME INCREASINGLY DEPENDENT ON IMPORTED MACHINERY, SPARE PARTS AND RAW MATERIALS.

(ii) LOCAL VALUE - ADDED ACTUALLY DECLINED FROM HALF TO A THIRD OF THE GROSS OUTPUT OF MANUFACTURING INDUSTRY

(iii) ZAMBIA'S POST-INDEPENDENCE MANUFACTURING INDUSTRY DEVELOPED AS A CONSUMER OF THE PRODUCTS OF THE METROPOLITAN ECONOMY OF EUROPE. THERE WAS LITTLE OR NO LINKAGES WITH THE DOMESTIC ECONOMY.

AS A RESULT OF THESE FACTORS, COMRADE CHAIRMAN, ZAMBIA'S ECONOMY BECAME EXTREMELY DEPENDENT ON INTERNATIONAL TRADE. EXPORTS AND IMPORTS CONTRIBUTED UP TO 48 PER CENT OF REAL GROSS DOMESTIC PRODUCTS (GDP)

AS A RESULT OF AND IN ADDITION TO THE PROBLEMS MENTIONED ABOVE NEW PROBLEMS HAVE DEVELOPED. THE CURRENT PROBLEMS, COMRAD CHAIRMAN, INCLUDE: UNDER UTILIZATION OF INSTALLED CAPACITIES; THE HIGH COST OF INDUSTRIAL RAW MATERIALS; INADEQUATE PHYSICAL INSTITUTIONAL INFRASTRUCTURE; INSUFFICIENT SKILLED MANPOWER, ESPECIALLY TECHNOLOGICAL CAPABILITIES; LIMITED FINANCIAL RESOURC AND HIGH DEPENDENCE ON THE EXPORT OF SINGLE COMMODITY NAMELY COPPER, THIS SITUATION COMRADE CHAIRMAN, COUPLED WITH THE LACK O

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REQUISTE MINIMUM INDUSTRIAL BASE, MADE THE COUNTRY MORE SUSCEPTIBLE TO CHANGES IN THE INTERNATIONAL ECONOMIC ENVIRONMENT.

IT IS AGAINST THE ABOVE BACKGROUND COMRADE CHAIRMAN, THAT THE UNITED NATIONS INDUSTRIAL DEVELOPMENT ORGANISATION (UNIDO) IN CONJUCTION WITH THE GOVERNMENT OF THE REPUBLIC OF ZAMBIA HAVE ORGANIZED THIS IMPORTANT WORKSHOP ON INDUSTRIAL STRATEGIES AND POLICIES. EXPERTS WHO WILL BE PRESENTING PAPERS AS WELL AS THE PARTICIPANTS TO THE WORKSHOP HAVE BEEN DRAWN FROM A WIDE CROSS-SECTION OF THE ECONOMY.

FOR EXAMPLE, WE HAVE EXPERTS FROM : NATIONAL COMMISSION FOR DEVELOPMENT PLANNING (NCDP), UNIVERSITY OF ZAMBIA (UNZA), INDUSTRIAL DEVELOPMENT CORPORATION (INDECO), ZAMBIA INDUSTRIAL AND MINING CORPORATION (ZIMCO), ZAMBIA CONSOLIDATED COPPER MINES LTD (ZCCM), BANK OF ZAMBIA (BOZ), TECHNOLOGY DEVELOPMENT AND ADVISORY UNIT (TDAU), ZAMBIA CONFEDERATION OF INDUSTRIES AND CHAMBERS OF COMMERCE, UNIDO, TO MENTION BUT A FEW.

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I THEREFORE, URGE THE WORKSHOP, COMRADE CHAIRMAN TO FOCUS ATTENTION ON:-

(i) ASSESSING THE NATIONAL INDUSTRIAL OBJECTIVES AND PRIORITIES.

(ii) IDENTIFYING MEASURES FOR ADJUSTING OR REFORMULATING THE INDUSTRIALIZATION STRATEGIES AND POLICIES IN ACCORDANCE WITH (i).

(iii) LAYING THE GROUND WORK FOR THE PREPARATION OF AN INDUSTRIAL MASTER PLAN WHICH WOULD PROVIDE THE FRAME WORK FOR THE IMPLEMENTATION OF THE GOVERNMENT'S INDUSTRIALIZATION PROGRAMME.

(iv) IDENTIFYING WAYS AND MEANS OF ENSURING THE OPTIMUM CONTRIBUTION OF THE EXISTING INSTITUTIONS IN THE INDUSTRIALIZATION PROCESS.

COMRADE CHAIRMAN, LET ME NOW COME TO DATA COLLECTION AND MONITORING. THE PREPARATION, EVALUATION AND MONITORING OF INDUSTRIAL PERFORMANCE IS AN ESSENTIAL ACTIVITY BOTH FOR PUBLIC AND PRIVATE SECTOR INVESTMENT. INDUSTRIAL MONITORING ACTIVITIES HAVE BEEN AN AREA OF RATHER SLOW DEVELOPMENT IN THE COUNTRY.

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CHAPTER THIRTY (30) OF THE FOURTH NATIONAL DEVELOPMENT PLAN (FNDP) ADDRESSES THE ISSUE OF MONITORING AS AN IMPORTANT TOOL IN THE REALIZATION OF THE OBJECTIVES OF THE PLAN (FNDP).

THERE ARE ADDITIONAL ADVANTAGES OF PROJECT MONITORING AND EVALUATION SYSTEMS:-

(i) FOR EXAMPLE; TO HELP ENSURE CLOSE SUPERVISION OF PROJECT IMPLEMENTATION BY MONITORING PROGRESS DURING THE PROJECT LIFE.

(ii) IT ATTEMPTS TO COMPARE PROJECT IMPLEMENTATION PLAN AGAINST ACTUAL PERFORMANCES.

(iii) IT PROVIDES TIMELY FEEDBACK MECHANISM SUCH THAT TIME LAGS AND BOTTLENECKS IN PROJECT IMPLEMENTATION ARE IDENTIFIED EARLY ENOUGH TO ENABLE CORRECTIVE ACTION.

FINALLY, IT ENABLES THE GOVERNMENT OR DONORS TO ASSESS THE MATERIAL NEEDS OF THE PROJECT AND MAKE PROPER FINANCIAL ASSESSMENT.

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IT IS THEREFORE, AN IMPORTANT TASK FOR THE WORKSHOP, COMRADE CHAIRMAN, TO COME UP WITH A COMPREHENSIVE PROJECT EVALUATION AND MONITORING SYSTEM.

COMRADE CHAIRMAN, ALLOW ME TO DISCUSS YET ANOTHER VERY IMPORTANT BUT IGNORED FACTOR IN THE ERA OF INDUSTRIALIZATION ESPECIALLY IN DEVELOPING COUNTRIES LIKE ZAMBIA. RESEARCH AND DEVELOPMENT ACTIVITIES ARE ESSENTIAL NOT ONLY TO DEVELOP APPROPRIATE TECHNOLOGY ALSO TO FIND WAYS AND MEANS OF SATISFYIN THE REQUIRED STANDARDS.

AT PRESENT VERY LITTLE EFFORT IS MADE TO PROMOTE INDUSTRIALIZATION THROUGH THE ADAPTION OF EXISTING OR DEVELOPMENT OF NEW PRODUCTS.

COMRADE CHAIRMAN, DESPITE CLEAR GOVERNMENT POLICY REGARDING THE IMPORTANT ROLE OF SIMPLE SCIENTIFIC RESEARCH, THERE IS VERY LITTLE INVOLVEMENT BY INDUSTRY IN RESEARCH. THIS LACK OF INVESTMENT IN THE DEVELOPMENT OF DOMESTIC SCIENTIFIC SUPPORTIVE INSTITUTION TO SUPPORTIVE PRODUCTION, DOES NOT ONLY LIMIT THE ECONOMIC USE OF DOMESTIC RESOURCES BUT ALSO RESTRICTS THE ACCUMULATION OF TECHNOLOGICAL KNOW-HOW.

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COMRADE CHAIRMAN, IT IS IMPERATIVE FOR ZAMBIA TO INITIATE A COMPREHENSIVE PROGRAMME TO PROMOTE AND ENCOURAGE THE APPLICATION OF ART AND SCIENCE TO PRODUCTION.

COMRADE CHAIRMAN, MAY I DRAW THE ATTENTION OF THE WORKSHOP TO ANOTHER AREA OF CONCERN - LINKAGES. GREATER SECTORIAL LINKAGES ARE NECESSARY FOR THE ACHIEVEMENT OF A GROWTH - GENERATING INDUSTRIAL SYSTEM. EACH SECTOR SHOULD RECEIVE ITS INPUTS FROM THE OTHER SECTORS AND SUPPLY ITS OUTPUT TO THE OTHER SECTORS. IN SUCH A SYSTEM, COMRADE CHAIRMAN, EVEN A SMALL INVESTMENT HAS A CONSIDERABLE NET OR MULTIPLIER EFFECT ON THE ENTIRE ECONOMY.

AT THE MOMENT, ZAMBIAN ECONOMY CANNOT FULLY AVAIL ITSELF OF SUCH A MULTIPLIER EFFECTS BECAUSE OF ITS LOOSE AND UNINTERCONNECTED NATURE OF THE ECONOMY.

IT IS UP TO THE WORKSHOP, COMRADE CHAIRMAN TO WORK OUT A COMPREHENSIVE SYSTEM WHICH WILL ACHIEVE THESE DESIRED SOCIO-ECONOMIC GOALS.

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LET ME CONCLUDE BY THANKING UNDP WHO WERE GENOROUS ENOUGH TO SUPPORT THIS SEMINAR. WE LOOK FORWARD TO EVEN MORE CO-OPERATION WITH THEM.

IT IS NOW MY HONOUR AND PRIVILLEGE TO DECLARE THIS NATIONAL WORKSHOP ON INDUSTRIAL STRATEGY OFFICIALLY OPEN.

THANK YOU.

IDDA NATIONAL WORKSHOP ON INDUSTRIAL STRATEGY

Hon. Minister,

Ladies and Gentlemen,

Distiguished Guests,

It is my pleasure to be among you on thisoccassion. As we have limited time and also no doubt that participants are aware of the nature of this Workshop, nevertheless let me briefly say a few words on the Programme of the Industrial Development Decade for Africa. As this Workshop has been organized by UNIDO under IDDA programme jointly with Ministry of Commerce and Industry. UNIDO has with the assistance of Governments of other countries in Africa has hosted similar Workshops.

1. As early as 1971, the First Conference ofAfrican Ministers of Industry adopted the "Addis Ababa Declaration on Industrial Development in Africa", which reiterated the 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 chance of a better future for their peoples are endangered, subsequent meetings of AfricanMinisters and Heads of States and Government deliberated more on alternate 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 IndustrialDevelopment Decade for Africa, for the purpose of focussing greater attention and evoking greater political commitment and financial as well as technical support, at the national, regional and internationl levels forthe industrialization of Africa. In response to the decision 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 focussing politica commitment and financial as well as technical support, at the national, regional and international levels .for the industrialization of Africa.

2. Essentially, the strategy for Africa'self-sustained ind ustrial development calls for an integrated appproach to and interdependence of industrial and allied activities.

3. 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.

4.The objective of the Workshop is to discuss ways and means of promoting strategy and planning for Industrial Development of Zambia and to address the problems. We hope that recommendation will be in the area of priorities for policy framework for promotion for institution mechanism. Such as research development,standardization of products, information system, joint venture investments, marketing and industrial fairs and infrastructure development. The recommendation to overcome the existing uncertainity and lack of control over the economy by insufficient planned strategy. I am sure the recommendation will take in account various past and existing national plan, policy and strategies drawn by the Government and the shortfalls. With the view to identify those elements that are inconsistance for sound strategy and planning. In order to make recommendations it will first be necessary to explore the policy requirements to define some of the implementation problems.
Local resource based industries are most important for Zambia at the same time industrial policies and incentives, promotions of institutional framework for planning machinery for rehabilitation of industrial sector and improvement of management, including fisical growth by raising capacity utilization and to diversify exports by use of local raw materials, and other measures to increase the Government capacity to manage the economy.

All developing countries face a set of shared problems in elaborating economic strategies such as the fundamental orientation and the kind of economic growth chosen, combining optumum rates of accumulation, steadily increasing consumption, employment and personal development opportunities and change in Social Structure, and above all the choice of technology for economic growth, with

little or no flexibility to accomodate internal and external conditions such as change in consumer demand, new technologies and products, deterioration of external market conditions.

These are the areas that would require to be examined during this Workshop for one set of recommendation aimed to transform the mechanism to promote economies of Zambia through industrial development.

ZAMBIA'S INDUSTRIAL POLICY AND PERFORMANCE

The need for an Industrial Development Strategy

(Paper to be presented to the National Workshop and Industrial Strategy to be held in Lusaka)

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CONTENTS

1.0 INTRODUCTION:

Enhencement of production in both quantitative and qualitative terms is the basis for industrial development in the economy. Manufacturing enterprises, as producers, are therefore the agents of industrial development. The performance of these enterprises is very much dependent on the economic/technical environment under which they operate. This is because the economic/technical environment offers opportunities or bottlenecks with respect to Manufacturing Pre-requisites such as availability of raw materials, technology, markets, finance skilled labour etc.

Promoting Industrial Development at the National level must therefore, out of necessity be concentrated at creating the enabling environment for manufacturing activities to flourish. The fact that the environment can be created, or rather that it can be changed so as to facilitate manufacturing emphasises that Industrial Development is an activity that can and should be consciously and deliberately planned for if maximum results are to be achieved.

Apart from accelerated growth, industrial development also constitutes the attainment of specific National objectives such as increased generation of Foreign/exchange, higher living standards for workers etc. The need to influence manufacturers so that their performance is geared towards meeting national aspirations further strengthens the case for conscious planning of Industrial Development.

Although the Manufacturing sector is a component part of the Annual and medium term (5 year) National Development Plans, it must be emphasised that this planning process is just one aspect of government intervention in the manufacturing sector.

There are also other aspects such as legislation, fiscal and monetary policy and statements from political authorities. This inevitabily means that apart from the Development Plans, we also have other documents/forumswhere National objectives and measures are outlined. A first step towards creating an enabling environment must therefore be to co-ordinate and where possible, integrate the various forms of Government intervention so as to prevent possible contradictions. The second, perhaps more important step is to integrate the various forms of Government intervetion into institutional and administrative structures and activities. Without this intergration, one should only expect National plans which are never fulfilled or legal requirements which are never followed. One approach to facilitate this integration is to devise a National Industrial Strategy which will specify as far as possible the required programmes and projects, the responsibilities of various institutions and the mode of interaction and cooperation among the various institutions. Based on an evaluation of the historical evolution of Government intervention and the related performance of the industrial sector, this paper attempts to stimulate discussion which could facilitate identification of elements for a National Industrial strategy. In the paper, the sum total of Government intervention will be termed as INDUSTRIAL POLICY.

2.1 PIONEER INDUSTIES ACT (PIA)

The Pioneer Industries Act came into effect in 1965. The major objective was to encourage the establishment of NEW industrial and commercial enterprises byway of relief from income tax. Of immediate concern was therefore the need to set up capacity in areas where they were gaps. New Investments were therefore channelled into areas which were deficient through the

use of the Income Tax incentive. Furthermore, the Minister responsible for Industry had absolute power under the act to approve the setting up of industrial projects.

2.2 FIRST NATIONAL DEVELOPMENT PLAN (1966 - 1970)

The First National Development Plan (FNDP) was launched in 1966. In consistency with the PIA, the major aim of the plan was to create industries which would substitute locally produced products formany of those imported, The plan thus defined more clearly the overiding policy of import substitution for consumer goods which was adopted. Apart from import substitution there were other secondary objectives such as geographical diversification so as to promote rural development and the development of export capacity in new industries. It was assumed that a number of the new industries could develop exports provided their products were competitive in terms of price, and quality. The role of the Government was recognised as that of providing encouragement and assistance to the private sector and in certain cases to undertake direct responsibility in establishing new industries. Government Investments in industry later became so significant that state participation became a major policy. Through the economic reforms of 1968 His Excellency the President announced the formation of INDECO a state enterprise which would not only be the Government arm for industrial investments, but would also play the role of transfering economic power to indegenous Zambians.

A review of the FNDP indicates that the plan targets were not only fulfilled but they were even exceeded. There was rapid expansion which led to the local production of previously imported products. Apart from the food processing sub-sector which remained static, there was significant expansion in all the other sub-sectors, especially Metal Engineering and Textiles.

2.3 SECOND NATIONAL DEVELOPMENT PLAN (SNDP 1972 - 1976)

The Second National Development Plan was launched in 1972 primarily to consolidate the gains of the FNDP. The plans objectives were therefore identified as follows:

1. Fuller utilisation of set up capacities
2. Extending import substitution to cover gaps which still remained.
3. Extending import substitution to production of intermediates and capital goods.
4. Processing of local agro and mineral resources
5. Promotion of export of manufacturers
6. Establishment of small scale industries in rural areas.

During the SNDP industrial production was less than anticipated. The average growth rate of 4.5% was significantly lower than the planned target rate of 14.7% and it was also lower than the growth rate of 4.9% registered during the FNDP. This poor performance reflected the dependence of the manufacturing sector on imported inputs and it was closely related to the serious shortages of foreign exchange which emerged after the catastrophic fall in copper prices during 1974. The dependency on imported inputs and the high capital intensiveness which characterised manufacturing also reflected failure to make substantial progress in the achievement of the objectives of:-

a) Exports of manufactured goods
b) Production of intermediates and capital goods
c) Processing of local agro and mineral resources
d) Development of small scale industries.

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In a nutshell, therefore the SNDP failed to consolidate the gains of the FNDP. A major reaction to this state of affairs was the introduction of the INDUSTRIAL DEVELOPMENT ACT (IDA) in 1977, which repealed the Pioneer Industries Act.

2.4. THE INDUSTRIAL DEVELOPMENT ACT

A major characteristic of the IDA was the wider incentive framework which apart from income tax exemptions available under the PIA, also included the following:

1. relief from sales tax
2. relief from selective employment tax
3. rebates on Customs duty payable on equipment and inputs
4. preferential treatment with respect to granting and processing of import-licences.
5. preferential treatment with respect to Government purchasing.

These incentives were also tied to the achievement of the objectives of maximum utilisation of domestic raw materials, production of intermediate goods, diversification of a given company's operations, improvement of domestic industrial skills (or fostering development of domestic technology) and the promotion of industrial development in rural areas. There were also specific incentives for exporting enterprises, training, rural enterprises, foreign investment, research and development.

Apart from a wider incentive framework tailored to meeting National objectives, the Act also introduced the licensing of manufacturing enterprises, provided for the regulation of contracts related to transfer of foreign technology and expertise, both of which were aimed at increased Government Control over the direction of industrial activity. Through the licensing system, the Minister for Industry retained the power to approve the establishment of industrial enterprises.

2.5 THIRD NATIONAL DEVELOPMENT PLAN (1979 - 1983)

Following the poor performance of the SNDP the TNDP was formulated to integrate the policies of import-substitution export primotion and the maximum use of domestic raw materials. The plan also emphasised on small industries development, particularly in rural areas. The plan recognised the need for the establishment of a National Agency to provide services to small scale industries. These services were identified as Consultancy (Projects identification and provision of information on technology, markets etc) Financial services, procurement services, marketing services, and industrial estates.

The plan also emphasised on the need to facilitate genuine domestic technological development. To that end, INDECO was expected to select at least 5 companies to set up research and development units. Furthermore technical expertise in project promotion would be built in the following institutions:

Ministry of Commerce and Industry

INDECO

A National consultancy agency would also be established.

Industrial performance during the TNDP was dismal. At 0.5%, the annual growth rate was far below the planned growth rate of 8% and was also unfavourable when compared to the growth rate of 4.5% registered during the SNDP. The most important factor responsible for this dismal performance was the low level of achievement of some important TNDP objectives like export promotion, utilisation of local raw materials, appropriate choice of technology, establishing linkages between agriculture and industry and import substitution. A sub-sector analysis shows that fabricated metal products and textiles registered the highest growth rates of 7.0% and 4.8%, respectively.

Industrial performance was also characterised by low capacity utilisation and was affected by increased costs of production.

2.6 THE INVESTMENT ACT AND LIBERALISATION

After the TNDP period - (1983-1979), poor performance remained a characteristic of the manufacturing sector. This justified the revision of the legal framework for promoting Industrial Production. Thus in 1986, the Industrial Development Act was repealed and replaced by the Investments Act.

In order to attract Investments the Investment Act reduced the regulatory tone and arbitraly nature of the IDA. Thus under the Investment Act, the licensing system would no longer be used to restrict projects establishment but merely to register enterprise: and the incenture framework was made as non-discretinary as possible (Automatic incentives.)

In essence, the revision of the IDA was part of the reberalisation measures which were taken when Auction of foreign exchange was introduced in 1985.

Major areas of interest for industrial performance during the auction of foreign exchange period were the Liberalisation of imports which created competition for local industry, the instability of foreign exchange rate which made it difficult to plan operations, and the decontrol of prices which promoted trading rather than production oriented businesses. The liberalisation measures therefore created an environment which was hostile to local manufacturers. Therefore not only was industrial performance affected, but the future growth of the sector was also threatened.

The Hostile environment was recognised and hence in 1986, A Tarriff Commission of Inquiry was appointed to investigate and report in relation to the Tarriff structure on the following matters:-

1. division of the economy into sectors and sub-sectors
2. Identification of enterprises and products requiring protection.
3. Examination of the entire tarriff structure and other relevant issues.

The Report of the Tarriff Commission of inquiry identified the need for reforming the Tarriff structure so as to facilitate:-

1. Protection of local industry without sacrificing product avalability, and competitiveness in terms of quality and price.
2 Broadening of tax base for government revenue
3. Creation of conditions conducive to maximum utilisation of local raw materials
4. Encouraging import substitition.

In essence, the Report of the Tarriff Commission of Inquiry highlights the importance of the customs tarriff structure which if "out-moded, can seriously obstruct development". The customs tarriff structure in Zambia was successfully used to support and consolidate the import substitition policy through imposition of:-

1) High import duties on locally manufactured commodities.
2) Low or Zero import duty on raw materials, intermediates and Machinery.

As the industrial sector deversified, and as the need to localise raw materials and intermediate inputs increased, the imposition of low import duties on inputs which could be manufactured locally has become a bottleneck rather than an incentive enhencing industrial development, depending on the product or subsector being referred to. Thus for inputs where the technological and economic conditions permit localisation

to large import duties should be charged in order to promote local production which those where conditions for local production do not exist, lower duties must be charged.

Determination of the tarriff levels which are conducive for promoting industrial development therefore requires an extensive analysis of each product or Company involved. Furthermore give the fact that economic and technical conditions change over time, it means that tarriff levels are bound to become out of date as new conditions emerge, hence there is need for periodic review. Furthermore it is important to realise that while imports could discourage local production, thus negatively affecting industrial development, they could also exert the pressure necessary for maintaining and improving productivity and product quality in local production. The process of economic development thus demands that a balance must be struck between excessive protection and excessive importation.

It should therefore become apparent that determination of the customs tarriff levels that are conducive to industrial development in particular and economic development in general is a continous exercise whose importance and volume increases as the economy diversifies and becomes more sophisicated. There is therefore need for full time personnel to be employed sdely for determination of the terriff levels and the related industrial research and company inspections. This probably explains why the Report of the Tarriff Commission of enquiry recommends the establishment of a permanent Tarriff Commission with statutory powers where functions will include periodic review of the terriff structure, receipt and review of applications for imposition or reduction of duties from manufacturers, producers importers and advisors, undertaking of inspections of Industrial

In conclusion the liberalisation measures taken in 1985 did therefore not promote growth in the production sectors. To reverse the trend, the New Economic recovery programme was launched in 1987.

NEW ECONOMIC RECOVERY PROGRAMME (NERP)

In June 1987, the new economic recovery Programme was launched. This programme to a great extent reversed the liberalisation measures that were characteristic of the Auction system. The economic environment thus became more favourable and the result was increased in Manufacturing output during the first phase (Interm Plan). The improved performance was attributed to the increased avalability of foreign exchange to the sector. This points to the fact that performance during the second phase (Fourth National Development Plan) will still to a large extent depend on availability of foreign exchange.

It should also be emphasised that for the manufacturing sector increased use of local resources which is a basic objective under NERP is in essence a Combination of the policy of consolidating the sector through intergrating the import substitution policy with the objectives of increased reliance on utilisation of local resources and the related development of technology, capital goods subsector and small scale development.

An important aspect of the NERP is that depite measures that halted the liberalisation process during the Interim Plan, in terms of overall objectives, the Commitment to entual increased liberalisation has remained. This is reflected both in the FNDP and in the 1989 June 30 measures which re-introduced Price-decontrols. A major conclusion that can be drawn is the the fact that for liberalisation to achieve the required objectives, there is need for creating certain conditions through such measures as legislation, new institutions etc. Examples in this regard are the need to introduce Anti-Monopoly (or fair Competition) Act so as to promote competition and protect consumers, and the need to create a stock exchange so as to facilitate channelling of savings into productive ventures.

3.0 LESSONS AND CONCLUSIONS.

While the policy of Import-substitution was highly successful during the first National Development Plan, Performance in subsequent Plans has been progressively declining. This is attributed to the inadequacy of foreign exchange which effected the whole economy. However, when it is realised that the manufacturing sector, as one of the productive sectors, and also as the source of high value added products, has a significant role to play in generating foreign exchange for the economy, it should be apparent that the poor Performance should also be attributed to the failure to reorient the sector towards export activity.

Progress on industrial exports has been poor, despite the fact that export growth has been appearing as an objective of the manufacturing sector in the Development Plans. Apart from the objective of increased exports other objectives which have not been fulfilled are those of increased utilisation of local inputs development of Small Scale Industries, technological development and local production of machinery.

Successful implementation of these objectives would have gone a long way in consolidating the gains of the FNDP and in the same manner in ensuring that the import substitution policy continued to guide the sector towards higher performance levels. The intergration of these objective with the import substitution policies was therefore (and still remains) the basis for further industrial progress.

A major reason while the above objectives were not integrated with the Import substitution policy was the lack of institutional capacity which meant that there were no institutional and programmes/activities designed to persue the objectives. It must be realised that one of the reasons for the success of the Import-substitution Policy during the FNDP was the creation of INDECO, which provided the Institutional capacity for channelling and monitoring Government investments in industry. Over the years, industrial diversification has raised the need for new institutional capacity. This need has been recognised hence the following organisations have been established - Small Industries Development Organisation (SIDO), Village Industry Service (VIS) Zambia Bureau of Standards (ZABS) Investment Council of Zambia, Export Board of Zambia (EBZ) (Export and Import Bank (EXIMBANK) However, so far the impact of these new institutions has not been felt mostly because in terms of facilities available and services offered, all these institutions have still to consolidate themselves.

Successful intergration of the Plan objectives with the Import-substitution policy demands that the various programmes and activities to be undertaken in the pursuit of these objectives should be closely coordinated. This is because all these objectives are inter-related. For example

(i) The increased use of local resources may be affected by the ability to import machinery (i.e. need for forex) for undertaking new projects or it many be affected by the level of development of local technology.

(ii) The Development of Local technology may itself be affected by the level and direction of the local capital goods industry.

The inter-linkages between programmes and activities which will be undertaken by different institutions raises the need for strong leadership not only to ensure co-ordination but also to give the required National Direction in industrial progress. Although the Department of Industry is recognised as the focal point in promoting industrial Development, its impact and influence has so far been very limited. Although the limitations of the Department were recognised and highlighted in the TNDP where implementation of the Industrial Programme would involve building up "the necessary technical expertise in the Ministry of Industry, Commerce and Foreign Trade...." to date institutional inadequacy has remained.

