



**GOVERNMENT OF THE REPUBLIC OF ZAMBIA**

**ZAMBIA  
NATIONAL REPORT ON THE  
IMPLEMENTATION OF AGENDA 21**

**REVIEW OF PROGRESS MADE SINCE THE UNITED NATIONS  
CONFERENCE ON ENVIRONMENT AND SUSTAINABLE  
DEVELOPMENT 1992**

## **PREFACE**

This report is a review of the progress made since the United Nations Conference on Environment and Sustainable Development (UNCED) in 1992 and serves as a national report to the World Summit on Sustainable Development. It is a joint effort of the Ministry of Foreign Affairs and the Ministry of Tourism, Environment and Natural Resources.

In compiling the report, the two Institutions engaged two consultants, Kenneth Mwansa on Environmental issues and served as Team Leader and Thilasoni Chikwanda on Social and Economic issues. The consultants have benefited a lot from the materials and advice of a number of Institutions and people. The authors of background reports from various government ministries and NGO representatives contributed helpful inputs.

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## OVERVIEW

### COUNTRY SETTING

Zambia is a landlocked country situated in the Southern African Sub-region. The Country is approximately 752,617 square kilometres in size and lies between latitudes 8 and 18 degrees South and longitudes 22 and 34 degrees East. Zambia is surrounded by eight (8) neighbouring countries namely Tanzania and the Democratic Republic of Congo to the North; Malawi and Mozambique to the East; Zimbabwe; Botswana and Namibia to the South; and Angola to the West.

Most of Zambia lies between 1,000 and 1,600 meters above sea level. The highest parts of the country are in the Northeast with the plateau gradually sloping to the Southeast. The country's sub-tropical climate is characterised by three seasons; namely the hot dry season from August to October; the rain season from November to April, when temperatures range from 27<sup>o</sup>c to 38<sup>o</sup>c; the cool dry season which lasts from May to August and temperatures range from 16<sup>o</sup>c to 27<sup>o</sup>c. Mean annual rainfall ranges from 700mm in the southern parts of the country to 1400 mm in the north (CSO, 1990).

### DEMOGRAPHY AND POPULATION TRENDS

The population of Zambia is estimated at 10 million (CSO, 2000). The annual population growth rate averaged 3.7 percent between 1980 and 1990 and has declined to 3.2 percent per year since 1990. 42% of the population lives in urban centres while 58% live in rural areas. Population density varies from province to province but averages around 12.2 persons per square km. The country's population is characterised by extreme youthfulness with 49.6 percent being under 15 years of age (CSO, 1990).

### SOCIO-ECONOMIC TRENDS

Zambia attained political independence from Britain in October, 1964. At the time of Independence, Zambia was considered one of the wealthiest nations in Africa. However, the Human Development Report (UNDP, 1996) shows that Zambia's GNP per capita now stands at US\$ 270 compared with US\$ 580 in 1975 when the economy started declining. The decline in economic performance has raised poverty levels in Zambia to about 80% of the population. In Zambia, poverty manifests itself through inadequate purchasing power and access to essential social services and resources.

The 2000 National Census reported fertility of 6.5 children per female; mortality at 11.7 deaths per 1000. In 1992, 27% of Zambians had no access to health services; 54% had no access to safe water; and 60% had no access to sanitation (Zambia Demographic Health Survey - ZDHS).

Zambia adopted an ambitious economic reform programme in 1991 aimed at reducing the role of the state in the economy through decontrol, deregulation, and privatisation and at promoting faster private sector growth through reduced fiscal deficits and a more efficient public sector focused on infrastructure and human development. The overall objective of this programme is to reduce poverty through faster and more broadly shared economic growth and improved provision of social services.

Impressive progress has been accomplished in the past five years, especially in liberalising markets and reducing the role of government in commercial activities. An ambitious privatisation programme has been implemented. Almost all parastatals have been sold or liquidated, and the copper mining parastatal has been privatised. Control on prices, interest rates, imports, and exports have all been discontinued.

Macroeconomic performance has been uneven, particularly in the early years when inflation was over 100 percent, but fiscal and monetary control have been effective in the past years. The domestic budget achieved a small surplus in 1996 and the situation has improved. Progress on civil service reform has also been limited, but the size of the public service has begun to decline, and plans to restructure the remaining few ministries have been adopted and are being implemented.

The rate of economic growth was disappointing in the first five years of Zambia's economic reform programme. Overall GDP has been about flat since 1990; per capita GDP has fallen about 13 percent. Growth has been elusive because of incomplete and imperfect reform implementation, the inevitable delays in investor response, and several droughts, along with the considerable legacy of more than two decades of inefficiency and mismanagement from Zambia's previous policies. Overall GDP is estimated to have grown by about 5 percent in 1996, but only because good rains brought a 15 percent increase in agricultural GDP.

The country's economy has been, and is likely to remain, driven by the wealth of its natural resources. Copper will continue to play an important role in the economy, but diversification to agriculture and other sectors such as tourism and service industry is needed. While the natural resource endowment could provide the basis for accelerated and broad-economic growth, its improper management would constrain growth and undermine efforts to alleviate poverty.

### **IMPORTANCE OF THE ENVIRONMENT TO SUSTAINABLE DEVELOPMENT**

Abundant water, land and forest resources could provide the basis for sustainable development in Zambia. However, increasing pressure on these resources has given rise to environmental degradation, constraints to growth and increasing poverty. The effects can be seen most directly in declining agricultural productivity, resulting from a lack of proper water and soil management, dwindling wildlife populations, as a consequence of poaching or degradation of their natural habitat; and declining fisheries earnings, as a result of over fishing and water pollution. Both air and water pollution affect the health and productivity of Zambia's work force, particularly in the urban areas surrounding mining operations. Many Zambians lack access to clean drinking water, adequate sanitation and solid waste management facilities. The adverse effects of these conditions on health and productivity tend to disproportionately impact the poor segments of society.

# PART 1

## SOCIAL AND ECONOMIC DIMENSIONS

### Chapter 2

#### INTERNATIONAL COOPERATION TO ACCELERATE SUSTAINABLE DEVELOPMENT IN DEVELOPING COUNTRIES AND RELATED DOMESTIC POLICIES

##### DECISION MAKING

The Ministry of Finance and National Planning (MOFNP) is the lead government ministry responsible for creating a conducive and enable environment for international cooperation to take place particularly between the private sector, donor community, multilateral and bilateral partners. MOFNP also ensures that line ministries are working in cooperation with international development partners.

In addition to mobilizing funds on behalf of the entire Government apparatus, MOFNP is the government's central planning department. Recently the long term planning function of the ministry has been enhanced to ensure that long-term economic visioning is conducted on a continuous basis.

##### COORDINATION GOVERNMENT/BODY RESPONSIBLE FOR THE ISSUES

Body / Government	Responsibilities
Ministry of Finance and National Planning (MOFNP)	To ensure coordination of the total financial outlay (annual government grants to different Ministries and donor assistance to sector programmes).
Ministry of Foreign Affairs (MFA)	Directs policy on (Administers) international cooperation issues.

##### LEGISLATION AND/OR REGULATIONS

The following acts are the key legislation which influence capital flows and trade.

1. Investment Act
2. Privatization Act
3. Customs and Exercise

##### STRATEGIES, POLICIES AND PLANS

##### ECONOMIC REFORMS

Considerable reforms of the Zambian mining based economy have been implemented over the last decade in an attempt to reverse economic decline. These reforms were formally adopted in March 1992 when a Structural Adjustment Programme backed by the World Bank and IMF was initiated to stabilise the economy and restore economic growth. The emphasis of these reforms has been the implementation of broad based market-oriented policies and the privatisation of state enterprise. In a broader context, policy has concentrated on privatisation, liberalization and diversification.

In the last ten years budgets and policies have focused on the following issues:

##### Macroeconomic Policies

- Achieve growth in GDP
- Reduce end year inflation
- Limiting the budget deficit GDP
- Increase Gross International reserves

##### Fiscal Policies

- Aimed at promoting growth
- Income Generation
- Employment Creation
- Poverty Reduction

## INTERNATIONAL FINANCIAL AND TECHNICAL COOPERATION

Various indicators show a high aid intensity for Zambia. Between 1993 and 2001, the ratio of aid to GDP averages 13.4% and aid per capita at US\$40.2. Aid to government spending was as high as 55.8% in 1995 before declining to 36.0% in 2001. Aid inflows have steadily increased since 1973 and peaked in 1993 at US\$534 million. This was because of donors satisfaction with Zambia's transition to a multiparty democracy and her embracing of liberal economic policies. However, thereafter, there has been some decrease in aid flows as governance issues stated to take center stage in the country's aid relations, particularly in 1996 and 1998. In 1998, ODA inflows stood at only US\$308 million after a total freeze in Balance of Payments Support. ODA inflows amounts to US\$432.7 million in 2001.

## DEBT RELIEF

Zambia is presently one of the world's most highly indebted low-income countries. Based on long-term debt figures, Zambia's external debt stock rose rapidly in the 1970s. In 1980, long-term debt was 3.4 times higher than it was in 1970. Long-term debt stock of US\$2.2 billion in 1980 was 68.3% of the total external debt stock. From US\$3.3 billion in 1980, total external debt increased 2.1 times to US\$6.9 billion in 1990. A combination of reliance on grants and debt forgiveness and rescheduling have ensured that the debt stock remained more or less stable around the 1990 figure, being lower in most years. However, the total debt stock increased by US\$1 billion in 2001 to US\$7.3 billion. This was mainly due to Paris Club creditors not granting Zambia the expected debt relief totalling over US\$770 million under Naples and Cologne terms. The balance of US\$230 million was due to increased external borrowing by the private sector, mainly in the mining sector. Had the Paris Club relief been extended, Zambia's total external debt stock would have been reduced to US\$5.9 billion.

Table 1: Zambia's External Debt Stock (US\$ millions), 1997 - 2001

	1997	1998	1999	2000	*2001
<b>Bilateral</b>	<b>3,296.9</b>	<b>3,477.8</b>	<b>2,676.4</b>	<b>2,390.2</b>	<b>3,091.76</b>
Of which					
Paris Club	2,816.5	2,998.5	2,405.0	2,131.4	2713.85
Non-Paris Club	480.4	479.3	271.4	258.8	377.9
<b>Multilateral</b>	<b>3,152.4</b>	<b>3,172.7</b>	<b>3,375.1</b>	<b>3,446.82</b>	<b>3,346.04</b>
Of which					
ADB/ADF	327.0	257.0	320.7	316.66	318.66
World Bank	1,450.2	1,547.6	1,668.3	1,736.43	1,837.06
IMF	1,205.5	1,205.2	1,219.2	1,245.4	992.0
Others	169.7	162.9	166.9	148.33	198.32
<b>Total Government Debt</b>	<b>6,449.3</b>	<b>6,650.5</b>	<b>6,051.5</b>	<b>5,837.02</b>	<b>6,437.8</b>
Private and Parastatals	303.3	278.2	455.9	473.49	832.3
<b>Total External Debt Stock</b>	<b>6,752.6</b>	<b>6,928.7</b>	<b>6,507.4</b>	<b>6,310.51</b>	<b>7,270.06</b>

Source: Ministry of Finance and National Planning, Economic Report - Feb 2002

\* The figures for 2001 are preliminary and likely to change due to on-going reconciliation with creditors

## PROGRAMMES AND PROJECTS

The MOFNP is the Government lead ministry which conducts and supervises the implementation of national projects and programmes through various line ministries. Major projects and programmes being undertaken by the government include the following.

Programme	Background
<b>Poverty Reduction Strategy Paper (PRSP)</b>	The objective of the paper is to utilize resources on critical priorities with high potential for assisting economic growth and for provision of basic social services. The PRSP recognizes the potential contribution that mining, tourism and the manufacturing sector have in international trade. The government also recognizes the need to shift emphasis in agriculture towards production of export goods.
<b>Public Sector Reform Program</b>	Aimed at restructuring the Public Service for improved service deliver.
<b>Sector Wide Approaches</b>	The implementation of SWAPs seeks to achieve broad reforms in the sector policy and regulatory frameworks as well as build sector capacity to raise expenditure efficiencies and effectiveness.

<b>HIPC Initiative</b>	
<b>National Capacity Building Programme for Good Governance</b>	Aims to strengthen institutions that promote and safeguard good governance. This is a comprehensive programme to go beyond the enactment of laws and creation of appropriate institutions, and instead ensure that the various institutions of governance obtain enough capacity to carry out their respective responsibilities.
<b>Privatization and Parastatal Reforms</b>	This programme aims to privatize and/or commercialize state owned businesses and public institutions to reduce government intervention in the running of businesses and enable them operate more efficiently hence profitably.

**STATUS  
ECONOMIC**

In spite of these reforms, Zambia's economy is still largely mirrored by the fortunes of its copper-mining industry. In this regard, the delay in the privatisation of the Zambia Consolidated Copper Mines and its loss making operations presented considerable challenges for the Zambian Economy in particular for the period from 1996 to 2000, and acted as a major drag on the economic performance during that period. The performance of the mining sector improved significantly following the privatization of the nations largest mining asset, Konkola Copper Mines, which was acquired by Anglo American Corporation (AAC) in March 2000 enabling the much needed financial and intellectual resources to follow to the sector. However and regrettably, commodity prices have fallen sharply in the face of a significant downturn in the world economy and this has impacted not only on the profitability of the mining operations but it has also significantly increased the level of external financing required to complete the recapitalization of the mining sector.

## Chapter 3

# COMBATING POVERTY

### DECISION MAKING

Poverty reduction initiatives are predominantly government functions. All line ministries are at some level addressing the issues of poverty with the Ministry of Finance and National Planning and Ministry of Community Development and Social Services being the lead ministries in this initiative.

### COORDINATION GOVERNMENT/BODY RESPONSIBLE FOR THE ISSUES

Body / Government	Responsibilities
<b>The Ministry of Community Development and Social Services</b>	is charged with the responsibility of alleviating the suffering of poor and disadvantaged groups, men, women, children, youth and the disabled through facilitation and provision of survival community development skills and direct social support.
<b>The Ministry of Finance and National Planning</b>	through the Planning and Economic Management Department is the lead institution in the overall coordination of the policy and planning process while sector ministries, public sector and civil society organizations will implement the programmes.

### LEGISLATION AND/OR REGULATIONS

There is no specific legislation that target the combating of poverty, although generally legislation is intended to create an environment conducive for sustainable development.

### STRATEGIES, POLICIES AND PLANS

Little can be achieved to reduce poverty unless measures are taken to revive Zambia's economy. Accordingly, Zambia's Poverty Reduction Strategy focuses on measures to achieve strong sustained economic growth of between five to eight percent per annum. In the short to medium term, uncertainty in the critical mining industry will dampen Zambia's growth objectives and also threaten the viability of implementing Poverty Reduction Strategies. However, this can be considered to be a temporal setback as the country remains endowed with great mining potential.

On several grounds, agriculture combines the virtue of growth and equity and it is in this regard that enhanced agriculture productivity is being given the highest priority under the current Poverty Reduction Strategies. Zambia plans to shift emphasis towards producing goods for export because the limited domestic market is a barrier to growth. The "Agriculture Commercialization Programme (ACP)" has been designed as the main vehicle for implementing the agriculture component of the PRSP. ACP is a successor programme to the Agriculture Sector Investment Programme (ASIP).

For tourism, the plan envisages two broad interventions – national and zonal, both of which are expected to encourage investment in the sector. National intervention include rehabilitation of roads in tourist area, rehabilitation of museums, tourist markets, and human resource development. Zonal development refers to intense development work in identified tourist areas to make them attractive to tourist investment. Regarding, industry the strategy focuses on choosing winners or industries that have the best chances of export success after considering comparative advantages and existing trade agreements. Other areas include improving transport and communication infrastructure, rehabilitating and enhancing electrical energy infrastructure and developing the national irrigation capacity and capabilities.

The Ministry's vision is to have every poor and vulnerable person empowered enough to live productive and useful lives in a supportive cultural environment. It endeavours to pursue policies that support poverty eradication and sustainable human development through provision of social support services and opportunities for socio-economic empowerment of these people. The Ministry has structures that reach out to the village/community level and is among the few

institutions that are better positioned to articulate the needs and aspirations of the poor and facilitate their participation in sustainable human development.

## MAJOR GROUPS INVOLVEMENT IN THE DECISION MAKING.

Ministry of Finance and National Planning, NGO's. Cooperating partners and donor agencies.