Over the years, despite the fact that performance has been declining, the manufacturing base has become more diverse and sophisicated. This has occured because of the fact that despite the problem of foreign exchange inadequacy, new capacity for manufacturing a wider range of Commodities has been created through both Parastatal and Private sector investments. The fact

that the Projects which have been established so far have done little to help achieve the objectives of export Promotion, small scale development reflects the lack of institutional capacity which could have facilitated channelling the investment resources towards Projects which could have fared better vis-e-vis the objectives. On the other hand, it also means that Actual Investments have fallen far short of the required Minimum Investment levels. This could be explained by the fact that a number of Projects which have been proved to be viable in both the Parastatal and Private Sector have not been implemented mainly due to foreign exchange limitations which prevent importation of machinery. The pending list of Projects which have Kwacha Cover but no foreign exchange cover while reflecting the unavailability of foreign exchange in the economy, also reflects that Foreign exchange sources such as Commodity Aid, Bilateral Trade Agreements, external loans and other similar facilities have not been vigorously persued to ensure that external resources are channelled into the manufacturing sector in propotions which are comensurate with the status and significance of the sector. This has partly been due to the institutional inadequacy of the Department of Industry. Furthermore it also means that Foreign Investments, which is a worldwide popular mechanism of attracting Capital into an economy, has been below expectations.

To facilitate successful execution of the Import substitution Policy, Industries which were established were protected fron both local and foreign competitoin, Initially, this Protection was based on customs Tarriffs and the legal and administrative framework provided by both the Pioneer Industries Act and the Industrial Development Act. As the foreign exchange crisis depended, the foreign exchange regime gained the

upperhand as the leading machanism for protection. This protection, together with the policy of establishing large scale parastatal Companies, helped to create a Monopolistic structure which in principle had neither the need nor the competitiveness to participate in export activity. It is therefore not surprising that promoting Industrial production was based on administrative rather than Market oriented mechanism.

As the sector became more diversideed, the need for foreign exchange increased and in the face of the forex crisis, the need for localising imports also increased. However the policy of protecting and promoting local production of consumer goods through high tarriff on consumer goods and low terriffs on imports became inconsistent with the need to promote localisation of imports. Thus some imported inputs were cheaper than locally produced inputs.

Despite the heavy government Investment input, An investment gap still remained which the private sector had to fill. This exposed the linations of public finance in investment and development requirements of a country. This need to reinvest in existing plant raised the need for Public enterprise to generate its own resources, hence the need for market oriented mechanism.

Over the years, the tendency has therefore been to shift towards market oriented promotion of industrial production. However this shift has been attempted without a vigorious analysis of the institutional environmental requirements necessary for success of market mechanisms. For example establishment of market forces oriented institutions like the stock exchange need to be evaluated.

4.0 TOWARDS AN INDUSTRIAL DEVELOPMENT STRATEGY.

4.1. THE RATIONALE

The conclusions drawn reflect and highlight the existence of an industrial base whose full potential is not being utilised. In comparison to many other African Countries, Zambias industry structure is relatively large, and diversified with a base for technological Competence. One indicator of this potential is the possibilities of exports of Industrial products to countries in Eastern and Southern Africa. Despite the problems of Re-investments to facilitate replacement and Moderrisation of machinery over the years Capacity in new products has been established, thus creating a tendancy to widen the gap between Potential and Actual Performance. The issues which need to be addressed so as to tap the potential in the short run and to ensure accelelerated growth and development in the long run are those of facilitating growth, increasing capacity utilisation and enhencing productivity.

All these issues have been addressed to by the fourth National Development Plan through the objectives of Export Promotion, Small Scale Development etc. There is however need to transform those Plan objectives into institutional Programmes and activities. The following is therefore an attempt in this direction.

4.2. STRENGTHENING OF INDUSTRY DEPARTMENT

The need for directing the Industrial development process, co-ordinating activities of institutions directly involved in implementing industrial programmes and projects, and continously facilitating the existence of a conducive climate for industrial development all call for a strong Department of Industry. A strong Industry Department will not only provide effectively leadership

but will also effectively influence the activities of local and international instituions at both the policy and the implementation levels.

In order to enable the department effectively undertake the responsibilities comensurate with its mandate, there is need to enhence its Proffessional Capability. This should involve increasing the number of proffessional staff in the establishment from the current 11 to at least 20,. Furthermore Proffessional staff should apart from Economists also include Engineers. The increase in proffessional Manpower should also be accompanied by the strenthening of linkages between the department and the institutions directly involved in industrial development. Furthermore there is need to enact legslation so that the department can have a legal framework for facilitating its activities.

There is also need for equiping the department with the necessary facilites to enable in establish in industrial information system which will facilitate the collection, processing, storage, retrieval and dissemination of information. The minimum amount of budgetory resources, vehicles and other operational requirements must also be made available.

A strengthed Department of Industry will have capability in industrial research, evaluation of sectoral and subsectoral performance, monitoring and sectoral industrial promotion which will enable it initiate, co-ordinate, monitor and evaluate the following programmes which should constitute the National Industrial strategy.

4.3 INDUSTRIAL EXPORT DEVELOPMENT PROGRAMME

Based on close consultation with relevant institutions, especially Department of Trade, Export Board of Zambia, Bank of Zambia, Export and Import Bank, the department of Industry must draw up a programme of facilitating increased industrial exports. Such a programme must indicate target groups,(which could be subsectors, or product group), inputs and services required from various institutions and the targeted Export levels to be realised within a given time framework.

4.4 SMALL SCALE INDUSTRIES DEVELOPMENT PROGRAMME.

Based on the activities of Institutions such as SIDO, VIS etc. There is need to have a small Scale Development Programme which must include the following:-

(i) Areas where SIDO and VIS should concetrate their activities. In this regard funds for Project financing to be used as a revolving fund for implementing the programme should be provided through the Government budget.

(ii) Identification and financing of infrastructural support required by small scale Industries at each level of development, e.g. construction of industrial Estates, shopping malls.

(iii) A specific programme for promoting linkages between Small Scale Industries and medium/large scale industries.

(iv) A specific programme facilitating the transtion of small scale industries into meduim/large scale industries. Facilitating expansion of SSI should involve identification of existing SSI with potential for growth, an indepth study into their expansion requirements and the mobilisation of resources required.

4.5. LOCALISATION PROGRAMME

The need to localise imported industrial inputs lends strong rationality to the import substitution policy in general and the need to grow from our own resources. This programme should not only emphasise localising raw materials, but it should also include localising other vital industrial inputs such as industrial technology and machinery. The localisation programme should therefore involve:-

1. Identification of resources with potential industrial use.
2. Identification of imported inputs which should be localised
3. Identification of technological requirements for localisation
4. Enhencing Enginineering Design capability so as to facilitate growth of a Capital goods industry.
5. Preparation and Promotion of Project ideas which could be based on expansion or diversification of existing enterprises, or the establishment of new projects or enterprises to facilitate creation of capacities for implementation of the programme .

4.6 INVESTMENT PROMOTION.

It should be apparent that under the programmes of Industrial Exports, Small Scale Development and localisation, a significant aspect will involve the identification and promotion of specific projects. At each point in time, there will therefore be a list of projects which need to be implemented. Preparation of a National priority list of Projects on a regular basis, will therefore be an important measure of the Industrial strategy. The strengthened Department of Industry should use its investment promotion

programmes (investment tours/international meetings etc.), knowledge and linkages to help finance the projects.

Furthermore there will also be need to create machanism for facilitating flow of financial resources into the industrial sector. For example the need to establish a stock exchange should be appraised.

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NATIONAL WORKSHOP ON INDUSTRIAL STRATEGY

PLANNING OF NATIONAL ECONOMIC DEVELOPMENT IN ZAMBIA: TENDENCIES AND CONTRADICTIONS

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I N T R O D U C T I O N

Planning of economic development at the national level is new phenomenon in the history of mankind. Its emergence was related to the first half of the twentieth century. Like the new discoveries in the fields of natural sciencies as well as results of the current scientific-technical revolution, planning of economic development has become one of the most important scientific and practical aspect of our time.

The role and place of economic planning in societies with different socio-political systems are different. The contents, forms and methods of National economic planning on one hand and programming on the other reflect all the sundry salient features of production relations in a given mode of production. Economic Planning therefore is not and cannot be neutral. This in turn accentuates the need for a careful study of the process of economic planning as well as programming not only in developed socialist and Western States but also in developing countries.

During the part thirty years planning of socio-economic progress in developing countries has become quite widespread. If in 1960 economic development plans existed in 7 African, 14 Asian and 2 Latin American countries in the mid 1960's the numbers were 26,18, 20 respectively. At present there is not single developing ccuntry which has not tired to formulate plans and programmes of economic development (1,3). Sundry reasons both internal and external, objective and subjective are attributed to this trend.

Government of the Republic of Zambia, right at the time of the attainment of political independence, recognised the need for balanced proportional development of the national economy. Faced with the need to redress socio-economic backwardness as well as into inbalances at an accelerated pace the government opted for a planning approach of economic development Experience has shown that young nations that undertook a planning approach of economic development.

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1. SEE: V.A. YASHKIN, E.A. CHEREVIK, PLANNING OF ECONOMIC DEVELOPMENT IN DEVELOPING COUNTRIES. M., 1986.

The author does claim conclusive of all aspects of such a difficult and complex topic. Attention has been directed on three important areas which the paper briefly examines. These are*-

1. theoretical aspects and practical experience of planning national economic development in Zambia;
2. implementation of plans as a crucial stage of the planning process;
3. contradictory nature of bilateral and multilateral assistance in achieving the end results of the planning process.

THEORETIC ASPECTS AND PRACTICAL EXPERIENCE OF PLANNING ECONOMIC DEVELOPMENT IN ZAMBIA

The process of national liberation does not end with the attainment of political independence. Procurement of political sovereignty simply marks the end of the first phase of that process and the beginning of the second phase, namely social economic liberation. And when in October 1964 political independence was procured, Zambia opted for a planned form of economic development.

Planning means the formulation of plans as well as their implementation through human activity in a specific system during a definite period of time in future. Inclusion of implementation in the planning underscores the result oriented character of that process. Development Planning therefore is an act of relating a given set of economic goals reflecting the interests of a given society to the resources available in the economy The gosls are usually spelt out by the political system.

The magnitudes and concentration of production have reached such high levels that the entire economic mechanism has become quite complicated. The obtaining levels of productive forces, the internationalisation of economic life and the social character of modern production entail proportional development of the national economy. And planning of economic development essentially amounts to conscious maintainance of proportionality of all elments of national economy for the sake of achieving the set goals.

The need for proportional development of national economy is an objective one and is experienced in both developed and developing economies. In the circumuststances of public ownership of means of production conscious maintaince of proportionality has proved to be a stimulating factor of accelerated growth rate of productive forces. This trend is partricularly evidenced during the early stages of soveeign development. For example by 1940 the gross industrial output of the soviet Union increased by 670 percent and its output of means of production went up by 1,240 percent as compared to the 1913 level (1,85). On the whole the process of industrialisation was completed within a brief period of about 20 years and USSR was turned intoone of industrially advanced countries in the world. Between 1922 and 1976 national income in the Soviet Union rose by 128 times. Evidently these achievements were as the result of radical social restructuring which paved the way for systematic proportional develop- of productive forces. Planned form of management of the national economy founded on cognance as well as utilisation of objective economic laws became the most function of the socialist government.

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1. SEE: KHARIS SABIROV. THE ABC OF SOCIAL AND POLITICAL KNOWLEDGE, M., 1986.

In the process of social restructuring and rapid development of productive forces of the society socialist planning was transformed into a comprehensive and directive one. The national economy began to be managed on the basis of a state plan which is achieving sundry goals simulatneously through intensive utlization of all the available resources. Emphasis of the whole planning activity centres on the process of creating conditions for an all round development of an individual. In this context planning becomes not an end in itself nor only production as well as resource but also and more so, socio-economic oriented.

The adoption and application of economic programming in Western countries are aimed at ensuring the required proportionality (1,25 - 41). Under private ownership of means of production it is just not practicable to have an overall plan of economic development at the national level. Thus clements of superstructure are constantly being adapted to the requirements of the expanding productive forces but only to such an extend that they facilitate the preservation of private ownership of means of production. This explains the prevalent interference by national governments of the West in the economic life during the process of reproduction. Large national resources controlled by these governments constitute solid base of active government interference and influence in the economic sphere.

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1. SEE: U.M. SHIROCOV. SOCIALIST PLANNING AND CAPITALIST PROGRAMMING. M., 1978.

Attempts by western governments to formulate and implement programmes of economic development at the national level are a way of adapting production to new conditions. Reference to this effect can be made to well known medium-term economic programmes in France, Italy, United Kingdom, annual programmes in the Netherlands and Scandinavian countries long-term economic programmes in Japan. Practically every state in the West undertakes in one way or another economic programming as a way of exerting influence on the whole process of reproduction. In fact economic programming has an important aspect of management in the west. Economic programming commensurate with the nature of capitalist production evolved from traditional forms and methods of state interference in the economic life under the circumstance: of private ownership of means of production. The evolved system of measures for indirect regulation of economic development in the West is referred to as indicative planning in contrast to centralised directive planning in the eastern countries. Recommendatory character of indicative planning emanates from the nature of private ownership of means of production which cannotes stiff competition among individual entrepreneurs.

Evolution of economic programming therefore has been dictated by high level development of productive forces, strong interaction between the state and the monopolies and the East-West economic rivalry which inspired the West of strive for stable economic growth rates.

In developing countries economic planning is dictated by different reasons namely the need to liquidate

socio-economic backwardness and to achieve economic independence. Experience of economic planning in the east and in particular the spectacular results scored in the early stages of economic development had a demonstrative effect on developing countries and motivated them to make use of the methods of planned management of the national economy Since the Great Depression of 1929-1933 which rocked the west at the time when centrally planned economies witnessed the unprecedently rapid economic growth rate the the free market mechanism as the main driver of development process became more than obvious. Stae planning regarded by developing countries as a more than effective method of accelerating socio-economic progress as well as effecting the required radical social restructuring.

The essence of planning in developing countries is reflected by the world-wide tendency to have some control of the affairs of national economy. An important feature of developing states is that economic planning in them is related to specific functions of the government such as resolution of fundamental social problems which can be carrie out through systematic economic measures by the government. Apart from directing the overall general development, the government should also play an active role in effecting integration of the various sectors of the national economy. Under the circumstances of unintegrated economy policy directions become the sole national factor capable of initiating the process of radical socio-economic restructuring.

The emergence of the state (government) sector in developing countries, the expansion of state ownership of the

of the means of production and the growth role of the state in industrialisation, in process of reproduction of the natioanl income and in foreign trade all point to the necessity of having economic development plans and programmes. Besides, developing countries are executing extensive and costly projects in the areas of agrarian transformations, industrial development, education, public health and so forth. Evidently there is need to marshal financial resources and put them to more stringent use in the form of state investment programmes with clearly defined targets.

The dawning of scientific technical revolution at the beginning of the secon half of XX Century also changed the substance of underdevelpment and thus posed new problems. These include the need to select the type of technology to be applied, the line of specialised production, the approach to set up national scientific base. Evidently the tackling of these problems require the infusion of some elements of planning and mapping out of the long-term programmes for a period of years ahead. The internationalisation of the economic life in general and production in particular as well as the emergence of various integration groupings in the developing world coordinating economic policies of different states. The general trend for dveloping countries is that of a combined action against the inequitable status in the world division of labour and their struggle for the new international economic order.

Finally, developing countries have to take into account the time factor. These countries are not prepared to take alone centuries to overcome the acute socio-economic problems

and wait for the slow processes of accumulation of capital and industrialisation to take their own course along the way while the west once traversed. There is a strong feeling for accelerated pace of their economic development and elimination of socio-economic backwardness.

The foregoing bears a clear testimony that state development planning has a firm place in developing countries however difficult, problematic and sometimes contradictory the plans may seem to be it is definetly not as aspect of wishful thinking. However the process of creating material and social conditions of state planning in these countries will depend on the choice of the mode of development.

Since Zambia procured political independence, four medium-term plans of five-year duration have been prepared, namely:

First National Development Plan (FNDP) for the period 1966-1970;
Second National Development Plan (SNDP) for the period 1972-1976;
Third National Development Plan (TNDP) for the period 1980-1984; and
Fourth National Dev. Plan (FNDP) for the period 1988-1993.

Short-term (annual) plans were introduced at the beginning of the Third National Development Plan while long-term perspective plans have not yet been introduced.

The creation of a relatively large parastatal sector in the country constitutes an objective economic basis for undertaking development planning at the national level. State ownership of means of production through parastatals encompasses almost all sectors of the national economy. Most of the parastatals are more than 50 percent state-owned. Besides, the policy of participatory democracy, which assumes co-existence of centralised planning and private entrepreneurship in the national economy, remains the guiding principle of development planning in Zambia (1, 47-58).

Formulation of a national development plan is normally done through a broad based participation from a cross-section of Zambian society. It normally begins by setting up planning committees in both sectoral ministries and provincial administration. It has been the government policy to establish planning units in all ministries,

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1 SEE: KAUNDA K.D. BLUEPRINT FOR ECONOMIC DEVELOPMENT. A GUIDE ON HOW TO CLEAR OBSTACLES. ADDRESS TO THE 14TH NATIONAL COUNCIL ON UNIP. L. 1979.

provinces, districts, villages and parastatals organisations. And by 1981 the first first five out of the nine provincial planning units were set up. These are professional bodies meant to assist provincial authorities in plan formulation. Planning units have also been established in a number of ministries. Thus while the final processing including testing for internal consistency and drafting of plan document is done by National Commission for Development Plan (NCDP), the plan usually represents by and large the consensus of various planning committees. For instance during the formulation of the Fourth National Development Plan (FNDP) in all twenty four planning committees were constituted and these included officials from Government iministries and departments, representatives of parastatsls, the private sector, trade unions, University of Zambia and sundry other institutions. The role of National Commission for Development Planning was that of a secretary of the committee.

At the provincial level formulation of the National Development Plan begins at district level. District Development Committees (DDC) suggest projects and programmes to respective Provincial Development Committes (PDC). These suggestions are considered at PDC level and wherver possible are included in the final recommendations to the central Government. On the other hand plar for agricultural sector, for instance, would be initiated by people working in this sector including civil servants, formers, financial institutions, workers interested in agriculture and so forth under the chairmanship of the Permanent Secretary of the Ministry. In this way sectoral and regional aspects of a development plan are formulated by the sector or Province which is also charged with the responsibility of its

implementation. Similarly during the fumulation of a provincial plan experts from the province and other citizens acquinted with the problems of the province form a planning committee under the chairmanship of the provincial Permanent Secretary. Thus the plan for the development of a sector of province is formulated by the implementers themselves who are aware of the problems, bottlenecks and sources of inconsistencies writhin the sector or province. However, the plan formulated by the implementers at sectoral and provincial levels have to be consistent with the overall strategy of the Plan. Hence the formulation of a national development plan at the national level generally begins with the fixing of growth rates broken down per sector and setting out capital projects and programmes. Since 1980 production targets in both physical and financial terms have been indicated in National Development Plans.

When sectoral and provincial plans are received at National Commission for Development Planning they are subjected to the resource constraints and growth goals. The goal of economic growth must take into account the economy's saving ratio and capital output ratio. In other words, the resources available and efficiency off resources' use determine the level of economic growth. After the resources required for the implementation of sectoral and provincial plans are calculated, these are then compared with total resources available in the whole economy and if necessary adjustments are made. The guiding principle for such adjustments is the plan strategy. The plan strategy would indicate somewhat which sectors should reduce their targets and which sectors should increase their targets. All this is done in order to fit in with the overall growth rate. In this way the plan strategy acts as an insurance of plan's consistency.

Once a ministry of province has laid down what it wants to achieve over the plan period and resources are made available to it, then the implementation of the plan should begin. In a way such a ministry of province has entered into a kind of "social contract" whereby a promise is made that given the resources under the specified overall strategy, the ministry of province will achieve the laid down targets (1). That is why fulfillment of a plan should be obligatory. In some countries where a national economic plan is a legal document a ministry of province which does not accomplish the targets Permanent Secretary must explain why targets were not met. Where such accountability exists, the top administrators have an obligation to ensure total implementation of the plan.

INSTITUTIONAL FRAMEWORK FOR PLAN IMPLEMENTATION IN ZAMBIA: PROBLEMS AND CONSTRAINTS

When a five-year plan for socio-economic development has been adopted, its implementation is carried out by a series of annual plans. An annual plan is normally based on the targets given in a five-year plan and adjustments arising from the actual economic situation. Annual plan provides the framework of the budgetary allocations and, depending on the sectors and provinces of priority as indicated in the five-year plan, stipulates areas of priority in the budget. That is why the budget should form part of and should come after the annual plan.

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1 SEE: NCUBE P.D. THE DESIGNING AND IMPLEMENTATION OF THE NATIONAL PLAN: OPTIONS, POSSIBILITIES AND CONSTRAINTS. (PAPER FOR DISCUSSION). L., 1984.

The budget represents an instrument through which the government can realise its economic policies. It is usually divided into revenue side (sundry forms of taxations), recurrent budget and capital budget.

Taxation can be used to achieve goals related to income distribution. This is done in various ways: by having progressive tax, by giving tax incentives to companies engaged in production ventures in rural areas in order to bridge disparities, by giving tax rebates of different types to small-scale industries, by introducing negative tax for certain commodities such as subsidies. Since targets set out in annual plan can be realised mainly through the use of national budget, it is important that tax instrument is used in accordance with the priorities put forward in the Annual Plan.

Recurrent expenditure is a major component of expenditure in Zambian economy. It encompasses such items as salaries and wages, all Government purchases, running costs and incentives to top civil servants. The higher the recurrent expenditure the lower the capital expenditure. In Zambia, when Government revenues started falling drastically in 1975, most of the funds have been used to maintain recurrent costs. As a result little was available for capital costs.

Capital budget in Zambia has received less resources than would be required. In fact since 1975 there has been deficit financing of the recurrent costs year in year out. This practive has led to two deficiencies in the national economy:

1. Lack of investments funds leading to negative growth in the resource base of the economy which in turn led to capacity underutilisation and lack of rehabilitation of capital assets;

2. Lack of investments funds for the non-governmental and private sector. Evidently when the goverbment overspends its removes some resources from the non-government sector whereas when the government underspends then more resources can be available for the non-government sector. Thus when the government overspends on consumption then not only are investments affected but also resources for the private and parastatal sector.

Actual economic situation in the country is analysed annually in Economic Report. Economic Report usually represents both the international and domestic performance of the economy. And it is on the basis of this report that the targets in the annual plan can undergo some modifications which in turn become the basis of the budget. Economic Report is a document for economic analysis and is meant to bring the planning process closer to realities.

Other instruments available for realising development plan include money supply, exchange rate controls, foreign exchange controls, interest rates. All these need to be manipulated in accordance with the principles laid down in the development plan.

Although in theoretical terms the time frame for the implementation of the Third National Development Plan lasted until the end of 1984, the last two years of TNDP were taken up by the International Monetary Fund/World Bank sponsored

structural adjustment and policy reform programmes. A three year adjustment programme 1983-1985 was agreed upon with IMF/World Bank. Besides, apart from a one year stand-by arrangement agreed upon in 1983 to restore financial stability, a new stand-by arrangement was agreed upon for the period 21st October, 1985 - April 1987.

Unlike the Third National Development Plan which emphasized the diversification of the national economy, the IMF/World Bank sponsored programmes unfortunately focussed on economic and policy reforms. Worse still the IMF stabilisation programme and conditionality clauses attached to it failed to take cognance of structural problems of developing economy like Zambia's and the need to focus on pressing social issues. The common tendency by the two international financial institutions to extrapolate theoretical concepts related to developed economies on to developing economies often make the proposed adjustment programmes look like a misplaced pill. No wonder therefore that such adjustment programmes have not yielded the desired results anywhere they have been tried in the developing world. And as the economic situation moved from bad to worse the Zambian Government on 1st May 1987 decided to abandon the IMF/World Bank programmes and replace them with the New Economic Recovery Programme (NERP) on the bases of which future short-term and medium-term development plans would be drawn.

Before launching the Fourth National Development Plan, however, there was need for a transitional period

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to move from the disorderliness brought about by the IMF/World Bank sponsored "adjustment" programmes to orderly way of managing the national economy. It was precisely for this reason that an Interim National Development Plan (INDP) was prepared and implemented. This short-term plan, whose implamentation started on 1st July, 1987 and came to an end in 31st December, 1989, was, therefore, meant to be a bridging instrument between the earlier IMF/World Bank supported programmes and the Fourth National Development Plan (FNDP). The prime objective of the INDP was to halt and stabilise the worsening socio-economic situation in the country so as to create a stable economic environment for the launching of the FNDP (1,6-8). The Interim National.

The Fourth National Development Plan was thus launched at a time when the national economy was beginning to recover. The Fourth National Development Plan seeks to bring about genuine structural change in the national economy in order to make it self-reliant and self sustaining in line with the New Economic Recovery Programme theme of "Growth from Own Resources".

The Plan document is divided into two volumes. The first volume which is also divided into three parts, presents an overall review of the performance of the Zambian economy during the Third National Development Plan (TNDP) and post TNDP period, that is including the Interim National Development Plan. The first volume also presents objectives and strategies of the Plan.

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SEE: NEW ECONOMIC RECOVERY PROGRAMME. FOURTH NATIONAL DEVELOPMENT PLAN 1989-1993. VOLUMES I AND II. L., JANUARY, 1989

Apart from the micro-economic and financial policies which are to be pursued during the Plan period, the volume contains the sectoral development objectives, strategies, targets and investment programmes. Volume two of the Plan presents the more general policy issues such as Women in Development, Youth in Development, Science and Technology, Parastatal Development and the Private Sector. The machinery for plan implementation is also spelt out in this volume. Volume two contains also the regional development strategy and provincial investment programmes and projects.

The Fourth National Development Plan contains a number of chapters which did not appear in the previous medium term plans. For the first time th ere are chapters on Women in Development, Development of Cooperatives, Population and Development, Development Cooperation, Evnrionmental Protection and the development of the Private Sector. In terms of presentatior each sectoral chapter is self-contained. The chapters analyse and assess the past performance of each sector prior to stating the objectives and strategies including developmental activities to be carried out during the Plan period. At the end of every chapter, investment programmes and projects are presented. Besides, the Fourth National Development Plan sets out a system of Annual Plan and Action Plans as the operational tools of planning. Within the priorities and directions set forth in the five year plan, the National Commission for Development Planning should draw up Annual Plans and Action Plans which will

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elaborate the fiscal and financial targets, programmes and projects planned to be implemented in the ensuing year taking into consideration the availability of resources both domestic and foreign and the prevailing economic circumstances.

Lack of sufficient qualified indigenous Zambians in the art of economic planning at the national level and inability to retain the few qualified ones in the civil service continue to affect the performance of National Commission for Development Planning. Previous attempts to redress the gap by recruiting qualified manpower from both the East and the West on contract basis have not yielded the desired effect. Majority of specialists recruited from the West seem to have little or vague knowledge about economic planning at the national level. On the other hand many specialists from the East have the tendency of applying theories of economic planning as they obtain in socialist countries to a developing economy. Evidently such a mechanical extrapolation cannot give the desired results simply because developing economies of the "Third World" are neither capitalistic nor socialistic. The development of productive forces a productivity of labour in developing economies have not reached the level of either developed capitalism or socialism.

Though corporate planning has been introduced in parastatals to date still just a small percentage of the parastatals prepare such plans. Furthermore often such plans are not preapred according to the specifications and requirements of the National Commission for Development

The mono economy Zambia inherited from the colonial days meant that the main parameter of national development were rendered extremely vulnerable to external factors which are above here control factors which are above her control anyway. Among these are the frequent fluctuation of commodities prices on the world market. For instance in early 1980s the fall of prices of copper on the world market by one pound sterling meant a loss to Zambia of foreign exchange earnings worth 0.5 million pound sterling. And since implemetation of the plans in the country depends largely on the price of copper an element of dependence and instability sets in the state planning systems. Possibilities by the government to mobilise internal resources for plan implementation are rather limited. As a result external financing continue to play a predominant role in plan implementation. These external resources come in terms of loans, credits or donations.

Finally the process of developing the planning system is a difficult. In order for state planning to become a real instriment of development it is necessary to constantly improve upon the methodlogies and planning institutions themselves. Attempts to simply copy planning methodologies from abroad tend to pose confusion rather than assist resolving the acute socio-economic problems.

Planning. This makes the integration of such plans into the national development plan problematic. As a result often the National Commission for Development Planning is compelled to obtain fresh data from the parastatals and rewrite the corporate plans before they can be integrated in the overall national development plan.

In the Fourth National Development Plan a practical step of integrating private organisations in the national planning system has been undertaken. For the first time a seperate chapter has been directed to the private sector. Nonetheless, theoretical as wel as methodological issues related to the integration of the pirvate organisations into the national planning system remain open.

CONCLUSION

Development planning in Zambia centres on the formulation of five-year development plans intended to embrace all sectors of the national economy. However that intention remains a mere formality mainly because state control in Zambia refers only to certain isolated levels of the economy and not to all macro-economic prportions. Historically, state planning in the country evolved under great influence of private ownership of means of production and often forieng experts played an importan role in formulating the plans. Besides, it is not unoften that foreign monopolies interfered with the planning system and manipulated it to their advantage.

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UNITED NATIONS INDUSTRIAL DEVELOPMENT ORGANIZATION

The Strategic Management of the Industrialization Process within the context of Structural Adjustment Programmes

Industrial Planning Branch

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(*) Draft, not to be quoted

A. BACKGROUND

A.1. The crisis of the African Industry.

The economic crisis of Africa has revealed the fragility and inefficiency of the region's industries: deterioration of the means of production; de-industrialization in some sectors such as the metallurgical industry; low rates of capacity utilization; and the like. In the ultimate analysis, African industry finds itself facing shrinking markets in which it cannot compete with its rivals.

How has this situation come about? First and foremost, there has been a lack of consistency in terms of policies, legislation and incentives. This shortcoming has been compounded by red tape and excessive protection, none of which is conducive to developing competitive industry. Secondly, there are certain environmental deficiencies. Both the organizational prerequisites and the physical, human and technological capacities necessary for the emergence of efficient industries are inadequate. The structures and mechanisms for supply, distribution, financing, transportation, communications and external services have failed to meet business needs at competitive prices. Training systems, technological support and promotion have not always matched the requirements of industrial development in Africa. The initiative and financial resources needed to establish effective entrepreneurship have often been lacking. All these weaknesses have given rise to extra costs, uncertainties and organizational deficiencies.

The structural adjustment programmes (SAP) recently introduced in many countries have triggered major changes in industrial policies and legislation. There is a significant shift to market economy principles. Many countries have thus done away with over-protective tariffs and quotas, and with them the distortions they caused. Free prices are being increasingly accepted. Bureaucratic restrictions have become less burdensome. Private initiative, be it domestic or foreign, takes on growing importance and, with it, responsibility.

The establishment of an open and competitive economic framework, however necessary it may be, is not sufficient to promote an effective and competitive industrial sector. In fact, analysis reveals that the reponse of the industrial sector has failed to meet the expectations of the adjustment programmes.

A.2. The Regional Workshop on Strategic Management of the Adjustment Process in the Industrial Sector in Africa.

A.2.1. Assessment of the observed situation

Tentative explanations emerged from the large research programme carried out by UNIDO in the context of the December 89 "Regional Workshop on Strategic Management of the Adjustment Process in the Industrial Sector in Africa":

- The new pattern of prices generated by the SAP reforms, aimed at providing economic agents with a new pattern of signals expected to lead to a distribution of economic activities and allocation of resources according to efficiency criteria. Yet the agents may simply not be equiped to realize what move is expected from them, and if ever they are, they may not have the means (in terms of financing, of access to technology or strategic information, in terms of human resources,...) to adjust and restructure their activities accordingly.

- Inertia intrinsic to the sector led to different time-responses to the new set of signals. Indeed if the depressive effect on domestic absorption was quickly felt, the supply-side response was much slower to appear, implying additional stresses in the sector.

- The observed sluggishness of the supply response was due not only to internal rigidities, but also because the international markets may not be ready to absorb significantly larger intakes of African manufactured goods, even at prices reduced through the consolidated effects of currency devaluation and local industrial restructuring. In several instances, these markets are protected by entry barriers of various kinds, which make them indeed little sensitive to the mere "price" variable;

- In previously sheltered markets, the profitability was sometimes very high and much more rewarding than any risky venture on foreign markets. Hence the sudden and often unforeseen withdrawal of protections and privileges was hard if not impossible to bear for the firms.

- The existing lack of (backward) linkages in the industrial sector: the manufacturing sector operated mostly at the last stage of transformation processes, from imported semi-final products whose prices increased with devaluations, which led to squeezed profit margins.

In this context, the introduction of competitive pressure is probably a necessary condition to foster economic growth, but it is certainly not a sufficient one. In certain instances, proper guidance and intervention by the State is still needed.

Indeed, it is apparent that in an increasingly complex environment, marked by rapid technological change and keen competition, liberalization policies should be supported by specific action programmes which enable industries to become more efficient and more competitive.

UNIDO is already assisting a growing number of African countries such as Burkina-Faso, Cameroon, Congo, Côte d'Ivoire, Guinea, Madagascar, Niger, Nigeria, Senegal and Zaïre in improving the strategic management of their industrialization processes in order to set African industry on a path towards self-sustained growth. This new path often requires that industry is restructured, making it more competitive, particularly by addressing a whole range of structural constraints and organizational deficiencies which still hamper the revival and development of industry in Africa.

A.2.2. Proceedings and recommendations of the December 89 Workshop.

The problems of adjustment faced by the industrial sector in the eighties and the effectiveness of a strategic management approach to support a positive adjustment process of the industrial sector were examined at the UNIDO regional workshop on strategic management of the adjustment process in the industrial sector in

Africa held in Vienna, from 11 to 15 December 1989, and attended by delegates (one senior official and one industrialist from each country) from 21 African countries, as well as representatives from international organizations such as the World Bank.

The workshop participants endorsed UNIDO's assessment of the situation of the industrial sector in Africa and emphasised that there could not be a real and positive adjustment process of the industrial sector without complementary measures addressing the specific constraints and problems of industry and its environment. They approved the strategic management approach developed by UNIDO, especially the elaboration and management of integrated, industrial sectoral strategies and action programmes suitably inserted into a broader scheme of global economic reforms and other sectoral policies. They strongly supported the organization of consultation mechanisms involving all economic agents operating in the industrial sector.

In addition, the participants:

- Requested UNIDO to evaluate and disseminate the experience of those countries that had already started strategic management in their industrial sector;

- Wished that UNIDO would assist other requesting countries in the organisation of a strategic management approach to their industrialization process;

- Recommended that UNIDO improve, consolidate and disseminate the methodology and instruments underlying the strategic management of industrial development;

- Urged UNIDO to finalize and distribute a comprehensive report of the workshop, including the background documentation;

- Called for tighter co-ordination and co-operation between UNIDO and the World Bank in assisting African countries in improving their industrial strategies and policies.

A.3. Toward a Strategic Management of the Industrial Development: the approach and the methodology.

A.2.1. The approach

The strategic management of industrial development is an action-oriented approach to support the restructuring and development of an industrial system in the context of the programmes of reforms initiated by African countries to improve the situation and management of their economies. This approach is based on a system of co-operation between the Government and the public and private actors operating in the industrial sector.

The overall objective of the strategic management approach to the industrialization process is the development of an efficient and competitive industrial system, which will contribute to the overall modernization and growth of the economy. The main features of this approach are as follows:

1) It focuses on the formulation and implementation of strategies and action programmes for the restructuring or development of specific industrial subsystems which offer opportunities for efficient and competitive industrial activities (1). The action programme aims at improving the organization and functioning of the industrial subsystem, in particular, at developing new industries; expanding existing industries, and developing the required technological, marketing, managerial and other capacities.

2) The strategies and action programmes are formulated and monitored by strategic consultative groups which are established for each industrial subsystem. These include the key public and private actors operating in the subsystem: industrialists, suppliers, distributors, and financial, technology and training institutions.

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(1) An industrial subsystem is a network of productive and service activities which develops around a basic resource and/or a final market and/or a technology. The subsystem includes not only the industrial activities but also all the supporting services (supply, distribution and marketing, transport, financing, development of technology, training).

3) The Government, with, if necessary, the technical and financial assistance of donor countries and institutions, can support the operators of each industrial subsystem in the implementation of their strategies and action programmes with specific measures and policies. This Government supporting programme should, however, be linked with, and monitored in relation to the realization of specific performance targets and be consistent with the overall framework of macro-economic and sectoral objectives and policies.

The basic organizational framework supporting the strategic management of the industrialization process includes three interrelated organization systems:

1) A technical support and information system, usually based at the ministry of industry and working in close co-operation with the actors operating in the industrial sector and with the other ministries concerned. Its main responsibilities are to assist in the identification, within the sector, of relevant industrial subsystems and the in-depth diagnosis of these among them that have been selected as deserving priority action (see item 2 below). Its responsibilities also include the organization of strategic consultative groups, the preparation and implementation of the strategies and action programmes by the strategic consultative groups and the preparation and monitoring of the Government supporting policies and measures.

2) An intergovernmental decision-making system for the selection of priority industrial subsystems to be included in the strategic management process and for the approval and monitoring of the programmes of policies and measures to support the implementation of the strategies and action programmes for the restructuring and development of the selected industrial subsytems.

3) A consultative system between the Government and the actors operating in the industrial sector to review regularly the performance and development of the industrial sector.

A.3.2. The methodology

The methodology underlying a strategic management process relies on a consultation system that carries out the various steps of strategic analysis, strategic choice and strategic implementation through a steady process quite akin to corporate management.

Although there is clearly a sequential chain of different phases to go through, this should not be viewed as a once-for-all process. Indeed, the consultative mechanism allows for a steady, recursive reference to the process, with quick response to changing environmental conditions and exogeneous shocks whatsoever, or simply to the upgrading of available industrial information. Altogether, one may distinguish three phases in the process:

Phase 1: industrial survey - identification of priority subsystems

We adopt from the start a systemic approach: we do not pretend to consider the industrial sector as a single entity, but rather, for operational reasons, do we handle it as a -more or less- organized network of various subsystems.

A subsystem, as introduced above, is defined as a consistent, integrated set of economic agents which has developed around certain resource(s)/product(s), a certain technology or certain markets. Clearly within a subsystem, one can find a dense network of business relations among the economic agents, whereas different subsystems may be entirely independent from one another. Note that as a broader concept, the term "subsystem" includes what is traditionally called "subsector".

The first phase of the process actually entails two steps: (1) the identification of relevant subsystems and (2) the selection of priority subsystems. Both the steps rely to a large extent on quantitative techniques. As for the selection of priority subsystems, its aim is to concentrate efforts and scarce resources on targeted clusters within the industrial fabric, chosen according to economic, technical and sometimes political criteria.

Phase 2: formulation of strategies

For each of the priority subsystems, an in-depth analysis will then be carried out, to highlight its organizational structure and reveal its strong and weak points, its resources in terms of investment capacity, skilled manpower ..., its bottlenecks and opportunities for further growth.

Given the current situation of the subsystem, we shall then formulate strategies aimed at setting the entire subsystem on more appropriate tracks for its further development. This includes identification of new markets, perhaps of market niches for very targeted products, the design of new products to respond to the changing demand, the required technological back-up, etc.

Objectively, the right strategy may not be unique, insofar as several alternatives may yield interesting results. Hence we formulate different scenarios of growth and let the host government choose among these alternatives.

At this level we have worked out, for each of the priority subsystems, a specific group strategy. The next step is to convert these strategies into integrated, consistent action programmes, and to design the set of incentives that may be required to conduct the members of a subsystem to select individual strategies compatible with the group strategy that has been worked out.

Phase 3: formulation of action programmes, implementation and monitoring

The action programmes basically translate the recommended strategies into their operational requirements.

Typically, an action programme encompasses three components:

- an investment programme,aimed at the productive capacity of the subsystem (restructuring/rehabilitation, expansion or creation of new plants,...);

- support activities aimed at the subsystem support services: banking institutions, training, transportation, infrastructures,...;

- a package of reforms to be carried out by the Government in terms of industrial taxation, protections, tariffs and quotas, forex policy, regulations and incentives, administratives procedures,etc.

If the recommendations pertaining to an investment programme to be promoted in a specific subsystem may reasonably be designed at the level of that particular subsystem, it goes without saying that whatever reforms concern either the environment of the subsystem or the Government's expected role in its development go well beyond the boundaries of the subsystem.

Indeed, the homogeneity of the latter class of recommendations across the various subsystems has to be established, so that the actions programmes represent altogether a fully integrated package of reforms, which is consistent at both macro- and micro-economic levels.

The steady process of consultations that is at the core of the strategic management approach allows for, not a unique "top-down, bottom-up" process, but rather a sequence of such processes, ultimately converging to those actions programmes that meet both macro- and micro- requirements.

THE CHAMBER MOVEMENT IN ZAMBIA

NEEDED SERVICES AND OPPORTUNITIES*

PAPER PRESENTED TO THE INDUSTRIAL DEVELOPMENT DECADE FOR AFRICA (IDDA) NATIONAL WORKSHOP.

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THE CHAMBER MOVEMENT IN ZAMBIA: MEMBER SERVICES AND OPPORTUNITIES

1.0 INTRODUCTION

1.1 The Chamber Movement in Zambia has come a long way. The Lusaka Chamber of Commerce and Industry (LCCI) was formed just after the Great World Depression on May 15, 1933. The formation of the LCCI gave inspiration to other businessmen to constitute themselves in Chambers in major industrial and Commercial centres in the country. Eversince the Momentum of the Chamber Movement ha s never slackened.

1.2 In 1938, as a consequence of a felt need to put in place a national body, the Associated Chambers of Commerce and Industry (ASCOM) was formed. However, for some reason or the other, ASCOM was disbanded in 1957 only to re-emerge in the same year under the name of Commercial and Industrial Association of Northern Rhodesia (COMINOR).

1.3 On October 24, 1964, Northern Rhodesia became the independent and sovereign Republic of Zambia within the Commonwealth of Nations. Naturally and to conform with the new sovereign status, COMINOR was changed to the Zambian Industrial and Commercial Association (ZINCOM) on September 20, 1964. ZINCOM existed until September, 15 1989 when it was changed to the Zambia Confederation of Industries and Chambers of Commerce (ZACCI).

1.4 The Change to ZACCI came as a result of the need to accord the national Chamber a name befitting its status as an umbrella for all town and district chambers of commerce and industry, on one hand, and Trade Associations on the other.

2.0 COMPOSITION

ZACCI, as a national Chamber of Commerce and Industry is constituted by town and district chambers of commerce and industry situated in major towns and cities of Zambia, on one hand, and Trade Associations, on the other. The full lists of Chambers and Trade Associations are at the appendix to this paper.

3.0 MEMBERSHIP

Membership into ZACCI is effected by way of joining the local Chamber of Commerce and Industry. In other words upon joining the local Chamber, one automatically becomes a member of ZACCI and deserving of all the concomitant privileges and obligations. However, business enterprises are at liberty to apply for direct corporate membership after joining their local chambers. The advantage of direct corporate membership is that communication is faster than is the case when this is done through the member's local Chamber.

4.0 ZACCI ORGANS

The policy formulation and orientation of ZACCI are executed by the ZACCI Board. The Board comprises all Chairmen of local Chambers and Trade Associations. The Board in turn has various Committees which deal with specific matters. At present, ZACCI has Six (5) Committees as follows.

(i) Government Liaison Committee.
(ii) Finance and Management Committee.
(iii) Membership and Public Relations Committee,
(iv) Internal Trade and Business Development/SADCC Committee;
(v) International Trade Development/PTA Committee
(vi) Transport, Energy and Communications Committee.

5.0 MEMBERSHIP SERVICES AND OPPORTUNITIES

Like any National Chamber in the World, the fundamental mandate of ZACCI is to facilitate orderly and profitable business operations for its members. In this respect, ZACCI keeps its members informed of developments which are likely to negatively affect their businesses, on one hand, and brings to their attention opportunities which may enhance their profitability on the other. This overall and far-reaching objective is achieved through the many and varied services which ZACCI puts at the disposal of its members, the principal of which are given below:-

(a) Representation

ZACCI represents its members on the following Governmental and quasi-Governmental organs -

(i) Foreign Exchange Management Committee

(ii) Prices and Incomes Commission

(iii) Zambia Iron and Steel Authority.

(iv) Zambia Bureau of Standards

(v) Management Services Board

(vi) Zambia Centre for Accountancy Studies

(vii) Small Scale Industries Development Organisation.

(b) Trade Missions

In its continous efforts to keep its members abreast with scientific and technological developments, ZACCI, with the generous assistance of the UNDP, has put in place a programme of In-ward and Out-ward Trade and Business Missions.

The Missions endeavour to bring Zambian businessmen and women face-to-face with businessmen and women of other countries. In 1989 alone, one in-ward mission and two out-ward missions were successfully executed.

The In-ward Mission involved a group of Japanese Businessmen and business correspondents who came to explore investment opportunities/joint ventures and otherwise in Zambia. The Mission which took place in March was later reciprocated by a delegation of Zambian Businessmen in June 1989. The Out-ward Mission covered Portugal, Cuba, the USA and Guyana.

In these mission exchanges, tremendous information was exchanged with regard to recent developments in science and technology. Equally significant, is the fact that some Zambian companies managed to conclude joint venture and technology transfer agreements with a number of enterprises in the countries visited.

ZACCI on the other hand managed to facilitate the participation of a number of its members in the UNDP sponsored European investment tour which was led by the Honourable Minister of Commerce and Industry in November, 1989. Again the scientific and technological awareness which the participants gained from the tour is tremendours. It is envisaged that with the continued assistance of UNDP and other International Aid Organisations, ZACCI will increase the frequency of Trade and Business Missions for the benefit of its members.

(c) Joint Ventures

ZACCI strongly believes that it is fundamentally important for Zambian Companies, both in the public and private sectors, to keep abreast with the state - of-the art in as far as technological and scientific developments are concerned worldwide. Indeed with a population growth of 4% per annum and a crushing external debt of US$6.9 billion, which works out to a US$958 per capital external indebtedness, Zambia is in a hurry to develop its socio-economic infrastructure.

In its endeavour to complement Party and Government efforts, ZACCI is actively encouraging the solicitation and conclusion of joint ventures among its members and interested parties worldwide. In this respect, ZACCI managed to successfully conduct a pioneer study of the efficacy of direct international industrial cooperation among Zambian enterprises and their counterparts in the industrialised countries of the west. Between the 18th and 20th of December, 1989, the Executive Assistant (Economics), who had executed the study, was invited to participate in an international Ad-hoc Expert Group Meeting (EGM) on Enterprise-to-Enterprise Cooperation (ETE) in Vienna, Austria.

The EGM yielded conclusive evidence about EIE as a significant supplement to traditional forms of international resource flows. It is envisaged that what has been put in place will issue into an avalanche of capital in-flows. ZACCI, on its part has made an undertaking that it will readily cooperate with and offer its professional expertise to local and foreign business parties/concerns who may be desirous of getting an insight into the available wealth of investment opportunities in Zambia. Naturally, ZACCI will remain indebted to UNIDO for having kindly drawn it into the facilitation of EIE.

(d) Market Research

The collection and collation of market data and information and the subsequent dissemination of the same are equally among the key mandates of ZACCI.

Using its limited resources, ZACCI, from time to time conducts commodity market surveys with a view to highlighting existing and potential business opportunities both for local and foreign business concerns. In October,1989, ZACCI was fortunate to be awarded a consultancy to execute a PTA Demand Survey on Leather Products in Zambia.

The survey, which was conducted by the Executive Assistant (Economics) was among other PTA commodity Demand and Supply Surveys which were tabled and discussed during the PTA Buyer/Seller Colloquium which took place concurrently with the first ever PTA Leather Fair in Addis-Ababa, Ethiopia between the 25th and 30th of January 1990. ZACCI encouraged and helped to expedite the participation of four (4) of its members (Kamra Ltd, Jimzi Ltd, Asaria Leather Industries Ltd and Zambia Bata Shoe Co Ltd).

ZACCI, on the other hand, has been publishing the ZAMBIAN BUSINESS journal which it uses to educate its members, and the general public at large, about the general trends and topical issues in the Zambian economic environment. In addition, a NEWSLETTER will soon go into print to reinforce the journal. The Newsletter will entirely comprise data and information on trade and investment opportunities in Zambia and the world. It is gratifying to note that the United Nations Development Programme (UNDP) under its institutional building programme has kindly extended part of its financial resources to ZACCI to facilatethe establishment of a trade data and information network. Obviously, this will dynamise the capacity of ZACCI to answer to its members needs in a timely and efficient manner.

(e) Trade Fairs and Exhibitions

ZACCI also realises the importance of maketing through trade fairs and exhibitions. Codsequently, it actively promotes its members' participation in local and international trade fairs and exhibitions. Indeed, not only does ZACCI urge its members to participate in fairs and exhibitions organised by others, but also organises its own exhibitions.

In May 1988, for instance, ZACCI organised and executed a highly successful exhibition at the Mulungushi International Conference Centre. The objective of the exhibition was two-fold, to expose the top leadership in the Party and its Government to what is and can be produced by Zambian Companies in line with the new Economic Recovery Programme theme of Growth from our Resources, and to equally enlighten Zambian Companies about what resources they can procure from each other which they may have been importing hitherto.

It is gratifying to note that this two-pronged objective was fully and satisfactorily achieved.

In the new year ZACCI has plans to assist its constituent Chambers to organise and host similar exhibitions in their localities.

(f) Seminars and Business Luncheons

Like any other Chamber Movement, ZACCI also organises Seminars and Business Luncheons as media for exposing its members to contemporary socio-economic developments in the country. Key speakers at seminars and Business luncheons are normally high ranking officials in the Party and its Government and the Private sector and resident international organisations.

5.0 LOCAL CHAMBER ACTIVITIES

The activities of local Chambers of Commerce and Industry are naturally concentrated on the facilitation of business operations in their localities. Given resources they replicate at a lower scale, some of the servises which are offered by ZACCI.

In serving their members, local Chambers keep continous dialogue with their local Party and Government Authorities with regard to all matters of mutual interest. Such cooperation had issued (and continue to issue)into stronger local Authorities' superintendency of business operations within their jurisdictions. A case in point is the on-going resurfacing of downtown pavements in Lusaka. The directive to businessmen to effect the resurfacing was communicated in close liaison with Lusaka Chamber of Commerce and Industry. Against this background, one would like to see local Chambers incorporated into organs of local authorities with a view to strengthening the positive contribution of respective resident business communities.

7. THE ROLE OF THE PRIVATE SECTOR

7.1 The discussion of the Chamber Movement in Zambia can never be abstracted from the important role of the private sector in the resuscitation of the Zambian economy. Like any country in the world, Zambia can not have any more resources than what its citizens have. Consequently, the extent to which individual citizens are motivated to exert themselves in the process of resource mobilisation and socio economical production will eventually determine the level of development of the economy.

7.2 In Zambia, one may wish to argue that the deterioration in the performance of the economy begining in 1975 has to a very large extent been influenced by the underdevelopment of private initiative. The pre-1975 period was characterised by positive GDP growth rates mainly because of high international Copper prices. The collapse of the same in 1974, exposed the valnerability of an economy devoid of a strong private sector.

7.3 Efforts at putting in place a viable private sector have however, been thwarted by incessant Government policy shifts which had bred an atmosphere of business unconfidence among actual and potential investors. The on and off price controls, the hasty expropriations, etc, only managed to further put off the day when the private business community would become a strong ally of Government in restructuring the country's colonially bequetted infrastructure which is incapapble of operating outside the orbit of western financial and economic institutions.

7.4 The need for an economic enabling environment can hardly be over emphasised since it is the sin qua non of private initiative and the benefits associated with it. The fundamental advantages of private sector initiative were expertly put by Tom Bethell when he argued that

> We can best appreciate the advantages of private property by considering the drawbacks of a society without it. In such a society, individuals are frequently "disconnected" from the consequences of their actions - whether those consequences be advantageous or detrimental... By this I mean that they will niether have to pay commensurately for their extravangance nor will they be paid commensurately for their efforts. The rewards of labor and self-denial, and the penalties of idleness and self - indulgence will not accrue to those who have "earned" such outcomes (Journal of Economic Growth , Vol. 2 No. 1 1997:3)

7.5 The above argumentation underscores the ideas of responsibility and reward upon which the concept and practice of private initiative are based. It is unfortunate that these two strategic pillars of economic growth have not been developed in Zambia because of both the parastatalisation of the economy and the absence of commensurate renumeration for skills and specialisations. The fact that this is the case is acceptable, what is not acceptable is to let it continue unabated.

7.5 Quite clearly the Party and its Government should systematically enter upon a process of loosening the monopoly grip of the Parastatals sector over certain economic areas. It is inconceivable, for instance, to persist with the Zambia State Insurance Corporation(ZSIC) as the only dealer in insurance services. Neither is it economically feasible to sustain the monopoly of Zambia Breweries Limited in the brewery industry. These and other monopolies were constituted when the population of Zambia was around 4 million people. Obviously, it is unlikely that the monopolies can have the capacity, even taking into account expansions, to serve a population that is almost twice what it was when they were established.

7.7 Viewed against this background, time has come to repeal the Insurance Companies (Cessation and Transfer of Business) Act Cap 711 of the Laws of Zambia which enshrines the monopoly of ZSIC Limited. On the other hand, the brewery industry and other industries in which monopolies persist, should be opened to competition. Indeed, it would be desirable to limit State participation to major public utilities and those sectors where the nature of investment capital outlays relative to initial returns may not be attractive to the private sector.

7.8 The urgency of instituting such economic policy can hardly be doubted especially in the face ofrecent developments both in the region and beyond.

7.9 To start with the successful on-set of the dismantling of the abominable apartheidregime in South Africa and the independence of Namibia will certainly alter the economic complexion and fortunes of the economies of the sub region. With apartheid out of the way there will be no earthly justification to sustain the economic boycott and isolation of South Africa. SADCC and the PTA, for instance, which were formed partially because of the imperative of reducing economic ties with the racist regime, will naturally and willynillyopen their doors to the new and free South Africa and Namibia.

7.10 Now with the basic infrastructural advantage of South Africa in the region coupled with its open economic policies, old and new investments will obviously head there.

7.11 By the same token, the heroic dismantling of the Berlin wall and the overpowering wind of Perestroika in the East have unavoidable social economic repercussions on the World economy, whether one likes it or not.

7.12 Prior to the events in the East, the World economic map had b been patterned on Capitalism versus Communism basis. The inward looking economic policies of the East based on Central planning and public ownership had inevitably kept at bay massive Western investments. In the process Third World Countries, including Zambia, had constituted a vent for Western investments in light of protectionist policies among Western economies. Now, this formula is no longer tenable in the face of reforms in the Communist World.

7.13 Already Western economies are girding themselves in readiness to take advantage of the massive markets of the East. Indeed, another Marshall Aid (PL480) is underway to bail out the East. The availability of developed tastes which had been pent-up under orthodox Communism and the highly developed economic infrastructure constitute a package of variables which will make the Third World economies in the competition to attract international resource flows.

7.14 Viewed against this backdrop, Zambia should not fall back from the general trend in as far as putting in place economic policies to encourage local entrepreneurship and to attract international capital.