## PROGRAMMES AND PROJECTS

Programme	Background	Constraints & Challenges
<b>Self Help Initiatives</b>	The majority of the people live in rural areas in extreme poverty that is characterized by sub-standard housing. In response to this problem, Government in collaboration with the African Housing Fund (AHF), Habitat for Humanity and other local and international non-governmental organisations is trying to support the improvement of shelter within the framework of The National Housing Policy.	This project is on going. <ul style="list-style-type: none"> <li>➤ Funding at community level low.</li> <li>➤ Fund raising capacity within low income groups insufficient.</li> <li>➤ General funding constraint low to meet targets.</li> </ul>
<b>Women's Development Programme</b>	While women's contribution to national development has been acknowledged there are still many barriers preventing them from achieving their full potential. Some of the on-going initiatives to redress the imbalances and empower women include capacity building for sustainable livelihoods, provision of micro-credit and sensitization in gender and human rights.	<ul style="list-style-type: none"> <li>➤ Funding inadequate.</li> <li>➤ Inadequate effective facilitation skills and support facilities.</li> <li>➤ Poor Linkages.</li> </ul>
<b>Food for Work</b>	In addressing the problem of hunger at the community level, and under the food for work intervention, households in peri-urban areas are enabled to meet their food requirements in exchange of construction and rehabilitation of community infrastructure. The Food for Work programme has incorporated capacity building of communities through skills training and provision of micro-credit to ensure sustainable livelihoods of participants even when the programme is phased out. The Food for Work programme has greatly contributed to clean surroundings in their site areas which are predominantly peri-urban.	<ul style="list-style-type: none"> <li>➤ Performing well. Coverage however limited to urban sites due to funds.</li> <li>➤ The project Demand is in demand.</li> <li>➤ Due to success, there is an urge to integrate it with other projects.</li> <li>➤ Improving the sustainability of this project.</li> </ul>
Programme	Background	Constraints & Challenges
<b>Targeted Food Security Pack</b>	This is another intervention put in place to address the hunger situation as well as sustainable livelihoods for the affected persons. Government through civil society organizations is targeting 600,000 small-scale vulnerable but viable farmers over a period of three years by providing small packs of inputs comprising various seeds that include cereals, tubers, legumes and fruit trees to enable them attain food security. The most critical technology to the success of this project is conservation farming.	<ul style="list-style-type: none"> <li>➤ In areas where there's no drought the project has been successful.</li> <li>➤ Poor rains have had an adverse impact on this project.</li> <li>➤ Project suffering from poor organization within the agriculture sector.</li> </ul>
<b>Non-formal education and Skills Training</b>	The current levels of illiteracy are above 80%. The problem of illiteracy is more pronounced in the rural areas and among marginalised groups such as women, children and persons with disabilities. There is a correlation between illiteracy, poverty and disease. Literacy education is therefore a strategy to combat poverty and disease. Government intends to redefine the role of literacy in order to align it more closely to reproductive health, agriculture, community based environmental protection and management, HIV/AIDS awareness and sustainable livelihood skills.	<ul style="list-style-type: none"> <li>➤ Funding inadequate.</li> <li>➤ Interest is low.</li> <li>➤ Awareness campaign need in order to make project more relevant and to generate interest.</li> </ul>
<b>Public Welfare Assistance Scheme (PWAS)</b>	This programme targets 2% of the population of the poorest of the poor. The objective is to provide basic needs to vulnerable persons so as to prevent destitution. The programme supports the aged, the disabled, orphans and vulnerable children. PWAS has three tiers of support namely social support, education and health	<ul style="list-style-type: none"> <li>➤ Accessibility limited to districts.</li> <li>➤ Failing to meet targets due to funds.</li> <li>➤ Only being accessed</li> </ul>

	care cost scheme.	by 'smart poor'. Support needs to be broadened. ➤ Most assistance going to orphans.
<b>The Child Care Upgrading Programme (CCUP)</b>	The high number of orphans due to HIV/AIDS has given rise to the proliferation of children's homes. Most of these are not meeting the basic standards required for the operation of such institutions. The CCUP responds to the need to ensure that basic standards of care provided to orphans and abandoned children in institutions are upheld and maintained. The project is supported by UNICEF	➤ Cooperation from community poor ➤ There is need to improve regulation and have an inspectorate.
<b>Micro Credit For The Poor</b>	This intervention is aimed at productivity and income generation. Some micro finance facilities include Micro-Bankers Trust which gives priority to women; the National Trust for the Disabled which provides loans to persons with disabilities, the People Living with HIV/AIDS Project which gives credit to persons affected by HIV/AIDS and the hammer mill project which has been loaning hammer mills to women groups for not only income generation but as appropriate technology to reduce their workload in food processing	➤ Poor commitment on repayment. ➤ Poor repayment due to lack of monitoring and inadequate debt management capacity building amongst participants. ➤ Attitude problems - "handout syndrome"
<b>Programme</b>	<b>Background</b>	<b>Constraints &amp; Challenges</b>
<b>Water Sanitation</b>	The aim of this programme is to empower the poor in rural and peri-urban communities to control and manage their water supply facilities on a sustainable basis. This is done through mobilization and training of communities in water and sanitation in line with the water policy. The focus is to promote community involvement and ownership of community utilities.	➤
<b>Street Children</b>	There has been unprecedented growth in the number of street children in the country mainly as an effect of HIV/AIDS and household poverty. It was estimated that in 1996, Zambia's cities were home to 35,000 children of the street. The number has since increased. As a way of escaping the harsh realities of life most of these children abuse drugs and also get involved in petty criminal activities. Street children are seen in some quarters to be contributing to environmental filth in the towns and cities where they have encamped. In carrying out street children activities, Government works in partnership with non-governmental organizations.	➤ Strategies should include supporting families where these kids come from to get them back into the family and act the problem at source.

## STATUS

The implementation of Agenda 21 in as far as combating poverty through the stated interventions is concerned is on-going. The impact of these efforts has so far been minimal due to various factors such as inaccessibility – either due to lack of information, physical distance or nature of project design (in the case of the disabled), un-affordability, (because of cost-saving measures) and poor funding of programmes.

Government is reviewing some of its policies on cost-sharing to increase poor people's access to basic facilities. The issue of poor funding is being addressed through HIPC resources and linking the poverty reduction strategy paper to the budget so that poverty reducing programmes are better funded.

## CAPACITY- BUILDING, EDUCATION, TRAINING AND AWARENESS-RAISING

<b>Capacity Building</b>	There is adequate human resource to carryout poverty reduction programmes in the public sector, civil society and the private sector. The government's emphasis is on creating and maintaining enabling environment for the private sector to continue taking the leading role in running Zambia's economy as well the civil society in service delivery at grass root level.
<b>Education</b>	Staff are being trained at various colleges.
<b>Training</b>	General training includes Training and specialized poverty analysis and poverty reduction strategies.
<b>Awareness-raising</b>	<ul style="list-style-type: none"> <li>➤ Lack of funding hampering awareness raising of programmes.</li> <li>➤ Weekly Radio Programmes.</li> <li>➤ Brochures and pamphlets produced but circulation poor. This area needs to be improved.</li> </ul>

### INFORMATION

General information on the various poverty reduction interventions is available from sector ministries, publications from other stakeholders and the media. There has not been enough information flow between line Ministries and the communities. One of the factors affecting accessibility to programmes and, therefore, impact has been lack of publicity or awareness by the communities on services available to them.

There is poverty mapping being done at the poverty Monitoring and Analysis Unit of the Zambia Social investment fund in the Ministry of Finance and National Planning

### RESEARCH AND TECHNOLOGY

A number of researches have been done in the area of poverty such as Living Conditions Monitoring Survey I and II, Priority Survey II and Poverty Participatory Assessment. In order to promote policy-related research, some programmes such as Public Welfare Assistance Scheme (PWAS) , Health Care Cost Scheme (HCCS) as well as Literacy, Micro Bankers Trust (MBT), the National Trust for the Disabled (NTD) and hammer mill projects have been evaluated with assistance of the study fund (Zambia Social Investment Fund) UNESCO and other Agencies.

In the case of PWAS, one major finding was that it was not reaching out to the poorest due to lack of publicity and those who knew and accessed the programme were not necessarily the poorest. For Literacy the evaluation results indicated that the programme provided only literacy and numeracy which the participants could not easily translate into gainful activities.

### FINANCING

Financing of most of these programmes is through Government subventions with support on some specific programmes from Development Partners. For instance, UNDP has provided financial support to the development of the National Poverty Reduction Action Plan; the Food Programme has received assistance from the World Food Programme and redesigning of The Public Welfare Assistance Scheme (PWAS) is financed by the European Union and earlier by the World Bank. Other programmes which have received international financing include Micro-Bankers' Trust (European Union); Literacy Programme from UNESCO and Arab Gulf Fund; the Street Children Programme (UNICEF); Child Care Upgrading Programme (UNICEF); People Living with HIV/AIDS (UNAIDS); and finally, the Agency for Persons with Disabilities (African Rehabilitation Institute (ARI) However, finances have never been enough and with the implementation of the PRSP, it is planned that more priority spending will be done and programmes that are of a poverty reduction nature will take precedence.

### COOPERATION

There is generally a goodwill from both bilateral and multi-lateral organizations to fight poverty in Zambia. These include Canada, Denmark, Finland, France, Germany, Ireland, Italy, Japan, Netherland, Norway, Sweden, UK, USAID, World Bank, AFDB and EU.

## Chapter 4 CHANGING CONSUMPTION PATTERNS

### DECISION MAKING

The ministry of Commerce Trade and Industry is supposed to work closely with the Ministry of Tourism Environment and Natural Resources together with other bodies that are dealing in the issues of the environment in making decisions that promote sustainable consumption and production in industry. Unfortunately this has not been the case. This can be attributed to lack of a coordinating body in the country. It is envisaged that the reintroduction of the department of planning at the Ministry of Finance and National Planning might improve the situation.

### COORDINATION GOVERNMENT/BODY RESPONSIBLE FOR THE ISSUES

Body / Government	Responsibilities
<b>Ministry of Commerce Trade and industry</b>	has a central role of coordinating and making decisions on issues of trade and Industry. The Ministry plays a regulatory role for matters relating to promotion of economic growth with regard to Commercial, Trade and Industrial sectors within the market economy through the creation and maintenance of a conducive legal, regulatory policy framework.

### LEGISLATION AND/OR REGULATIONS

Consumer welfare Act to protect people from consuming substandard products like expired products.

### STRATEGIES, POLICIES AND PLANS

The Ministry of Commerce Trade and Industry through the Zambia Bureau of Standards monitors the quality of products that enter the country so as to minimize the entry of substandard products. However, the Ministry, like most government institutions suffers the setback of lack of equipment and resources to effectively execute its responsibilities.

The Environmental Council of Zambia also plays a very cardinal role in ensuring that industrial operations conform to the required standards. There is need however, to introduce projects that aim at changing the consumption patterns in Zambia. Government needs to commit itself to developing a national policy framework in order to alter the consumption patterns and to ensure there is national participation by all stakeholders in the policy making process. In this regard therefore, it's recommended that policies should be harmonized among institutions to enhance collaboration.

Issues of the environment and changing consumptions in particular have not been taken care of to the full. It will be imperative that experts in the Ministry of Environment and Natural Resources and other institutions that deal with the environmental issues guide the Ministry of Commerce, Trade and Industry in coming up with investment incentives that will lead to changing consumption patterns in Zambia. The Ministry of Commerce Trade and Industry is in the process of reviewing the Investment Act. This should be an opportunity when the Policies on environment should be harmonized with the investment Act.

### MAJOR GROUPS INVOLVEMENT IN THE DECISION MAKING.

Consumer Association of Zambia are an Advocacy group acting on behalf of consumers.

### PROGRAMMMES AND PROJECTS

There are no project and programmes in this field.

### STATUS

The Government of Zambia has shifted its budget theme to wholly address Poverty Alleviation. The Government has reached an advanced stage in formulating the Poverty Reduction Strategy

Paper. (PRSP). This process is meant to link resources within the overriding objective of poverty alleviation.

### **CAPACITY BUILDING, EDUCATION, TRAINING AND AWARENESS-RAISING**

The government is committed to strengthening the public research institutions, such as the National Scientific and Industrial Research, to undertake ecological development and adaptation, choice and selection of equipment, provision of information on the availability of raw materials and quality assessment. Public research institutions should be linked to the private sector.

### **INFORMATION**

The Consumer Welfare Association has some information which is provided to the business community.

### **FINANCING**

Financing of the Commercial Trade and Industrial sector has been done through normal budget allocations. A number of projects have been lined up under the Public Investment Programme to give support for the private sector development.

### **COOPERATION**

The Zambian government encourages increased partnerships with the private sector, NGO's, members of the civil society and the international community in the development of the Commercial, Trade and Industrial sector.

### **CONCLUSION**

Changing of the consumption pattern is a new theme and there is urgent need to put it on top of the agenda as it has the same devastating effects as production if it is not controlled. Zambia needs to press more by encouraging; recycling, reducing wasteful packaging and introduce more environmentally sound products. It is clear that in Zambia a more environment-conscious-consumer public has begun to emerge. A few members of the public have been able to report cases where environmental considerations have been overlooked. The issue of establishing synergies between institutions is important and equally important.

**CHAPTER 5  
DEMOGRAPHY DYNAMICS AND SUSTAINABILITY**

**DECISION MAKING**

**COORDINATION GOVERNMENT/BODY RESPONSIBLE FOR THE ISSUES**

<b>Body / Government</b>	<b>Responsibilities</b>
<b>Inter-agency Technical Committee on Population</b>	<p>Address technical issues as well as coordinating the implementation and monitoring and evaluation of programmes in the area of population and development. Because of diversity nature of population and development interrelationships, membership in the committee is drawn from multi-sectoral institutions including government, civil society, traditional groupings, academia, and the private sector. The social and Population Unit in the Ministry of Finance and National Development serves as a secretariat of the committee. The Inter-agency technical Committee is further divided into six specialized committee namely:</p> <ul style="list-style-type: none"> <li>• Sustainable Development Sub-Committee</li> <li>• Reproductive Health Sub-committee</li> <li>• Gender Sub-Committee</li> <li>• Data Collection and Research Sub-committee</li> <li>• Youth and Child Development sub-committee</li> <li>• Information Education and Communication Sub-committee</li> </ul>

**LEGISLATION AND/OR REGULATIONS**

CSO Act

**STRATEGIES, POLICIES AND PLANS**

At the center of all population programmes is the National Population Policy which was revised in 1996 to take on board issues of sustainable development in general and gender, HIV/AIDS, environment, youth concerns, adolescent reproductive health in particular. The Population Policy aims to influence the demographic dynamic such as fertility, mortality, migration and their determinant in order to ensure that there are commensurate with the pace of development.

**MAJOR GROUPS INVOLVEMENT IN THE DECISION MAKING.**

**PROGRAMMES AND PROJECTS**

A number of programmes and projects have been implemented and financially supported by UNFPA and the National Budgets. Notable among these projects in the area of sustainable development are:

<b>Programme</b>	<b>Background</b>	<b>Constraints &amp; Challenges</b>
The Population policy implementation and integration of population factors into development planning process.	The main objective of the project is to ensure integration of population factors in plans and programmes. An Assessment of the Extent of Integration revealed that the population factors integrated in virtually all policy and programme documents which included the Land Policy, Water Policy, National Environment Action Plan among others were basically descriptive such as population size, growth rate, composition and distribution. Little attempt has been made to establish ways in which the factors interrelate with population concerns or how	<ul style="list-style-type: none"> <li>• In the past this programme was not formally recognized within the MOFED institutional structure. The programme has however being mainstreamed under the restructured MOFNP.</li> </ul>

Programme	Background	Constraints & Challenges
	policy and programme measures intend to influence or accommodate them. Despite the low levels of integration outlined above, the overall substantive mentioned in policy and programme documents offer greater opportunities for comprehensive integration.	<ul style="list-style-type: none"> <li>Building capacity at various ministries to enable them integrate population factors data in their policies and programmes.</li> </ul>
Communication support to population and development project	. This project provided training in Advocacy and Information Education and Communication to what were called advocacy agents in the provinces. The agents were trained in thematic areas of environment, population and development interrelationships, gender and reproductive health. In addition, the agents were trained in developing Information Education and Communication and Advocacy strategies in order to address the key issues mentioned above in their communities. The agents were considered as opinion leaders in their communities and were charged with the responsibilities to develop strategies and disseminate information on the key thematic areas.	<ul style="list-style-type: none"> <li>Funding erratic.</li> <li>Human resource inadequate.</li> </ul>

## STATUS

The project on integration has been institutionalized within government functions and it will continue to ensure integration of demographic factors in all planning process. Information dissemination on population and sustainable development interrelationships will continue to be articulated at the Interagency Technical Committee Meetings and Sub-Committee meetings.

## CAPACITY- BUILDING, EDUCATION, TRAINING AND AWARENESS - RAISING

<b>Capacity Building</b>	There is availability of human resource at national, provincial and district levels. However, there is need to enhance the capacities of sectoral, provincial and district level planners to be able to adequately and comprehensively integrate population including gender and environment factors in policies plans and programmes. Eventually Planner will be able to put measures and strategies in the policies, plans and programmes that would either accommodate or influence the identified demography dynamics.
<b>Education</b>	The education curricula for basic school level has also been revised to incorporate population related issues in subjects such as Social Studies and Geography while Environmental Science has been recognized as a examinable subject on its own
<b>Training</b>	Between 1995-97 two persons per years were being sent out to study Masters Degree courses in Population and Development / Demographic.
<b>Awareness-raising</b>	

## INFORMATION

Demography database is maintained at central statistic office. The Office is currently analyzing the 2000 Census of Population and Housing.

**RESEARCH AND TECHNOLOGY**

A number of surveys and research have been conducted which included the Demographic health surveys, Priority Survey II and Living Conditions Monitoring Survey. Though these survey may not a have been on environment directly, they have brought out issues of food production, energy consumption patterns, water utilization, disease prevalence in relation population factors.

**FINANCE**

In the area of population and sustainable development interrelationship and integration, United Nations Population Fund and the Government provided most of the resources. However, there was also considerable support from cooperating partners in the area of reproductive health, Information education and Communication and other service delivery programmes.

**COOPERATION**

The regional fora where these issues have been discussed are the Southern African Forum on Population and Development and the Southern African Ministers' Conference on Population and Development. These are regional initiatives that are meant to bring out issues of demographic dynamics that affect the regional.

## Chapter 6 HEALTH AND SUSTAINABLE DEVELOPMENT

### DECISIONS MAKING

Prior to 1991, the health sector in Zambia was highly centralized. All issues of planning and decision making for the sector were handled by the Ministry of Health Headquarters and to a small extent by the provincial headquarters. Districts and the lower levels of the health care delivery system played minor roles prior to the decentralisation policy of 1992.

In order to operationalise the decentralisation policy, Government enacted the National Health Services Act in 1996, which led to the creation of Health Boards. This policy resulted in a purchaser/provider split which involved a redefinition of the Ministry of Health to a policy making body on health for Zambia's and the creation of a Central Board of Health, a technical unit responsible for the delivery of health services and implementation of health reform policies and strategies on behalf of the Ministry.

In addition, as part of Government's strategy to ensure that an ordinary Zambian Citizen has a legitimate "voice" in the running of health service delivery in Zambia, District Health Boards, Statutory Boards Neighbourhood Health Committees and Village Health Committees were established to ensure that community needs were well represented in the process of planning for health and making key decisions on health matters.

Decentralisation of health services is characterised both as delegation of the day to day management responsibilities from the ministry of health to a semiautonomous Central Board of Health and deconcentration to the District Health Boards. This involved granting managerial and professional autonomy to these autonomous institutions. Health Boards have a decision space to manage both human and financial resources without interference from the center whose role is to monitor and evaluate performance and give guidance.

Decentralisation has provided the health boards with an exploit budgetary transfer called a "grant" which covers a significant proportion of local expenditure. Decentralisation has also allowed the health boards to make decisions for allocation of resources, user fee levels and expenditures.

### COORDINATION GOVERNMENT/BODY RESPONSIBLE FOR THE ISSUES

Body / Government	Responsibilities
<b>Ministry of Health</b>	A policy making body on health for Zambia's.
<b>Central Board of Health</b>	A technical unit responsible for the delivery of health services and implementation of health reform policies and strategies on behalf of the Ministry
<b>District Health Boards</b>	To manage both human and financial resources without interference from the center whose role is to monitor and evaluate performance and give guidance.

### LEGISLATION AND/OR REGULATIONS

Legislation / regulation
Acts concerning regulation of medicines and pharmaceuticals Products
i. National Health Services Act
ii. Public Health Act
iii. Pharmacy and Poisons Act
iv. Food and Drugs Act
v. Ionizing Radiation Act
vi. Therapeutic Substance Act
vii. Dangerous Drugs Act
viii. Tropical Diseases Research Act
ix. Human Tissues Act
x. Termination of Pregnancy Act
xi. Medical Services Act

<b>Legislation / regulation</b>	
Acts concerning public health and health promotion	<ul style="list-style-type: none"> <li>i. National Health Services Act</li> <li>ii. Public Health Act</li> <li>iii. Food and Drugs Act</li> <li>iv. Ionizing Radiation Act</li> <li>v. Local Government Act</li> <li>vi. Extermination of Mosquito Act</li> <li>vii. Pneumoconiosis Act</li> <li>viii. Mental Disorder Act</li> <li>ix. National Food and Nutrition Act.</li> </ul>
Acts Concerning financing of health sector	<ul style="list-style-type: none"> <li>i. National Health Services Act</li> <li>ii. The medical Aid Societies and Nursing Homes (Publication) Act</li> </ul>
Acts Concerning Provision of Health Services including Research	<ul style="list-style-type: none"> <li>i. National Health Services Act</li> <li>ii. Tropical Diseases Research Act</li> <li>iii. Human Tissues Act</li> <li>iv. Flying Doctors Act</li> <li>v. Mines and Minerals Act</li> <li>vi. Pneumoncoisis Act</li> </ul>
Areas Requiring Development of legislation	<ul style="list-style-type: none"> <li>i. National Blood transfusion services</li> <li>ii. Traditional Medicine</li> <li>iii. Forensic Science</li> <li>iv. Human Embryology and fertilization</li> <li>v. The national analytical laboratory services</li> <li>vi. HIV/AIDS</li> </ul>

## **STRATEGIES, POLICIES AND PLANS**

In order to ensure that Government takes a leading role in setting priorities and sector goals, Zambia has been tracking Sector Wide Approaches (SWAPs) since 1993. Within the SWAPs framework Developmental Co-operating Partners are discouraged from supporting projects/programmes to supporting sector investment plans through a funding mechanism popularly known as “common basket funding”.

A prerequisite to SWAPs, which both Government and Co-operating Partners have jointly agreed on, are:

- (i) Commitment to the Health Vision (Policy) by all stakeholders
- (ii) Articulation of a clear, practical medium term National Health Strategic Plan (First plan was developed in 1995-2000 and later 2001 – 2005).
- (iii) Defining and updating the cost-effective basic health care package of interventions.
- (iv) Pooled Funding Mechanisms (Common basket funding)
- (v) Joint reviews of plans and progress through the biannual Consultative and quarterly Health Sector Committee meetings
- (vi) Joint Management Systems: Common procurement, disbursement reporting, accounting and audit procedures.
- (vii) Preparation and signing of a Memorandum of Understanding (code of conduct) with Co-operating Partners. (16 Co-operating Partners have signed except Japan and UNAIDS)
- (viii) Costed Annual Action Plans (MOH and CBOH)
- (ix) Definitions of performance indicators and putting in place the Health Management Information System (HMIS)
- (x) Financial feasibility of health reforms (worked out - National Health Accounts and Resource Envelope)

- (xi) Developed and implementation of the Financial Administrative Management Systems (FAMS).

### MAJOR GROUPS INVOLVEMENT IN THE DECISION MAKING.

Ministry of Health, Cooperating Partner and Communities. Structures for community participation in decision have been established through the Neighbourhood and Health Centre committees as well as the District and Hospital Boards comprising of about 15 members representing the communities of which at least half must be women.

### PROGRAMMES AND PROJECTS

To ensure pooled funding mechanisms, Government signed a memorandum of understanding in 1991 with developmental Co-operating Partners operating in the sector. The MoU gives guidelines on proportions of funding to the sector from GRZ and CPs, priority areas to benefit from pooled funding, disbursement and reporting mechanisms. It also sets out parameters on how plans will be jointly developed, monitored and evaluated.

With respect to the above, the Ministry of Health and its Co-operating Partners have agreed to jointly develop National Health Strategic Plans and to jointly fund this plan. So far two plans have been developed (1995-2000 and 2001-5). Only activities contained in the National Health Strategic Plans are financed with GRZ and CP funds. The following programs have been given priority:

Programme	Background	Constraints & Challenges
<b>Basic Health Care Package</b>	Zambia has developed and costed an essential basic health care package which gives cost effective core interventions to be undertaken from community, first, second and third levels of care. Public Health Priorities include HIV/AIDS, Malaria, TB, Child Health, Reproductive Health, Environmental Health and health promotion activities	<ul style="list-style-type: none"> <li>Funding available only meets 1<sup>st</sup> level of care.</li> <li>HIV/AIDS tying up resources.</li> </ul>
<b>Infrastructure Development Programme</b>	in order to improve access quality health care, government has since 1992 been rehabilitation health facilities focusing more on rural health centres. Under the infrastructure development program government intends to rehabilitate and expand 520 health centres and hospitals. So far 100 facilities have either been rehabilitated or expanded.	<ul style="list-style-type: none"> <li>Medical Resources Persons inadequate. Brain drain in sector high.</li> <li>Lack of Medical Equipment and accessories.</li> </ul>
<b>Central Support Systems Development</b>	Strength Procurement Systems, Financial Administration and Management Systems (FAMS), Health Management Information Systems, Drug Management Systems (DILSAT) leadership and Management development of hospital and district managers. Health Care financing focuses on revising resource allocation criteria based on an objective weighting system which will take poverty levels into consideration	<ul style="list-style-type: none"> <li>Failure to retain qualified accounting staff. Staff turnover high.</li> </ul>
<b>National Aids Council</b>	This Council is charged with the implementation of the HIV/AIDS/STD/TB Strategic Framework. The framework established a single, high-level institution, which will effectively coordinate the actions of all segments of government and society in the struggle against AIDS. It carefully analyses the lessons learned from past planning of AIDS programmes and lays future plans with this in mind.	<ul style="list-style-type: none"> <li></li> </ul>

## **STATUS**

Zambia embarked on a radical reform process in 1991, which was aimed at creating a well functioning, cost effective and equitable, district, based health care system that could deliver an essential package of care as close to the Zambian family as possible. While much progress has been made in improving the health care delivery system especially at the district level, rhetoric does not yet match reality for a number of factors such as:

## **THE IMPACT OF HIV/AIDS**

HIV/AIDS is disproportionately contributing to the profound reversal of development gains made in Zambia over the past 30 years. In part, what makes this impact so severe is that it has derailed all development and society in Zambia.

## **FINANCING GAP**

The estimated per capita expenditure in the year 2000 of USD 10.5 is under the USD 11.5 of the overall basic package. Assuming that the districts were to receive 70% of per capita expenditure (\$7.35) the difference of \$3.65 would have to be funded by households through purchase of drugs, user fees or by further prioritisation even within the basic package. This has equity implications.

## **PLANNING FOR HEALTH SERVICES**

There are also a number of issues that are likely to affect planning, management and provision of services. These include variations between GRZ budgets and actual expenditures, variations between donor commitments and actual disbursements.

## **HUMAN RESOURCES**

Human resources are critical to the delivery of quality health services. The lack of adequate professional health workers has contributed to poor health care delivery.

## **POOR INFRASTRUCTURE**

A major problem in the Health sector is the dilapidated status of most facilities, which may affect safety of users and patients.

## **CAPACITY- BUILDING, EDUCATION, TRAINING AND AWARENESS-RAISING**

<b>Capacity Building, Education, Training</b>	<p>To ensure better delivery of health services in the health boards, and to ensure better accountability of resources within the health boards, Government has been developing district capacities in the following areas:</p> <ol style="list-style-type: none"><li>a. Training district and hospital staff on strategic health planning, leadership and management of resources</li><li>b. Integrated competence training of health workers in order to have health workers with multiple skills in different disciplines of basic health</li><li>c. Training of health workers on health management information systems and financial administration and management to ensure better decision making and financial probity in the sector</li><li>d. Public Health Priorities- HIV/AIDS, Malaria, TB, Child Health, Reproductive Health, Environmental Health</li><li>e. Systems Development at the District and Hospital levels- Strength Procurement Systems, Financial Administration and Management</li></ol>
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	<p>Systems (FAMS), HMIS, Drug Management Systems (DILSAT), leadership and Management development of hospital and district managers.</p> <p>f. In collaboration with PAID-ESA - Kabwe and The Royal Netherlands Government the Ministry has established the Higher Diploma Course in District Health Management. Six batches of District Health Managers/Directors have already graduated.</p> <p>g. Strengthening technical skills and technical content of health plans; this is currently based on guidelines developed and distributed by Central Board of Health. The Quality Assurance resource persons undertake capacity building work for districts and hospitals.</p> <p>Epidemics preparedness is in place in all districts.</p>
<b>Awareness-raising</b>	Various programmes are regularly aired through the Electronic media, National Days are held to promoted specific health issues, Annual Bulletin of Health Statistics, Posters and Pamphlets.

### INFORMATION

Since 1995, The Government has been implementing Health Management Information Systems (HMIS) at district level to ensure a monitoring and evaluation system, which supports the thrust of decentralisation. The system includes to routine information monitoring system (HMIS), sentinel surveillance system e.g monitoring HIV/AIDs sero-prevalence, operations research, and special research such as the Demographic and Health survey. The system also attempts to institutionalise a culture of quality through quality assurance and hospital accreditation

All 72 districts have a functioning HMIS and report regularly on data collected. About 20% of the districts have a computerised HMIS. Districts and hospitals use HMIS data to Asses and evaluate the levels on their performance in delivering care. Data from the districts and the hospitals is further processed and analysed at the national level to produce national wide statistics on health to help policy makers make policies supported with evidence.

### RESEARCH AND TECHNOLOGY

Research is regularly conducted mainly on the performance of health care sector and policy research, these include;

- a Reports commissioned by Partnership for Health Reform. Harvard School of Public Health, School of economics-UNZA, and Abt Associates.
- b Reports commissioned in collaboration with the school of economic at UNZA.
- c Joint Reviews are conducted and reported bi-annually to assess the performance of programmes and make recommendations.

### FINANCING

The sector is financed by Government (about 60%) of the total budget while the rest, (40%) is met by development partners. Government finances the sector through grants while the cooperating partners finance through bilateral contributions, tied aid, loans etc.

### COOPERATION

Zambia signed a memorandum of Understanding (MoU) in 1999 with all Bilateral and Multilateral co-operating Partners to the sector. The MoU provides a platform for joint planning, disbursement of funds, consensus on priority areas of support, reporting mechanisms, joint monitoring and evaluation of a joint GRZ-Donor funded sector.

**Chapter 7**  
**PROMOTION OF HUMAN SETTLEMENT DEVELOPMENT**

**DECISION MAKING**

**COORDINATION GOVERNMENT/BODY RESPONSIBLE FOR THE ISSUES**

<b>Body / Government</b>	<b>Responsibilities</b>
<b>The Ministry of Local Government and Housing</b>	The government institution responsible for co-ordinating local government administration and policy design and implementation.

**LEGISLATION AND/OR REGULATIONS**

1. Local Government Act
2. Rating Act
3. Town and Country Planning Act
1. Liquor and Licensing Act
2. Landlords and Tenants Act
3. Valuation Surveyors Act
8. Market Act

**STRATEGIES, POLICIES AND PLANS**

**DECENTRALISATION**

The Government re-affirmed its commitment to the decentralisation process, under the Public Services Reform Programme, by pledging to strengthen the management of Local Authorities. The aim is to devise mechanisms to facilitate de-concentration of certain functions to provinces and districts and devolution of selected functions to local authorities, as their management capacities improve.

The government realises that decentralisation of services cannot be effective if there is no community or user participation in the formulation, implementation and evaluation of local-level projects. Therefore, in order to effectively decentralise services as well as enhance the capacity of civil society to participate in the formulation and implementation of programmes and projects, the Government will address the following as a matter of urgency:

- The management and delivery of services to be handled in collaboration with decentralises agencies such as local governments, the local communities, the NGO's, and the private sector.
- Provide for a high degree of decentralisation to allow for local decision making and ensure efficient and quality services delivery.
- Projects submitted to donors by both government and NGO's to be based on locally identified needs.
- Government will facilitate the creation of a central database for information sharing and dissemination.
- Local government planning and management systems to be enhanced so that they are able to undertake medium term social and economic development planning.
- Civic education to be intensified in order to create greater awareness of civil society's responsibilities.

**HOUSING**

The existing housing situation in Zambia is as follows:

- The housing stock stands at approximately 1.3 million dwelling units for a population of 10 million,

- 36% of the dwelling units are in urban areas and 64% in rural areas, of the total housing stock, 31% meets the minimum development and health standards and 69% is informal or non-compliant housing

In 1996 a comprehensive housing policy was formulated whose main goal is to provide adequate and affordable housing for all income groups in Zambia. Zambia was awarded the United Nations Centre for Human Settlements (UNCHS) "Habitat Scroll of Honour" in 1996 for a participatory and innovative approach to the formulation of the housing policy.

The objectives of the housing policy are:

- (a) to allocate a minimum of 15% of the national budget to support a sustainable housing development programme;
- (b) to make serviced land available for housing development
- (c) to provide an enabling regulatory framework for housing development;
- (d) to encourage production and use of building materials
- (e) to de-link housing from employment

Some of the changes that have taken place in the housing sector because of the adoption of the housing policy include:

- The sale of most government pool houses to sitting tenants
- The sale of all council houses to sitting tenants
- The sale of some parastatal houses to sitting tenants
- The construction of medium and low cost houses in Masala, Ndola
- The construction of over 2,055 houses since 1996 for both the urban poor and rural area residents by the Africa Housing Fund. The houses have been constructed in Linda - Lusaka, Mazabuka - Southern Province, Mongu - Western Province, Solwezi - North-Western and Kasama - Northern Province.

#### **MAJOR GROUPS INVOLVEMENT IN THE DECISION MAKING.**

NGO's and communities

#### **PROGRAMMES AND PROJECTS**

The National Urban Peri-Urban Settlement Programme signed in August 1995 commenced in December 1995 as a government strategy towards meeting the National Housing Policy goal which is the provision of adequate affordable housing for all income groups in Zambia.

The programme was supported by UNDP, UNCHS (Habitat) and French Co-operation. The programme had three components

- (a) Low Cost Housing
- (b) Community Participation Training and
- (c) Urban Environmental Planning and Management

#### **LOW COST HOUSING**

This project was involved in the training of communities through the Residents Development Committees (RDCs) in the production of low cost building materials using readily available local raw materials.

**Two training centres for communities were established at Bauleni Compound in Lusaka and Nakoli in Kabwe.** Two youth training centers were also established at Kawama in Mufulira and Ndeke in Mazabuka

A total of 50 demonstration low cost housing units were constructed on self-help basis. Other outputs of the project are:

- (a) Production of the National Housing Programme for Zambia
- (b) Trained 80 Artisans in the production and application of local building materials and management of small scale enterprises
- (c) Adopted, developed and documented testing procedures and standards
- (d) Produced simple production manuals for local building materials

- (e) Participation of women was a 30% of the number trained and beneficiaries of the demonstration house schemes
- (f) Community participation in decision making planning, monitoring and management of housing construction.

In collaboration with TEVETA (DTEVT) a competence Based Modular Training syllabus in low cost building materials production and use were developed. The syllabus has not been tested for lack of funds. The Government's vision is to improve the income base of low-income households through artisan training.

### **COMMUNITY PARTICIPATION TRAINING**

Community Participation Programme come as a response to demand by the Government for the transfer of knowledge and practical approaches, operational experience, participatory tools and training methodologies.

Capacity building is the central focus of the programme. This is achieved by strengthening the capacity of the actors involved in Shelter Development, and helps to improve the living and working conditions of low-income communities.

#### **Objective**

- To catalyse creative partnerships between central government, local government the public, the private sector, NGOs, CBOs and research and training institutions involved in human settlement development
- To create opportunities for resource mobilisation and sharing
- To exchange experiences in participatory shelter strategies
- To promote innovative approaches in shelter development
- To strengthen projects, programmes and organisations efficiently through collaboration efforts.

#### **STATUS**

##### **(i) Urban Settlement**

Zambia ranks amongst the most urbanised countries in Africa with 40% of Zambians living Urban areas. Zambia's rate of urbanisation is 3.6% per annum. Urban migration is the leading contributor. Pressure exerted in infrastructure and social services in urban areas has most been felt in the housing sector more than any other sector.

Almost all-major urban centres in the country rely on outdated master plans which neither reflect what is obtaining on the ground nor provide the vision and framework for future development. The lack of updated plans has resulted in un-co-ordinated and unordered development and contributed to the establishment of unplanned settlements. For this reason interalia the towns have become unsightly and less attractive to investors.

To address the above problems the town and Country Planning Act Cap 475 or 283 has been amended. The amendment simplifies the planning process and makes it more responsive to the needs of the people. In place of master plans, there has been an introduction of structure plans which are strategic in character, cheap, less time consuming to prepare and more responsive to robust development trends. With the assistance of co-operating partners such as World Bank structure/integrated development plans have been prepared for Mazabuka, Kafue, Lusaka, Ndola and Luanshya. The World Bank is also funding the preparation of the Livingstone Integrated Development Plan under the Support to Economic Expansion and Diversification (SEED) Tourism project. The preparation of integrated development plan entails the participation of the government, council, stakeholders and communities from the planning to the implementation stages.

The Department of Physical Planning and Housing in the MLGH provides professional and technical support to ensure compliance to planning standards and regulations by both Councils and prospective developers. Both activities of planning and development control are necessary because they provide guidance and promote orderly and sustainable development of human's settlements.

**(ii) Unplanned Urban Settlement**

The failure by the formal housing sector to meet the housing demands for the poorest of the poor who may have found themselves living in urban areas for one reason or another has resulted in the expansion and establishment of unplanned settlements. As part of the process of improving the quality of the living environment in the unplanned settlement the Ministry has embarked on the process of upgrading these settlements.

The unplanned settlements to be legalised are those meeting the criteria for legalisation. The criteria to assist local authorities identify unplanned urban settlements to be legalised have been circulated to all councils. The legalisation under the Housing (Statutory and Improvement Areas) Act Cap 194 is intended to restrain the expansion and proliferation of unplanned urban settlement. It also provides security of tenure to residents and paves way for individual plots to be demarcated so that residents can obtain title deeds for their properties.

Further, legalisation of these unplanned settlements paves way for the provision of basic services and infrastructure by the council with participation of all stakeholders. It also enables residents to benefit from the upgrading programme.

**(iii) Rural Settlements**

The Africa Housing Fund in Zambia began its pilot operations in October 1996 through Statutory Instrument no. 177. Operation commenced, with a grant from NORAD, in five districts with an aim of building 2,500 houses, sink 40 water wells and provide small scale agriculture and business credit. To date 250 houses have been constructed.

**CAPACITY- BUILDING, EDUCATION, TRAINING AND AWARENESS-RAISING**

<b>Capacity Building</b>	The MLGH works through local authorities in providing services. Capacity in terms of both human and institutional seems to be lacking in most of the Local Authorities. It is therefore, incumbent upon the MLGH to facilitate the development of human and institutional capacity in Local Authorities, if service delivery is to be improved.
<b>Education</b>	Incorporation of topic in educational curricula
<b>Training</b>	Professional training programmes
<b>Awareness-raising</b>	Public awareness

**INFORMATION**

An effective and efficient information management system is essential for successful operation of the organisation. Currently, there is a lack of co-ordination mechanisms in the MLGH. There is therefore, need to establish an effective co-ordination mechanism within the ministry in order to have smooth operations.

**FINANCING**

Government resources.