7.15 In doing so, there is an urgent need to build a business enabling environment that will inter alia, guarantee uninterrupted business operations. It is not enough to simply state that private investments are welcome. What is important is to include in the investment Act a clause explicitly guaranteeing against undue expropriation. This will establish confidence among local and foreign entrepreneurs and ensure mutual partnership between the public and private sectors in the process of economic recovery and future development. This argumentation was aptly put by the Enabling Environment Conference when it asserted that:

> ...the twin challenges of recovery and development cannot be met by State initiatives alone. The Private Sector - both business and private development agencies (PDA's) - must collaborate actively among themselves and with Government to achieve these objectives (The Enabling Environment Conference, Nairobi, KENYA, 21 - 24 October 1985:4).

7.16 Whilst on the same, it is important to highlight the positive and complementary role that the private sector can perform in unburdening Government and local authorities of certain budgetary constraints.

A particular example in this regard is the feasibility of contracting the private sector to execute duties which may traditionally be thought of as mandates for the Central Government or local authorities. There is no reason, for instance, why local authorities (District Councils) in Zambia cannot contract private enterprises to collect refuse and do general cleaning in their towns.

7.17 The normal explanation for the failure by Councils to collect garbage is that they do not have sufficient funds to buy garbage collection trucks. Unfortunately, what they forget is that they can use the little money they have to pay private enterprises to collect garbage and keep their towns clean

8.0 SUMMARY OF PROPOSALS FOR ENHANCING THE EFFECTIVENESS OF THE CHAMBER MOVEMENT IN ZAMBIA

7.1 Whilst recognising and lauding the long history of the Chamber Movement in Zambia, one has to at the sametime appreciate the fact that there is alot of distance yet to be covered before we can begin to talk of ZACCI as an all-embracing National Business Organisation.

7.2 Currently, the organisation has difficulties relating to too many enterprises operating outside its ambit, insufficient staff, inadequate financial and material resources, to name, but a few. Naturally, ZACCI is making all efforts to solve some of these and other constraints. However, there is need for strong and consistent institutional support to the Chamber Movement. In this regard,one would like to recommend that:-

(a) the party and its government should make it mandatory for all existing and upcoming enterprises to belong to the Chamber Movement in their localities. The advantage of such a measure is multi-pronged,

(i) it will make it extremely easy for the Government to monitor the activities of the business community in the country. At present there are too many briefcase companies about whose operations the Government knows next to nothing. In reference to the same, the recent Assembly of the PTA/Federation of Chambers of Commerce and which was held in Nairobi, Kenya, even went further and argued that

Governments in the PTA sub-region are struggling to contain(sic) with bogus or briefcase business people who have been able to obtain import permits or foreign exchange at the expense of organised and properly registered operators and illegally using such licences/foreign currency..

> In some cases the permits and the foreign currency has (sic) been sold at black market rates to legitimate operators who are always desperate due to limited availability (PTA/FCCI General Assembly, Nairobi, 9th - 12th November, 1989).
>
> Following this observation the Assembly had likewise urged PTA member countries to make it mandatory for:
>
> ....anyone in farming, commerce manufacturing professional undertaking etc. to be a registered member of their respective National Associations before they are allowed to operate, recognised and exposed to licences foreign currency, tenders etc(ibid).

(ii) Secondly, the measure will strengthen the position and role of ZACCI in its business regulatory and advisory functions. The continued existence of the largest proportion of businesses outside ZACCI has at times eroded the capacity of ZACCI as an umbrella body for business organisations in the country.

(iii) Equally significant is the fact that ZACCI will provide a one-stop-office for the Government in as far as gauging opinions of the business community in the country is concerned. In the present circumstances, there are far too many discrete and discordant voices feeding into the Government machinery from the business community.

(iv) Lastly, it will boost the financial, material and resource levels of ZACCI.

(b) The Party and its Government should also consider incorporating local Chambers of Commerce and Industry in the operational organs/committees of local Authorities/ District Councils. This is especially important with regard to those organs which deal with socio-economic development issues. The incorporation would greatly enhance the monitoring of business operations at the local levels.

(c) The Government should consider taking further steps along the road to full economic liberalisation by including a clause in the Investment Act that will guarantee actual and potential local and foreign investors against undue expropriations;

(d) It is time also that the Government's liberalisation touched the dominance of the economy by parastatal monopolies with a view to only encouraging state participation in key and strategic sectors. To facilitate demonopolisation of the economy and to quickly mobilise financial resources, the Government should establish a stock-exchange; even one that may operate at appointed times only; and

(e) The Central Government and Local Authorities/District Councils should learn to contract the private sector to execute certain public utility services as a means to lessen budgetory pressures and to avoid calling upon the private sector only when the crisis has struck.

THE END

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THE POSSIBLE AND ACTUAL ROLE OF THE TECHNOLOGY DEVELOPMENT AND ADVISORY UNIT IN THE INDUSTRIAL DEVELOPMENT OF ZAMBIA.

PAPER TO BE PRESENTED AT:

THE INDUSTRIAL DEVELOPMENT DECADE FOR AFRICA (IDDA) NATIONAL WORKSHOP,

11-16 DECEMBER, 1989

LUSAKA, ZAMBIA.

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Introduction.

In this paper the actual and possible role of the Technology Development and Advisory Unit (TDAU) in the industrial development of Zambia are assessed.

The history of TDAU is shortly reviewed.
Much more attention is given to the present place of the unit in industrial productive Zambia.
Its connections with the different group of manufacturers and the strengths and shortfalls of this programme are evaluated.

Possible developments which could increase TDAU's contribution to a qualitative and quantitative grow of Zambia's industry are mentioned.

One of the developments which needs separate attention is the possibility of transferring or extending TDAU to a National Centre for Engineering Design and Manufacturing.

The origin of the idea for such a centre is traced.
The reasons for such a Centre and its functions as identified by a consultancy mission are listed.

It is then assessed whether TDAU would be a suitable core for such a Centre.
Problems and preconditions are summarized.

The conclusions and recommendations are finally gone through again.

Short history of TDAU.

The technology Development and Advisory Unit (TDAU) of the University of Zambia (UNZA) was established in 1974 as part of the School of Engineering.
The main goals of the unit could be summarized as:

1. To help and advise on the design and production of agricultural and household equipment locally.
2. To serve as a development centre for new equipment and processes aimed at replacing imported models.
3. To act as a clearing house for designs and prototype development for other organizations.
4. To stimulate grass-root development of rural areas towards self-sufficiency.
5. To serve as a centre to pool advise from UNZA to various local industries.

These goals can still be considered to be valid for the unit as it is today, although major changes occurred were it comes to the actual way in which TDAU tries to reach these goals.

The first years at the unit were governed by the idea of 'Appropriate Technology' defined as implements which had to be made from materials and tools which were commonly available in the rural areas of the developing countries.

Already then TDAU tried to improve on designs forthcoming from this trend. A small design section was established.
A metal workshop and later a wood workshop were established in order to make the production of prototypes and small series possible.

At the end of this first phase TDAU had an infrastructure with a good potential for the production of implements referred to in its adopted goals and with a modest design section which was prepared to give its contribution to the development of new, Zambian products.

Lacking was a clear insight in what the Zambian society really needed and the instrumentarium to acquire that particular knowledge. The choice for TDAU's production package was governed by what the international literature offered in the field of 'Appropriate Technology'.
This led to an accumulation of both useful and useless gadgets which did not find their way out of the workshop into the Zambian society.

In the second phase the sub contracting of need survey studies to other institutions within Zambia gave a better insight in the problems and the state of development in the rural areas of Zambia, but the mainly social and economic analysis, because of their distance to the practice of technological design and

development, were not translatable in technical requirements.

TDAU felt that it was necessary to have both disciplines under the same roof and attached a new section to the unit: the Assessment and Extension section.

The emphasis in the activities of TDAU thereby shifted from pure technology to technological extension.
The output of the unit had to be not only technologically sound but also economically viable and socially acceptable.
The involvement of TDAU did not longer stop with a material prototype but in addition advice, training and backstopping had to be provided.

Within the unit the different activities were coordinated to form a continuous and coordinated circle of need surveying, designing, production, laboratory and field testing and extension.

The attention of TDAU shifted to craftsmen and small and medium rural and urban industries as their immediate target groups. Through these groups the farmers should be reached.

Noticeable is also the fact that TDAU concentrated more and more on the assessment and testing of already existing designs from abroad.
The emphasis in the design section shifted to redesigning the most promising implements to better suite the specific Zambian conditions or to make them more suitable for production within Zambia.

This new outward bound, output and client oriented approach coincided with the wish of the UNZA authorities that TDAU should become an independent and completely self supporting unit within the University. Working to the same formulated goals in a much more commercial and market oriented way.
TDAU has been given a period of four years to reach this situation.

The place of TDAU in industrial productive Zambia.

TDAU is in the first place a development institution, established to give its contribution to the process of development going on in Zambia.
Furthermore it is a workshop with design facilities. In the wood and metal divisions of the workshop prototypes and small series are produced. In the design section existing designs are evaluated, modified, adapted to the requirements and production capabilities in Zambia and when necessary new designs are made.

In Zambia there is a big gap in the market for those second mentioned activities and TDAU has proven to be able to fit in that gap in the market.
These days were there is pressure on TDAU to become commercial and financially self supporting, it is very tempting to forget about the task as development institution.
In order to judge whether that would be a gain or loss for the industrial development in Zambia it is necessary to clarify the position of TDAU as a development institution and to bring out in the open here the new philosophy which has replaced the idea of "Appropriate Technology" of the early days.

This philosophy of TDAU links up with the developments in the thinking about industrial development in Africa.

In 1980 the Lagos plan of Action was drawn up by the Head of States of the Organization of African Unity. The Plan is a firm expression of Africa's political will to improve on the quantity of food products, self- sufficiency and assurance of food supplies; development of employment, income , living conditions and all other measures needed to modernize agricultural life and make it more attractive for people who will otherwise swell the exodus to the towns.[1]

The way to reach these goals leads via agricultural development and mechanization, implying a wide variety of agricultural plant and equipment to assure food supply, reduce losses in storage, ensure transport and distribution, improve physical infrastructures and control water supply and irrigation.
The Lagos Plan emphasizes that these processes can only lead to success if they are integrated with the whole social and economic development process, in particular with the rural development.

For the African industry this demands for the local production of agricultural tools and machinery, integrated in the society as

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[1] Cited in: UNIDO, Agricultural machinery and rural equipment in Africa a new approach to a growing crisis, SECTORAL STUDIES SERIES No.1, Vienna, 25 March 1983 (121)

mentioned above.
Questions that have to be answered are:
a. what type of mechanization are appropriate and subsequently which agricultural equipment is needed?
b. how can the equipment be designed and produced in adequate quantities, using local, human, natural and financial resources[2]? and
c. Who will be the producer of the equipment and where will the production take place.

Here, at this moment, the answer on the latter question is the most important.

The UNIDO report: AGRICULTURAL MACHINERY AND RURAL EQUIPMENT IN AFRICA A NEW APPROACH TO A GROWING CRISIS (Vienna, 1983), elaborates on several studies done into this field and presents an interesting proposition for the organization of a local production capacity.

A translation of this organization to the practice of Zambia would give a division of production possibilities in:
1. Large scale industry.
2. Medium scale urban workshops.
3. Small scale rural workshops.

Two principles should govern the division of the tasks amongst these three production possibilities:
a. Production units should not work above nor below their capabilities.
b. Production units should be situated as close as possible to the users.

Ad a. The principle that a producer should not try to manufacture quality and quantity which is beyond his capability is well understood although not always obeyed.
Working below the capability is too frequently seen: medium scale industries making hoes, large scale industries making ox-carts. It is not enough realized that this is a waste of modern industrial capability and capacity on one side and an embarrassment for the development of the small and medium scale industry on the other.

Ad b. There is a great diversity of requirements and an extensive heterogeneity in production units. Adequate production of equipment is only possible if the producer is closely in touch with his customers.
With the enormous problems concerning the infrastructure this large country has it is moreover the only possibility to solve

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[2]UNIDO, 1983 (124)

the problem of repair and maintenance.

TDAU as a production unit positions itself amongst the medium scale urban workshops. This determines to a great extent the conception of TDAU's task with respect to the other producers.

In its role as development institution TDAU wants to act as a central workshop for decentralized small rural workshops.
On this idea the unit started a rural workshop programme.
The most obvious need in the rural areas is to repair the equipment the farmers do have. In the repair and maintenance the local craftsmen have to play a major role. These tasks can be a stepping stone towards rural assembly and rural production.
TDAU will start next year with assisting 6 selected craftsmen in repair and maintenance. TDAU's mobile workshop will regularly visit these craftsmen. The tools will be made available for the craftsmen and where necessary he will get an on the spot training from the TDAU staff.
Suitable designs will be offered to the craftsmen and guidance will be given in the first production and marketing exercises.
Examples of such designs are the adjustable groundnut-sheller and the ox-cart with hard wooden bearings and flexible wheels.
The craftsmen will be enabled to buy the same equipment which he will use from the rural workshop.

This program should be seen as an experiment to determine to what extend the strategy described in the UNIDO report can work within Zambia.

For the medium scale urban workshops TDAU is acting as a development institution for new products.
Medium scale producers are not in a position to pay much attention to research and development of new items.

TDAU has proven to be able to test implements, available on the international market, to advise on the most suitable apparatus to be locally made. Hand operated maize grinders, oil-expelling equipment and groundnut shellers have been tested. On the program for next year are the testing of human powered irrigation pumps, sorghum dehullers, manually operated maize shellers and ox-powered maize grinders.

Where necessary redesigning is done to replace parts in a product which cannot be made locally e.g. on ox carts ball bearings are replaced by hard wood plain bearings and the vulnerable pneumatic tires by flexible wheels.
Thereby the principle is adhered to that only those parts with a lifetime comparable to the lifetime of the whole product can be imported.

Sometimes redesigning is also necessary to make a product suitable for the prevailing conditions in Zambia, like with the

Bielenberg ram press a very promising machine for the extraction of vegetable oil from sunflower seed.

After making a prototype and a small series of a product it is supposed to be handed over to the Zambian medium scale production units.

Research and development as described above is implemented for different institutions, often sponsored by donor organizations and is mostly done on a commercial basis in the form of consultancy. It is, in principle not excluded that on the same basis the entrepreneurs themselves could seek the services of TDAU.

Large scale industry should be able to possess its own research and development facilities. If these production units are seeking advice it will be in very specialized areas.
Special expertise available within TDAU can, of course, be offered and TDAU can coordinate in finding the expertise available in the University. Such special, well identifiable, units are well known at the universities abroad and have proven to facilitate the way to make use of the experience and expertise available at a university.

A service which TDAU can offer to the consumers of Zambia and to the Zambian industry in general is that of quality control.
Both the quality of imported and Zambian manufactured implements vary widely. Too often some of the products made are of such bad quality that the task they are meant for cannot be properly performed.
The fact that these products are marketed is much to the disadvantage of the customers and the bonafide part of the Zambian producers.

It is not in the line of an institution as TDAU to lay down the minimum demands for products offered on the Zambian market, nor to impose sanctions if these demands are not met.
This is more in the line of a body like the Zambia Bureau of Standards.
TDAU as an independent institutions could however be used for the testing of the equipment against the standards set.
In view of the capacity and capabilities of TDAU such a testing should be limited to small scale agricultural and processing equipment.

In the above the possibilities and strengths of TDAU are dealt with.
It is also only fair and wise to also point at our weaknesses.
We are strongly limited in our activities, mainly because of our capacity.
Being a part of the university has the advantages of a possible independence in judgments and the direct access to the expertise

available. It has however also the disadvantages of a complex and rigid set of rules necessary to run such a large organi but restraining for a unit which operates on and in the vicinity of the economic market.
The University has seen this problem and has set the first step to give TDAU organizational and operational autonomy.
Institutionally TDAU remains within the University.

TDAU often has to disappoint customers which are bringing in both too small and too big jobs but we want to concentrate on our main tasks and we do not want to contend dishonest competition to other workshops.

TDAU is sometimes blamed to have only attention for 'simple' and manual and animal powered implements.
Experts in the field know that these implements are far from simple and that they offer the same challenge to engineers as high tech does.
The choice of TDAU's activities is, certainly after 1987, governed by the demand of institutions and companies active in the Zambian society and on the Zambian market. If TDAU thus concentrated on the products mentioned this is because of the now existing demand.
Because of this orientation the possible assistance in other fields is limited, but TDAU will adapt itself to a changing demand and is able to acquire experience in any other field.

The place of a National Design Centre in Zambia.

The idea of a National Design Centre originates from the Conference of African Ministers of Industry held at Nairobi in December 1975. On this meeting the subject of creating capital goods industries in the different African countries was discussed.
One of the conclusions was that one of the major constraints for such an industry was the absence of adequate engineering design capabilities in most of these countries.
From this Conference the idea originated to create a regional institution to promote the development of machine design capabilities within the African countries.

ARCEDEM (African Regional Centre for Engineering Design and Manufacturing) with its Secretariat in Ibadan, Nigeria is the materialization of this idea.
The main objective of the Centre is to assist Member States of the Organization of African Unity (OAU) to identify and to develop their capability for engineering design, manufacturing, training for engineers and technicians in the field of industrial and agricultural machines and equipment, including production of spare parts for already existing machines[3].

At the request of the Minister of Commerce and Industry a consultancy team from ARCEDEM visited Zambia in 1987 to assess the needs and possibilities for a National Centre on Engineering Design and Manufacturing in Zambia.

After discussions with many organizations they concluded that their was a very apparent need[4].
The reasons for setting the Centre where therefore formulated as[5]:

a. for the enhancement of engineering design and manufacturing capabilities in Zambia;
b. for possible linkage between research institutions, the University and Industries;
c. upgrading of programmes in design and manufacturing;
d. for increasing activities in machine design/development as well as the involvement of Zambian engineers in industrial projects which are beneficial to the country;

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[3] ARCEDEM/UNIDO/ECA, Establishment of National Design and Manufacturing Centres, Lome, April, 1986.

[4] ARCEDEM, Report for pre-feasibility studies for creation of National Centre for Engineering Design and Manufacturing in Zambia, Ibadan, June 1987.

[5] ARCEDEM, 1987 (10)

e. possible linkage with other National Centres in Africa and the regional centre ARCEDEM.

Further details of the Zambian centre were then worked out in the definition of the functions of the centre as to[♣]:

1. Provide and run training courses in engineering design of machinery and machine components for qualified professional mechanical engineers.
2. Provide and run training courses in the design of machinery and machine parts for qualified mechanical engineering technicians.
3. Provide and run courses for the training of mechanical engineering draughtsmen and tracers.
4. Provide a service to industry to undertake the design and production of spare parts for capital machinery and equipment where these are no longer obtainable from the original suppliers.
5. Undertake the adaptation design and development of machinery and equipment imported from other countries at the request of Government or private sector companies, or on its own initiative as the case may be.
6. Collaborate with universities and other research institutions in the development and production of machinery and equipment based on indigenous design or research.
7. Liaise and collaborate with the Regional Centre (ARCEDEM) in programmes and activities for the promotion of engineering.

Interesting is also to quote what the Zambian centre should not do: "It should not act as a Centre for general engineering training, but for specialized training and professional specialization for mechanical engineers and technicians who are entering into machine design and production as a career, after obtaining their basic degrees or diplomas.
Furthermore the National Centre should under no circumstances undertake craft training. This should be left to the trade centres[7]".

As target groups for the National Centre the regional centre ARCEDEM point at the larger scale industries[■];

- the engineering core industries engaged in the production of spare parts for the rehabilitation and repair of capital equipment and machinery, industries

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[♣]ARCEDEM, 1987 (1)

[7]ARCEDEM, 1987 (15)

[■]ARCEDEM, 1986 (29-30)

engaged in the manufacture of components for agricultural equipment and industries manufacturing general engineering accessories and tools.
- the resource based core industries engaged in processing agricultural raw materials and products and industries engaged in the processing of mineral and other non-organic raw materials.

Mind you that all these are only the findings and suggestions of the consultancy team of ARCEDEM. They are not yet sanctioned or commented on by Zambian institutions nor the Ministry of Commerce and Industry.

This also holds for the proposed structure. Therefore from this structure I only name their suggestion about the place of TDAU. According to the consultants the Technology Development and Advisory Unit of the University of Zambia should form the seat and main coordinating body of the National Centre. This is due to the fact that TDAU is presently engaged in consultancy work in design and manufacturing and its objective is to service the industrial sector in the country including the small scale industries. Secondly, accessibility to TDAU by any private industry or individual is easy and possible*.

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*ARCEDEM, 1987 (11)

TDAU as a possible core for a National Design Centre.

Comparing the presented short history of TDAU and the ideas of the National Centre for Engineering Design and Manufacturing the idea of choosing TDAU as a core of such a centre is not strange.

TDAU already works in part of the field described for such a Centre and performs some of the tasks attributed to it.
But there are differences.
TDAU restricts itself to the medium and small scale producers, and even there the confined capacity of the Unit allows only for a limited reach.
Except for indoor training of own staff TDAU is not involved in any training activities.

The question should be put which problems can be foreseen if TDAU would be extended to become the National Design Centre.
The capacity problem is in principle soluble except for a very vital part of such a centre: the design section.
The recent past has proven that it is very difficult to recruit staff on the level of project engineer design. Not very strange because an identified shortage of designers for the Zambian industry applies even stronger for an institution like TDAU.

If TDAU is chosen as the core for the National Design Centre it should therefore first start to train designers or have them trained outside.

Designers trained within TDAU, as for that matter all other qualified members of staff are very attractive for the industry which after all has a shortage of this kind of personnel.
The past has clearly shown that in the struggle for good staff TDAU always loose since it is not (yet) in the position to compete with the conditions of service offered by the private and para-statal sectors.

Training courses in engineering design, machine design and mechanical engineering draughtsmen could very well be organized by TDAU. But it would be a gross undervaluation of the School of Engineering of the UNZA and a waste of resources if in these courses the expertise available on the School of Engineering of the UNZA would not be used.
Apart from a coordinating and an organizing position, TDAU could be given the task to organize practical training and offer trainee posts. This could be combined with the work done for the Zambian industries.

The consultants emphasize that the Design Centre under no circumstances to undertake crafts training.
However TDAU has experienced both indoor as within several Zambian industries that good designs are finally rejected because of the poor craftsmanship in manufacturing the designed item.

In a strategy to upgrade Zambians engineering design and manufacturing capability an upgrading and a revaluation of craftsmanship cannot in any way be overemphasized.
If the National Design Centre should not take up crafts training itself it should be strongly liaised to a centre, which offers further training for promising craftsmen from the trade centres, which should be simultaneously developed.
The craftsmen from such a centre could also be offered trainee posts at the Centre.

From the point of view of TDAU there are good possibilities to develop the unit to a National Design Centre. Although there are some constraints and conditions.

One of the conditions which is not yet mentioned is that an extension of TDAU should not jeopardize TDAU's present task of stimulating small and medium scale industry and by that, stimulating Zambia's most important resources: the farmers.

If this would be a serious thread it would be wiser to establish the National Design Centre as a separate institution, independent of TDAU.

The ultimate decision can only be taken by the Zambian government after a careful further evaluation of the ideas.

Summary of conclusions.

Looking back on the history on TDAU one should conclude that the unit has developed itself from in introvert appropriate technology centre at the side of the Zambian society to an independent consultancy unit in the middle of productive Zambia. It is now a serious partner for Government, International organizations and Zambian small and medium scale industry in the development of industrial production.

In its present form TDAU is in the first place a development institution.
Rural craftsmen will be assisted in an upgrading to the level of rural workshops where repair and maintenance of equipment, already existing in the rural areas.
Eventually the workshops will be also start production of implements. TDAU will assist in making suitable (re)designs available.
Zambian industry as well as Governmental and International organizations can seek the assistance of TDAU in testing, redesigning and production of prototypes.
This is done on a commercial basis in the form of consultancy.

TDAU is also a well equipped workshop with design facilities. Industries which have no adequate own workshop facilities can be assisted with the production of spare parts.

A service which TDAU can offer to the consumers of Zambia and to the Zambian industry in general is that of quality control.

It is recommended that the Zambian Bureau of Standards works out whether they can set standards and minimum requirements for the quality of small and medium scale agricultural and processing equipment. TDAU could be involved in technical matters and be given the assignment for the quality control.

As the situation is now TDAU does not focus on the large scale industry. On one side because the capacity of TDAU is limited on the other because the idea exists that these industries have their own access to research and development and their own sophisticated workshops.

There are however good reasons to verify this presupposition, especially in the light of the findings on the consultancy mission which concluded that there is a definite need in Zambia for a National Centre for Engineering Design and Manufacturing.

If the suggestion of the consultancy mission to make TDAU the seat and main coordinating body of this National Centre is taken over by the Zambian Government TDAU itself can see possibilities to transfer or extent the unit in such direction.

Solutions have then to be found for the extension of the capacity of TDAU, the recruitment or training of design engineers and the retainment of personnel

Training courses in engineering design, machine design and mechanical engineering draughtsmen should be organized in close cooperation with the School of Engineering of UNZA.

There is little use in improving the design capacity in Zambia if at the same time the craftsmanship necessary to implement these designs is not upgraded.
Therefore a National design Centre should include or be directly related to an institute which offers training courses to promising craftsmen from the trade centres.

A condition which must be strictly adhered to is that extension or transferring of TDAU does not in any way jeopardizes the present task of stimulating small and medium scale industry and by that, stimulating Zambia's most important resources: the farmers.
If this would be a serious tread the National Centre should be established as a separate institution.

ASPECTS GOVERNING DEVELOPMENT STRATEGY WITHIN THE MINERAL SECTOR

by John Tether, Deputy Director

Geological Survey Department

Introduction

Zambia's economy has been so long been dominated by a one mineral industry, copper, that the potential for other mineral based industries has been dwarfed. While copper will continue to play the paramount, though gradually diminishing role, in the economy in the years to come, it is important that Zambia diversifies not only from mining but within mining. The rise of gemstone activity has given one alternative and there are plans now well on to develop a domestic iron and steel industry based on local raw materials. The on-line advantages to the country are reckoned to justify the considerable initial capital expense. Similarly minerals constituent to agricultural development cannot be reckoned in simple economic terms as the advantage of their application is long term and not totally quantificable. With other minerals the principal remains that they must be worked on a viable basis and the challenge remains to develop them for export, as the basis of new industries, or to use them to substitute for raw material imports, all for the general advantage of the country. However it is important that the mechanisms for assessment and assistance towards establishment of such enterprise should be efficient and co-ordinated so that the maximium possible benefit will result.

Industrial strategy within the mineral sector is a complex subject which pulls together very many disciplines. It also has several different dimensions and principals according to the mineral sought, size of the enterprise, value of commodity, grade of ore, location and many other factors. It is therefore only possible to give a glimpse of the subject in such a general paper as this, which presents the various steps that lead to mineral development, how they are executed and the specific issues involved in different sectors.

Provision of Base Information

A glance through any gazetteer of mining locations will always show a fair crop of names like "Lucky Strike", "Bonanza" and "Eureka" which imply that exploration for minerals is a totaliy haphazard business with valuable finds relating more to chance than any systematic approach. There is no denying that many spectacular mineral discoveries owe themselves to chance encounter. Examples are the famous Klondyke gold discoveries or, nearer to home, the apocryphal story of James Collier's luckless roan antelope which fell dead onto the green outcrop where Luanshya stands now. Even today remarkable discoveries are made in ground supposedly already dismissed as barren as is the case with Zambia's Eastern Province gemstone finds. So Providence certainly does seem to play a role.