**Chapter 8**  
**INTEGRATING ENVIRONMENT AND DEVELOPMENT IN DECISION MAKING**

**DECISION MAKING**  
**COORDINATION GOVERNMENT/BODY RESPONSIBLE FOR THE ISSUES**

<b>Body / Government</b>	<b>Responsibilities</b>
The Ministry of Tourism, Environment and Natural Resources (MTENR)	has the mandate to provide an environmental policy framework, monitor, evaluate and co-ordinate its implementation, to ensure protection of the environment and sustainable development, management and utilization of natural resources for the benefit of the present and future generations. The ministry's main functions include coordination of national programmes and activities related to environmental control. It is also responsible for coordinating statutory bodies dealing with environmental issues such as the Environmental Council of Zambia, and further facilitates meaningful involvement of the Civil Society in environmental issues.
The Environmental Council of Zambia (ECZ)	was established by an Act of Parliament, Environmental Protection and Pollution Control (EPPCA), Act NO. 12 of 1994 to advise Government in the field of environment. It undertakes environmental information generation and exchange, plan and implement activities and capture early lessons through monitoring systems. The main activities of ECZ as regards environmental information management include, inventory of natural resources and other environmental conditions, forecasting resource status, hazard predictions and risk of environmental degradation, problem solving, action planning and policy formulation, reporting status of the environment and natural resources.

**LEGISLATION AND/OR REGULATIONS**

1. **Pollution Control Act (1990)**
2. Wildlife Act (1998), Forests Act (1999),
3. Forest Act (1999)
4. Water Act (2001),
5. Energy Act (1994),
6. Lands Act (1999), Mining and Minerals Act (1995) and
7. Environmental Protection and Pollution Control Act (1990).

**STRATEGIES, POLICIES AND PLANS**

The National Environmental Action Plan (NEAP) provided a framework for making significant changes needed to bring environmental considerations into the main stream of decision making in Zambia. It provides an overview of Zambia's environmental problems, existing legislation and institutions and strategy options for improving environmental quality. The plan is based on a review of relevant studies and reports, local knowledge at Provincial level, and a process of Consultant and discussion involving Central and provincial governments, academic institutions, governments, private sector, academic institutions, civic representatives, NGO's, International organisations and donor Community.

Environmental issues in Zambia have been the responsibilities of Government sector ministries until in recent years when institutional reforms and strategies are changing towards cross-sectoral coordination with increasing awareness on the significance, severity, cross cutting and complex nature of environmental issues. In view of this, the Government as earlier stated presently is

reviewing most environmental legislation to ensure that they are in line and consistent with current macro economic reforms and the national environmental policy. The indulging reasons for sectoral policy and legislation reviews are the need to balance economic growth with an efficient and sustainable use of the environment and natural resources as well as the need to integrate environmental management in all sectors.

### MAJOR GROUPS INVOLVEMENT IN THE DECISION MAKING.

There are a number of NGO's in Zambia working in the area of Environment namely; Environmental Conservation Association of Zambia (ECAZ), Worldwide Fund for nature (WWF), IUCN, WECSZ, etc. (hence the NGO sector has therefore not been sufficiently visible in matters related to environmental protection and management).

### PROGRAMMES AND PROJECTS

There are a number of sectoral development programmes (SDP) that have been developed in the country based on environmental principles in their formulation and implementation. These include: (Source: PRSP, MoFED 2001);

Programme	Background	Constraints & Challenges
<b>Environmental Support Programme (ESP)</b>	Supports the Governments development Strategy of poverty reduction within the framework of economic growth and protection of the Environment and Natural Resources Management in Zambia's development process at the National and local levels. The program is being executed through various line ministries and agencies under the overall coordination of the Ministry of Environment and Natural Resources. The approach of the program centers on addressing environmental concerns as identified by the National Environmental Action Plan (NEAP), namely soil degradation, water pollution and inadequate sanitation, deforestation, air pollution and wildlife depletion. ESP is receiving financial assistance from UNDP, World Bank, Netherlands. .	The impact of the programme since inception has not been very good due to lack of proper coordination and linkages between implementing stakeholders
<b>Public Sector Reform Program (PSRP)</b>	Aim was to improve the operations of the Public Sector. This will be done through reducing public employment, decompressing public sector salaries and strengthening financial management capabilities and improving performance management systems.	
<b>Zambia Forestry Action Program (ZFAP) (2000-2020)</b>	Is a national initiative to assess Zambia's forest resources and the country's capability to manage the forests. The programme include a wide range of approaches for sustainable forest management taking into consideration holistic, inter-sectoral and iterative approaches, ecosystem approaches that integrate the conservation of biological diversity and sustainable use of biological resources adequate provision and valuation of forest goods and services. It includes components on Wood energy, Tree development, Biodiversity Conservation and Extension services.	Lack of finance to community based projects.
<b>Administrative Management Design (ADMADE) program (1999-2003)</b>	For wildlife management in Game Management Areas that seek to build capacity for community based natural resources management by decentralised decision making and wildlife revenue sharing.	
<b>Provincial</b>	Focuses on promoting community participation for	There is a Shortage

Programme	Background	Constraints & Challenges
Forestry Action Program (PFAP) (2000-2004)	sustainable forestry management and building capacities for forestry planning at provincial and district levels. The program is being implemented in four provinces, namely; Copperbelt, Central, Luapula and Southern Provinces	of manpower implement the project nationally due to funding constrains. It is however operating in 4 provinces.
Community Based Natural Resources Management Program (CBNRM) (1999-2003)	Provides for the involvement of local communities in the development of management plans and management of natural resources such as forests, wildlife, fisheries, water and arable land. The program emphasizes an integrated management approach of natural resources with the involvement of all gender groups.	Inadequate funding. Poor management due to lack of trained manpower.
Soil Conservation and Farming Systems program (SCAFE) (1985-2010)	<b>Aims to combat soil degradation and undertaking integrated agriculture and forestry extension efforts with local communities in four provinces namely, Eastern, Southern, Central and Lusaka Provinces.</b>	
Zambia Social Investment Fund (ZAMSIF)	Is supporting communities to rehabilitate infrastructure through implementation of micro-projects by provision of matching grants. The expansion of the fund has included environmental projects apart from ensuring that all projects supported by the fund undergo environmental assessments.	
Environmental Management Programs (EMP)	Being implemented by the Environmental Council of Zambia and negotiates on behalf of Government on development of Environmental Management Plans for each Mining area as per terms of the sale agreements within the privatization process. The plans defines the commitments of owners regarding adherence to environmental regulations according to Zambian laws.	
Industrial Pollution Prevention Program (IPPP) (1997-2003)	Arising from the Regulations and standards set under the Environmental Protection and Pollution Control Act, and aims at ensuring pollution prevention and attaining sustainable development. The program develop capacity for Environmental Council of Zambia to enforce regulations through a stringent monitoring and licensing of industrial operations in Zambia and also has a component of cleaner production under the Zambia Chambers of Commerce and Industry (ZACCI).	
Water Resources Action Programme (WRAP) (1999-2003)	Aims to contribute to poverty reduction. The programme supports the National water policy in the establishment of a comprehensive framework that will promote the use, development and management of water resources in a sustainable manner. It is assumed this will contribute to poverty reduction as water is key to social and economic prosperity.	

## STATUS

Zambia recognises the importance of sustainable natural resources management and the contribution of these to the national economy and environment. The development of sector programmes discussed above indicated wider stakeholder participation in planning and decision making processes in connection with these programmes. However, the implementation of these sector programmes has stagnated in most cases owing to budgetary constraints. In addition there is shortage of reliable and up to date data and information on the major sectors.

The National Environmental Action Plan (NEAP) formulated in 1994 aims to integrate environmental concerns into the social and economic development planning process of the country. And the overall framework for natural resources management recognises the role of different interest groups including the local communities. To some extent stakeholder participation has been provided under revised sector legislation such as the Wildlife Act, Forests Act and the Water Act. The challenge however, remains to translate the policy provisions into reality.

Sustainable natural resource management depends on enabling environmental laws that provides for various stakeholder participation. The Government is exploring the best ways of involving local people in managing the environment through community based natural resources programmes. The Government with the assistance of the donor community namely, USAID, UNDP, FAO, FINNIDA and Netherlands Government is supporting community based programmes in selected parts of the country. These programs aims to raise farmer's income and alleviate poverty by improved production and marketing of agriculture and forest products. The CBNRM programmes also aims to contribute to effective management and conservation of Zambia's natural resources in an integrated manner by assisting local community based groups to develop the skills and knowledge required to identify, initiate and manage viable economic activities.

## CAPACITY- BUILDING, EDUCATION TRAINING AND AWARENESS-RAISING

<b>Capacity Building</b>	The various sector programmes with donors assistance as regards environmental management have provisions for capacity building to include training of personnel, purchase of equipment and materials support for meetings and conferences. Capacity building within local institutions is being done by providing education in natural resources management and utilisation and creation of awareness on the value of natural resources for all beneficiaries.
<b>Education</b>	The Environmental Support Programme (ESP) has a component on environmental education and public awareness which is implemented by the Environmental Council of Zambia through two approaches, school system and media to provide a broad based support to raise awareness of environmental issues among the general public. The ECZ works in close collaboration with the Curriculum Development Centre of the Ministry of Education which has the responsibility of Curriculum review and modification. The institutions offering natural resources training include University of Zambia, Copperbelt University, Zambia Forestry College, Natural Resources Development College.
<b>Training</b>	
<b>Awareness-raising</b>	The public must be made aware of their right to a clean environment and must demand for it. Hence, it must be ensured that information materials that are generated from various sources get to the general public. The Biodiversity Strategy Action Plan disseminated information on biodiversity and related environmental issues hence contributed to raising awareness at all levels.

## **INFORMATION**

Under the Environmental Support Facility there is a provision to put together a Central Database for Environmental information. Information is currently scattered amongst various ministry.

## **RESEARCH AND TECHNOLOGY**

The importance of research and development of technologies for sustainable development in the country need to be emphasized. In recognition of this significance, a number of institutions are presently involved in environmental research and management. These institutions have also been encouraged to collaborate and wherever possible carry out joint research activities with neighbouring countries and international organizations. The Ministry of Tourism, Environment and Natural Resources is spearheading research in fields such as pollution monitoring and control methods, watershed management, energy saving and tree development. Other institutions involved in environmental research include University of Zambia, National Industrial Research Council, Water Sector, Energy Sector, Zambia Wildlife Authority and Ministry of Agriculture, Food and Fisheries through various sector programmes.

The Technology Development Unit of the University of Zambia in collaboration with the Energy Department and National Industrial Research Council has carried out studies that would make solar, wind and biogas energy accessible to the local people. These institutions have continued to develop necessary technology that will save the country from high costs and minimize the polluting effects of oil and coal.

## **FINANCING**

Government budgetary allocations to the environmental sector have generally been inadequate. The massive investment in the sector has been made possible by the external financing from Zambia's co-operating partners. Donor funding has during the period 1991 to 1995 ranged between 75 - 91% of the sector budget.

The Environmental Support Programme (ESP) has a pilot environmental fund which is an investment component with two financing windows namely; community based environmental fund and environmental study fund which focuses on promotion of community based micro-protects and oriented towards natural resources management and environmental studies and development of action plans and strategies of national importance respectively.

## **COOPERATION**

The implementation of sector wide programmes demands strong leadership and coordination. This responsibility lies with the Government.

At the programmes operational level coordination has mainly concentrated with improving efficiency of actions through information exchange, facilitate government administrative procedures, mobilization of resources, avoid overlapping activities, develop data bases, publication of newsletters, regular partner coordination meetings.

In order to achieve the above, the various sectors have introduced management structures for the implementation of sector programmes. These have provided for all stakeholders participation and Donor Community to take an active role in the implementation, monitoring and evaluation of programmes. These management structures include Steering Committees, Forums, Supervisory Boards and Project Management teams.

Supervisory Boards handle policy issues and amendments to project documents and approve annual plans, budgets and reports. The Steering Committee is responsible for management of

the programme. The fora enables Government a platform to discuss with the donor community and stakeholders.

In addition to legislation and policies at national level, conservation and management of natural resources has been influenced by international law and policy. The principal influence among the international conventions comes from Convention on Biological diversity (CBD) which Zambia ratified in 1993. Zambia recognises the significance of CBD objectives and obligations and has used the Convention as an opportunity to integrate these objectives into on-going national policies, plans and programmes to include Environmental Support Programme (ESP), Zambia Forestry Action Programme (ZFAP), Water Resources Action programme (WRAP) and Agricultural sector Investment Programme (ASIP).

Zambia is also a party to other international Conventions, namely; Convention on Wetlands of International Importance, Waterfowl Habitat (Ramsar Convention), Convention on International Trade in Endangered Species of Wild Flora and Fauna (CITES), United Nations Framework Convention on Climate Change (UNFCCC), Convention to Combat Desertification (CCD). Under the Ramsar Convention, Zambia has listed two wetland sites, Kafue and Bangweulu, and has developed a Wetland policy and strategies. And under CITES, Zambia has assented to the listing of several species of flora and fauna in the three Appendices of the Convention (NBSAP, MENR, 1999).

Zambia cooperates with neighbouring countries at the regional level through bilateral and regional agreements. Zambia cooperates through regional groups, namely; Southern African Development Community (SADC), Common Market for Eastern and Southern Africa (COMESA).

## **PART 2**

# **CONSERVATION AND MANAGEMENT OF RESOURCES FOR DEVELOPMENT**

### **Chapter 9**

#### **PROTECTION OF THE ATMOSPHERE**

#### **DECISION MAKING**

In 1992 Zambia established an Environmental Council of Zambia (ECZ) through an Act of Parliament, the Environmental Protection and Pollution Control Act. ECZ is the implementing arm of government for all projects and programmes that aim at protecting the atmosphere.

The Ministry of Tourism, Environment and Natural Resources is responsible for policy guidance, coordination and monitoring of environmental and natural resources management issues in the country. The Ministry has constituted a National Climate Change Steering Committee (NCCSC) comprising senior government policy makers and stakeholders from key sectors of the economy. The Committee is set up to provide policy guidance and ensure effective implementation of activities undertaken on climate change and integration of the study findings into national development plans.

#### **LEGISLATION AND REGULATIONS**

The Zambian government enacted the Environmental Protection and Pollution Control Act which became effective in 1992 in response to the United Nations Conference on Environment and Development (UNCED). National legislation has generally been reviewed in light of Agenda 21. The Licencing and Emission Standards Regulations were enacted through Statutory Instrument No. 141 of 1996 to protect the atmosphere from air pollution arising from industrial processes. Recently, regulations on ozone depleting substances have been passed through Statutory Instrument No. 27 of 2001.

#### **PROGRAMMES AND PROJECTS**

The impacts of climate change have been investigated in the agricultural, wildlife, forestry, health and water sectors using the intergovernmental panel on climate change guidelines. The following studies have been undertaken:

- (i) Green house gas inventories
- (ii) Vulnerability and Adaptation; and
- (iii) Mitigation

Four sectors have been inventoried; these are energy, industry, land use and forestry. The green house gases considered in the studies were carbon dioxide (Co<sub>2</sub>), Methane (CH<sub>4</sub>) nitrous oxide (NO<sub>4</sub>) and precursors like oxides and nitrogen, carbon dioxide (C<sub>0</sub>) and non methane volatile organic compounds.

Electricity is the main source of energy in the Zambian industries. However, some industries use fossil feed in boilers for production of steam. CO<sub>2</sub> emissions from the industrial sector accounted for about 14% of the total CO<sub>2</sub> emissions that were estimated at 300,465 Gg in 1994.

The transport sector produced 1211.553 Gg of CO<sub>2</sub> representing 53 per cent of the total emission. CO<sub>2</sub> emissions from households were 57.046 Gg accounting for 24 percent of the total CO<sub>2</sub> emissions. The total green house gas emissions due to energy use in 1994 was 2,294.885 Gg.

Results from these studies have shown that the production of maize the staple food of Zambia would reduce under the scenario of double the amount of carbon dioxide that is currently present in the atmosphere particularly in Zambia's agro-ecological zones II and I. Under drought conditions, reduced soil moisture and poor quality fodder, stress, mortality and migration of wildlife would occur. Under low rainfall (500mm) and high temperature (20°C) and few rain days (50 days) miombo woodland cover, which is 80% of forested land, would suffer a 50% reduction whereas the dryer mopane and munga vegetation types would predominate. During periods of high rainfall, humidity and high temperature, malaria incidences would increase in all the three ecological zones of Zambia exerting a heavy burden on the health service deliver system.

Adaptation measures already being implemented include the development of drought tolerant and early maturing crop varieties, crop diversification, sinking boreholes and construction of dams to provide water to people, livestock and wildlife during droughts. Game ranching and plantation forestry for conservation purposes is being encouraged and institutional and legal frameworks are being strengthened.

Climate change mitigation measures being considered include:

- the improvement of charcoal production processes,
- switching from the use of diesel powered generators to mini hydropower,
- minimising green house gas emissions from coal mining,
- reducing energy demand by encouraging energy efficient cook stoves and increasing electrification of households in the low income groups and
- promoting the use of renewable sources of energy such as solar and wind.

Mitigation measures for reducing CO<sub>2</sub> emissions in the manufacturing industries have focussed on improving boiler operating efficiency as well as converting coal and diesel fired boilers to electric ones. In the mines the strategy for reducing CO<sub>2</sub> emissions is being achieved by switching from diesel to electric engines and adoption of new technologies such as the use of flash smelting furnace, ceramic concentration filters and oxyfuel smelters in smelter operations.

In the transport sector the strategies that are being encouraged are: pooling transport, running vehicles that are technically efficient and blending fuel with ethanol.

In agriculture mitigation measures have focussed on reducing CO<sub>2</sub> emissions by discouraging shifting cultivation through the use of organic manure and fertilisers

## **STATUS**

Zambia's main objective in implementing Chapter 9 of Agenda 21 over the past ten years has been to improve the nation's understanding of the processes that influence and are influenced by the Earth's atmosphere, reduce the adverse effects of the energy sector on the atmosphere, develop and promote cost effective policies and programmes aimed at controlling harmful emissions into the atmosphere. The nation is encouraging industrial development in ways that minimise adverse impacts on the atmosphere, promoting appropriate land use practices that contribute to reduction of atmospheric pollution and enhance conservation and sustainable management of all sinks for green house gases, controlling the use of ozone depleting substances and developing strategies aimed at reducing emissions responsible for stationary and transboundary air pollution and their effects.

## **CAPACITY BUILDING, EDUCATION, TRAINING AND AWARENESS RAISING**

Zambia is constrained by inadequate skilled human resources, poor infrastructure and weak economy in responding in a timely and effective manner to challenges of protecting the atmosphere.

Modest achievements have been made under the industrial pollution prevention programme and the ozone layer project. Equipment to measure industrial stack emissions and various equipment for recycling, retrofitting and proper handling of ozone depleting substances have been acquired.

The University of Zambia School of Mines has been conducting training workshops on air pollution and monitoring systems for the industries, the public, NGOs and various bodies involved in environmental programmes. Other higher learning institutions have also introduced courses in environmental pollution control. Under the ozone layer project, Zambia has conducted hands on training on refrigeration handling and servicing techniques for refrigeration technicians at the University of Zambia and Northern Technical College in Ndola.

### **INFORMATION MANAGEMENT**

Zambia is establishing a database on air emissions from industries at the Environmental Council of Zambia and the Ministry of Environment and Natural Resources through the Environmental Information Network and Monitoring System project of the Environmental Support Programme.

### **RESEARCH AND TECHNOLOGY**

There has been very little research done on protection of the atmosphere in Zambia. Sulphur dioxide emissions from roasting and smelting operations and the burning of sulphur containing fuels have been the main sources of air pollution in the Copperbelt. Before privatisation and capitalisation of the mines, concentrations of sulphur dioxide occasionally exceeded recommended levels of 600 micrograms per cubic metre per hour or 200 micrograms per cubic metre per day. In 1977 the mean ground level concentration of sulphur dioxide within 7km of the smelter in Kitwe was 15-40 micrograms per cubic metre of air. At Luanshya and Mufulira concentrations of sulphur dioxide within 2km of the smelter were 100 and 78 micrograms per cubic metre of air, respectively.

	YEAR		
	1971	1979	1990s
Sulphur emissions (tonnes per year)	450,000	270,000	200,000

Source: ECZ

To strengthen research in environmental related areas, the Ministry of Tourism, Environment and Natural Resources established an Environmental Study Fund for research activities in 1998. The University of Zambia, Geography Department has conducted a study under this fund, which looked at the levels of copper in plants from dust emissions from copper smelters in Mufulira's Kankoyo's township.

### **FINANCING**

Zambia has no specific fund for climate or atmospheric protection purposes. The country has implemented projects and programmes over the past ten years, with assistance from cooperating partners. The Germany Agency for Technical Cooperation (GTZ) supported the Centre for Energy, Environment and Engineering to start work on green house gas emissions and mitigation assessment studies in 1994. The United States Climate Change Programme (USCCP) also supported the Zambian government in climate change studies on green house gas inventories, mitigation and vulnerability assessment in 1995. The Industrial Pollution Prevention Programme, which is targeted at industries, was initiated with financial support from NORAD in 1996.

The Ozone Layer Project was started in 1997 with financial support from the multilateral fund of the Montreal Protocol. The United Nations Environment Programme provided technical assistance. The Zambian government continues to contribute to protection of the atmosphere and the environment through its national budget allocations to the Ministry of Tourism, Environment and Natural Resources, the Meteorological Department and counterpart financing to programmes supported by cooperating partners such as the World Bank supported Environmental Support Programme (ESP).

**REGIONAL/INTERNATIONAL COOPERATION**

Zambia continues to be committed to the process of the United Nations Framework Convention on Climate Change and the Montreal Protocol on Substances that Deplete the Ozone Layer.

Zambia is a member of regional networks such as the Air Pollution Information Network of Southern Africa (APINSA) and is involved in the activities of SAFARI 2000 in the Western Province of Zambia in which the levels of particulate in the ambient air will be assessed.

In 1994 plantation forests and natural forest regeneration provided sinks for an estimated 71,504.00 Gg of CO<sub>2</sub> emissions while a total of 72,710.05 Gg of CO<sub>2</sub> were emitted making Zambia a net CO<sub>2</sub> emitter in that year.

## **Chapter 10**

### **AN INTEGRATED APPROACH TO LAND-RESOURCES USE**

#### **DECISION MAKING**

The Ministry of Lands is the national institution responsible for land administration i.e. the provision of land for residential, commercial, industrial, small holdings and farms to deserving applicants. The department of Town and Country Planning under the Ministry of Local Government and Housing ensures the orderly and planned development of the country as a whole. It establishes planning authorities for various areas and provides for the control, use, change of use and reservation of land for various purposes. The Environmental Council of Zambia (ECZ) under the Ministry of Tourism, Environment and Natural Resources coordinates policy implementation activities of the environment, monitors trends in the use of land resources and their impact on the environment.

#### **LEGISLATION AND REGULATIONS**

The Town and Country Planning Act of 1994, the Land Survey Act of , the Lands Act of 1995, the Agricultural Lands Act of , the Zambia Wildlife Act of 1998, the Forest Act of 1999 and the Environmental Protection and Pollution Control Act of 1990 are the important legal instruments of land use planning in Zambia.

#### **PROGRAMMES AND PROJECTS**

To ensure sustainable land resources utilisation at household and national levels a number of integrated programmes and projects have been undertaken in the past ten years. These include:

- (i) Extension and public awareness campaigns on land degradation and undertaking conservation measures such as minimum tillage and control of bush fires.
- (ii) Soil conservation and agro-forestry Extension (SCAFE) which is a programme implemented by farmers in Eastern, southern and Central Provinces. Under this programme farmers have adopted such practices as terracing, ridging, range management and green manuring.
- (iii) Community Based Natural Resources Management (CBNRM) and Community Environmental Management Programme (CEMP) under which communities are facilitated to develop community natural resources management plans and community environmental action plans which form the basis of developing community self help projects which the communities use to apply for matching grants from the community based initiative fund under the pilot environmental fund of Environmental Support Programme /Zambia Social Investment Fund.
- (iv) Other conservation measures aimed at reducing the process of soil erosion and land degradation continue to be used by farmers and land users. These include: crop rotation; use of kraal manure; intercropping fallowing and contour ridging.

The Ministry of Tourism, Environment and Natural Resources is assisting the Surveyor General's office to digitise some base maps under the Environmental Information Network and Monitoring System component of the Environmental Support Programme. This initiative is meant to standardise mapping and remove disparities in scales and spatial resolution, variability in sampling methods and the inherent differences in geographical models used in data collection, storage and display.

#### **STATUS**

Zambia's main objective in implementing Chapter 10 of agenda 21 has been to reduce land use problems of alienating land to various competing and conflicting land use categories; to strengthen institutions and coordinating mechanisms for land and land resources and to create mechanisms for facilitating the active involvement and participation of all concerned, particularly communities in decision making on land use and management.

Zambia has a historical heritage of land uses and systems. With a total land area of 752,000km<sup>2</sup>, there are several issues that affect land resources management. Some of these are land tenure, ecological zones and land use.

Most of Zambia's land falls under the category of customary land tenure system. This is a traditional system of land management and administration. The underlying principle of this system is that land use is held in common ownership by the community in perpetuity. Land is transferable following family/community traits. The other category of land is that held under leasehold land tenure system. Under this category, title to land is given to the applicant for a period not exceeding 99 years after which the leasee has to apply for renewal of the title.

The current land Act recognises traditional land as eligible for state registration and thus people owning land under customary tenure can convert it to leasehold title. This in effect converts customary land to leasehold land.

In Zambia land resource use systems have to a great extent been influenced by the physical and climatic characteristics of the three major agro-ecological zones. These agro-ecological regions are based on annual rainfall. Region I, with 600-800 mm annual rainfall. Region II with 800-1000 mm annual rainfall. Region III with 1000-1500 mm annual rainfall.

### **CAPACITY BUILDING, EDUCATION, TRAINING AND AWARENESS RAISING**

There is an urgent need to undertake a proper land evaluation and capability assessment to guide the allocation of land to various uses in a well-coordinated and integrated manner. Land resources planning and management has not adequately been integrated into the overall social and economic policies and strategies of the nation particularly economic development programmes.

The environmental impact assessment regulations under the Environmental Protection and Pollution Control Act is the only systematic planning tool available for examination of the interaction between a project and environmental components in determining whether or not a proposed development project or alternatives, have significant adverse or beneficial impacts on the environment.

Assessment of current levels of EIA implementation in Zambia reveal inadequacies in information flow between ECZ and the developer and the local communities on the importance and value of EIA for sustainable land resources development. In this regard, Zambia needs to develop the following capacities for integrated land resources planning and management:

- (i) Development of specific land resources planning and management guidelines
- (ii) Development of professional competence in integrated land use planning
- (iii) Enhancement of institutional coordination in planning and management of land resources
- (iv) Enhancement of ECZ's monitoring capacity and capacities of planning authority agents to ensure integrated land resources management
- (v) Enhance general public awareness especially in deriving integrated land resources management options.

### **INFORMATION MANAGEMENT**

Land resources data in Zambia is very diverse in nature, content and scale due to the sectoral approach in the management of land resources. Information on state registered land can be obtained from Lands Department while information on surveyed land is under the custody of the Surveyor General's office. Other Ministries and agencies also keep management information on other land resources such as forests, water and arable land.

## **RESEARCH AND TECHNOLOGY**

The critical issue of food security depends on the quality of land resources such as quality of soils, availability of water resources, and pasture. The sectoral approach taken in the management of these resources requires to be reviewed through applied practical research which has been lacking in the past ten years.

The environmental information network and monitoring system component of ESP has commissioned research studies aimed at developing information subsystems on land degradation, deforestation, water pollution and sanitation, wildlife depletion and air pollution. This it is hoped would ensure sound decision making at all levels.

## **FINANCING**

Financing of integrated land resources planning and management is being undertaken within the national budget allocations to sector ministries. Planning authorities at each level are responsible for financing the plans while other proposals for local development are financed by the project proponents.

## **REGIONAL/INTERNATIONAL COOPERATION**

Zambia has adequately participated in various regional programmes on land resources planning and management. Under the southern african development community, Zambia has actively participated in the Zambezi River Basin Action Plan (ZACPLAN), the Kalahari-Namib programme of action, the mapping programmes along common borders and more recently, in the biodiversity strategy on conservation of dry lands initiated between Mozambique, Zimbabwe and Zambia.

Zambia has also informally benefited from international programmes for land resources planning and management particularly in the area of Environmental Information systems such as UNEP's Environment and Natural Resources Information Networks (ENRIN), United Nations Institute for Training and Research (UNITAR) which has supported a few Zambians in Geographical Information Systems (GIS) training, the Germany Foundation for International Development (DSE) which has continued to support human resource capacity building in participatory environmental management, GIS and Environmental Information Management.

## **Chapter 11 COMBATING DEFORESTATION**

### **DECISION MAKING**

The Forestry Department under the Ministry of Tourism, Environment and Natural Resources is the primary institution mandated to deal directly with all matters pertaining to the sustainable management of forests including combating deforestation. Other institutions indirectly involved in combating deforestation are the Environmental Council of Zambia, Ministry of Energy and Water Development, the Zambia Wildlife Authority and various NGOs dealing with environmental issues.

### **LEGISLATION AND REGULATIONS**

In order to develop supportive policies and policy instruments, a new forestry policy and a legal framework were introduced in 1998 and 1999 respectively. However, the Forestry Act of 1973 is the legal framework currently being enforced in the country. The main constraint in effecting the new Act has been financial and technical limitations in establishing a new institutional structure in the form of a forest commission. Other relevant laws complementing the Forestry Act are the Zambia Wildlife Act No. 12 of 1998 and the environmental Protection and Pollution Control Act of 1990.

### **PROGRAMMES AND PROJECTS**

In 1995 the Zambia Forestry Action Programme (ZFAP) planning process was launched in response to the FAO tropical Forestry Action Plan of 1987. ZFAP was undertaken as an integral part of the National Environmental Action Plan process, which was developed to incorporate environmental issues into social and economic policy and development planning. The current forestry policy and Forestry Act of 1999 are outcomes from the ZFAP planning process. Implementation of the ZFAP programmes activities has not fully taken off due to lack of financial and technical support from the cooperating partners. This is despite the donor roundtable meeting, which Zambia hosted in June 1999.

To promote the community participation in forestry planning, Zambia has been implementing the Provincial Forestry Action Plan (PFAP) since 1995 as a local level planning process of the ZFAP. The first phase of PFAP was started in 1995 mainly as a planning process to develop action plans in three pilot provinces and this was completed in 1998. Various stakeholders such as traditional rulers, community representatives, local authorities and NGOs have participated in this process. The second phase of PFAP focussing on sustainable management and conservation of indigenous forests through Joint forest Management with local communities and sharing of benefits was initiated in February 2000.

To integrate combating deforestation with poverty alleviation strategies a new forest resource management innovative project to secure sustainable income base for the poor and rural communities dependent on forest resources has been initiated to cover North-Western and Luapula Provinces. This project will be supported through a credit from International Fund for Agricultural Development (IFAD).

Other initiatives include: the village-based woodland management project (VBWMP) whose main goal will be to contribute to poverty reduction and sustainable management of natural woodlands through forest income sharing to be supported by the African Development Bank; a project on strengthening of revenue collection supported by FAO whose main objective is to develop a mechanism for community participation in forest revenue collection and sharing; and various projects on community natural resources and environmental management supported by UNDP, the Dutch government, World Bank and more recently DANIDA.

### **STATUS**

Combating deforestation as well as promoting reforestation and afforestation, have been important issues in Zambia since large scale mining activities started in the early to mid 1900s.

Deforestation is considered to be a serious problem in Zambia. Loss of forests occurs mostly due to clearing for agriculture, woodfuel and settlements. Indigenous forest productivity and tolerance to environmental stress is further reduced by bush fires.

The main constraints to effective forest conservation and reforestation are the alternative land uses, especially agricultural expansion to forestall hunger, the demand for domestic energy, commercial logging of timber and over grazing of animals in certain parts of the country. The deforestation problem is further compounded by increasing poverty levels (estimated to affect 80% of the population).

The government has adopted a new forest Policy in 1998 and Parliament passed a new forest Act in 1999. The new forest Act provides for the transformation of the Forest Department into a Statutory Body to be called the Zambia Forestry Commission (ZAFCOM).

### **CAPACITY BUILDING, EDUCATION, TRAINING AND AWARENESS RAISING**

Formal forestry training is being undertaken at the Zambia Forestry College which offers diploma and certificate courses and at the Copperbelt University which offers degree courses in forestry and wood science. Institutional capacity in the forestry sector is currently not satisfactory. The number of graduating foresters at the Copperbelt University each year averages 22 while the number graduating with diplomas and certificates from the Zambia Forestry College averages 18 and 19 respectively.

Under the PFAP programme, training workshops for extension workers, community representatives and NGOs have been organised and information literature on forest resources management published.

### **INFORMATION MANAGEMENT**

Currently Zambia does not have an established deforestation or forest information system for decision making and evaluating changes in land use and management. All attempts at establishing information systems have been project area specific, unsystematic and do not facilitate national wide assessment of the status of forest resources. Information such as deforestation rates, forest cover and standing stock are based on outdated studies.

Zambia currently lacks up to date information on the status and productivity of forests resources to the extent that it is not possible to prepare forest management plans from a national perspective. The last forest inventory was undertaken in the early 1970s.

### **RESEARCH AND TECHNOLOGY**

The Zambian Forestry Sector continues to face difficult challenges in terms of population growth, changes in population distribution, economic pressures and efforts to alleviate poverty and ensure food security. Decisions on whether to retain land under forests as opposed to converting it to other land uses have to be made.

Research to resolve the challenges of how to meet the growing demand for forest products while at the same time safe guarding the ability of forests to provide a range of environmental services including among others, the conservation of biological diversity, mitigation of global climate changes, protection of soil and water resources and safe guarding livelihoods and the rights of local communities, requires the support of regional and international organisations.

Most of the current research activities aimed at combating deforestation are basic and include the development of efficient charcoal kilns and stoves, use of coal briquettes as a substitute to charcoal, agroforestry techniques and identification of drought and termite/insect resistant plants.

## FINANCING

Government has continued to meet operational recurrent costs from the national budget while cooperating partners have been supporting the capital cost elements in most of the projects and programmes.

The budget of the main institutions in the forestry sector (ZMK Million)

	YEAR			
	1992	1993	1994	1995
Forestry Department	141.1	388.2	708.7	775.2
Wildlife Department	369.2	928.6	2742.9	3844.6
Agriculture Department	1280.9	8364.1	14741.5	-

Source: Government Expenditure

## REGIONAL AND INTERNATIONAL COOPERATION

Zambia continues to collaborate with regional and international agencies in the area of sustainable forest management and exchange of information on forest resources. At SADC level cooperation arrangements are maintained with the SADC Forestry Sector Technical Coordination Unit based in Malawi. At the international level Zambia is actively involved in FAO activities and initiatives. At the bilateral level Zambia has continued to work closely with its neighbouring countries and cooperating partners such as FINNIDA, IFAD and the EU.

## **Chapter 12 COMBATING DESERTIFICATION AND DROUGHT**

### **DECISION MAKING**

The Ministry of Tourism, Environment and Natural Resources has the responsibility of coordinating the implementation of the convention to Combat Desertification. However, there are other government agencies such as the Department of Meteorology, Disaster Management and Mitigation Unit in the office of the Republican Vice President, Ministry of Agriculture, Department of Water Affairs and Foreign Affairs that play a supportive role.

### **LEGISLATION AND REGULATIONS**

There is no specific legislation dealing with issues of drought although there are special legal instruments addressing the issues of land degradation. Some of these are the Forestry Act, Agricultural Lands Act; Water Act; Land Act; the Town and Country Planning Act; and the Environmental Protection and Pollution Control Act.

### **PROGRAMMES AND PROJECTS**

The Zambian government through the Ministry of Tourism, Environment and Natural Resources prepared the National Action Plan (NAP) to combat desertification with the support of UNDP/UNSO. Under this action plan, Zambia is targeting to deal with land degradation and the development of comprehensive drought preparedness and relief schemes in degraded areas of Southern Province, Western Province, Central Province, Lusaka Province and Eastern Province.

The other programme is the early warning system. This programme consists of institutions responsible for early warning, vulnerability assessment and disaster management such as Meteorological Department, Ministry of Agriculture and Central Statistical Office.

Under the Environmental support Programme, issues of land degradation are dealt with under the Community Environmental Management Programme (CEMP) and the Community Based Natural Resources Management Programmes (CBNRM). Currently, at least one district in each province is covered by CEMP and or CBNRM programme.

Under the Land Management and Conservation Farming Project, diversification of crop production and promotion of drought tolerant crop varieties such as millet, sorghum and cassava is being undertaken in drought prone areas.

### **STATUS**

Zambia signed the International Convention to Combat Desertification in countries experiencing drought and/or desertification particularly in Africa in 1994 and ratified in 1996.

Zambia is an affected country party in terms of land degradation and experiencing frequent devastating droughts. Over the last five years, the rainy season has tended to start late towards the end of November and by the end of March the rains have virtually stopped in most parts of the country. Zambia has in recent years continued to experience mean seasonal rainfall below normal, especially in the extreme southern parts. Statistically calculated rainfall indices over the last twenty five years clearly show that rainfall seasons for periods 1972/73, 1981/82, 1983/84, 1991/92, 1993/94 and 1994/95 have been the most severe drought seasons that Zambia has experienced. Zambia is particularly vulnerable to recurrent droughts due to factors such as wide spread poverty and over dependence on rain fed agriculture. It is estimated that about 100,000 hectares of land is affected by land degradation in Zambia.