Most mineral discoveries however are not made this way but by detailed and painstaking study of the ground. It is only by careful assimilation of information in the form of geological maps, research into rock types encountered and their mutual disposition that an understanding can be reached on how those minerals that are of economic advantage to mankind accumulate. Known mineral deposits have to be examined in detail and used as archetypes for comparison with parallel geology

elsewhere. It follows that methodical geological mapping and gathering of all mineral data is fundemental to any mineral resource strategy.

Between the two world wars a considerable amount of prospecting was undertaken in (then) Northern Rhodesia by the various "concession companies". They took mineral concessions over vast tracts of the country, effectively carving up most of it between them. Essentially they were looking for another Copperbelt. The style and approach to gathering information varied, but typical amongst them were those of British South Africa Company, nicknamed "Bancroft's Circus", which consisted of squads of young geologists following exactly straight, pre-defined, parallel traverse lines each about a quarter-mile apart and simply noting everything they saw on the ground. This information formed the basis of our understanding of the geology of Zambia and was inherited by the Geological Survey when it was formed in 1951. Today the approach is not quite so rigid because modern field geologists have the advantage of relating ground information to that gathered from the air by way of airborne geophysical surveys and satellite imagery. More emphasis is laid now on remote methods of collecting information such as using geochemical signatures of soil and stream samples. Therefore present-day geologists are allowed a lot more discretion on how they should tackle an area of poorly known geology, but the primary need to collect and interpret base information on the surface remains. With Zambia now about sixty percent mapped geologically at 1:100,000 and 1:250,000 scales, the Geological Survey has the duty to continue the task to completion. These maps and the accompanying reports provide the starting point of most mineral prospecting and also often play an essential role in agricultural development, engineering projects and sometimes other aspects of economic planning.

Another facet of base information collection is that which is reported by rural residents and travellers. Where a mineral does becomes economically important in an area there inevitably results several self-taught "barefoot prospectors". Many of the gemstone locations in the Copperbelt and Eastern Province have been discovered in this way as have, probably, many of the longer known mineral deposits too. It would greatly assist both interest amongst the general population if some basic facts about rocks could be included in school core curriculum so that the villager especially can recognise what might be geologically unusual and is able to advise his headman - and so on up the system - until it comes to the notice if the Geological Survey. One would not expect a primary seven boy to interpret a geological map but it might help if he could distinguish a sandstone from a granite and still better recognise an occurence of a glittering, metallic mineral as something worth telling the authorities about.

Data Assembly

Collection of base information is not enough unless it can be presented and is accessible in a coherent and intelligible form. With regional mapping work the intention is to produce 1:100,000 maps of the solid geology with an accompanying explanatory report for each quarter of each latitude-longitude degree square. In recent years the Geological Survey has had severe difficulties in maintaining output of published reports through logistic problems of editino capacity, draughting capability and map printing ability. Steps have been taken with aid agencies to remedy these deficiencies but in the meantime for those areas mapped but not published the information is available upon request for inspection. Of course, it is intended eventually, to have it more generally available, for purchase.

Other mineral data for the country is considerable. It starts with that inherited from the concession companies: continues with reports resulting from specific Government sponsored projects and the routine reporting which, by law, private and parastatal prospecting and mining companies are obliged to provide on a periodic basis. It presents a formidable task to collect this into a form useful

for the person enquiring into a particular mineral or place. Historically it was done in the form of books on mineral occurrences compiled by mineral type and/or location - each with a short description. Although these still form important sources, the advent of modern computer techniques allows much more flexibility and the Geological Survey is currently setting up a data bank of all this information to enable selected multi-access retrieval. This should allow much more rapid correlation of facts and testing of theories. Parallels will be more easily compared.

The cost of the maintenance of a data bank on mineral information, as indeed that of ground collection of base information by Geological Survey, is maintained a public expense. It is justified by the long term returns to the Exchequor through fiscal dues paid by the eventual beneficaries (successful miners). It is a rather loose connection with many qualifications but it is based on the essential premise that some national organisations exist for the benefit and well-being of the whole community, however indirectly that benefit is derived.

Mineral Exploration

Very many minerals have some economic use in some circumstances, but where and how each becomes viable relates to very complicated balancing of market forces. In rather simplistic terms the the factors to be considered are :-

(a) the intrinsic value of the mineral
(b) the grade and quality of the ore
(c) the configuration and dispersal of the ore
(d) the quantity (reserve) of ore
(e) how easily it can be processed
(f) the cost of setting up a mining operation
(g) the cost of mining
(h) the market potential
(i) the distance to the market and the cost of transportation

To some extent these criteria overlap, in other cases one or other will become unimportant. Very often there is a choice of routes, or strategies, depending what technical approaches are chosen. Mostly, though, these are the hard economic factors that influence whether a mining venture is practical. Rarely do other concerns enter the evaluation although there are cases where a competitive land use interest (eg. wildlife, agriculture or tourism) will prevail over a mining venture, but it is unlikely that the above economic parameters will not also have been taken into account in deciding whether or not to allow mining. Sometimes pollution, or environmental concerns, are given as reasons to prevent an otherwise viable mining venture. The potential miners counter that they are prefectly aware of pollution controls. They undertake to effect "clean" mining and rehabilitate the area despoiled by excavations and mine plant after operations cease. Indeed legislation exists to insist this happens. Whether these promises are really met in the long term varies from case to case but very rarely are they so disbelieved at the outset as to inhibit mining. Where they effect any influence at all pollution efforts tend to be remedial rather than inhibitive.

Between them the exploration geologist, the metallurgist and mineral economist will attempt to gather all the relevant information on a proposed mining venture so that an evaluation of its viability can be made. This is expensive and becomes progressively more so as interest in deposit is maintained through the successive stages of:-

(a) detailed surface mapping,
(b) geophysical and geochemical support,
(c) drilling,
(d) feasibility studies and
(e) pilot experimentation.

Private mining companies take these costs from the profits of successful operations elsewhere in their organisations; another factor that has to be taken into the budget of an operation that reaches viability. The larger companies apply rigorous tests to determine when they should cut their losses and quit an exploration regime. It is often a difficult decision to make which in marginal cases can rest on prejudice and may even be subjective. With the small operator it is even more agonising as he finds it difficult to credit the money and effort he has spent have not reaped any reward. In so many cases he will continue exploration well beyond the point where objective reason would tell him to cease, the final decision being made for him as he runs out of funds or sponsorship. This is a distinct problem faced by so many would-be small miners in Zambia and a component to be tackled in any strategic advice to them.

Mineral Classificiation

Exploitable minerals are divided for convenience loosely into groups according to their eventual use, value and chemical affinity. It is not at all a clean division as some minerals and rocks can be found in more than one group while others do not fit easily into any group. The subdivision also varies somewhat according to the needs and economy of each country. However, for convenience and in the Zambian context, they can be grouped in rough order of descending intrinsic value, as in the paragraphs below. The most promising locations for mining development for each mineral are given in table 1. As each each group is considered it will be seen how the exploration and mining strategy differs according to the various controlling economic factors that influence the viability equation.

Noble Metals

Starting with gold, as an example of a noble metal, it is now extremely rare to find a high grade accumulation and mining companies are now targeting deposits with grades down to 2 ppm. The larger the deposit, and the easier it is to work, the lower the grade of interest. With this commodity transport costs of the finished metal are so small compared with its intrinsic value as to be effectively discountable. The expenses come with the mining and beneficiating plant required. Beneficiation is always done at the mine. Gone are the days when a man with a pan were enough and instead sophisticated crushing and separating equipment is needed. This puts gold mining really beyond the reach of the very small miner. However recent technological advances, as well as the increase in the world gold price, has brought several hitherto sub-economic or worked-out deposits back into economic reckoning. The new technology, carbon-in-pulp and carbon-in-leach methods, allow virtually all the gold to be taken from the rock instead of leaving the last 2 ppm or so in the waste as used to happen by older methods. Even old tailings have become interesting for reworking and may spearhead the source raw materials for a re-opened operation.

In Zambia there are five old gold mines that are in various stages of re-examination; Dunrobin, Matala, Chumbwe, Chakwenga and Sasare. There is an active research project to determine the particular provenance of gold along the apparent alignment that joins them all and is sub-parallel to a geological shear feature, the Mwembeshi Shear Zone. It is hoped to establish if there are common parameters that may lead to other discoveries between those presently known.

At present most of Zambia's gold, and all the silver, comes not from discrete gold and silver mines but as a bi-product from copper mining. The very small amounts of gold in the copper ore is separated from the copper in the electrolytic refining process and therefore accumulates (with silver and selenium) in the tank house slimes. Here it is in sufficient concentration to warrant refining at a special Precious Metals Plant in Ndola.

Gemstones

Exploration for gemstones is mostly a rather random, haphazard business although note should certainly be taken of evidence and leads in the known geology. A more systematic approach than that adopted here would probably be of advantage to most gemstone prospectors. However finds are so notoriously capricious in quality and quantity that it is rare to be able to predict a specific grade or budget with any real accurancy.

Mining of gemstones has some parallels with gold in that the commodity, when found, is too valuable to have transport costs considered a bar to viability, but there the parallel ends, at least as far as present gemstone mining development in Zambia is concerned. Mine plant recovery methods are simple, at most some motorised earth moving equipment, and ore treatment consists essentially of washing before hand selection, with possibly also some sieving and grading. More sophisticated methods based on the physical properties of the minerals do exist for separating some gemstones from rude ore but these are not appropriate to the gem species so far found in Zambia. Zambian emeralds are now reckoned to constitute 20% of the world market. Unfortunately much of this is not realised even for the partial benefit of the country because of illegal mining and clandestine marketing. In recognising the disincentives to using the legal outlets provided, the Government has recently improved the deal for gemstone miners by the reducing RMC commission to 5% and allowing the miners to retain 20% of the foreign exchange earned on their stones. It remains to be seen if these measures are sufficient to abate the illegal trade

The insistence on processing all emeralds through ZEIL is based on the financial benefit to the nation of exporting cut stones compared with rough, a factor that can be as much as times five. This is a very basic and extreme example of the value of local "fabrication". At present the lapidary is having difficulty coping with all the potential material available for cutting, especially the lower valued stones, but it is hoped these problems will be solved by the expansion and rehabilitation of another lapidary, in Lusaka. An aspect of the gemstones market that seems to have little capitalised in Zambia is tourism. It would be reasonable to expect tourists to spend freely on well cut and mounted Zambian stones but these are not readily obtained at the tourist outlets. A visit to Kenya shows how this can be done.

Base Metals

Zambia's huge copper mines still contribute over 90% of the country's foreign earnings. With any mining enterprise of this dimension all parameters are tested exhaustively before any move towards mining a new area is commenced. This is partly because of the size of the operation where a 0.01% inaccurancy in an average assay of a mineral block could result in a substantial loss (or gain). Accurate predictions are essential for forward planning which in turn relate to capital investment and socio-economic consequences. Technological advancement is also

important. In Zambia recent technology has allowed previously discarded tailings to be reworked and more cost-effective extraction methods to be used in the copper mines. The ZCCM conglomerate has such fundamental influence on the economics of Zambia that when it sneezes the whole country catches influenza, yet it is also vulnerable to the same mineral market forces as operate on all other sizes of mineral producers. The most fundamental problem ZCCM has is the long lead time it needs to develop or close any operation without foreknowledge of the prevailing economic parameters at the end of the period concerned.

In recent years it has become apparent that cobalt has featured more prominently in ZCCM's economic equation. In fact it has buoyed metal production at some mines when copper prices have been particularly depressed. This shows the importance of co-production of minerals, emphasising the point that no mine should be assessed on the basis of a sole product where more than one exists. It might be that neither is economic individually but collectively they are. Co-production is long familiar to Zambia with the Kabwe lead-zinc mine which has also produced cadmium, silver and vanadium in the past.

Small scale, base metal mining really has the same problems as the giants but scaled down. Sometimes there is advantage in having a major producer 'nearby' who can take over the mineral concentrate to metal on a toll basis and incorporate it into its own smelting process. This procedure is being followed at Star Zinc Mine and Kansanshi Copper Mine and it is possible it could be developed in other places where conditions are favourable. The Kansanshi exercise is particurlarly interesting because it is a deliberate employment exercise run by ZCCM via COMET. It openly acknowledges that the mine is not viable as a conventional operation but does make economic sense as a labour intensive, low technology enterprise, (though, it should be noted, it still has the 'protective' technical support of ZCCM). The first 28 tonnes of copper concentrate were as recently taken from Kansanshi to the Mufulira smelter.

Where there is no local smelting facility within the country for a particular mineral, yet there is some small production and potential for consumption, as in the case of tin in Zambia, a decision has to be made as to how to deal with the mineral concentrate. The alternatives are that:-

(a) it may sold abroad (for foreign exchange),
(b) it is processed under a toll agreement in a neighbouring country with spare capacity and the metal returned to Zambia,
(c) a smelting facility be introduced to the country.

With the last option it is necessary to determine if there is sufficient potential to justify local investment in the appropriate plant. With the present levels of cassiterite production in Zambia it does not seem worthwhile investing in plant, but this situation could change if substantially more cassiterite reserves were discovered and exploited.

The emphasis with base metals has been mainly to earn foreign exchange by exporting the pure, but unfabricated metal. Some of it is manufactured into finished articles (eg electrical cable) even for export to neighbouring countries but this is a relatively minor portion. Possibly this could be increased to advantage, providing the cost of the parallel imports needed for the production process do not exceed the value added to the metal by fabrication.

Ferrous Metals

The main mineral within this category is iron. Titanium and manganese are put in the same bracket because they are commonly used in steel alloys. Compared with base metals the scene is totally different, at least in the Zambian context. Here the plan is to utilise the country's known resources of iron ore and coal in order

to develop a steel industry as an industrial base. This is regarded as so important to the future economy of the country that a large initial capital deficit is accepted as being a justified when compared with the long term benefits. The development of a steel industry in the country will also expand local production of Zambian limestone, fluorite and, possibly, manganese deposits.

The intention is to use the 52 Mt. of 62% Fe grade ironstone at Nambala deposit, south of Mumbwa, as the principal ore source. This will be blended with iron scrap and higher grade ore to bring the iron content up. The ore will be transported to Kabwe where it will be smelted in a modern direct reduction furnace using Maamba coal and local limestone. The anticipated production level will be 200,000t of fabricated steel products each year. It is reckoned the identified iron ore source will last at least forty years. Soviet experts are being employed to assist the Zambian Government design and implement the project. Within the Zambian system there has been high-level co-ordination between Geological Survey, Minex, NCSR, ZCCM and the School of Mines at UNZA on the project.

Fossil Fuels

In Zambia coal is the only fossil fuel that has so far proved to be economically exploitable and presently only from one mine Maamba. This produces up to 500,000 t/a of coal with quite high ash content (16% - 18%). Several industries have adapted to the particular type of coal present at Maamba which causes the corrollory that sufficient dependable reserves have to be identified to maintain a supply of similar material for these industries into the future. The two main consumers are ZCCM and Nitrogen Chemicals while the others are Chilange Cement, Dunlop, Premium Oil and ROP. The demand from Nitrogen Chemicals is likely to increase into the next century but from other consumers demand should remain static although the projected iron and steel project could push the annual requirement up to 700,000 t/a. Current easily accessible reserves at Maamba are adaquate for the next 25 years at this higher production rate. The Geological Survey is currently proving up reserves west of Maamba with the intention of prolonging the life of Zambia's coal industry for several more years.

The Maamba coal operation also produces much waste in the form of dust and slurry too fine grained for the present consumers. Consideration has been given in the the past to using this as fuel for a thermal power station at Maamba. Another use, for which there has been considerable, pilot scale testing, is to briquette it as a hosuehold fuel substitute for charcoal. Although this has proved practical in technical terms the product cannot match charcoal economically at the urban market place as yet. However, with the destruction of woodlands through charcoal burning now becoming an environmental worry, there may be a case for positive promotion of such a charcoal substitute.

Agricultural Minerals

The are parallels with the economics of exploiting agricultural minerals with those of ferrous metals in that a long term view of the general economic advantage to the country has to be taken. While it is true that fertilisers have their own basic commodity price, which a highly organised commercial farmer can relate through his budget to an increased income through higher crop yields, it is much more difficulty to quantify the benefits of soil improvement in the less formal sector of farming. The three most significant compounding factors with agricultural minerals are availability, transport costs and suitable technology. They can be well illustrated with limestone, a rock that is quite common in Zambia and when pulverised and added to soil reduces the acidity - a benefit to most soils in the region. At present crushed limestone for agricultural use is produced only at Lusaka, Kabwe and Ndola. Transport of a mere 200 kilometres from the plant doubles the cost of the commodity at its destination. In a recent costing exercise for the commercial development of Matanda limestone deposit it was shown that to produce

crushed limestone there at a cost equal to transporting it from Kabwe very much more would need to be produced than the apparent present demand from Luapula Provinceat. Production would have to be multiplied several-fold to be competitive with Kabwe lime price at plant. Clearly there has to be much promotional work and, probably, initial subsidy to get the demand in Luapula Province up to the level where the operation becomes economically viable. There is no denying the need for liming there.

Several limestone deposits have been identified, mapped and quantified close to areas where liming is required (Table 1). At some of these places projects have been adopted by interested local communities of farmers to develop working quarries yet it appears to be extremely difficult for them to achieve anything. The reasons aprear to relate to lack of capital and suitable plant availability. Perhaps it also relates to difficulty in co-ordination for if the projects could work on some aspects of their development collectively it may be possible for them to share costs and even some of the plant if this could be made suitably mobile.

Another agricultural mineral we have in Zambia is apatite the prime source for phosphate based fertilizer. 2.5 Mt of 12% grade ore has been identified at Chilembwe, north of Petauke, and a small reserve of similar grade has been located north of Mumbwa. The Chilembwe reserve represents half of Zambia's current (imported) annual phosphate need if exploited over fifteen years. The feasibility of working the Chilembwe deposit was tested out by JICA for two end-product routes, but reckoned to be uneconomic by both. Yet it is difficult to accept that a mineral reserve, recognised as being of potential economic benefit to the nation, should remain untapped. In fact there may now be a solution in that a new, low technology approach to apatite digestion into a soil dressing commodity is being considered. The product, partially acidulated phosphate rock (PAPR), has been shown to be beneficial in other Third World countries and there seems no reason why it should not be equally so in Zambia. Some pilot scale manufacture and pot testing indicates positively. An economic evaluation of the project is still necessary but is compilicated by the full benefit of PAPR being so gradually achieved (over three to five years) compared the more traditional phosphate based fertilisers. As it may be difficult to sell a product which does not demonstrate an immediate return, it will have to be 'promoted', by subsidy and advertising, on the basis of a conviction held within Government that the long return will be worthwhile

Chemical and Industrial Minerals

These two groups are distinct only by their different process routes and end uses. In economic terms they have some parallels with agricultural minerals in being essentially high bulk, low value commodites. They constitute collectively a large number of different minerals several of which are found in Zambia. Several are presently exploited coomercially (table 2). However according to the Central Statistics Office import figures, quantities of gypsum, ceramic clay, abrasive minerals, graphite, salt, barite and talc were all imported in 1987. These are all minerals that are known to exist in minable quantities within Zambia. Because several of our industries have been importing the minerals there has been positive effort to promote these domestic resources to substitute for the imports. Other industrial minerals not presently used in any industrial process within Zambia are nonetheless 'consumed' in finished articles imported here and there may be possibilities to set up manufacturing processes to provide these locally. The next stage is to produce sufficient to export to countries of the region and then those beyond. In some circumstances Zambia may provide insufficient potenyial to justify the establishment of a production facility alone but, as a region, Southern Africa may provide enough market.

Many of Zambia"s industrial and chemical mineral deposits have been quantified thoroughly and the information about them can be found at Geological Survey. The process of evaluation of deposits still continues however, with emphasis now turning

to those previously dismissed as "remote" but which have become more accessible with the improved road and rail network, and those hat have become more important as industrial emphasis, the consumer markets and technological application have changed over the years. A major problem in getting Zambian minerals into the industrial market is persuading manufacturers to adapt their product precesses to use the local materials. This is because many manufacturers, and particularly the transnationals, have imported plant and pocesses geared specifically to a particular supply line - often one vertically integrated with the parent company. Most proabably their process cannot accommodate raw material from another source, with different specifications without there first being some adoptations made. Experimenting with process routes to make them work optimally with local raw material costs time and money and appears to be a step many manufacturers, particularly the transnationals are hesitant to take. Some companies have adapted to local materials, for instance virtually all ceramic ware is now made from local clays. But others still resist. It is here that our local research facilities, such as NCSR, can demonstrate how local alternatives to mineral raw materials currently imported can be used, as well as show how other mineral commodites could be utilised of in new domestic industries.

Construction Materials

With one prominent exception, these are all very low value, locally utilised commodites for which transport costs are the most crucial economic factor. Generally they are produced by basic methods from many small scale extraction pits (sand, gravel, laterite) and quarries (stone, aggregate) as close as practical to the place where they are needed. The are produced 'as required' and are essentially followers not leaders in economic and development fortunes.

The one exception is, of course, cement, which is made in large plant geared to limestone, phyllite, gypsum and coal consumption. There are two cement works in Zambia, at Chilanga and the Ndola. Transport costs are still critical with the moving of both the raw material and the finished product so cement works are sited close to both the main rock supply and the principal consumers. Cement is essential in virtually all permanent construction but the amount used can be reduced if bricks or natural stone are substituted for to concrete blocks. Many brick clay deposits have been identified in Zambia but few have advanced to brickworks, despite general agreement that brickwork is aesthetically pleasing in urban facings. The difficulty in promoting good brick manufacture probably relates to it being questionable whether it is cheaper to build with brick rather than concrete blocks Quite apart from the large capital cost of setting up a brickworks, there are the negative points that bricks are vulnerable to breakage in transit (concrete blocks can be cast at the building site) and that bricks, being smaller than blocks, require more labour to assemble.

Good natural stones for building (slabstone, flagstone and slate) are known in several places but, at least since early missionary building, has been little used except for decorative facing work and pavings. There is no doubt that in some places rural amenity buildings, like schools and rural health centres, could be solidly, yet cheaply, constructed with local stones. This seems to be a prime case for education by practical demonstration and then advertising the result so that other places where suitable stones occur will show interest in emulating the achievement. As always the economic balance in producing brick or stone has to be judged against the cost of bringing in cement (or concrete block) but in places more distant from the cement works the alternatives could be considered.

Legislation

It is popularly conceived that the current legislation for the Zambian mining industry is out-dated and inappropriate, particularly when it comes to small scale mining. It is true that the laws presently in force were drafted without the recognition that small scale gemstone mining would become so prevalent and many small scale operators seem to find it onerous to conform with all the reporting requirements of the law. It is conceded that these are excessively demanding and a more realistic system should be introduced. There is no point in having law that has no practical enforcement value. All it succeeds in doing is alienating one secto. of the community it is supposed to serve to the extent that they resort to illegal activity. This triggers a more general lawlessness and makes the original law self defeating. Appropriate changes to the statute are being actively considered now within Ministry of Mines with a view to producing separate and suitable legislation for gemstone prospecting and mining.

With this exception, and the fact that the fiscal demands and penalties within it have not kept pace with inflation, the Mines and Minerals (1976) Act is a comprehensive controlling document for prospecting, exploration and mining in the country. Its intentions are four-fold. It directs mining activity to what is considered the most suitable sectors of the community; it protects the rights of the miner; it protects the safety of the miner, his employees and the public and finally it causes information derived from prospecting and mining to join a general repository of data for use later by subsequent interested parties.

Problems of Mine Development

Further development of the mining industry in Zambia is appropriate at all levels, large, medium and small scale mining, according the viable size of the perceived operation and its National benefit. Large scale enterprises are undertaken as a consequence of National policy by major mining houses, or sometimes with bilateral aid. Although they do face essentially the same technical problems as those eencountered by smaller ventures these are usually challenged within the capabilities of the organisation, or institution involved. They are not, or should not become, matters that concern particularly the domestic network of public technical services.

The immediate policy criteria for small scale mining may not seem so prominant as for large scale mining but, in a sense, the sector is equally important. Among other considerations there is always is the possibility of a small mine developing into a much larger enterprise as we have begun to see in Zambia in emerald mining by Kagem advancing from small beginnings. Some of the benefit factors of developing small scale mining have already been mentioned, the most fundamental being that it precipitates an increased industrial base for the country and promotes rural development. This fits well with the principal of "Growth from our own resources". Small scale mining has some advantages over larger enterprises in that it can be more responsive to market demands, adapt its labour force more readily to immediate needs and concede to seasonal closures due to the climate, accessibility or depletion of labour due to other demands (eg. crop harvesting).

However small scale mining is probably the sector where problems most clearly seen and least easily solved. Obviously, if we wish development, much National effort to must be directed towards it. Many of these problem areas are certainly not unique to mining but are seen in many other areas of small scale industrial development. Several have already been mentioned above as distinct difficulties within a specific sector of mining, others are more general. They are catergorised below.

Lack of Capital

Stortage of sufficient funds to explore and develop is particularly acute in small scale ventures where generally there is a high risk factor. Banks and investment houses require detailed and convincing feasiblity reports before they will lend and most other lenders are no less cautious. It is a difficult issue to solve and would seem to rest on the ability of the candidate miner to produce convincing evidence that his operation will succeed. Here there appears to be a gap. While it would be irresponsible to suggest that money should be lent without some security of return, there appears to be a case for more sympathetic financing. Perhaps this should be linked to a feasibility testing and monitoring service which, it is suggested, could be set up within a revolving fund arrangement under parastatal auspices.

Lack of Mining Experience, Expertese and Management Skills

These deficiences can result in inefficient, wasteful and dangerous mining. Though legislation exists to penalise such activities, with the present proliferation of small gemstone mines the policing for poor mine practise is not fully effective. It is far better to prevent rather than cure so clearly small scale miners would be better trained at the appropriate level in the skills necessary to mine. Some effort to do this has been made in workshops and seminars. A more comprehensive approach would involve a 'school' for mine artisans and a demonstration, "model", active small mine where these skills could be seen properly applied and then learnt by practise.

Insufficient Technical Back-up Services

Lack of assay and experimentation facilities result in the mine product (and waste) having no proper quality control. One of the factors that commonly make small mine product unpopular with mineral consumers is the varying quality or purity of the product thus causing difficulty in the production lines. The small miner who has insufficent resources to set up his own quality control facility should have recourse to a conveniently placed assay laboratory where tests can be run at reasonable prices. It could be conceived this could be established as a community facility by a group of miners within one area, offered by an independent operator, available at a 'neighbouring' large mining facility or, as now, provided by Government (at Geological Survey and NCSR). It is also important for such an enterprise to keep abreast of technical developments relevant to the mine operators its serves so that any positive, practical developments can be advised and, where possible, applied. This should also involve an experimentation facility where trials can be made on the mine product in order to adapt and employ new technology to the best advantage

Inadequent and Inefficient Plant

Deficiency in mine machinery and repair facilities is not only due to lack of finance it also relates to operations being too small to occupy fully all this machinery they require. The answer to this is sharing or hiring of plant from a central pool in the vicinity of several proximate mines along the lines of the Plant Hire Scheme ZCCM is setting up in the emerald area and the sharing of equipment at Kansanshi.

Marketing Problems

Mineral commodity prices are notoriously susceptable to fluctuations of demand through economic forces quite unconnected with the mineral sector itself. Several international cartels have been established to attempt to protect the value of some of the world's major mineral commodities such as oil (OPEC) and copper (CIPEC). In the small mining sector of Zambia this insecurity is made worse by there being poor

marketing liaison for many minerals. At the two extremes the miner may be at the mercy of unscrupulous middlemen of have to scout personally for an outlet for his mine product. Essentially there is an information gap between supplier and consumer. It would appear to be to the advantage of all to bridge this with a mineral bureau or some other form of mineral marketing agency whose role would be to ensure both stable prices for the producer and steady, reliable supply of raw material for the consumer. Only with base metals and gemstones does something of this sort exist in Zambia today.

Inadequent Local Services

The lack of decent community infrastructure by way of good access, electrical power and social facilities etc. are often under-rated in mine development yet can effectively become the make or break factor. The problem is that it is a "chicken and egg" conundrum and that these facilities are provided by other authorities not specifically concerned with mining. Nevertheless it is important to assess at the outset of a mining venture what will be the advantage to the whole local community of any improved infrastructure necessary for mining. If there can be shown also specific advantage to another economic sector in the same area (say tourism or agriculture) so much the better. Thus potentially viable mineral deposits have to be considered within framework of intergrated rural development.

Linkages

Table 3 lists, in approximate order of mineral development/utilisation sequence, the organisations within Zambia that have major interest in minerals. The list is by no means exhaustive and does not cover all aspects of each organisation's interest and capability. Between near neighbours in the listing there exists a comprehensive network of meetings and committees that ensures regular communication of information. Among them are several agencies whose mandate is to discover, evaluate and develop mining enterprise and to carry out related experimentation. Some of them also offer support services to the small entrepreneur either as a free service, as consultancy or on revolving find basis. Therefore to a considerable extent the problems listed in the previous section are recognised and an infrastructure exists to resolve them although several of the organisations are hampered by lack of resources, manpower, finance and transport and are therefore not operating at maximum efficiency. There do however appear to be gaps in the network of services particularly with low level training, financial support, extension services and market co-ordination. Commendable efforts towards overcoming these deficiencies have been made in some specific commodity areas, for instance by Mines Development Department and ZCCM with the Plant Hire Scheme in the emerald area and the COMET "technically sheltered" enterprises. However, to date these have had limited impact. It is suggested that use could be made of the organisations that already exist to further development in rural communities and small industry (cf. VIS and SIDO) to move their interest into mineral sector. Alternatively, or additionally, a new parallel Government sponsored organisation could be established within Ministry of Mines to work towards these same ends

Resume

In promoting mineral development there is need for information and expertese. The information must be collected in a systematic manner by Government agencies such as Geological Survey at National expense, and gathered into a form suitable for digest for forward planning. This means there must be the facility to retrieve selectively what is relevant and to collect it without burdening the enquirer with irrelevant information. Testing out the viability of a mineral deposit entails

mainly the quantification of the mineral reserve and therefore its value set against the capital cost of plant plus the recurrent costs of operation, labour and transport. The responsibility for collecting this information remains principally that of exploration companies. both parastatal and private, and the exploration wings of companies already involved in mineral extraction.

For minerals where there is not already an established local or export consumption there is also need to test out beneficiation and metallurgical process routes to make the commodity usable in industry either as the basis of new production process or to substitute for raw material currently imported. This is probably best done in a laboratory maintained at public expense with projects specifically sponsored, or sucessfully the developed technology, 'sold' to interested parties in the commercial sector to defray expenses. Such laboratories do exist at NCSR, UNZA School of Mines and Geological Survey, but all could probably benefit from more input with equipment and technical expertese.

The next link in the viability chain is market quantification which also may have a strong element of market promotion. This does not only relate to determining what the domestic market requires but also the scope for exports and particularly whether the consumer needs raw materials (mineral concentrate or metal) or totally fabricated products. It is obviously of economic benefit to Zambia to sell finished goods as it adds considerably to the value of the mineral right back down the line to its exploitation. It also expands the industrial infrastruture and capacity of the country as well as putting more people in employment.

Perhaps this demonstrates the weakest link in development of mineral based industries in Zambia - the apparent lack of ability to utilise many of the known raw materials. No doubt this relates to an extent to the depressed economy and consequent limited consumer market. As resultant capital for entrepreneurial investment is so deficient that it is difficult to see how to redeem the situation. Nevertheless if all relevant information can be assembled, and appropriate linkages made, the most propitious areas for development could be presented for advancement by parastatal agencies if private finance is not forthcoming.

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TABLE 1 : MOST PROSPECTIVE ANDMINERAL MINING LOCATIONS IN ZAMBIA

Gold	Matala (Mumbwa), Chumbwe (Lusaka), Dunrobin (Mumbwa), Chakwenga (Lusaka), Sasare (Petauke) and other small shows between Mumbwa and Chipata. Senga Hill. Bi-product of copper mining
Silver	Excelsior (Lusaka), Kabwe mine. Bi-product of copper mining
Emerald	Ndola Rural
Amethyst	Mwakambiko (Kaloso-Gwembe), Siavonga, Nchinke (Ndola)
Tourmaline	Hofmeyer (Petauke), Lundazi District
Garnet	Lundazi District, Nyimba
Copper and Cobalt	Copperbelt, Mkushi, Lumwana (Solwezi), Kansanshi (Solwezi), Chifumpa (Kasempa), Smaller occurences in North Western and Lusaka Provinces
Lead and Zinc	Kabwe, North of Mumbwa, Star Zinc (Lusaka)
Nickel	Munali (Mazabuka)
Tin	Choma District
Iron	Nambala (Mumbwa), Elsewhere in Mumbwa District, Solwezi District
Managanese	Mansa District
Titanium	Chinkombwa (Petauke)
Coal	Maamba, Mulungwa (Gwembe), Nkadabwe (Gwembe)
Phosphate	Chilembwe (Pekauke), Mumbwa North, Kaluwe (Luangwa)
Limestone	Lusaka, Munsakamba (Mkushi), Kabwe, Ndola, Matanda (Mansa), Msoro, North West Province. Southern Province
Graphite	Njoka (Lundazi), Kajumba (Chama), Petauke District, Old Mkushi
Barite	Chasefu (Lundazi), Ndabala (Serenje), Luwingu
Fluorite	Siavonga, Sinyoolo (Gwembe)
Talc	Copperbelt, Lilayi, Chipapa (Lusaka), Musofu (Mkushi)
Gypsum	Lochinvar, Mutinondo (Mpika), Copper mine product
Feldspar	Southern, Central, Eastern Provinces
Kyanite	Chipapa (Lusaka), Leopards Hill (Lusaka)
Ceramic Clays	Masuku (Choma), Mkushi District, Solwezi, Loshi (Mansa)
Salt	Kalabke (Kasempa), Kaputa, Chienge
Pyrite (for S)	Nampundwe (Lusaka), Copper mines
Mica	Southern, Central and Eastern Provinces
Bisauth	Nchoncho (Lusaka)

TABLE 2 : SUMMARY OF INDUSTRIAL MINERAL PRODUCTION FOR 1988

MINERAL	QUANTITY (Tonnes)	VALUE (K)
AMETHYST (KG)	4,701	1,645,350
BERYL (Kg)	1,343,307	110,746,456
ROUGH EMERALD (Kg)	1,039	391,844,900
TOURMALINE (Kg)	-	-
AQUAMARINE (Kg)	56	1,123,600
FELDSPAR	120	34,800
FLUORITE	-	-
GYPSUM	-	-
LIME	238,633	156,982,931
LIMESTONE	998,733	52,905,849
CEMENT	404,600	166,958,190
PHYLLITE	25,066	12,534
SILICATE	8,121	889,584
TALC	73	36,500
MAGNETITE	445	93,450
PYRITE	67,487	14,860,637
MANGANESE	502	1,637,524

Source: Mines Development Department

TABLE 3 : ZAMBIAN ORGANISATIONS CONCERNED WITH MINING

University of Zambia Copperbelt University	Statuory Bodies	Training in high level exploration, mining and technical skills
Ministry of Mines	Government	Overall co-ordination within the mineral sector
Geological Survey	Government	National geological mapping, Identifying mineral deposits, Collating geological and mineral information
Hydrocarbon Unit	Government	Co-ordination and promotion of search for hydrocarbons
Prescribed Minerals and Materials Commission	Government	Co-ordination and promotion of search for fuel raw materials
Minex Department of ZIMCO	Parastatal	Exploration of mineral deposits
Agip, Cogema, Mobil etc	Transnationals	Exploration leading to exploitation of large mineral bodies
Mines Development Department	Government	Control of exploration and mining
ZCCM	Parastatal	Mining of copper, cobalt lead and zinc
Maamba Collieries	Parastatal	Production of coal
Crushed Stones Sales, Kapiri Glass Products, Chilanga Cement etc	Parastatals	Exploitation of local raw materials for domestic manufacture
Mindeco Small Mines	Parastatal	Exploitation of industrials minerals and gemstones in small operations.
Small scale miners	Co-operatives, companies and individuals	Exploring and mining of commodities to be sold (initially) on the domestic market
Mines Safety Department	Government	Monitoring of mine safety
National Council of Scientific Research	Statutory Body	Experimentation with raw materials towards development of practical local application technology
MEMACO, Reserved Minerals Corporation, Kariba Amethyst Marketing,	Parastatals	International marketing of Zambian mineral and metal commodities
Zambia Emerald Industries Ltd	Parastatal	Processing of gemstones for international market
Moore Potteries, Dunlop, Nitrogen Chemicals, Zamefa, etc	Private and Parastatals	End users of domestically produced minerals and metals

PRICES AND INCOMES COMMISSION

PRICE POLICY AND INFLATION IN THE 1980s

By

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PRICE POLICY AND INFLATION IN THE 1980s

INTORDUCTION

Price controls have been the official price policy that has regulated the price mechanism for most of the period that Zambia has been independent. Of central concern has been the need to control inflation and the perception that the price control policy offers the best strategy against inflation. On the other hand, a liberalised price policy has been perceived as being inherently inflationary as it gives business houses the ability to set prices at will.

The concern with inflation arises from the fact that high rates of inflation quickly erode the incomes of the citizens of a nation. Wages and other forms of earnings fail to rise fast enough to match the skyrocketing prices. It also robes firms the ability to plan and rationalise their business activities. There is a loss of business confidence in an inflationary atmosphere that discourages new investment. Galloping inflationary rates also tend to fuel capital flight because residents find their wealth safer kept in foreign banks than in the domestic banks where it is denominated in a local currency whose value is fast being eroded.

Thus there is strong justification to view a price policy that would enhance rather than abate galloping inflation with revulsion. It appears that this is the view that most people hold against a liberalised price policy. But since the decade of the 1980s saw Zambia move between price control and decontrol policies in a seesaw fashion we have an opportunity to see the effect of these two policies on inflation. Are price controls the best and effective instrument to contain inflation ? What does Zambia's experience in the 1980's reveal ?

In trying to answer these questions, the paper tries to make a brief outline of the economic policies pursued in the 1980s viz-a-viz price policy. Statistics on inflation are reviewed to see how the rate of inflation responded in the periods in which the different (alternative) policies on price were pursued. It is concluded that the price control policy was not effective in curbing inflation when it was applied between May 1987 and May 1989. But the liberalised price policy that preceded it was equally inflationary. The loose monetary policy pursued throughout most of the decade appears to be the adequate explanation of most of the inflation experienced in the 1980s. In the light of this explanation, the paper makes a submission that the current liberalised price policy being pursued is likely to contain inflation because of the measures to restrain money supply.

2. THE PRE - 1987 STRUCTURAL ADJUSTMENT PROGRAMMES

Between 1978 and May 1987, Zambia pursued varying structural adjustment programmes under the supervisor of the IMF and the World Bank. These programmes seemed to have prefered price liberalisation rather than price controls. The background to the introduction of structural adjustment programmes is the 1970s economic problems that Zambia started experiencing. These forced the country to seek assistance from the IMF and the World Bank. The programmes were initiated in 1978 when Zambia concluded a two year stabilisation programme that had three basic aims:-

(i) to restrain growth in demestic demand through limitation of deficit financing of the Government budget and the mining industry;

(ii) to encourage production through progressive reduction of payment arrears which were inhibiting the inflow of imports and contributing to inflation and foreign exchange shortage through penal rates of interest; and

(iii to discourage imports and stimulate exports by the devaluation of the Kwacha.

Various other agreements with the IMF were concluded and had similar objectives. In 1982 Zambia initiated a gradual removal of price controls under these structural adjustment programmes. But it appears that Zambia had difficulties with the application of the IMF programmes even in the early 1980s because she failed to meet the IMF's quantitative performance criteria especially with the reduction of the budget deficits. Thus Zambia could only partially draw upon the 1981 Extended Fund Facility and the 1983 stand-by Agreement. Zambia argued that the full application of the IMF's prescription was having adverse social effects on the population, especially the vulnerable groups.

Perhaps the most extensive structural adjustment programme that Zambia embarked on before 1st May, 1987 was the stand-by agreement initiated on 21st October, 1985 which had the following prescribed policy measures:

(i) devaluation of the kwacha;

(ii) price and interest rate liberalisation

(iii) import liberalisation

(iv) reduction of the role of development planning and making the Government budget as the major instrument of managing the economy;

(v) reduction of government expenditure by the removal of subsidies;

(vi) reduction of the overall government budget deficit;

(vii) Privitisation of state owned enterprises.

The Zambian Government implemented the measure to devalue the Kwacha through weekly auctions of foreign currency - which saw the kwacha depreciate from K2.38 per US$1.00 in September 1985 to K21.00 per US$1.00 in April, 1987. The Zambian Government appeared unsatisfied with the results of the application of the October 1985 stand-by agreement with the IMF and World Bank. It pointed out that the whole policy prescription seemed to have created a situation of growing unemployment, galloping inflation, rising malnutrition, a sharp upturn in the mortality rate as hospitals failed to import essential drugs and other requisites necessary to support life and general disintergration of Zambia's social fabric. With this explanation, the Government abandoned the structural adjustment programme on 1st May, 1987 and ushered in the New Economic Recovery Programme which aimed restructuring the economy through administrative means.

3 THE NEW ECONOMIC RECOVERY PROGRAMME

The New Economic Recovery Programme that replaced the free market system had two main objectives:

(i) To manage foreign exchange as a strategic resource by allocating it to designated high priority sectors; and

(ii) To stabilise the economy by controlling inflation

NERP contained five basic policy measures to achieve the above objectives:

(i) Limiting external debt servicing to 10% of net export earnings on all existing loans.

(ii) Introduction of stable exchange rate of the kwacha by fixing it at K8.00 to US$1.00. This measure cancelled the auctioning of foreign currency.

(iii) Introduction of price controls and a price freeze on all products with interest rates fixed at 15% with a 5% margin. Collective bargaining was reaffirmed as a measure determining wages and conditions of service.

(iv) Restrictions of the No Funds involved imports permits to imports of essential consumer goods inputs and machinery not available in the country.

(v) Restructuring the economy to raise capacity utilisation of selected sectors and industries within those sectors and improve the productivity of the economy. The short-term priority were sectors producing essential and basic needs goods.

In applying the price control policy, twelve basic goods were designated controlled commodities. The list was later extended to eleven other commodities at a later date. All the other goods that escaped this list came under a general price freeze.

The Prices and Incomes Commission (PIC) was given the responsibility to oversee the Price control policy. To increase the price of a controlled commodity, a company had to apply to PIC which conducted a cost audit to determine the validity of the application. If the price was found genuine,PIC would then recommend the price to the Minister of Commerce and Industry that the price be approved. The Minister later gazzeted the price change. For the other products under the price freeze, it was only enough to obtain ratification from PIC before raising the price.

4 PRICE POLICY AND INFLATION

Having dicussed the outlines of policies pursued under a free market system and an administrative market system it is important that we examine their effectiveness in curbing inflation in the periods in which they were applied. Both the IMF/World Bank structural adjustment programmes and the New Economic Recovery Programme put a lot of emphasis on controlling inflation. But how did they perform ?

An examination of the trends in year - on inflation provides some insight to this question. Table 1 gives the annual rates of inflation between 1981 and 1989. It is clear from the table that by the turn of the decade inflation in Zambia had started assuming significant proportions as it became double-digit. The rate of inflation was 12.5% for the low-income group and 13.7% for the high-income group in 1981/82. The table indicates that inflation had started entering unmanageable margins by the middle of the decade. From 18.2% and 19.5% for the two respective income groups in 1983/84 it jumped to 38.0% for the low-income group and to 31.9% for the high-income group. By 1985/86 galloping inflation had become a permanent feature in the Zambian economy and has been mostly above 50%.

It is clear from the table that the period of the October stand-by arrangement with the IMF that brought about a complete price liberalisation saw an intensification of inflation. It is important to note that inflation in this period was more for the high-income group. The explanation for this lies in the depreciation of the Kwacha that came with the auctioning of the foreign currency.

Goods with very high import content had their prices move higher. The high-income category is more affected by this kind of goods than the low-income category.

TABLE 1

YEAR-ON INFLATION RATES FOR THE LOW AND HIGH INCOME GROUPS BASED ON THE CONSUMER PRICE INDICES (1981-89)

PERIOD	LOW-INCOME GROUP	HIGH-INCOME GROUP
SEPT' 80-SEPT'81	14.6	11.5
SEPT' 81-SEPT'82	12.5	13.7
SEPT' 82-SEPT'83	14.2	13.4
SEPT' 83-SEPT'84	18.2	19.5
SEPT' 84-SEPT'85	38.0	31.9
SEPT' 85-SEPT'86	51.5	66.6
SEPT' 86-SEPT'87	52.0	57.2
SEPT' 87-SEPT'88	50.7	41.1
APRL' 88-APRL'89	85.7	67.7

Source; Central Statistics Office, Consumer Price Statistics, Various issues.

It is also obvious from table 1 that the period of price controls although had the main objective of curbing inflation failed to bring the rate down. By April 1989 inflation had moved up to 85.7% for the low income group and 67.7% for the high income group. The strange development during this period is that inflation went up higher for the former than for the later. This is inspite of the fact that the goods under price controls had more weight in the low-income groups consumer price index than in that of the high income group.

The Statistics indicate that the poor had their standards of living more adversely affected than people in the high income category during price controls. The actual rates of inflation for the low-income group should have been more than what the official record shows because this group relied more on the black market.

Besides not having the intended effect on inflation, the policy of price controls introduced an element of erratic supply in the economy as it robbed firms the ability to revise the prices of their products with the necessary speed and flexibility as production costs changed.

Although the institutions involved in the implementation of price control policy responded with good speed the procedure of applying for price changes was inevitably slow. There was an inevitable time lag between the change of cost of production and the time the new price was finaly approved. This forced some firms to operate at a loss as the process of price approval was going on. The firms ability to generate and plough back profits to finance new investments and expanding production was robed.

From the Statistics examined above it can be concluded that both the liberalised and control price policies failed to have the desired impact on the rate of inflation. Instead inflation surged on throughout the decade inspite of Zambia's experimentation with both policies. This is enough evidence that the cause for inflation could not be found in the price policy being pursued at any particular time. Instead explanation should be sought elsewhere.

In trying to explain the impotence of price controls the Progress Report on the Interim National Development Plan cited the low capacity utilisation as the main cause of inflation. Firms produced at much less than half of their installed capacities creating shortages and laying a fertile ground for price hikes. Thus the progress Report saw supply bottlenecks as the main explanation of inflation during the period of price controls.. This explanation, however, also applies to the period when prices were allowed to freely seek their own ceiling. Low capacity utilisation that has resulted mainly from the shortage of foreign exchange to bring in the required production inputs had been a problem right through the whole decade.

But it is impossible for scarcity to be translated into inflation of demand remains low. After all scarcity means that demand is excessive at that point of supply. Thus attention must also be given to the demand side of the issue.

Throughtout the 1980's money supply in Zambia remained very high. Whereas in the 1970s the annual percentage changes in money supply (M1+M2) plus quasi-money was mostly although not always kept below 20%,the case had been different for the 1980s. The rate of change stayed mainly above 20%. The percentage change between May 1986 and May 1987 was 78.6% for M2 alone. This was reduced to 42.7% between May 1987 and May 1988 according to some calculations. Although this decline is substantial it still remained very high. It is clear from this that expansion in money supply was the main cause of excessive demand in the 1980s which in turn fuelled inflation. Milton Friedman's dictum,"Inflation is always and everywhere a monetary phenomenon" remained true in the case of Zambia.

5 THE JUNE 30TH PRICE LIBERALISATION AND THE FIGHT AGAINST INFLATION

After the New Economic Recovery Programme failed to achieve the stated objective of reducing inflation the Government on the 30th of June, 1989 decided to take the following measures:

(i) decontrol prices on all goods and services except on mealie meal

(ii) devalue the kwacha from K10 per US$1 to K16 per US$; and

(iii) raise interest rates.

The measures taken on 30th June also included a raise in the salaries of employees in the formal sector pegged at 30% and 50% for high and low wage earners in the Government while private and parastatal companies were to raise salaries according to their ability to pay. The measures were later followed by a demonetisation exercise that replaced the old kwacha notes with new ones. The exercise was held in a period of only ten days and helped to bring out large sums of money held out of the banking system and gave the Government a historic opportunity to have effective control over money supply. The Central Bank has ever since followed this up with various measures to curb money supply by restricting commercial banks ability to extend credit.

In the wake of the 30th June Presidential announcement the immediate impact was to send prices skyrocketing. This appeared to confirm the widely held belief that price liberalisation is inherently inflationary. But the whole package taken if seriously adhered to by the Government offers Zambia the hope of reducing inflation to a single digit rate by the mid of 1990 decade. Certain considerations ought to be taken into account when analysing the impact of the measures on inflation.

It is important to differentiate between real price increase and prices of goods in the authorised retail shops. One characteristic of the period of price controls was the fuelling of the black market. Goods were quickly snapped from authorised retail shops and later resold on the black market where people paid as much as four times the official price. But these prices were difficult to capture in official statistics. After the liberalisation of prices for most essential goods the increase in prices was not outrageously different from that which the black market had already been charging. The black market has been drastically reduced in the wake of price liberalisation. Although statistics are yet to be compiled, there have been indications that prices somewhat stabilised in the later part of 1989. It is too early to be optimistic but this might be taken to indicate that the June 30th measures are already having a desirable impact on inflation. The reason is that the measures as a whole are deflationary.

The Government has shown a resolute determination to cut down drastically on money supply. This should severly reduce effective demand and hence pressure on prices.

But we must be quick to point out that caution should be taken so that the supply of money is not reduced to a point where the whole economy is thrown into a severe recession. Parallel to the efforts to reduce money supply must be measures that help directly to boast production by applying the available resources most efficiently. There is need in this regard to encourage competition in all markets of the economy.

A big area of concern in this environment of a liberalised pricing system is the dominance of monopolies in the Zambian economy. Most of the present monopolies were created with the 1968 reforms which had the noble objective of giving economic power to the indigenous Zambians who at that time lacked the necessary capital. These are not the conditions ruling at the moment as thereare many Zambians with both capital and managerial skills. It is necessary that we take drastic measures to reduce the monopolistic dominance. All statutory restrictions that prevent investments in certain markets must be urgently repealed. The Government must also investigate ways that would make it easy for companies to raise the required capital. A good measure worth considering is the establishment of a stock exchange market. This will allow the private sector to grow to compete effectively with parastatal companies.

6. CONCLUSION

Both policies of a liberalised pricing system and price controls proved ineffective in curbing inflation. This is because a pricing system can never be the instrument to fight inflation. It was impossible for a pricing system to have had a favourable impact on inflation in an environment of loose monetary policy. The Government having realised this has now taken measures to restrict money supply while allowing prices to find their own levels. This strategy is likely to prove more effective in fighting against inflation than price controls. But there is need to accompany this strategy with measures that have a direct effect on production to boast the supply of goods.

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NATIONAL WORKSHOP ON INDUSTRIAL STRATEGY

COMMERCIAL BANK'S AND INDUSTRIAL FINANCING IN ZAMBIA

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COMMERCIAL BANK'S AND INDUSTRIAL FINANCING IN ZAMBIA*

Most developing countries are experiencing a massive deterioration of the international terms of trade. Whilst the prices of the manufactured goods from the North are rising, those of the export commodities from the South have been declining. Nonetheless, experiences in the South-East Asian block, which has achieved spectacular strides in industrial development are increasingly being seen as the most appropriate steps to follow. Though Zambia is basically an industrial country, in the sense that the mining sector still accounts for more than 90% of the foreign exchange earnings, the mode of mineral trading is still in the raw form, i.e. commodity state. Hence, like any other developing country, Zambia needs to put a lot of attention at the diversification from copper and indeed at the development of the industrial sector. Consequently, other support services, like banking, should be expected to play their part.

HISTORICAL BASIS

In another study (Banda, 1989) it has been shown that credit policies, and indeed the nature of the financial structure, is a manifestation of the economic orientation of a particular economy. In this regard the credit policies of Zambia are also a legacy of the economic policies of the colonial period, and those that are being pursued by the independent government since 1964.

At the turn of the century, the business community, largely relied on credit services based in South Africa and Southern Rhodesia (Zimbabwe). The first commercial bank service was introduced by Standard Chartered Bank in 1906. Barclays Bank came in 1918 and Grindlays Bank International in 1953. Thereafter, there has been a steady increase, in the number of commercial banks, which has been heightened in the late 1980's (Table 1).

* The views expressed in this paper, and indeed their interpretation, do not in any way reflect the official view point of the Zambia National Commercial Bank Limited.

The commercial banking sector in Zambia (from the colonial period) developed in response to the financial requirements of the mining industry and the support satellite activities which provided goods and services to the principal economic sector (mining). The white settler farming community and the Asian trading sector all fall under the latter category. This business framework was reinforced by the colonial government policies which discriminated against the indigenous population and those activities which were seen not to be compartible with the colonial government economic hegemony. Hence it was a clear case of financing export - import production and trade enclaves (Seidman, 1974; Jucker-Fleetwood 1964).

The operations of the banking sector followed similar lines. In o.der to consolidate the pattern, the colonial government established sector financial institutions to provide investment capital. In 1953 the Land and Agricultural Bank and the Industrial Loans Board were created. These institutions aimed at giving start-up capital to white settlers who could invest either in the agricultural or in the industrial sectors, respectively.

Soon after independence the name and orientation of the Land Agricultural Bank was changed into Credit Organization of Zambia with a mandate to provide loans only to indigenous Zambians. Earlier on, the Industrial Loans Board has also gone through some changes. The name was changed to Industrial Development Corporation (INDECO). Instead of promoting private entreprenuership, INDECO started to invest directly into industries. This was mainly due to the limited in-roads that the ingenous businessmen had made in industrial establishment and of course the limited exposure to industrial management as compared to the running of grocery shops and agricultural produce broking. Indeed, this orientation was enforced in the 1969 Economic Reforms, in which the state took over a number of foreign owned companied and turned them over to INDECO to run.

In an effort to promote indigenous industrial entreprenuership the government established the Industrial Finance Company, Development Bank of Zambia, Small Enterprises Promotion,Village Industry Services and other facilities like the Industrial Estates in the

Provinces, Credit Guarantee Scheme. Indeed, support has also been given to the Non-Government Organization fraternity to include credit components in their development programmes.

These institutions were created because it was realised that in spite of the existence of the commercial banking sector, their conventional operations do not confirm to the industrial development goals of a developing country like Zambia. In normal circumstances, the commercial banking sector just specialises in the provision of short-term working capital for the day-to-day operation of the industry. Some of the most common facilities provided by banks are the following:

1. Overdraft Facilities

   Overdrafts are a means of providing finance on an operating account for the working capital requirements of a client. These facilities normally run for a period of twelve months.

2. Loans

   Commercial banks normally offer short and medium term loans. The former run for a period of two years whilst the latter run for three to five years. With the involvement of other banks, it is common to arrange consortium loans, which normally tend to be for medium and long-term financing facilities.

3. Letters of Credit

   The purpose of a letter of credit is to finance the importation of goods and services. When a letter of credit is issued on behalf of a customer the Bank is committed to honouring all drawings which are in accordance with the terms of the credit.

   The main conditions are that the bank should take security to guard against unforseeable risks and that there should be exchange control approval from Bank of Zambia.

4. Guarantees

   Bank guarantees are issued to enable clients to receive their supplies without production of bills of lading or parcel receipts before goods are paid for. The main conditions of this service are that the liabilities of the bank should be discharged by payment of a specified sum of money and the expiry date of the guarantee should be specified.