### **CAPACITY BUILDING, EDUCATION, TRAINING AND AWARENESS RAISING**

The Zambian government recognises that capacity building is vital to the success of the National Action Plan (NAP) to Combat Desertification and land degradation. Emphasis is being placed on

training and dissemination of local indigenous knowledge to promote more sustainable use of natural resources and ensure viable income alternatives for natural resource users.

Through the Community Environmental Management Programme, the Community Based Natural Resources Management Programme, the Soil Conservation and Agroforestry Extension Programme (SCAFE) and the NAP process, community structures for natural resource management have been established in all the nine provinces of the country.

Teams of qualified Zambians have been trained by both international and local participatory environmental management specialists in a wide range of Environmental and Natural Resources management issues and have adopted participatory techniques in community natural resources management. The national teams have also been training local NGOs, CBOs, line Ministry officials and community committees, leaders and representatives in participatory environmental appraisal to facilitate the development of Community Environmental Action Plans (CEAPS) and Community Based Natural Resources Management Plans (CBNRMP).

The formation and training of community natural resources management committees has raised environmental awareness and improved financial and technical management skills at the local level. These skills and experiences are now being used by communities in accessing Community Initiatives Funds under the Environmental Support Programme (ESP), Zambia Social Investment Fund (ZAMSIF) and Rural Investment Fund (RIF).

Through the efforts of NGOs such as the Zambia Alliance of Women (ZAW), Wildlife and Environmental Conservation Society of Zambia (WECSZ), Environmental Conservation Association of Zambia (ECAZ), and WWF, the general public are being enlightened on issues pertaining to environmental management and land degradation through folk media, newsletters, radio and television programmes.

#### **INFORMATION MANAGEMENT**

Institutions involved in Land related information management are the Environmental Council of Zambia, Surveys Department, Meteorological Department, University of Zambia, Ministry of Agriculture, Local Authorities and the Environmental Information Network and Monitoring System project under the ESP.

#### **RESEARCH AND TECHNOLOGY**

Other than weather factors, which lead to frequent drought situations, there are other anthropogenic factors that are responsible for land degradation in Zambia. Traditional farming and pastoral areas such as Southern, Eastern, Western, Central and Lusaka Provinces have experienced gradual deterioration of land linked to overgrazing, soil erosion and increased soil acidity due to over utilisation of chemical fertilisers.

Zambia has a number of research and training institutions such as the National Science and Technology Council, National Institute of Scientific and Industrial Research, University of Zambia, Department of Crop and Animal Research in the Ministry of Agriculture and the Ministry of Tourism, Environment and Natural Resources. However, over the past ten years Zambia's research and technology in Land management has focussed more on the development of extension approaches and conservation farming technologies. These include soil conservation technologies such as: minimum tillage, soil conservation works, agroforestry, vetiver grass bands, mulching, crop rotation, use of kraal manure and inter cropping.

#### **FINANCING**

To strengthen integrated development programmes for eradication of poverty and promotion of alternative livelihood systems in rural areas including those prone to drought and land degradation, the Zambian government has introduced the Zambia Social Investment Fund Programme with the support of the World Bank and the EU to provide matching grants to community initiatives and projects. Through sustainable agriculture and forestry programmes,

various cooperating partners are also supporting tree planting, agroforestry and alternative income initiatives in degraded areas of the country.

UNDP/UNSO supported Zambia in developing the National Action Plan on the Convention to Combat Desertification, JICA has also been providing support in drilling bore holes in drought stricken areas of Zambia.

#### **REGIONAL AND INTERNATIONAL COOPERATION**

Zambia has actively participated in regional initiatives such as the SADC/UNEP Kalahari-Namib Action Plan, SADC Integrated Land Use Planning and Economics of Conservation programmes. At international level, Zambia actively participated in the negotiations of the United Nations Convention to Combat Desertification (UNCCD) and continues to collaborate with various agencies in implementing the Convention.

## Chapter 13 PROTECTING MOUNTAIN ECOSYSTEMS

### STATUS

The greater part of Zambia is situated on the continental divide and constitutes the part of the Central African Plateau with an average elevation of 1200m above mean sea level. The Montane zone, usually at an elevation in excess of 2000m is characterized by deeply incised stream valleys, with patches of relict montane forest and seasonal swamps in low-lying areas. The plateau is generally undulating and is broken here and there by isolated hills or hill ranges composed of the more resistant rocks. The highest parts of the plateau are found in Northern Province around Mporokoso, Mbala, Mpika and Tunduma; in Central Province around Serenje; in North Western Province between Solwezi and Mwinilunga; where elevation exceeds 1525m and in a few places 1650m.

The highest parts of Zambia are located in the North-East bordering Malawi where the Montane zone exceeds 1850m. The highest point in the country lies at an elevation of 2164m at a point on the Malawi border. This montane zone comprises of both Montane plateau (The Nyika Plateau) and the narrow linear summits of the nearby Mafinga Hills and Makutu Mountains.

Zambia is a land locked area covering an area of 752,000 km<sup>2</sup> which includes some hilly areas. Zambia does not have mountains. Therefore, issues of relevance to protection of mountain ecosystems are covered under chapter 10 on integrated approach to land resources use.

## **Chapter 14**

### **PROMOTING SUSTAINABLE AGRICULTURE AND RURAL DEVELOPMENT**

#### **DECISION MAKING**

The Ministry of agriculture, Food and Fisheries bears the main responsibility for agriculture and in general terms, rural development. Zambia has a great potential for both rain fed and irrigated crop production as well as livestock production. Issues arising from land and agriculture in Zambia include land tenure, soil and land degradation, food security and contamination of surface and ground water because of fertiliser and chemical usage. To deal with these issues entails the active involvement of the Ministry of Lands, Ministry of Tourism, Environment and Natural Resources and the Environmental Council of Zambia.

Zambia has put in place institutional reforms in the agricultural sector such as the Agricultural Sector Investment Programme (ASIP) and the National Environmental Action Plan (NEAP) to improve and enhance the use of land in Zambia for agriculture and other land uses to ensure sustainability and lasting food security

#### **LEGISLATION AND REGULATIONS**

The principal legal instrument for agricultural management is established by the Agricultural Lands Act. The Act establishes the Agricultural Lands Board, and provides for its functions which inter alia, includes keeping under review the use that is being made of leasehold land outside urban and peri-urban areas and to make appropriate recommendations. Other relevant pieces of legislation are the Lands Act, the Environmental Protection and Pollution Control act, the Town and Country Planning Act, the Forestry Act, the Fisheries Act and the Water Act. At the policy level, Zambia through the Lands Act of 1995 has recognised customary land as eligible for state registration and thus one can get leasehold title on customary land. This has empowered peasant farmers and women with security of tenure to land.

#### **PROGRAMMES AND PROJECTS**

The government of Zambia has been implementing the Agricultural Sector Investment Programme (ASIP) consisting of three main components:

- (i) Policy and institutional reforms
- (ii) Support for private sector investment, and
- (iii) Rehabilitation and strengthening of public sector agriculture services.

Since 1991, a number of broad policy reforms have been initiated and implemented in the agricultural sector. Of these, the most predominant ones are the liberalisation of the agricultural markets and the promotion of private sector participation in all aspects of the agricultural sector development. This has entailed the implementation of a number of strategies including:

- (i) doing away with maize and fertiliser subsidies
- (ii) liberalisation of prices for commodities and inputs
- (iii) lifting import and export restrictions and
- (iv) privatising agro-processing firms

Liberalisation of the agricultural sector has enhanced private sector participation in agricultural development, thereby reversing more than three decades of government dominance in the economy. By the end of 1997 all agronomic parastatals were privatised and by 1998 privatisation of agro processing firms had already started bearing positive results including boosting the demand for agricultural products.

Maize, cassava, rice, wheat and small grains such as sorghum and the millets are the staple food crops grown in Zambia. The production of these food crops over the past decades has been characterised by extreme variation based on policy interventions and whether patterns. In 1988, there was a grain surplus of 70% while in 1992 Zambia had a deficit in cereal production of 50%.

Over the last decade Zambia has been a net importer of maize, rice and wheat mainly due to recurrent droughts, which have constrained food production.

Net farm incomes have only ranged between 85% and 40% of GDP over the last decade. This is mainly due to droughts, uncertainties caused by the transition to a liberalised agricultural sector, unfavourable agricultural policies relative to the prices of manufactured goods and low labour and land productivity.

Livestock production has also been declining mainly due to disease and impacts of drought. Almost the entire traditional herd of 2.2 million depends on natural grassland and browse for feed while the commercial herd is given supplementary feed. The rangeland available for the traditional herd is approximately 11,000,000 hectares, which gives a stocking rate of 5 hectares per animal compared to the carrying capacity of 10-15 hectares per unit. About 90% of the traditional herd is concentrated in Central, Eastern, Southern and Western provinces. Pressure on rangeland resources is greatest in these provinces and these are the areas targeted for intervention under the UNCCD initiative.

### **STATUS**

Zambia's main objective in implementing Chapter 14 of Agenda 21 has been to: ensure household and national food security; generate income and employment; ensure that the existing agricultural land resource base (land, water and soil) are maintained and improved upon; and contribute to sustainable industrial development.

### **CAPACITY BUILDING, EDUCATION, TRAINING AND AWARENESS RAISING**

The Zambian government's challenge is to move from a mineral/mining dependent economy. Agriculture is perceived to play a critical role in this process of diversification of the economy. For sustainable agriculture to be achieved there is need for institutional competence building in the public and private sectors. The following strategies for dealing with environmental issues in the agriculture sector, require support:

- (i) reorganisation of the management and delivery of key support services, especially research, extension and the establishment of farm credit schemes
- (ii) development of mechanisms for improving the economic status of women in agriculture
- (iii) mechanisms to assist farmers to deal with climatic variations such as droughts
- (iv) development and promotion of environmentally friendly production technologies such as soil conservation, agroforestry, crop rotation, green manuring, intercropping and use of animal manure
- (v) Livestock development.

To enhance community and major groups participation, information dissemination is being undertaken through radio and television programmes. Field days are also organised in various areas to encourage sharing of knowledge and experiences among farmers. The private sector has also introduced out grower schemes through which small-scale farmers are provided with extension services, agricultural inputs for selected crops and a ready market for their produce.

### **INFORMATION MANAGEMENT**

The implementation of market policy reforms has improved some aspects of the agricultural sector, particularly the prevalence of seasonal and regional price variations for inputs and produce. Zambia now has one of the most comprehensive agricultural price information system in the region implemented by the agricultural Marketing Information Centre (AMIC). However, this system is still weak on information management and availability at the district level.

Given the multitude of environmental problems, social issues and political factors involved in agriculture, the information required for sustainable agriculture is very wide-ranging. An integrated information management system is not yet developed to create an informed and environmentally sensitive farming community.

## RESEARCH AND TECHNOLOGY

Agricultural research has generated appropriate technologies for improving and sustaining the agricultural sector. In crops, research activities have emphasised the improvement and development of food crops, such as cereals, roots and tubers, vegetables and legumes and export crops such as cotton, cashew, tea, coffee and sugar canes. The frequent droughts in agro ecological Regions I and II have also tended to shift research attention from maize to sorghum and millet, which are more drought tolerant. In Region III research has concentrated on improving the productivity of the farming systems that are traditionally based on finger millet, cassava and sweet potatoes.

## FINANCING

Since UNCED, Zambia has implemented sustainable agriculture activities from the national budget with assistance from cooperating partners. In 1999 support from cooperating partners to agriculture was 52 percent of the total budget with government providing the balance.

## REGIONAL/INTERNATIONAL COOPERATION

Zambia has continued to support regional programmes such as the SADC Plant Genetic Resource Centre (SADC PGRC) which is hosted in Zambia. Zambia continues to participate and support activities of the SADC Agriculture Food Security and Livestock Sector, the Fisheries and Marine Resources Sector, Inland Fisheries Sector and SADC Environment and Land Management Sector. Zambia has been an essential contributor to and beneficiary from the Southern African Centre for Cooperation in Agricultural Research and Training (SACCAR) on important crops, agroforestry and plant genetic resources. Zambia has also actively participated in the Southern African Regional Commission for the Conservation and Utilisation of the Soil (SARCCUS) in the areas of regional exchange of agriculture related technical and scientific information, expertise and know-how. At international level, Zambia has continued to be an active collaborator in FAO and IFAD programmes and activities.

## KEY PERFORMANCE INDICATORS IN AGRICULTURE

Performance Indicator	1992	1993	1994	1995	1996	1997
Agriculture GDP (1994 constant prices K=million)	242,403	322,379	302,183	402,964	400,423	386,703
Total value of Agric. Exports (US\$=million)	28.34	35.70	23.89	47.24	56.56	109.44
Yield/ha of major crops	0.75	1.64	1.28	n.a.	1.61	n.a.
Area cultivated/ha per farm household	-	-	1.37	-	1.17	-
Percentage of households with cattle	20	17	14	13	13	13

Source: Ministry of Agriculture

## Area Cultivated (000 hectares) for major crops

Season	1991/ 1992	1992/ 1993	1993/ 1994	1994/ 1995	1995/ 1996	1996/ 1997	1997/ 1998
Total area cultivated	887.2	892.5	930.5	737.9	925.4	915.9	701.5

Source: Ministry of Agriculture, Food and Fisheries

## **Chapter 15**

### **CONSERVATION OF BIOLOGICAL DIVERSITY**

#### **DECISION MAKING**

The Ministry of Tourism, Environment and Natural Resources is the national focal point on matters pertaining to the management of biological diversity in Zambia. The responsibilities of the Ministry include the coordination, conservation and restoration of the full range of biological diversity of the country. In fulfilling this mandate, the Ministry collaborates with all relevant Ministries and agencies responsible for various components of biological diversity.

A Biodiversity Steering Committee was established to coordinate and monitor implementation of programmes on biodiversity management. Membership on the steering committee consists of the following institutions: -

- (i) Environmental Council of Zambia (ECZ) which is mandated by law to control pollution and protect the environment from damage.
- (ii) Zambia Wildlife Authority (ZAWA) which is mandated by law to protect and ensure sustainable use of wildlife resources.
- (iii) The Fisheries Sub-programme in the Ministry of Agriculture, Food and Fisheries which is mandated to promote sustainable use of fish resources.
- (iv) Department of Forestry which is mandated by law to protect forests and promote sustainable use of forest resources.
- (v) Ministry of Agriculture, Food and Fisheries (MAFF). Whose primary responsibility is to increase food productivity on a sustainable basis.
- (vi) University of Zambia (UNZA) which represents institutions of higher learning.
- (vii) Zambia Alliance for Women which is a Women NGO representative
- (viii) Wildlife and Environmental Conservation Society of Zambia (WECSZ) which is one NGO that has a long history of involvement in advocating for sustainable management of Zambia's wildlife resources.
- (ix) Wildlife Producers Association (WPA) which was established at the turn of the 1990s by wildlife ranchers. WPA is a forum for promoting good ethics in management of wild animals reared in captivity.
- (x) National Institute for Scientific and Industrial Research (NISIR) which is a government agency established to initiate and coordinate scientific and industrial research.

Local Communities resident in Forest Areas, Game Management Areas (GMA), and some fishing communities participate in decision making through local Community Based Natural Resources Management Committees, Wildlife Resource Boards and Community fishery management committees.

#### **LEGISLATION AND REGULATIONS**

The main legal instruments supporting the conservation of biological diversity in Zambia are the following: the Environmental Protection and Pollution Control Act; Zambia Wildlife Act; Forestry Act; Fisheries Act; National Heritage Conservation Commission Act; Lands Act;

#### **PROGRAMMES AND PROJECTS**

Since UNCED, Zambia has embarked on measures to control depletion of its biological diversity by starting to address appropriate Articles of the Convention as follows:

- (i) Reviewing policies and developing national strategies and action plans to enhance capacities for conservation and sustainable utilisation of the country's biological resources. In 1994 Zambia prepared and adopted a National Environmental Action Plan (NEAP); in 1997 the country prepared the Zambia Forestry Action Plan (ZFAP); in 1999 the country developed the National Biodiversity Strategy and Action (NBSAP) and the National Biosafety Strategy and Action Plan. In 1997 Zambia also developed legislation on Environmental Impact Assessment (EIA).

- (ii) Strengthening of links with neighbouring countries in conservation and sustainable utilisation of wildlife resources in border areas with Malawi, Zimbabwe and Botswana including developing of joint research and training programmes in fisheries with Zimbabwe on Lake Kariba and with Tanzania, Congo DR and Burundi on Lake Tanganyika.
- (iii) Strengthening the system of in-situ conservation of biological resources by repealing appropriate laws. The Wildlife Act was repealed and a new Wildlife Act was enacted in 1998; the Forestry Act was repealed and a new Forestry Act was enacted in 1999; enactment of the new Lands Act in 1999; the new Water Act in 2001
- (iv) Initiating appropriate measures for ex-situ conservation of biological diversity has been done by involving the private sector and NGOs in the establishment of Game Ranches, Bird Sanctuaries, Crocodiles Farms and herbaria and the involvement of local communities and civil society organisations in resource management.
- (v) Strengthening and broadening of public awareness and community participation in conservation and sustainable use of biodiversity is being promoted through establishment of Community Based Natural Resources Management Mechanisms such as ADMADE, PFAP, CEMP CBNRMP, SCAFE and through print, electronic and folk media.

Zambia has implemented several sector programmes and projects, some of which are listed below:

- (i) The NBSAP and Biosafety Strategic Plan were prepared to guide the conservation and sustainable use of the nation's biodiversity.
- (ii) ZFAP and PFAP programmes were formulated to provide a vision for the protection and sustainable use of forestry resources throughout the country. The implementation of PFAP which had started in Luapula, Copperbelt and Central Provinces has now included Southern Province.
- (iii) The Zambia Wetlands Strategy and action Plan and Policy were developed to guide sustainable management and utilisation of wetland resources in the country.
- (iv) Studies for the development of game park management plans and determining biological resources available in them have been undertaken. All studies are at species level and cover both plant and animal biodiversity. Other programmes are the Zambia - Zimbabwe Fisheries Development project which is aimed at assessing the status of fish stocks in Lake Kariba.
- (v) Stock assessment studies were also undertaken in the Bangweulu swamps to determine biomass, relative abundance by species and to determine fish biodiversity of the swamp ecosystem. Similar studies were carried out in Lake Mweru.
- (vi) Lake Tanganyika Research Project (LTRP) initiated in 1990 was continued into late nineties. The study aimed at generating limnological data and information of biodiversity nature such as fish stocks and productivity.
- (vii) Lake Tanganyika Biodiversity Project (LTBP) was a multifaceted approach to biodiversity management initiated in 1996 and ending in the year 1999. Like LTRP the LTBP covered four countries namely Zambia, Tanzania, Congo D.R and Burundi.
- (viii) Japan-Zambia Joint Fisheries Research (IZJFR) started late 1980s was strengthened to provide data and information on the biodiversity of inshore cichlids.
- (ix) Other fisheries programmes for biodiversity management are climate monitoring of Lake Tanganyika, which focuses on impacts of climate change on biotic resources. The project covers the Tanzanian and Zambian portion of the lake Tanganyika.