5. Leasing

Leasing is a new form of credit which is becoming increasingly popular in Zambia. A lease is a contract between the Bank and its client to hire a specified item which the Bank retains ownership and the client possesses the right of usage of the asset upon payment of rentals over a period which normally run for three years.

In a lease agreement the bank does not demand any security since it retains title over the leased item. However, the bank has to be satisfied with the integrity of the customer.

In the first three years, i.e. primary period, the customer pays fixed monthly rentals to the bank. The lease can be extended for two more years, i.e. secondary period. In this period the leasee pays his rentals in two instalments of 1% of the total cost of the leased item. Thereafter the leased item is to be sold to a third party. During the life of the lease the leasee meets the running cost, including maintenance and repair as well as meeting the insurance cover. Banks expect the leasee to submit annual accounts of the operations of the enterprise in which the leased item is utilized.

There are a number of advantages for a leasing facility. On the part of the leasee, the facility avoids the need for heavy cash outlay which could have been used for outright purchase of the leased item, since the Bank finances 100% of the total cost of the item. In view of the technological changes, the leasee if afforded an opportunity of replacing the equipment at the end of the primary period. The facility also affords greater tax relief because rental paid out is charged against pre-tax profit. On the other hand a lease facility enables commercial banks to go beyond the normal working capital provision. Since the bank can now marshal resources for the financing of equipment and machinery and still expect to be repaid within a short period of time. Hence circumventing the long lead time that could have been required if a medium or long term loan facility had been given.

The major drawback of the leasing facility in Zambia, is that in almost all cases, the required item has to be imported. Due to the scarcity of foreign exchange, in Zambia, the usage of this facility is limited. On the part of the leasee this facility does not bestow ownership of the equipment, thus limiting the the leasee's flexibility to dispose of the equipment. Though rentals are made there is no inculcation of the spirit of ownership. Hence, there could be laxed in proper usage and maintenance of the leased equipment.

RELATIONSHIPS WITH OTHER RELEVANT INSTITUTIONS IN FINANCING INDUSTRIAL PROJECTS

In normal circumstances, commercial banks, merely provide facilities for working capital purposes only. Investors are expected to obtain medum and long term loans from investment financing institutions, like Development Bank of Zambia. Other non-bank finance institutions like Zambia State Insurance Corporation, Zambia National Provident Fund, Workmens Compensation Fund, etc, at times also provides investment finance to big industrial projects.

In the provision of credit to operating or new companies, banks request and accept guarantees from conglomerates or holding companies. It is quite common, in Zambia for ZIMCO and INDECO to provide guarantee cover for loans obtained by their subsidiary companies. The same applies for reputable companies in the private sector.

In Zambia there has also cases where a number of banks come together to finance large industrial projects. In such a case the financing package is apportioned amongst the participating banks according to capability. It is also common for the government through the Ministry of Finance and National Commission for Development Planning, to guarantee loans of some state owned statutory companies.

STRENGTH OF COLLABORATION

Collaborative financing is advantageous in a number of ways. The participating institutions finance only that portion of the project in which they have special expertise (Jucker - Fleetwood, 1964). For example, investment banking institutions have the expertise and experience to appraise a long term loan whilst a conventional

commercial bank only specialises in short term working capital requirements. A merchant bank can also be involved in the arrangement of foreign financing .

In the case of consortium loans, large sums of money can be mobilised and made available to finance large industrial projects without putting undue pressure on the financial capabilities of the participating banks.

The involvement of conglomerates, in the absence of permissable security by the principal borrower, gives banks assurance that in case of default the banks will have recourse to the guarantor. Nonetheless, banks prefer such guarantees to be supported by tangible securities.

WEAKNESSES OF COLLABORATIVE BANKING

In cases where different financial institutions participate in the financing of industrial projects, sharing of security poses major problems. Most financial institutions fo not accept the sharing of securities pari-pasu. And they do not easily accept second or third legal mortgages because of the bottlenecks associated with such securities. Where a bank accepts a second legal mortgage it is feared that it could end up losing, in case of a default, to first legal mortgage holders advante.

conglomerate guarantees have their own porblems. They tend to be too bureacratic and tedious. Even where the government is involved, it is normally very difficult to recover dues in time.

MAJOR BOTTLENECK IN INDUSTRIAL FINANCING

In spite of the myriad facilities that commercial banks provide to the business sector, their financing capabilities are severely impaired by the import dependent structure of the Zambian economy. The most profound bottleneck is the scarcity of foreign exchange. Taking the case of the Zambia National Commercial Bank, for instance whilst the proportion of industrial exposure was 62.2 per cent in 1980/87 by 1984/5 it had come down to 25.9 per cent and by 1988/9 it was down to 14.8 per cent. This trend has got nothing to do with

the bank's attitude towards the industrial sector considering that as a state owned bank it has to work closely with other companies in the ZIMCO conglomerate. The basic problem is the import dependent structure of the Zambia industries and also the scarcity of foreign exchange which has deteriorated in the last few years.

The only options which can lead to an enhancement of the commercial banks exposure to industriy is either to localise industrial requirements or to put more efforts in the promotion of foreign exchange earnings, or both. The Zambian govenment is already putting a lot of attention at the promotion of non-traditional exports as a way of supplementing mineral exports earnings. The industrial sector s also expected to contribute by reducing upon their imported industrial requirements.

SUMMARY AND CONCLUSION

In this paper an attempt has been made to look at the historical development of the Zambian commercial banking sector. The services that the banks provide have been described. The paper has also shown the advantages and weaknesses of collaborative banking. In the last part the paper tries to highlight that the major limitation of commercial bank exposure to the industrial sector is the import dependent structure of the economy and the scarcity of foreign exchange. It is suggested that the only option of enhancing industrial financing is the localisation of industrial requirements.

TABLE 1 PROFILE OF THE EXISTING COMMERCIAL BANKS IN ZAMBIA

NAME	YEAR OF OPENING
1. Standard Chartered Bank	1906
2. Barclays Bank	1918
3. Grindlays Bank International	1956
4. Zambia National Commercial Bank[1]	1969
5. National Savings and Credit Bank[2]	1970
6. Citibank	1980
7. Bank of Credit and Commerce	1982
8. Indo-Zambia Bank	1984
9. Meridien Bank	1984
10. African Commercial Bank	1985
11. Export and Import Bank	1987
12. Lima Bank[3]	1987
13. Finance Bank	1988
14. Capital Bank	1988
15. Manifold Investment Bank[3]	1988

NOTES

1. Formed through the amalgamation of the Commercial Bank of Zambia the National Commercial Bank.

2. Operates through the network of the Post and Telecominications Corporation.

3. Operates like any other conventional Commercial Bank.

TABLE 2 ZAMBIA NATIONAL COMMERCIAL BANK INDUSTRIAL EXPOSURE 1980/81 - 1988/9

YEAR	TOTOAL ADVANCE (K million)	TOTAL EXPOSURE TO INDUSTRIAL SECTOR (K million)	PERCENTAGE EXPOSURE TO INDUSTRIAL SECTOR
1980/81	170.7	27.7	62.2
1981/82	208.4	56.7	27.2
1982/83	261	68.8	26.4
1983/84	317.2	62.9	19.8
1984/85	374	98.3	25.9
1985/86	416	102.3	24.6
1986/87	713	99.9	14
1987/88	1024.1	153.2	14.9
1988/89	1225.3	181.74	14.8

SOURCE: ZNCB, LUSAKA 1990.

THE ROLE OF THE BANK OF ZAMBIA AND OTHER FINANCIAL INSTITUTIONS IN FINANCING INDUSTRIAL DEVELOPMENT

by

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PAPER PRESENTED AT THE NATIONAL WORKSHOP ON INDUSTRIAL STRATEGY ORGANISED BY THE MINISTRY OF COMMERCE AND INDUSTRY IN CONJUCTION WITH UNIDO

1. INTRODUCTION

Generally the role of a Central Bank in a 'developing' country like Zambia significantly differs from the role a Central Bank plays in a developed economy.

In a country like Zambia, the Central Bank's role has to be thought of quite differently given the existing financial system which has yet to evolve to a stage reached by the currently classified 'developed' industrial countries. As against the orthodox central banking functions, the role of the Central Bank in Zambia cannot be restricted to that of a regulator in that, the institutions to be controlled and credit system to be regulated have still to evolve to necessitate a regulator. In this regard, the Bank of Zambia's role has to be conceived in the context of evoiving a sound financial infrastructure conducive to rapid economic development. It is the Central Bank that has to take the lead in evolving the Credit Institutions instruments and yield structure that are essential for the efficient mobilisation of savings; and the allocation of resources consistent with the outlined development objectives. This developmental function need is performed in such a way that the Central Bank still maintains close, continuous and active contact with the Credit system so essential for the success of its regulatory function.

Having noted, briefly, some of the pertinent issues with regard to Central Bank's role from a developing country's perspective, it becomes inevitable that from the very outset we bear in mind the fact that the Bank of Zambia is not a promotional institution and as such it hardly carries out any direct promotional contact with any specific sector. The Bank's role primarily assumes a macro-economic dimension in that, it being the custodian as well as implementor of the country's monetary policy, any benefits which a sector may enjoy as a result of Bank of Zambia's policy initiatives has to be in line with the overall Monetary policy being pursued at the time.

What this implies is that the Bank of Zambia primary allegiance is to the overall Monetary Policy the country is pursuing rather than to the development or promotion of any specific sector, be it industrial or otherwise.

2. THE ROLE OF THE BANK OF ZAMBIA IN FINANCING INDUSTRY

In Zambia, as is the case in most countries, commercial banks are the principal mobilisers of savings and as such they are the ones who should be in the fore-front in meeting the credit needs of various sectors for financing investment projects. With their nationwide network, it is the commercial banks which have close and intimate contact with agriculture and industry as well as the capacity to meet the term credit needs of these sectors. In this regard, the Central Bank's policy instruments to affect the cost as well as availability of credit would be much more effective if they are directed through the commercial banks.

Three factors, amongst others, are vital to any Central Bank's ability to regulate and influence the targeting of credit to preferred sectors. These include, the policy instruments available to the Central Bank, the extent of reliance of the specific sector on bank credit, and the dependence of commercial banks on Central Bank assistance.

The policy instruments used by the Bank of Zambia have generally been based on administrative controls of one form or another depending on the overall monetary policy being pursued at the time. In the past few years, extensive reliance has been place on the use of minimum reserve requirements. These requirements on which no interest is paid presently stand at 35 percent for demand deposit, and 26 percent for time and savings deposits. There is also in force a statutory liquid assets ratio that is presently set at 55 percent. The Bank of Zambia also sets maximum commercial bank lending and minimum savings rates, which at present stand at 35 percent and 23 percent respectively, all other commercial bank rates are negotiable.

2.1. STRUCTURE OF COMMERCIAL BANKS ADVANCES

Table 1 in the appendix shows the percentage share of total advances accruing to various sectors over a period of 19 years from 1970 to 1988. Clearly, the table reflects a relatively healthy picture in that manufacturing has been accounting for quite a reasonable share of the total advances to the private sector.

The percentages in table 1 indicate a general declining trend over the period up to 1983 when the trend began to show an upturn. During the 10 years from 1970-1979 the manufacturing sector accounted for an average of 20 percent of the total commercial bank advances to the private sector. This compares unfavourably with the 17.2 percent on the average which accrued to this sector in the years between 1980 and 1988. A further breakdown into the five year periods beginning 1970 brings out the picture more clearly as this average percentage share the manufacturing sector was accounting for persistently declined from 21.4 percent between 1970-1974; to 18.6 percent between 1975-1979; and further to 15.4 percent between 1980-1984 before the five year average increased to 17.2 percent in the four years between 1985 and 1988.

Several reasons, other than just strict commercial bank lending conditions, could be attributed to this development. However, paramount amongst these is the availability of foreign exchange to the sector in that this has a direct bearing on the performance of the industrial sector in view of the sector's high dependance on imported inputs and spare parts.

The linkage between the quantum of advances accruing to the industrial sector and the availability of foreign exchange could be viewed from the side of demand for credit by the sector. Since the bulk of the sectors inputs in terms of raw materials and other spares are imported, the effective demand for credit will be determined by how accessible this sector is to foreign exchange. This is so in that most of the demand for advances from commercial banks by firms in this sector would be made to enable these firms finance the purchase of foreign exchange to facilitate the importation of raw materials and other inputs as well as the replacement of machinery.

To some extent this view is supported by the trend implicit in table 1. As the table indicates, the declining trend in the share of credit to the industrial sector become more pronounced in the post 1974 era which witnessed a progressive contraction in the economy as a result of the reversal of the favourable trends which marked the performance of the mining sector up to 1974. This was the period when the country's export earnings were declining rapidly in view of the decreasing price copper was fetching at the London Metal Exchange. The reduced export receipts meant a contraction on the import bill. Consequently, those sectors highly dependant on imports, of which the industrial sector is one, were negatively affected. In line with this, effective demand for credit by the industrial sector became affected since, as noted earlier, this demand is directly linked to availability of foreign exchange.

However, as the table indicates, the picture slightly changes from 1984 onwards when the manufacturing sectors share began to increase. The sectors shares increased to an average of 19.4 percent in the four years between 1985 and 1988. This period (beginning October 1984) reveals a period when the country's policy developments made it relatively easier for firms in this sector to have access to foreign exchange. Two major policy developments characterise this period. Firstly, this was the period during which the Auctioning of foreign exchange was introduced; secondly, this period also witnessed the launching of the New Economic Recovery Programme (NERP) on May 1 1987 after the Auction of foreign exchange was discontinued.

During the Auction system, the bidding system enabled firms with enough Kwacha cover to compete effectively and hence have access to foreign exchange. Before the Central Bank baned firms from getting commercial bank loans/overdrafts for this purpose, it was relatively easier for firms to get credit specifically for bidding purposes. This practice to a certain extent had a positive impact on the quantum of advances accruing to the manufacturing sector during this period.

On the other hand, the NERP set a limit on external debt servicing to 10 percent of the country's net export earnings after the foreign exchange requirements of ZCCM, ZIMOIL, Zambia Airways and Fertilizer imports were taken into account. This measure according to the NERP, was meant to reactivate the economy in that the balance remaining after the 10 percent for debt service deduction, was to be 'ploughed back into productive ventures'.

The Foreign Exchange Management Committee (FEMAC) was assigned the task of deliberately biaising the allocation of foreign exchange to predetermined priority areas, Ranking high amongst FEMAC priorities was the manufacturing sector in general and those enterprises producing essential or basic goods for domestic consumption in particular. Clearly, FEMAC enabled a lot of firms in the manufacturing sector to have access to foreign exchange and it would not be surprising to note that a large number have had to resort to commercial banks for loans to finance their foreign exchange purchases.

From what is discussed above, it is clear that the advances pattern should not only be looked at from the restricitve nature of commercial banks loan appraisal methods, but should also be viewed as highly influenced, in the Zambian case, by the lack or availability and accessibility to foreign exchange which has a direct bearing on the effective demand for credit by the industrial sector.

2.2. LINKAGE BETWEEN BANK OF ZAMBIA AND OTHER FINANCIAL INSTITUTIONS IN FINANCING INDUSTRY

In Zambia, our development plans have been for a long time reflecting industrial development as one of the major priority areas, and of late emphasis has been specifically on the development of Small Scale Industries.

One problem that Zambia has faced especially in the post 1974 era has been the scarcity of domestic capital in relation to the size of investment required to achieve high and self sustaining rates of growth in the industrial sector. Generally, industrial enterprises both large and small suffer from similar handicaps in that they lack the technical skills and access to technological information and capital. Additionally, industrial enterprises have difficulty in acquiring machinery and raw materials which mostly have to be imported. These problems are compounded by the limited access to foreign exchange enterprises have. However, of all the problems, the difficulty which such enterprises have in obtaining credit has been identified as the most serious handicap faced by enterpreneurs more so those in the small scale industry category in that it limits their ability to obtain the services necessary to operate their enterprises. A small scale enterepreneur needs capital to acquire machinery equipment and factory premises as well as for the day to day management of the business.

This has mainly been because, even though financial institutions do realise the importance of this sector, they are compelled to only assist in a way conducive to their own viable existence. To ensure this, they have laid down a strict criteria which they adhere to when considering the eligibility of an applicant for loan facilities. This small enterprises normally fail to satisfy.

The obstacles to the financing of such enterprises are thus well known. Besides the general scarcity of financial resources which affect industries of all types and sizes, commercial banks are reluctant to grant loans because the risks of lending to small and weak enterprises are relatively higher. The means of overcoming these obstacles are either to create public financial institutions with sufficient resources and libral lenaing policies or to ensure the cooperation of commercial banks through Credit Guarantee or Insurance Schemes. In either case the condition for effective operations is that technical and managerial assistance must be closely linked to financial assistance both at the stage of applications for loans and at the stage of use of funds.

In this regard, the main concern of a country like Zambia should therefore be to develop appropriate channels for mobilizing capital from outside the industrial sector for use by industrial enterprises to supplement reinvestment of profits from this sector.

To ensure an adequate supply of financial resources for industrial development in the private sector, the main need is to provide an appropriate set of financial institutions and ensure that they have adequate resources at their disposal. However, not only must sufficient volume of finance be made available it must be made available in appropriate forms. The promotion of industrial development in the sector requires an adequate supply of risk capital in the form of equity investment, long-term loans to finance the purchase of fixed assets and short or medium-term loans to finance inventories and other working capital requirements.

To ensure the sufficient supply of risk capital in the form of equity investment, the government through its policies has tried to create conditions in which investment in the industrial sector is more attractive than other forms of investment such as trade, and real estate. A group of incentive measures have often been used for this purpose. The government through

the Bank of Zambia have been trying to encourage commercial banks and other financial institutions to lend a sufficient proportion of their resources to the industrial sector, through establishment of schemes such as the Credit Guarantee Scheme. For the large enterprises, recourse is normally made to some other specialised financial institutions such as the Development Bank of Zambia which often supply a major part of the fixed capital required in view of the unwillingness by the commercial banking system to supply industrial enterprises with long-term loans. Such institutions play a major part not only in supplying finance, but also in promoting and follow up on the implementation of new industrial projects.

2.3 THE CREDIT GUARANTEEE SCHEME

Commercial Banks have generally been reluctant to extend finance to small scale industries due to the relatively high risk involved in lending to small units. The security offered is often inadequate, the loans are modest in size, and the cost of processing them is relatively high. Small enterprises are generally inefficient in their accounting and book-keeping and often find it difficult therefore to satisfy the lending conditions of commercial banks. Commercial banks also tend to adopt a conservative attitude in assessing the credit worthiness of Small Enterprises and are inclined to impose more strict conditions on advances to them.

In view of these constraints faced by the Small Scale Industrial Sector, and to effect the government objectives, it was felt that a non-traditional approach to institutional credit was required. It was invitable that a special system be developed to address complex problems of offering credit to a large number of small scale idnustries who lack collateral security and need only small amounts of capital on a timely basis. It was thus necessary for the government to give inducement to credit institutions to advance loans on more libral terms to small enterprises. This was seen as a more useful and effective arrangement than for the Government to assume direct responsibility for credit assistance. The Credit Guarantee Scheme concept was thus adopted. The scheme was primarily established to create a healthy financial environment to enable commercial banks provide credit facilities to the otherwise financially starved small-scale enterprises. In view of the commercial banks insistence on particularly collateral security, it was felt that the scheme could substitute this by offering a guarantee on a

substantial portion of both the principal and interest components of the loan such that the lack of tangible secuirty does not become too primary in the commercial banks advancement of credit to this sector. The Central Bank being the custodian of this country's monetary policy was the best placed institution to opercte such a scheme. Since central banks traditional functions give no aliowance for such operations, the Bank of Zambia Act was amended in 1985 to enable the Central Bank go into this kind of venture.

Since the amendment of the Bank of Zambia Act, various developements have taken place which have necessitated further amendments to be made to the Act. When the idea of the Credit Guarantee Scheme was initially conceived, emphasis was solely placed on those small-scale enterprises in the industrial sector engaged in manufacturing. Those enterprises in sectors like agriculture were considered to be adequately catered for in terms of credit fccilities and other production inducement incentives whilst those in the services sector were totally excluded from the scheme.

In view of these short comings, a further amendment was made to the Act in 1989 with a view to broaden the coverage of sectors benefitting from the scheme. As a result, the following changes have so far been made:

(i) The term enterprises now means an undertaking engaged in manufacturing, agriculture or in the provision of services;

(ii) A small scale enterprise now mears an enterprise having capital assets not exceeding one and half million Kwacha or such higher amounts as may be prescribed from time to time.

(iii) the guarantee cover is now 70 percent of the total loan amount or 70 percent of the amount in default.

(iv) the need for an enterprise to be registered with SIDO as previously required was rescinded and as such there is now no need for c SIDO or VIS recommendation

(v) Eligible financing institutions were increased to include the following in addition to those indicated in the Banking Act.

(i) Small Industries Development Organisation
(ii) Finance Bank Limited
(iii) Capital Bank Limited
(iv) Lima Bank Limited
(v) Development Bank of Zambia
(vi) Manifold Investment Bank Limited
(vii) Zambia State Finance Company

Since the scheme became operational, 88 applications have been received as at end of October 1989. These were valued at K6.57 million. Of these, 54 or 61 percent were approved with a total amount of K2.08 million or 34 percent of the total amount seeking guarantee coverage. The distribution amongst financing institutions of the successful applications is as follows:

Financing Institutions		No	%
(i)	Zambia National Commercial Bank	20	37
(ii)	Small Enterprises Promotion	30	55
(iii)	Standard Chartered Bank	2	4
(iv)	African Commercial Bank	1	2
(v)	Meridien Bank	1	2
	TOTAL	54	100

The major reason for rejecting the 34 other recommended projects was due to assets disqualifications in the sense that the total value of fixed assets for the affected firms exceeded the then stipulated limit of K250,000.00. The other reason was that of incomplete information on the applications submitted.

CONCLUSION

Having noted the significance of financial assistance to the development and enhancement of the industrial sector, it is important to bear in mind that, even though capital is considered to be a primary need for industrial progress, it must not be viewed as an end in itself. Project management does not only need financing but other factors necessary for a firms successful operational existence do exist. As such, promotional activities are needed to devise ways and means of ensuring that firms with access to finance are able to utilise it adequately and ensure sustinance of their projects. This makes the creation of promotional institutions necessary to direct enterpreneurs, especially those in the small-scale sector, on aspects concerning management, marketing, finance etc. Apart from this, for this nation to realise the objective of industrial development, practical efforts have to be made on improving the industrial envronment, especially the infrastructure which is indespensible for industrial and overall development. Inadequate infrastructure can prevent the establishment of new firms or even cripple the exisiting ones, particularly in the more remote areas of the country.

However, it is hoped that the creation of promotional and financing institutions such as SIDO, SEP, VIS etc. will, to some extent, contribute to the achievement of some of the development objectives addressed in this paper.

APPENDIX

TABLE 1

COMMERCIAL BANKS ADVANCES BY BORROWER GROUP AS PERCENTAGE OF TOTAL ADVANCES

End of Period	Agric	Manufac-turing	Mining & Quarrying	Building& Construc-tion	Transport Communi-cation	Financial Institu-tion	Personal Accounts	Other	Govern ment	Non-resident	Distri-bution
1970	e 55	27.15	3.13	13.85	3.24	4.18	8.01	9.37	0.24	0.16	25.00
1971	11.67	19.60	9.54	10.00	2.90	3.86	7.24	7.5	4.08	0.005	23.48
1972	5.37	18.80	15.00	6.75	2.74	5.47	8.04	9.10	4.31	-	24.06
1973	6.02	18.41	16.45	3.69	3.98	7.51	6.94	8.95	1.30	0.78	26.24
1974	6.00	22.84	19.73	2.55	3.86	1.66	8.02	12.77	3.10	0.43	18.97
1975	3.36	20.33	28.31	2.14	5.04	4.85	7.82	7.48	1.25	0.02	19.07
1976	3.05	20.64	24.13	2.43	5.12	3.60	7.40	11.62	3.75	0.008	18.28
1977	3.81	16.70	24.67	2.00	5.74	4.53	9.54	8.13	8.97	0.003	15.86
1978	5.76	18.99	12.51	3.10	13.64	2.54	10.58	13.34	5.63	0.009	13.85
1979	8.39	15.59	8.39	2.98	5.92	4.08	7.91	16.79	18.24	0.0005	15.99
1980	6.75	19.04	11.56	2.75	5.41	4.05	11.03	20.25	3.20	0.04	15.87
1981	13.50	11.35	17.40	1.74	6.0	4.28	7.43	18.80	3.00	0.011	16.44
1982	15.27	14.61	16.92	1.65	4.98	2.52	13.33	14.3	2.08	0.00017	14.29
1983	13.15	13.32	12.94	1.63	4.46	4.17	3.75	22.96	6.29	-	15.29
1984	11.74	16.85	9.80	1.80	7.16	2.97	4.66	19.47	2.40	0.30	22.78
1985	14.55	18.61	9.56	4.65	3.09	4.48	10.47	4.99	1.12	-	28.45
1986	14.96	19.83	6.04	4.26	2.07	3.16	13.23	13.38	0.90	-	22.12
1987	11.97	24.00	4.0	2.5	2.80	-	-	17.6	-	-	13.30
1988		14.70									

TABLE 2

COMMERCIAL BANKS ADVANCES TO THE MANUFACTURING SECTOR
(£'000)

End of Period	Total	Manufacturing	%	10-Year mean %	5-Year mean %
1970	91,175	24,759	27.15		
1971	139,466	27,334	19.60		21.36
1972	156,282	29,389	18.80		
1973	140,479	25,872	18.41		
1974	241,026	55,058	22.84	19.9	
1975	293,873	59,746	20.33		
1976	311,427	64,283	20.64		
1977	319,510	53,382	16.70		18.45
1978	273,571	51,962	18.99		
1979	415,363	64,781	15.59		
1980	354,296	67,466	19.04		
1981	498,687	56,640	11.35		
1982	598,447	87,462	14.61		15.43
1983	690,058	91,942	15.32		
1984	754,979	127,235	16.85		
1985	607,051	112,982	18.61	17.26 [a]	
1986	894,978	177,497	19.83		
1987	2,396,060	572,360	24.00		19.29 [b]
1988	4,231,000	579,800	14.70		

a Nine year mean (1980 - 1988)

b Four year mean (1985 - 1988)

TABLE 3

COMMERCIAL BANKS ADVANCES BY BORROWER GROUP

(K'000)

End of period	Total	Private sector									Government[c]	Non-resident
		Agriculture	Mining and quarrying	Manufacturing	Building and construction	Distribution	Transport and communications	Financial institutions	Personal accounts[a]	Other[b]		
1970	91 175	4 140	2 854	24 750	12 630	23 387	2 863	3 817	7 300	8 950	226	151
1971	138 466	16 200	13 300	27 334	14 650	32 755	4 661	5 300	10 106	10 468	5 687	7
1972	156 202	8 306	23 497	29 300	10 557	37 611	4 204	8 950	12 500	14 226	6 736	—
1973	140 479	8 468	23 114	25 872	5 184	36 873	5 507	10 555	9 762	12 502	1 632	1 091
1974	241 026	14 507	47 560	55 858	6 149	45 741	8 313	4 014	10 350	30 791	7 476	1 056
1975	293 873	9 887	63 223	58 746	8 297	56 044	14 820	14 264	23 006	22 006	3 677	66
1976	311 427	8 522	75 178	64 263	7 506	56 046	15 048	11 211	23 056	30 211	11 700	25
1977 March	304 911	10 376	74 987	57 572	3 746	46 943	14 407	13 220	33 165	30 910	8 202	1 293
June	314 667	10 599	80 301	58 360	4 274	31 140	14 281	7 12[illegible]	30 517	30 876	27 020	1 078
September	305 159	13 304	78 49[illegible]	45 731	6 323	44 000	15 771	12 830	25 055	30 205	31 750	30
December	319 510	12 178	78 851	53 382	6 417	58 683	18 345	14 400	30 400	25 000	28 675	9
1978 March	334 434	17 911	81 616	60 512	5 703	34 002	8 517	17 057	31 037	35 006	30 707	6
June	274 038	16 002	31 621	61 811	9 871	35 570	16 000	9 947	30 005	30 326	21 500	7
September	283 220	17 304	29 455	64 996	10 140	42 023	20 510	5 000	47 005	27 410	10 403	5
December	273 523	15 774	34 225	51 962	8 501	37 005	37 341	6 070	28 053	30 512	15 404	24
1979 March	298 272	10 000	40 042	58 036	7 030	50 420	23 202	8 230	43 040	33 000	11 001	6
June	280 455	17 670	16 704	62 296	6 507	40 003	10 402	13 001	57 073	42 247	4 220	15
September	264 400	15 960	23 107	56 000	6 700	55 521	14 171	10 676	25 440	40 437	5 272	310
December	415 363	34 000	34 000	64 701	12 303	66 425	24 502	16 070	32 000	60 767	76 774	2
1980 March	373 620	23 030	28 627	70 613	10 176	63 043	14 915	21 522	44 002	60 971	27 041	—
June	330 490	26 037	28 043	74 551	10 300	61 001	16 404	16 333	32 737	55 247	7 000	140
September	363 169	32 440	44 173	69 434	14 200	66 004	19 416	19 551	30 565	50 201	7 611	410
December	354 296	23 924	40 001	67 466	9 771	56 262	19 177	14 353	30 000	71 754	11 372	147
198[illegible] ch	—	—	—	—	—	—	—	—	—	—	—	—
June	382 060	28 676	50 392	60 05[illegible]	12 007	55 003	15 664	72 304	42 045	63 370	20 740	1 512
September	493 255	54 620	70 451	72 004	16 041	05 105	29 450	20 522	40 041	02 005	11 005	730
December	490 607	67 329	06 774	56 040	0 600	01 000	20 060	21 370	37 070	03 700	15 005	50
1982 March	306 011	51 204	114 006	50 779	11 302	76 053	21 157	21 540	04 240	76 013	11 263	700
June	510 205	51 114	00 445	50 301	11 737	55 003	20 054	10 740	76 000	75 550	51 101	404
September	373 042	03 436	53 156	70 317	10 005	05 101	25 006	14 000	02 056	76 302	0 362	27
December	500 447	01 416	101 310	07 402	0 003	05 525	20 003	15 103	70 001	05 032	12 401	1
1983 March	304 005	40 050	44 306	52 716	5 015	00 040	10 007	0 000	73 024	00 742	0 036	1 370
June	404 754	50 744	75 026	00 330	0 370	04 070	15 203	20 141	13 035	41 707	21 340	005
September	007 334	04 022	70 100	01 173	7 305	04 423	20 040	17 021	07 215	130 050	0 000	23
December	000 050	70 030	77 005	01 042	0 700	01 774	20 000	25 020	22 550	137 702	37 750	—
1984 March	500 332	07 256	75 063	04 071	0 004	04 772	20 203	23 170	03 000	01 727	10 000	2 324
June	534 035	03 423	03 477	100 307	14 005	00 043	20 333	21 007	10 004	70 003	17 053	—
September	000 051	70 415	00 007	02 007	12 027	131 040	43 014	20 107	71 000	113 731	10 070	—
December	754 070	00 045	74 047	127 235	13 722	172 044	54 100	22 420	35 210	147 042	10 102	2 300
1985 March	033 112	07 702	100 040	105 720	10 027	157 555	30 121	24 002	41 073	40 005	7 030	—
June	047 102	07 250	33 102	02 240	10 054	154 702	37 773	17 400	55 045	122 050	27 774	2 470
September	727 300	05 317	03 000	121 740	10 070	102 570	10 005	27 500	33 015	00 102	57 001	420
December	007 051	00 354	50 054	112 002	20 273	172 720	10 700	27 100	03 577	30 207	0 001	—
1986 March	702 371	172 572	00 303	127 300	13 072	103 125	20 004	32 032	130 125	31 007	0 400	17
June	737 020	130 704	51 004	131 502	30 707	100 022	10 310	30 170	04 351	57 701	14 340	104
September	004 070	133 013	54 125	177 407	30 100	107 003	10 547	20 327	110 403	110 700	0 117	—

Source: Bank of Zambia

[a]Personal accounts are obtained as a residual and therefore include errors and omissions from other sectors
[b]Include[illegible] services, water supply and sanitary services, electricity supply and distribution, and unallocated items
[c]Inclu[illegible] municipalities, town management boards, townships and other rural authorities
[d]Prelim[illegible]

DEVELOPMENT BANK OF ZAMBIA

"The Role of the Development Bank of Zambia in Financing Industrial Projects"

Paper to be presented to the " National Industrial Strategy Seminar", to be held in December 1989 in Lusaka

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MR CHAIRMAN

DISTINGUISHED DELEGATES

LADIES AND GENTLEMEN

On behalf of the Development Bank of Zambia (DBZ) and indeed on my own behalf I would like to thank you Mr Chairman for inviting me to share with you thoughts on the "National Industrial Strategy" and in particular "The Role of DBZ in Financing Industrial Projects".

I would like to firstly discuss the general and brief background to Development Finance Institutions (DFI's). Secondly the establishment and operational policies of the Development Bank of Zambia and the role it has played in financing industrial projects. Thirdly I shall discuss the Bank's role in the promotion and finance of small scale enterprises.and finally the linkages DBZ has with other relevant institutions in financing industrial projects.

It is only in the last 35 years that Development Finance Institutions have received world-wide acceptance and popularity in the Developing countries. DFI's have come to be regarded as instruments for speeding up economic growth, especially industrial growth, in their respective countries. They have been able to make an impact on employment and have stimulated small scale enterprises.

Modern times are characterised by specialisation in all fields, and Development Finance Institutions are its reflection in the field of finance. In Zambia we have the Bank of Zambia as the central Bank and we also have a number of commercial banks. We also have non-bank financial institutions like the Zambia National Building Society, Zambia National Provident Fund, Zambia State Insurance Corporation and the Export and Import Bank.All these financial institutions have their established functions and a very important role to play in our economy.

Its therefore not a negation of their importance when I state that development finance is not their primary function.Commercial banks prefer to provide short term finance and leave medium to long-term finance to specialised institutions. These specialised institutions again, generally lend for very special purposes, as for instance mortgage financing for buildings by the Building society. The gap the Development Bank has come to fill within this financial system is the mobilisation of domestic and foreign resources in order to provide medium and long-term funds for project investment.

Established in 1972 by an Act of parliament the Development Bank of Zambia commenced operations in 1974. The Bank was created to promote economic development by mobilising both domestic and foreign financial resources for on lending to the following major

sectors of the economy:

-manufacturing
-mining and quarrying
-tourism
-transport and storage
-large scale corporate agriculture
-forestry and
-fishing

The Bank's operational policies are always tailored to the national development priorities as laid down in the National Development Plans. Projects which satisfy the following major investment criteria are financed:

-utilisation of local raw materials
-export promotion
-fostering linkages with other industries
-encouraging industrial diversification and decentralisation
-creation of permanent employment
-development of local technology and manpower skills
-import substitution

Projects assisted by the Bank should always be economically viable, technically feasible and socially desirable. These may fall within the following categories:

-new
-expansion
-diversification
-rehabilitation
-rationalisation
-modernisation

The Development Bank of Zambia grants medium and long-term loans to private limited liability companies/parastatal organisations/co operatives. It also invests in the share-capital of some deserving enterprises. The Bank's total outstanding commitments in favour of one single enterprise neither exceeds 20% of the Bank's net-worth nor 75% of the enterprise's fixed assets.Further,the Bank's total investment in form of equity participation does not exceed 25% of its networth. DBZ's maximum equity investment in a single enterprise does not exceed 5% of its networth nor 25% of the share capital of the enterprise.

It should be mentioned here, that the Bank's funds are not normally committed specifically for financing of working capital. Where appropriate, DBZ may join with other financing institutions, local or foreign in financing projects.

Besides the lending function, DBZ also provides technical and advisory services to potential investors, assist in obtaining and placing foreign investment and undertakes research to promote investment opportunities. The Bank also carries out a monitoring function to ensure successful implementation and management of projects it finances.

The Development Bank of Zambia has played a significant role in the financing of industrial projects in Zambia. The Bank has since inception up to March 1989 approved a total of 487 loans and equity investment for K671 million. Of these 407 loans approved, 216 for K515 million were industrial projects.It is worth mentioning that DBZ has assisted projects in the following sub-sectors:

- -manufacture of plastic products
- -manufacture of drugs and pharmaceuticals
- -manufacture of wearing apparel except footwear
- -manufacture of containers and boxes of paper and paper board
- -saw mills, planing and other wood mills
- -canning and pressing of fruits and vegetables
- -manufacture of rubber products
- -spinning,weaving and finishing textiles
- -knitting mills
- -manufacture of footwear.

A full sectoral breakdown of projects assisted by DBZ and classified according to the International Standard Industrial Classification (ISIC) is appended to this paper.I wish at this juncture to mention that of the 27 industrial projects financed by DBZ during the 1988/89 financial year: 7 were those that use available local raw materials, 6 were export oriented and another 7 were those that save on imports. This emphasises the Bank's commitment to national priorities.

All the projects have been financed after thorough appraisal work, evaluating them not only by financial and technical.but also by economic and socio-economic criteria.

The small scale industrial sector has a great potential to contribute in a variety of ways to production. In recognition of the importance of this sector, a fully fledged small scale industries lending programme was established in 1983. This development followed from the discussions with Government and the DBZ Act was accordingly amended by parliament in 1982.

Consequently the Development Bank of Zambia has established a Special Fund for Rural Development (SFRD) as a sort of a "soft window" through which small scale loans at concessionary conditions and terms can be granted. The SFRD is a revolving fund created out of donations, grants and loans on concessionary terms.The fund is used to provide loans, equity participation and technical assistance to rural based small scale entrepreneures The eligible borrowers under SFRD include:

- -small scale agro-industries
- -small scale industries manufacturing agricultural implements and tools
- -small scale repair workshops
- -small scale transport in rural areas

other rural located industries based on local raw materials

The target group for this programme are indegenous Zambian owned private enterprises, co operatives and projects with special potential to benefit women. Assistance is limited to a maximum of 70% of the total cost including pre-production expenses and initial working capital. A minimum of 10% of the total project cost is financed by the promoters as equity contribution.

It is worth mentioning that in 1988, out of the 147 projects approved, 98 projects were small scale enterprises and of these, 94 projects for K24.1 million were funded through special fund for rural development. In addition to SFRD, the Bank is administering funds for small scale enterprises in North Western Province under the auspices of the International Fund for Agricultural Development (IFAD) from which 2 projects for K0.9 million were financed. The remaining 2 projects were financed under the DBZ Small Industries Fund.

The Bank's concern over the importance of development and nurturing of entrepreneurial skills to ensure viability of small scale industrial projects in the long term was advanced when the Small Scale Enterprises Promotion LTD (SEP) was set up by the Bank in conjunction with the Friedrich Ebert Foundation of West Germany in 1988. SEP is an investment and promotion company whose overall objective is to assist small scale enterprises to set up or improve their capabilities. The assistance consist of:
i) Direct participation in equity capital of the enterprises.
ii) Provision of loans.
iii) Provision of management and accounting services.
iv) Training in management skills.

SEP's participation in equity is intended to be for a limited period during which time the Zambian entrepreneur receives intensive training from SEP so that eventually he will not only be the sole owner of the company but also will have been trained to run the company independently. Thus the DBZ initiated small scale industry programme through SEP, is intended to complement the efforts of SIDO promoted projects.

However, the Bank does not work in a vacuum, it works in a political, economic and institutional environment.As such, it has linkages with other relevant institutions in financing industrial projects. I have already mentioned that other than the granting of medium and long term loans the Bank may join with other financing institutions, local or foreign, in financing projects. Where appropriate, the Bank has been involved in equity investment together with other institutions. This kind of involvement has so far worked well.

As a long and medium term lender, DBZ does not provide short term loans specifically for working capital. Prospective borrowers are required to find own sources of working capital either from

commercial banks or from other sources they may organise. Detailed analysis of a loan application can not commence unless source of working capital is adequately ascertained. In this regard, most working capital requirements for DBZ financed projects are provided by commercial banks. It means that there is an automatic linkage between DBZ and commercial banks in the provision of a complete package to borrowers.

There are of course constraints associated with the mobilisation of finance for development, savings could be higher, rates of inflation could be lower and capital markets could be developed. Although mobilisation of local resources by DBZ is satisfactory conditions attached have become more stringent. The Bank has been required to roll-over whatever funds it raises through promissory notes over one year as opposed to three years previously. This situation dictates that the Bank explores other ways of mobilising local resources. Secondly, the restriction in servicing of foreign debts to 10% of net foreign exchange earnings has adversely affected the utilisation of the negotiated foreign current resources. This in turn has affected the mobilisation of additional foreign currency resources.

Though the decontrol of prices has its own advantages to the economy, we should appreciate that it may have adverse effects on consumers in the short run. In this connection, the upward trend of prices of raw materials and the devaluation of the kwacha against foreign currencies has adversely affected our clients in the implementation and operation of their projects. Some of the projects the Bank has financed, especially those that are new and those that require imported machinery and equipment have experienced serious implementational problems because of the rising prices and the fluctuating exchange rate of the kwacha against international currencies. While the Bank is sympathetic to this situation, its beyond its jurisdiction to do anything. These external influences have adversely affected the Bank's operations.

The adverse effect trickles down to DBZ's profitability in the final analysis because, DBZ has to repay its foreign currency loans at the current market exchange rate, while its clients repay their loans to DBZ at the rate which was ruling at the time of repayment, which, may be several years back. This means DBZ has to cover the difference between the current exchange rate and the old exchange rate, hence the loss.

These externalities dictate that the Bank makes a deliberate move to diversify its operations and seek other ways of resource mobilisation. In this regard, it may not be asking too much for an institution which since inception has not received any Government grant, to suggest that the Development Bank of Zambia be considered for placement of some of the funds available to the Government through the counter value fund scheme. Indeed, through the years, the Bank has demonstrated its maturity and capacity to handle and channel any funds mobilised by it to productive investment. Furthermore the Government should give consideration for absorbing the foreign exchange losses incurred

... [illegible] ... or alternatively, the exchange rate should be established at the time DFZ makes a foreign currency repayment, regardless of whether or not the foreign exchange is available at the time such a deposit is made.

May I therefore conclude my remarks by stating that in Zambia today, the Development Bank of Zambia is the industrialist's answer to his dreams as the Bank helps to make those dreams a reality by extending to him medium and long term loans. However this reality cannot continue to be realised without the active practical support of those concerned with the development of Zambia.

[illegible]

SECTORAL DIVISIONS OF PROJECTS ASSISTED BY DBI ACCORDING TO THE INTERNATIONAL STANDARD INDUSTRIAL CLASSIFICATION OF ALL ECONOMIC ACTIVITIES:1975-1988

ISIC-SECTOR NO.	DESCRIPTION	NO.OF APPROVED PROJECTS
1110	AGRICULTURAL & LIVESTOCK PRODUCTION.	94
1130	FORESTRY.	1
1140	FISHING.	18
2100	COAL MINING.	2
2200	NON-FERROUS ORE MINING.	1
2900	MINING & QUARRYING.	7
3111	SLAUGHTERING, PREPARING & PRESERVING MEAT.	1
3113	CANNING & PRESERVING OF FRUITS & VEGETABLES.	1
3115	MANUFACTURE OF VEGETABLE & ANIMAL OILS & FATS.	14
3116	GRAIN MILL PRODUCTS.	13
3117	MANUFACTURE OF BAKERY PRODUCTS.	17
3118	SUGAR FACTORIES & REFINERIES.	2
3121	MANUFACTURE OF FOOD PRODUCTS NOT ELSEWHERE CLASSIFIED.	4
3122	MANUFACTURE OF PREPARED ANIMAL FEEDS.	1
3131	DISTILLING,RECTIFYING & BLENDING SPIRITS.	1
3134	SOFT DRINKS & CARBONATED WATERS INDUSTRIES.	2
3140	TOBACCO MANUFACTURING.	2
3211	SPINNING, WEAVING & FINISHING TEXTILES.	18
3212	MANUFACTURE OF MADE-UP TEXTILE GOODS EXCEPT WEAVING APPAREL.	8
3213	KNITTING MILLS.	5
3233	MANUFACTURE OF WEARING APPAREL, EXCEPT FOOTWEAR.	15
3240	MANUFACTURE OF PRODUCTS OF LEATHER & LEATHER SUBSTITUTES, EXCEPT FOOTWEAR & WEARING APPAREL.	2
3311	MANUFACTURE OF FOOTWEAR, EXCEPT VALCANIZED OR MOULDED RUBBER OR PLASTIC FOOTWEAR.	7
3319	SAWMILLS, PLANNING & OTHER WOOD MIILS.	19
3320	MANUFACTURE OF WOOD & CORK PRODUCTS NOT ELSEWERE CLASSIFIED.	5
3412	MANUFACTURE OF FURNITURE & FIXTURES, EXCEPT PRIMARILY OF METAL.	4
3419	MANUFACTURE OF CONTAINERS & BOXES OF PAPER & PAPERBOARD.	5
3420	MANUFACTURE OF PULP, PAPER & PAPERBOARD ARTICLES NOT ELSE CLAASIFIED.	2
3429	PRINTING, PUBLISHING & ALLIED INDUTSRIES.	2

3511	MANUFACTURE OF BASIC INDUSTRIAL CHEMICALS EXCEPT FERTILISERS.	10
3512	MANUFACTURE OF FERTILISERS & PESTICIDES.	3
3513	MANUFACTURE OF SYNTHETIC RESINS, PLASTIC MATERIALS & MAN-MADE FIBRES EXCEPT GLASS.	2
3521	MANUFACTURE OF PAINTS, VARNISHES & LACQUERS.	3
3522	MANUFACTURE OF DRUGS & MEDICINES.	7
3523	MANUFACTURE OF SOAP & CLEANING PREPARATIONS, PERFUMES, COSMETICS & OTHER TOILET PREPARATIONS.	7
3529	MANUFACTURE OF CHEMICAL PRODUCTS NOT ELSEWHERE CLASSIFIED.	3
3530	PETROLEUM REFINERIES.	1
3551	TYRE & TUBE INDUSTRIES.	7
3559	MANUFACTURE OF RUBBER PRODUCTS NOT ELSEWHERE CLASSIFIED.	3
3560	MANUFACTURE OF PLASTIC PRODUCTS NOT ELSEWHERE CLASSIFIED.	9
3610	MANUFACTURE OF POTTERY, CHINA & EARTHENWARE.	7
3620	MANUFACTURE OF GLASS & GLASS PRODUCTS.	1
3691	MANUFACTURE OF STRUCTURAL CLAY PRODUCTS.	1
3692	MANUFACTURE OF LIME, CEMENT & PLASTER.	1
3699	MANUFACTURE OF NON-METALLIC MINERAL PRODUCTS NOT ELSEWHERE CLASSIFIED.	10
3710	IRON & STEEL BASIC INDUSTRIES.	2
3720	NON-FERROUS METAL BASIC INDUSTRIES.	12
3811	MANUFACTURE OF CUTTLERY, HAND TOOLS & GENERAL HARDWARE.	2
3812	MANUFACTURE OF FURNITURE & FIXTURES PRIMARILY OF METAL.	2
3813	MANUFACTURE OF STRUCTURAL METAL PRODUCTS.	1
3819	MANUFACTURE OF FABRICATED METAL PRODUCTS EXCEPT MACHINARY & EQUIPMENT NOT ELSEWHERE CLASSIFIED.	6
3824	MANUFACTURE OF SPECIAL INDUSTRIAL MACHINERY & EQUIPMENT EXCEPT METAL & WOOD-WORKING MACHINERY.	2
3829	MANUFACTURE OF MACHINERY EQUIPMENT EXCEPT ELECTRICAL, NOT ELSEWHERE CLASSIFIED.	5
3839	MANUFACTURE OF ELECTRICAL APPARATUS & SUPPLIES NOT ELSEWHERE CLASSIFIED.	5
3843	MANUFACTURE OF MOTOR VEHICLES.	2
3844	MANUFACTURE OF MOTOR CYCLES & BICYCLES.	7
3851	MANUFACTURE OF PROFESSIONAL & SCIENTIFIC, & MEASURING AND CONTROLLING EQUIPMENT NOT ELSEWHERE CLASSIFIED.	2
6120	HOTELS, ROOMING,HOUSES,CAMPS & OTHER LODGING PLACES.	25
7113	OTHER PASSENGER LAND TRANSPORT.	1
7114	FREIGHT TRANSPORT BY ROAD.	10

7191	SERVICES INCIDENTAL TO TRANSPORT.	1
7192	STORAGE & WAREHOUSING.	4
9510	REPAIR OF MOTOR VEHICLES & MOTORCYCLES.	2
9592	PHOTOGRAPHIC STUDIOS, INCLUDING COMMERCIAL PHOTOGRAPHY.	2
TOTAL NO. OF PROJECTS		457

SMALL SCALE INDUSTRIES AND THE INDUSTRIALISATION PROCESS OF ZAMBIA

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SIDO

Pap er presented at the National Workshop on Industrial Strategy for Zambia sponsored by UNDP and the Ministry of Commerce and Industry.

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SMALL SCALE INDUSTRIES AND THE INDUSTRIALISATION PROCESS OF ZAMBIA

INTRODUCTION

Industrialisation has long been identified as not only the major vehicle for but also a consequent of accelerated economic development. It is only a fact to state that all developed countries are also industrialised and all less developed countries are not. This state of affairs is attributed to the major role that the manufacturing sector plays in creating greater linkages within itself and with other sectors of the economy. This obviously leads to greater mobilisation and more effecient allocation and utilization of resources in the economy.

Technology, which is now considered an important factor of production enolves around the manufacturing sector and its benefits accrue to other economic units resulting in economic development. It is therefore on the basis of this apex position of the manufacturing sector that less developed countries are striving and must strive to industrialise as a matter of priority and urgency.

CHARACTERISTICS OF ZAMBIAN INDUSTRY

Zambia's manufacturing sector which could be considered to be fairly well diversified has however not been able to creat a major impact on the economy as would have been the case. For instance, manufactured exports are negligible. In general terms however, the sector has the following characteristics which have great implications on the industrialisation process :

a. Many large scale industries, a few medium scale industries without a well developed small scale sub-sector. This means that these large scale industries have to rely on their inputs and components on foreign suppliers.

b. As a consequent and in addition to their inability to earn foreign exchange, there is great capacity underutilization of plant.

c. Lack of finishing capabilities so that finished products are exported.

It is also necessary to point out that for industrialisation to take place a large market base is a pre-requisite. Therefore, for small markets like Zambia's, it is essential to export manufactured products so that a greater market to sustain industries is achieved. However, the existing industrial structure in Zambia as pointed out in (a) above, does not offer opportunities for exports of manufactured products. In order therefore to redress this current position and facilitate industrial developed it is being suggest here that a pyramidical structure of the industrial sector be encouraged. This means that the missing link, small scale industries be developed to supply inputs and subcontract processes to large scale industries.

SMALL SCALE INDUSTRIES, INDUSTRIALISATION AND THE AGRICULTURE SECTOR

Zambia's agricultural potential is immense but largely not fully exploited. It is the reliance on agriculture therefore that holds the countries industrialisation process. The agriculture sector depends on the manufacturing sector for the supply of agricultural machinery and tools and for processing of agriculture produce. This means therefore greater dependency between the two sectors. The increased incomes in rural ares as a result creat a market for industrial products which could accelerate industrialisation process.

The small scale industries in particular have a major contribution to make this effort. The agriculture sector, over the years has received a lot of resources from the government with support of the international community. This support has been in form of provision of loans especially to small scale farmers, establishment of fertilizer plants and seeds, strengthening of training of farmers and extension services and agricultural subsidies.

However, these efforts have not corresponded with those directed at improving agricultural equipment and machinery especially for sma scale farmers in rural areas. Neither have efforts to help produce reach markets been amplified, resulting in a great deal of wastage of produce in rural areas and consequently lower output overtime. The third component of agricultural support has been that of storage facilities for grains which have almost permanently been in short supply.

To redress this situation the small scale manufacturing sector has the potential to make a major contribution to this effort because:

a. They have a much wider coverage in rural areas and can therefore have immediate and direct complimentaries with small scale farmers

b. The present utility infrastructure facilities in these areas is not very adquate to support large scale industries but is fairely sufficient for small scale industries.

c. Technology in small scale units is low enough to be mastered by relatively lower skilled personel such as is available in rural areas.

Small scale industries therefore could:

a. provide requisite agricultural tools and machinery
b. process and preserve agricultural produce especially in remote rural areas
c. provide more permanent and relatively cheaper grain storage facilities in rural areas.

PRESENT LIMITATIONS OF SMALL SCALE INDUSTRIES TO FULLY CONTRIBUTE TO INDUSTRIALISATION

Inspite of this great potential the small scale sector has in the strategy of industrial development presently major constraints exist which render the sector less potent than would have and should be the case and these constraints are:

a. FINANCIAL : the sector has received negligible funding which has led to a wide range of problems such as lack of adequate machinery, lack of materials, consequently poor quality products and inability to create links within the manufacturing sector and with other sectors.

b. TECHNOLOGY : As a consequent of the above, the sector lacks modern technology in terms of skills process and equipment to make them attractive enough for subcontracting activities and also produce high quality final products for the market.

c. WORKSHOP SPACE: lack of proper workshops with adequate facilities

d. MANAGERIAL SKILLS : lack of adquate managerial skills to smoothly operate business.

SMALL INDUSTRIES DEVELOPMENT ORGANISATION

The government with the intentions to promote small-scale industries established SIDO as the apex body in the promotion and development of the sector. SIDO also coordinates and directs policies related to the sector. The organisation offers the following services:

a) Identification of production lines
b) Carrying out feasibility studies
c) Preparation of project profiles
d) Selection of machinery
e) Technology development
f) Technical, Management, Marketing and Accounting Consultancy and Extension Services
g) Establishment and management of Industrial estates
h) Mobilization of finance
i) Legal services
j) Project financing
k) Project implementation and management
i) Entrepreneurial training

The organisation therefore, has a comprehensive package of assistance to the sub-sector and this makes it ideal to implement and supervise small scale programs.

PROPOSED STRATEGY

The long-run strategy for strengthening the SSIs to help in industrialisation are:

1. Financial: a) The government needs to mobilise funds and create a special fund for small scale industries. Responsibility for financing SSI's has always been a government one the world over.
   b) A small-scale bank be established under SIDO would ensure that projects also receive package assistance from the organisation
   c) Institutional strengthening of SIDO and greater resource allocation in its activities.

2. Technological: An intergrated technology development and ing centre for SSI's be established under auspicies of SIDO. The Centre will

a) Serve a cross-section of production li
b) Build indigeneous technology capacity
c) Diseminate technological information
d) acquire, adopt and adapt foreign technologies
e) serve as the base for entrepreneurship development
f) carry out activities in the improvemen of skills, process, equipment and raw materials.

As a specialised centre, it will have the advantages of economies of specialisation, closer links units

3. Investment Targetting

A strategy to direct investments in selected manufacturin activities is required. Such activities would be:

a) those with higher value added
b) those with major local raw material base e.g. wood-b brass, textile-based etc.

4. Local Content Program

A systematic program to increase the local content in selected products over time. This would help in promotin contracting activities and greater domestic dependency.