## **STATUS**

Zambia signed the Convention on Biological Diversity on 28<sup>th</sup> May 1993. The Convention came into force on 29<sup>th</sup> December, 1993. Zambia is endowed with an abundance of natural resources and a rich biological diversity. It has been estimated that the country has more than 5,500 species of flowering plants, 233 species of mammals, 731 species of birds, 145 species of reptiles, and over 409 fish species.

Zambia has a long history in the conservation and management of its biological resources. The country has an elaborate network of nature reserves which include 19 National Parks, 32 Game Management Areas (GMAs), and several protected forests and woodlands covering about 8.6 percent of the country.

While Zambia can still boast of a rich biological diversity, the country is facing a number of socio-economic problems with potential negative impacts which are seriously depleting the country's biological diversity.

### **CAPACITY BUILDING, EDUCATION, TRAINING AND AWARENESS RAISING**

Zambia's long involvement and commitment to the conservation of biological resources has enabled the country to develop local capacity for planning and managing the country's biodiversity through an elaborate network of protected areas. The country has trained personnel at professional and technical levels in fisheries, wildlife, forestry and environmental assessment.

The institutions offering biodiversity training include the Copperbelt University and University of Zambia (School of Geography, Department of Biology in the School of Natural Sciences and, the School of Agriculture) Technical level training is offered at Natural Resources Development College and the Zambia Forestry college.

In service training is offered by various institutions such as the Plant Genetic Resources Center at Mt. Makulu, SADC Plant Genetic Resources Centre at Chalimbana and agricultural colleges scattered across the country. The Zambia\Zimbabwe joint fisheries management project also serves as a training and public awareness promotion programme.

Various sectoral institutions have developed specific programmes for awareness raising. For example, ESP and ECZ have been sponsoring Television series to educate the public on the value and importance of conserving the country's biological resources. The National Agriculture Information Services (NAIS) provides extension information, which incorporates biodiversity conservation messages.

Radio broadcasts have been used by NGOs to promote awareness. Institutions involved include, the Wildlife and Environmental Conservation Society of Zambia (WECSZ). Workshops and Seminars have also been used by PANOS Institute, the German Foundation for International Development (DSE), Pan African Institute for Development (PAIDESA), World Wide Fund for Nature (WWF) and IUCN to promote high level involvement in biological resource conservation.

### **INFORMATION MANAGEMENT**

As part of the Environmental Support Programme, Zambia has embarked on the development of priority sectoral databases for five pilot areas. Subject areas include forest resources information system in Chibombo district, fish, and wildlife information system in Kafue National Park, land degradation information system in Mpika and Siavonga districts, air pollution information system in Mufulira district and water and sanitation information system in Lusaka urban district. Information systems already developed include computerised databases at ECZ, Forestry and Fisheries departments. GIS information systems are also found at Ministry of Agriculture Food and Fisheries (MAFF), Zambia Wildlife Authority (ZAWA) and University of Zambia (UNZA). The Departments of Agriculture, Fisheries, Forestry and Wild life have libraries, which contain books, and local reports on specific biodiversity components.

Zambia and Zimbabwe have established a unified data base system for fisheries management in Lake Kariba. MENR, ECZ, ZAWA, and the Departments of Fisheries, Forestry and Agriculture are reachable by Internet, ECZ, WECSZ, UNZA and MENR have established websites.

Other sources of information on biodiversity are the SADC Plant Genetic Resources Centre and the National Plant Genetic Resources Centre at Mt. Makulu.

## **RESEARCH AND TECHNOLOGY**

The main Government Institutions responsible for biodiversity research are the Department of Field Services (Crops, livestock and fisheries) under the Ministry of Agriculture Food and Fisheries; Department of Forestry and the Zambia Wildlife Authority under Ministry of Tourism Environment and Natural Resources. Other national institutions actively involved in biodiversity research and technology development are UNZA, Copperbelt University (CBU) and NISIR.

Current research activities have mainly focused on resource inventories (fisheries and wildlife), resource monitoring (wildlife and forestry), and resource mapping. Some of the specific research undertakings are as follows:

- (i) Agroforestry research of food and medicinal plants to improve living conditions for both rural and urban dwellers through improved availability of forest products.
- (ii) Conservation of Miombo ecosystems by assessing the structure and ecology of Miombo woodlands and closely monitoring changes over time.
- (iii) Research in seed production technologies intended to diversify food production and ensure sustainable crop production.
- (iv) Wildlife resource monitoring especially in protected areas intended to observe trends in resource use.
- (v) The gene bank programme aimed at collecting and preserving a broad diversity of plant species for future use.
- (vi) Community-based natural resource management mechanisms being developed in different sectors as a tool for enhancing local community involvement in biological diversity management and promoting education and awareness through CBNRM approaches and concepts being developed in wildlife, fisheries and forestry sectors.

## **FINANCING**

The Government of Zambia has continued making annual budget provisions for management and conservation of biological resources through various Ministries and agencies. However, national provisions for biodiversity management have continued to be inadequate and require supplementation from cooperating partners and multilateral donor agencies. Several donors have contributed financially to the implementation of programmes under the CBD as follows: -

- (i) UNDP, World Bank and NORAD facilitated preparation of the NEAP and ESP between 1993 and 1996.
- (ii) GEF\UNDP facilitated preparation of NBSAP between 1997 and 1998. The process was coordinated by IUCN.
- (iii) UNDP, and The Netherlands Government funded preparation of ZFAP. The process was coordinated by FAO
- (iv) FINNIDA funded preparation of PFAP and has continued to facilitate its implementation in four provinces
- (v) Several donors cooperated with World Bank\IDA in preparing ASIP which was finalized in 1996. Implementation of specific programmes under ASIP have continued to benefit from donor funding.
- (vi) Preparation of management plans in wildlife protected areas was facilitated by JICA, European Union (EU), NORAD, USAID, Frankfurt Zoological Society, WWF, David Shepherd Foundation and other wellwishers.

- (vii) Other cooperating partners who, have contributed finances for implementing CBD programmes in Zambia are SIDA, IFAD, CIDA, ADB, NORDIC Development Fund and DANIDA.

Support from cooperating partners has been more in the area of planning rather than actual implementation.

#### **REGIONAL/INTERNATIONAL COOPERATION**

Zambia was very active in the convention on biological diversity preparatory processes and actively participated in the Earth Summit in Rio de Janeiro, Brazil in June 1992. After signing the CBD on 11<sup>th</sup> June, 1992 Zambia ratified the Convention on 28<sup>th</sup> May, 1993. Zambia has also recognized the importance to national development of other agreements and conventions that address specific components of biological diversity. The country signed and is party to the following related conventions: -

- (i) Convention on Wetlands of International Importance especially as Waterfowl Habitat (Ramsar Convention) which was ratified in 1991.
- (ii) Convention on International Trade in Endangered Species of Wild Flora and Fauna (CITES) which was ratified in 1981.

Zambia cooperates with other countries in the region in matters affecting conservation of biological diversity and is signatory to the Lusaka Agreement on Management of Elephants and other endangered species. Zambia also cooperates with neighbouring states through Joint permanent commissions, which periodically deliberate on management of biological resources especially fish, and wildlife. Currently joint commissions exist with Zimbabwe, Angola, D.R Congo, Tanzania, Mozambique, Namibia and Malawi.

Zambia is host to the Southern African Development Community (SADC) Regional Plant Genetic Resources Centre whose responsibility is to collect and conserve the region's plant genetic material, in particular cultivated crops and their wild relatives.

## **Chapter 16**

### **ENVIRONMENTALLY SOUND MANAGEMENT OF BIOTECHNOLOGY**

#### **DECISION MAKING**

The Ministry of Tourism, Environment and Natural Resources (MENR) is the National Focal Point for the Convention on Biological Diversity. The National Institute for Scientific and Industrial Research (NISIR) is the National Biosafety Focal Point. The Ministry of Science, Technology and Vocational Training (MSTVT) is co-ordinating the adoption by the Government of the National Biotechnology and Biosafety Policy.

The major stakeholder are the Ministry of Agriculture Food and Fisheries; Ministry of Health; Ministry of Education; Ministry of Commerce, Trade and Industry; Zambia Revenue Authority; the National Science and Technology Council; the Environmental Council of Zambia; the Zambia National Farmers Union; the University of Zambia; and the Tropical Diseases Research Centre.

#### **LEGISLATION AND REGULATIONS**

Currently there is no law in the Zambian statutes that can be used to protect human and animal health as well as the environment from potential risks posed by genetically modified organisms (GMOs) and their products. Existing laws deal with the transfer, handling, release and use of animals and plants. There are, however, no laws, which deal specifically with the transfer, handling and use of microorganisms.

#### **PROGRAMMES AND PROJECTS**

The draft Biotechnology and Biosafety Policy is the outcome from the support Zambia received on the project to Prepare a National Biosafety Framework which was funded by the global environment facility (GEF) with technical assistance from the united nations environment programme (UNEP) in 1999.

Once the draft policy is adopted the Zambian Government, intends to enact appropriate legislation and designate or establish a National Biosafety Competent Authority to implement, enforce and carry out the provisions of the national Biosafety regulatory framework.

#### **STATUS**

In Implementing Chapter 16 of agenda 21 Zambia agrees with the focus of the programme areas as follows:

- (i) Increasing the availability of food, feed and renewable raw materials;
- (ii) Improving human health;
- (iii) Enhancing protection of the environment;
- (iv) Enhancing safety and developing international mechanisms for cooperation; and
- (v) Establishing enabling mechanisms for the development and the environmentally sound application of biotechnology.

Traditional Biotechnology which covers fermentation technology such as beer brewing, production of antibiotics and cheese making is practiced in Zambia. However, Modern Biotechnology which refers to recombinant deoxyribonucleic acid (DNA) technology, which is usually called genetic engineering or gene technology is not practiced in the country.

Unlike traditional biotechnology, modern biotechnology is of concern by virtue of its nature. The aspect of modern biotechnology that leads to the generation of genetically modified organisms

(GMOs) is of particular concern because of uncertainty of the effects GMOs will have on human and animal health as well as the environment.

### **CAPACITY BUILDING, EDUCATION, TRAINING AND AWARENESS RAISING**

Zambia requires technical, financial and material assistance in the implementation of Chapter 16 of Agenda 21 and the National Biotechnology and Biosafety Policy once it is adopted by Government.

The Rockefeller Foundation through AfricaBio has pledged to provide US\$ 24 000.00 for a project on the provision of accurate information on biotechnology, build capacity to communicate on biotechnology as well as strengthening existing institutions, organisations and programmes.

### **INFORMATION MANAGEMENT**

There is no formal information management system on Biotechnology and Biosafety currently existing in Zambia.

### **RESEARCH AND TECHNOLOGY**

There is very little research on Biotechnology being carried out in the country. What is being done is plant tissue culture, which is being used in the production of potato seed and in the domestication of wild fruit trees.

### **FINANCING**

The Zambian government is financing from the national budget Biotechnology related activities through the various responsible government agencies. UNEP/GEF supported Zambia through a grant of US\$ 71 000.00 to develop the National Biosafety Framework.

The Netherlands government through the Southern and Eastern African Consultation on Biotechnology and Biosafety provided US\$ 2 000.00 for the identification by stakeholders of national priorities in Biotechnology and Biosafety.

### **REGIONAL/INTERNATIONAL COOPERATION**

Zambia participated in all Conferences of the Parties (COP) to the CBD which among other issues deliberated on and made decisions on matters related to biotechnology and biosafety.

There are also three regional Biosafety initiatives, to which Zambia is affiliated: the Southern African Regional Biosafety (SARB) Programme; the AfricaBio and the Southern and East African Consultation on Biotechnology and Biosafety.

## **Chapter 17**

### **SAFEGUARDING THE OCEAN'S RESOURCES**

#### **STATUS**

Zambia is a landlocked country and as such is not an affected country party under the International Law of the sea. By ratifying the Law of the Sea, Zambia has committed itself to the prevention, realisation, reduction and control of degradation of the marine environments by controlling activities that can significantly have adverse impacts on marine environments. Although Zambia is not an affected country party, it is concerned about the protection and management of international waters and their resources in oceans and seas and the shipment of its imports and exports.

As a member of the United Nations Environmental Programme (UNEP), Zambia has continued to support and contribute to the protection of the ocean and coastal areas by implementing UNEP council decisions, which include:

- (i) the treatment of municipal wastes before discharging it into rivers, estuary and the sea
- (ii) promoting shipping safety
- (iii) reducing the risk of pollution from bulk carriers, and
- (iv) promoting the use of less harmful chemicals

Zambia's main objective in implementing Chapter 17 of Agenda 21 is to support the peaceful use of the seas and oceans, ensure the equitable and efficient utilisation of their resources and the conservation of their living resources and marine environments. However, Zambia's contribution to safe guarding the ocean's resources is through it's the fulfilment of the objectives under chapters 18 and 19.

## **Chapter 18**

### **PROTECTING AND MANAGING FRESHWATER RESOURCES**

#### **DECISION MAKING**

Zambia embarked on water sector reforms in 1993. One of the main problems identified were the multiplicity of actors in the water sector, which made it difficult to coordinate water resources management and development. Other constraints identified were: inadequate legal and institutional framework; limited stakeholder participation; inadequate human resource capacity; insufficient information and data; inadequate infrastructure and financial investment.

An interministerial committee comprising members from the Ministry of Energy and Water Development; Ministry of finance and Economic Development; Ministry of Local Government and Housing; Ministry of Agriculture Food and Fisheries; Ministry of Tourism, Environment and Natural Resources; Ministry of Community Development and Social Services; Ministry of Works and Supply; Ministry of Health and the Environmental Council of Zambia; was set up to spearhead and provide policy guidance to the water sector reform process.

Following the water sector reform programme, the mandates of various actors have been redefined as follows: the Ministry of Energy and Water Development is responsible for water resources management and development; the Ministry of Local Government and Housing including Local Authorities are responsible for water supply and sanitation; the Ministry of Health monitors water quality, sanitation and promotes hygiene; community mobilisation and participation is vested with the Ministry of Community Development and Social Services; the Ministry of Environment and Natural Resources is responsible for environmental management and natural resources conservation policy; while the Environmental Council of Zambia is responsible for pollution control and environmental impact assessments.

#### **LEGISLATION AND REGULATIONS**

The Water Act of 1948 facilitates water resources assessment in terms of quality and quantity and provides the framework within which water rights are allocated. However, this Act does not provide for the control of ground water and international waters. The other relevant pieces of legislation are: the Water Supply and Sanitation Act of 1997; the Local Government Act of 1991; the Environmental Protection and Pollution Control Act of 1990; the Public Health Act of 1930; and the Town and Country Planning Act of 1949. Under the Environmental Support Programme the review and harmonisation of legislation related to the water sector was commenced in 1999 and a report on the review of legislation was produced in 2000.

#### **PROGRAMMES AND PROJECTS**

Zambia developed a water policy in 1994 with the aim of promoting sustainable water resources development. The country further developed the National Water Resources Master Plan of 1995, which outlines required developments in the water sector for water development from 1995 - 2015.

The department of water affairs undertook the hydrological observation system master plan study, which was completed in March 1992, and it established minimum and maximum water development potentials for the Zambezi, Kafue, and Luangwa rivers at selected sites. The Environmental Council of Zambia has also completed a Kafue River water quality study to determine pollution levels and aquatic weed infestation.

Programmes and projects to increase rural water supply coverage through construction of dams, weirs, wells and bore holes have been undertaken by the Department of Water affairs in partnership with local communities to ensure sustainability. Through the water sanitation and hygiene education (WASHE) programme, communities have been empowered to manage their water supply facilities. Women are particularly encouraged to be members of village WASHE

committees whose main tasks include maintaining of facilities and to look after contributions needed to sustain operations and maintenance of water points.

### **STATUS**

Zambia is endowed with sufficient fresh water resources to meet the present and future demands. However, the uneven distribution and threat of pollution poses the greatest danger to its continued availability in certain areas. The major uses of water resources include hydropower generation, agricultural, industrial, recreation, domestic and navigation.

Surface water resources in Zambia are estimated to cover 45,000 square kilometres, which is 6 percent of the total land area. The country's annual run off is estimated at 90 billion cubic metres and storage in lakes and swamps at 60 billion cubic metres. The total ground water storage is estimated at 1,740,380 million cubic metres while ground water recharge is estimated at 160,080 cubic metres per year.

Ground water is evenly distributed and most areas depend on it while surface water is unevenly distributed. The Southern half of the country experiences water shortages although it receives the largest annual runoff. To continue meeting current and future demand, the fresh water resources of the country need to be developed, conserved and protected.

### **CAPACITY BUILDING, EDUCATION, TRAINING AND AWARENESS RAISING**

There are very few water resources experts working in the water sector in the country. The department of water affairs only has 38 professionals out of 70 and slightly over 100 technical personnel out of about 200 to implement national programmes. The sector requires recapitalisation in terms of new equipment for water laboratory, flow measuring and drilling machines.

The education curricula have integrated water management and sanitation in subjects such as environmental science, social studies and geography. Public awareness campaigns are also undertaken through radio, TV, print and folk media.

### **INFORMATION MANAGEMENT**

The department of water affairs collects hydrometeorological information and data and interprets hydrological information which is stored and disseminated. A database is being developed. The Zambezi River Authority also maintains a database on the Zambezi River covering information on river flow, water quality, pollution sources, land cover, land use, rainfall, temperature and social and economic information.

### **RESEARCH AND TECHNOLOGY**

The University of Zambia, School of Engineering and various agencies, have been working with small-scale irrigation farmers and have developed simple pumping devices called treadle pumps. In rural communities, the use of gravity furrow irrigation is widely practised and hand pumps are wide spread in water abstraction from wells and boreholes.

### **FINANCING**

Financing of water projects by the Zambian government has been very low in the past 10 years mainly due to the obligation of servicing the foreign debt. Zambia is reported to have spent only 0.1% of its total investment in the water sector during the period 1991 to 1999.

Zambia has continued to receive grants and technical assistance from cooperating partners for water resources management and development. Notable donors in this area are the Federal Republic of Germany; Japanese government; Netherlands; Royal Norwegian government, Ireland aid; the European Union, World Bank, WMO, FINNIDA, SIDA and DANNIDA.

## **REGIONAL/INTERNATIONAL COOPERATION**

Zambia is a signatory to a number of agreements relevant to freshwater resources. Notable agreements are: UN Non Navigational Uses of International water courses (1994); and Ramsar Convention on Wetland Conservation; SADC protocol on shared watercourses for sustainable management and utilisation of shared river basins. Bilateral cooperation between Zambia and Zimbabwe through the Zambezi River Authority treaty of 1987, which is for developing and managing of the common Zambezi River for hydroelectric power generation.

## **Chapter 19**

### **ENVIRONMENTALLY SOUND MANAGEMENT OF TOXIC WASTES**

#### **DECISION MAKING**

The Ministry of Environment and natural Resources (MENR) is responsible for environmental policy formulation while the Environmental Council of Zambia (ECZ) is responsible for its implementation.

A multi stakeholder approach to dealing with issues of toxic chemicals has been adopted and this has resulted in the formation of a Chemical National Working Group (NWG). Members of the NWG are drawn from relevant government departments, industry, NGOs and Academia. All essential chemical management related decisions are made through consultation and by consensus.

#### **LEGISLATION AND REGULATIONS**

The principal Act in ensuring sound management of toxic chemicals is the Environmental Protection and Pollution Control Act (EPPCA) of 1990. Under this Act the Pesticides and Toxic Substances regulations of 1994 were formulated for the sound management of chemicals in Zambia. The other complementary Act contributing to sound management of chemicals is the Food and Drug Act of 1999. The Food and Drug Laboratory of the Ministry of Health administers this Act.

The priority concerns addressed in the legal framework include: air pollution; pollution of inland waters; pollution of ground water; drinking contaminated water; soil contamination; pesticides residues in foods; heavy metals in foods; hazardous waste treatment; occupational health; industrial and agricultural chemical accidents; adverse effects on the ecosystem; storage of obsolete pesticides; and chemical imports.

#### **PROGRAMMES AND PROJECTS**

In 1996 Zambia in collaboration with the United Nations Training and Research (UNITAR) carried out an assessment of the legal framework, human and institutional capabilities in relation to chemical management. The main objective for this programme was to identify the strengths, weaknesses, and gaps that existed and set national priority actions and recommendations for the sound management of chemicals.

The Pesticides and Toxic Substances regulations require that all importers and dealers in pesticides undergo a registration review. A National Technical Review Committee (NTRC) is responsible for reviewing and approval of all applications. Review is done before chemicals are imported and its objective is to prevent restricted or banned chemicals from entering Zambia. Other activities undertaken include:

- (i) Disposal and decontamination of 21 (210-litre) Chumbwa mine cyanide drums Disposal of Chlorine and other toxic substances has also been done.
- (ii) Setting of standards and conditions under the regulations and enforcing them through the PTS Unit. This important activity is embedded in every annual plan.
- (iii) Border controls coupled with a registration process and regular monitoring has significantly reduced the risk of dumping of illegal chemicals which usually found their way into Zambia because of lack of proper control checks. This is a national concern because Zambia was vulnerable to dumping of hazardous wastes and other banned and restricted chemicals.
- (iv) Implementation of a laboratory strengthening program. The objective of the program was to improve the quality of analytical skills and reliability in selected labs in Zambia. Among

the laboratories selected includes the Food and drug Laboratory and Environmental Laboratory of the University of Zambia.

- (v) Disposal of about 360 tonnes of obsolete pesticides.
- (vi) Initiated in with the Canadian International Development Agency (CIDA), of a program to build national capacity for the environmentally sound management of toxic chemicals using PCBs as a concrete case.
- (vii) Conducting countrywide inventory of suspected PCB containing equipment and other Pops of concern; all equipment likely to contain PCBs has been audited and the data generated has been entered into the database.
- (viii) Storage of PCB materials in specially designed storage facilities have been done at selected sites. The selection of sites was based on security considerations. Kariba and Luano in Kitwe have been selected as appropriate locations.
- (ix) National technical guidelines for PCB management have been developed and are available. The PCB technical guidelines are implemented under the hazardous waste regulations.
- (x) Zambia with financial and technical support from the Canadian International Development Agency began to develop an environmental emergency plan in 2000. The main objective of this program is to coordinate all stakeholders and improve response time to environmental related accidents. The program also aims at rapid mobilisation of resources to effectively deal with environmental emergencies and minimise environmental pollution.

#### **STATUS**

The Country's main objective in Implementing Chapter 19 of Agenda 21 is to achieve the laid down program activities for sound management of chemicals namely:

- (i) Expanding and accelerating international assignments of chemical risks;
- (ii) Harmonising of classification and labeling of chemicals;
- (iii) Information exchange on toxic chemicals and chemical risks;
- (iv) Establishment of risk reduction programs;
- (v) Strengthening national capabilities and capacities for management of chemicals;
- (vi) Prevention of illegal international traffic in toxic and dangerous products; and
- (vii) Any other initiatives to address the above.

#### **CAPACITY BUILDING, EDUCATION, TRAINING AND AWARENESS RAISING**

Public awareness, training and educational programs are undertaken but this is constrained by inadequate financial resources. Multi stakeholder participation is always encouraged. Stakeholders include public interest groups such as schools, local chemical industry and relevant government departments. The main vehicles of communication include programmes such as TV, Radio, print media, brochures and posters.

Zambia is yet to develop capacity to deal with the disposal of very toxic chemicals. Therefore, until such a time when capacity is developed, Zambia will in the meantime continue to rely on facilities that exists in developed countries such as incinerators. Zambia will also continue to draw upon the provisions of the international conventions, which she is a party to, such as the Basel Convention

In 1996, a training workshop was held for Customs Officers to educate them about the standard procedures to follow in curbing illegal chemical imports. Other training programmes have been conducted in collaboration with the Local Agrochemicals Association and training of Customs Officers in identification of Ozone Depleting Substances (ODS).

### **INFORMATION MANAGEMENT**

A chemical database has been developed whose major objective is to act as a tool for decision-making in chemicals management. Current information contained in the database is limited to imported and registered chemical only. Effects on human health and the environment are not recorded.

### **RESEARCH AND TECHNOLOGY**

To promote Indigenous methods as a way of encouraging integrated pesticides management, the University of Zambia is currently undertaking a research for termite control using homegrown bacteria. If this research succeeds, the bacteria will be used for termite control in farming and building to replace the usual organo chlorines such as Chlordane currently being used for termite control in buildings. ECZ is also encouraging indigenous options for biodegradation of PCB contaminated soils.

### **FINANCING**

Zambia finances 95% of the activities on chemicals management from the Government grants and licence fees. The local chemical industry accounts for 5% of the total local financing. The industry financing is in form of cash contributions, technical expertise and training of ECZ officers.

### **REGIONAL/INTERNATIONAL COOPERATION**

Various countries and international organisations have collaborated and supported the chemical management program. The countries that have supported chemical management in Zambia include but are not limited to Norway, Canada, Sweden, Germany, USA, Switzerland and the Netherlands. While international organisations include UNEP, the Basel Convention, World Bank, UNITAR, WHO, FAO, UNDP, ILO and UNIDO.

## **Chapter 20 MANAGING HAZARDOUS WASTE**

### **DECISION MAKING**

The Ministry of Environment and Natural Resources (MENR) is the policy focal point on hazardous waste management while the Environmental Council of Zambia is the competent implementing authority.

### **LEGISLATION AND REGULATIONS**

The Environmental Protection and Pollution Control Act (EPPCA), No. 12 of 1990, Cap 204 of the laws of Zambia, amended in 1999, is the principal law on environment. In the EPPCA, “**hazardous waste**” means waste, including objects, articles or substances, which are poisonous, corrosive, irritant, explosive, inflammable, toxic or harmful to man, animal, plant or the environment.

The EPPCA provides for the control of generation, transportation and disposal of hazardous wastes.

Regulations on hazardous wastes have been finalised. The list of hazardous waste to be controlled, are based on the Basel Convention classification. The regulations for licensing of transporters of waste and operators of waste disposal sites, which were formulated in 1993, are currently being applied to also control hazardous waste.

### **PROGRAMMES AND PROJECTS**

The inventory of waste indicates that hazardous waste is disposed of together with non hazardous waste. Currently, most of the hazardous waste is stored in industrial premises, while some may be disposed of in disposal sites.

In 1996, 360 tonnes of obsolete pesticide stocks were shipped for destruction in Europe under the Food and Agricultural Organisation arrangement with funding from GTZ and the Netherlands Government.

A draft National Waste Management Strategy (NWMS) whose theme is “a clean and green Zambia begins with you”, is being developed in consultations with all key stakeholders. The overall goal of the NWMS is to control pollution, improve waste management and prevent environmental degradation through an efficient, effective and sustainable waste management system.

The objectives of the NWMS are to:

- (i) reduce the environmental impacts of hazardous waste by reducing the generation of wastes and the harmful substances in the waste;
- (ii) ensure increased re-use, recycling and utilisation of energy; and
- (iii) ensure that final treatment of the hazardous waste takes place in an environmentally sound manner.

### **STATUS**

Zambia is party to the Bamako and Basel Conventions on the Control of Transboundary Movements of Hazardous Wastes and their Disposal. Zambia signed the Basel Convention in 1994. The country's main objective in waste management is to ensure that waste related problems are solved in such a way that waste causes as little damage and harm to the population and the natural environment as possible. This is achieved by ensuring that waste and waste management utilise the least possible of the nation's resources. Zambia's main strategy is to prevent the generation of waste and reduce its amount of harmful substances; to promote re-use;

material recycling and energy recovery; and to secure environmentally sound disposal methods of the remaining waste.

Zambia being a developing country has various types of resource based industries such as mining, tanneries, petroleum refining, blending of oils, etc. Some of these industries generate hazardous waste in form of air emissions, effluent and solid wastes. The technologies that are used range from very old and outdated, to new ones.

### **CAPACITY BUILDING, EDUCATION, TRAINING AND AWARENESS RAISING**

The absence of regulations and guidelines on hazardous wastes has led to a situation where awareness of potential adverse effects and the appropriate and adequate management practices for industry and the general public has been low.

There is need to increase funding for the setting up of hazardous waste treatment facilities. This is especially relevant where health-care or clinical waste is disposed in municipal disposal sites without treatment.

In 1998, the Basel Convention Secretariat supported a three months awareness programme, through which a national workshop on hazardous wastes was held, and brochures on PCBs; lead acid batteries; petroleum products; wood preservatives; agrochemical and fertilizer waste were prepared.

Training of relevant staff in environmental Audits has been undertaken. However, no industry has been audited except for accreditation purposes. Training workshops have also been held for industry and the media on issues of managing hazardous waste. The engineering environmental Lab at the University of Zambia has been upgraded and it is able to analyse a number of hazardous waste materials. However, there is still need to improve the numbers of experts in the relevant institutions dealing with the management of hazardous waste.

Capacity building in terms of establishing hazardous waste treatment or disposal facilities is the most critical aspect, that is lacking in the area of hazardous waste management in the country.

Cleaner production training for industry was initiated in 1998 with Det Norsk Veritas (DNV) of Norway, as principle consultants. Knowledge on this training has been transferred to local experts, who now conduct the training sessions. 24 industries have had their staff trained under this initiative. Training in Preliminary Hazard Analysis (PHA) related to the disposal of current stocks of PCBs was conducted for several institutions.

A national awareness programme has been set up to sensitise industry and the general public. This is in form of workshops, radio and television discussions, and reading materials e.g. posters. The awareness programme has provided an opportunity for open discussions on issues.

### **INFORMATION MANAGEMENT**

An inventory of hazardous waste has been created. This covers waste which is generated on an annual basis, or whose quantities are not expected to increase due to restriction on use. PCBs is one such restricted chemical, and no new imports are expected.

Inventory of hazardous waste from hospitals and clinics has been done only for a limited number of institutions. There is therefore need to improve this information in the hazardous waste inventory.

Arising from the inventory, and subsequent classification, a list of hazardous waste to be controlled has been agreed upon based on the Basel Convention classification.

## **RESEARCH AND TECHNOLOGY**

The use of waste for other purposes, e.g. used oils in timber preservation and in building construction is being investigated. In 1997, a feasibility study was undertaken to assess the use of hazardous organic waste as an alternative fuel in a cement kiln at Chilanga in Ndola. To operate at a profitable level in relation to the additional investment required, at least 10,000 tonnes of organic hazardous waste is required, the bulk of which is expected to be waste oils.

Research is also being conducted in Lusaka on the impact of current and previous disposal practices on ground water.

## **FINANCING**

The Zambian government is financing waste management activities through budgetary allocations to the ECZ and other institutions to control and monitor the generation, treatment and disposal of hazardous waste.

The private sector, particularly industry, is being encouraged to finance and implement pollution control measures. The polluter pays principle is also being implemented to some extent through fines and environmental licenses.

UNEP through its various programmes, the latest being the disposal of obsolete ozone depleting substances (ODS), has provided some complementary support and the Norwegian Government, through NORAD is providing support for the control of hazardous waste.

## **REGIONAL/INTERNATIONAL COOPERATION**

Zambia is party to the Bamako and Basel Conventions on the Control of Transboundary Movement of Hazardous Waste and their Disposal. The implementation of the Bamako Convention has not taken off due to the absence of a secretariat at the Organisation of African Unity (OAU) now African Union (AU).

The Basel Convention regional training centre for English speaking African countries, based in Pretoria, South Africa, has established a task force to spearhead technology transfer and training programmes. Zambia is a member of this task force.

## **Chapter 21**

### **ENVIRONMENTALLY SOUND MANAGEMENT OF SOLID WASTE AND SEWERAGE RELATED ISSUES**

#### **DECISION MAKING**

The Ministry of Tourism, Environment and Natural Resources is the policy focal point while the Environmental Council of Zambia is the competent implementing authority of the Chapter 21 of Agenda 21.

A National Waste Management Strategy (NWMS) has been prepared to provide guidance to all stakeholders on their roles in improving waste management in the country.

The National Sanitation Strategy, which was developed in 1998, recommended for the incorporation of sanitation in water supply projects. To achieve this the Water Supply and Sanitation Act (1997), provides for the formation of water utility companies.

#### **LEGISLATION AND REGULATIONS**

The Environmental Protection and Pollution Control Act (EPPCA) provides the regulations for the management of solid waste. The waste management regulations statutory instrument no. 71 of 1993, (Licensing of transporters of waste and operators of waste disposal sites regulations) provide for the control of transportation of waste and management of waste disposal sites. All persons transporting waste or operating waste disposal sites including Local Authorities are licensed and have to adhere to set conditions and standards. ECZ issues licenses to transporters of waste and operators of waste disposal sites. The licensee provides an estimate of the quantities of waste to be transported or disposed of.

However, some aspects of waste management are not yet adequately covered by the existing legal framework. There are no specific guidelines to regulate the management of hospital and hazardous waste. ECZ is in the process of developing standards and procedures to ensure safe storage, treatment and disposal of hazardous waste.

#### **PROGRAMMES AND PROJECTS**

The main activities in waste management have been that of ensuring that waste generated is collected and disposed off in designated sites, or is taken to appropriate recycling facilities.

The support to Local Authorities to undertake waste management activities (collection and operating of disposal sites) in their areas of jurisdiction has not received a lot of support. This has led to a decline in quantities of waste collected and disposed in designated areas. Some of the initiatives being implemented in collaboration with various stakeholders include:

- (i) Lusaka City Council is implementing a sustainable cities programme, aimed at developing a framework for effective stakeholder participation in solid waste management and developing strategies to improve water supply and sanitation in peri-urban areas.
- (ii) On the Copperbelt, Asset Holding Company (AHC) provides municipal services in 5 mine townships, involving waste collection, operation of disposal sites and sewerage treatment.
- (iii) Non-Governmental Organisations (NGOs) are supporting communities in Peri-urban (unplanned) areas with disposal of waste.
- (iv) Community Based Organisations (CBOs) have also organised themselves in various Local Authorities to solve solid waste and sanitation related problems with the help of NGOs .

- (v) Private enterprises are now being encouraged to get involved in the collection and disposal of waste on a commercial basis, but with the absence of a framework for their involvement, operations have not yet been streamlined.

The Canadian Government through the Canadian International Development Agency (CIDA) undertook a project for characterisation of waste in Lusaka in 1996 with the support of ECZ and Lusaka City Council.

### **STATUS**

Zambia is party to the Basel Conventions on the Control of Transboundary Movements of Hazardous Wastes and their Disposal. Zambia signed the Basel Convention in 1994. The country's main objective in waste management is to ensure that waste related problems are solved in such a way that waste causes as little damage and harm to the population and the natural environment as possible. This is achieved by ensuring that waste and waste management utilise the least possible of the nation's resources. Zambia's main strategy is to prevent the generation of waste and reduce its amount of harmful substances; to promote re-use; material recycling and energy recovery; and to secure environmentally sound disposal methods of the remaining waste.

Municipal waste generation per capita in Zambia is estimated to range between 0.150 - 0.350 tonnes per year out of which only 12.4 percent or 0.0186 to 0.0434 tonnes is disposed. An average Zambian is estimated to produce 0.45 kg of waste per day.

Zambia is faced with two main types of waste, municipal and industrial waste. At present the financial requirement for the management of solid waste is about US\$22.6 per tonne. This poses serious financial problems for Local Authorities who are responsible for waste management.

The environmental issues related to solid waste management affecting the country can be listed as follows:

- (i) Littering, uncollected garbage and illegal dumping in undesignated areas
- (ii) Improper handling of hazardous waste
- (iii) Low standards of operational disposal sites

### **CAPACITY BUILDING, EDUCATION, TRAINING AND AWARENESS RAISING**

Capacity building, training, education and awareness is required in the institutions that are involved in the management of waste particularly in the Local Authorities. It should be noted that there are a number of constraints that Zambia has faced in tackling the problem of waste management. Some of these are:

- (i) inadequate investment in waste management by local authorities and the private sector
- (ii) Lack of technical capacity to implement sound solid waste management practices, by both industry and the local authorities;
- (iii) Uncontrolled growth of urban settlements;
- (iv) Rundown infrastructure.

### **INFORMATION MANAGEMENT**

Licensing by the ECZ provides information on types of waste going to various disposal sites. The availability of recycling facilities can also be determined. ECZ and water utilities also maintain information on the current levels of treatment for sewerage waste and the quality of effluent being handled.

### **RESEARCH AND TECHNOLOGY**

It is generally accepted that the current waste production and expected increase under the present economic and industrial production coupled with consumption trends are unsustainable. To achieve sustainability the concept of minimising the use of raw materials and reducing the impacts related to waste disposal should be investigated.

Studies on the impact of operating waste disposal sites on underground water sites are being undertaken in Lusaka to determine the status of ground water.

The Pilot Environmental Fund (PEF) under the Environmental Support Programme (ESP) has also been awarding small research grants to groups of individuals to undertake research on various environmental issues including solid waste management.

Technology Development and Advisory Unit (TDAU) of the University of Zambia, was also commissioned by the Sustainable Lusaka Programme (SLP) to develop transportation equipment for use by small-scale waste collectors in peri-urban areas. Zambezi Paper mills has been contributing to solid waste management by recycling paper.

### **FINANCING**

The Zambian Government through its annual budgetary allocations has continued to finance ECZ and Local Authorities including other relevant ministries to control and monitor the generation, treatment and disposal of solid waste.

However, the funds provided are inadequate and there is an urgent need for Industry to finance and implement pollution control measures.

### **REGIONAL/INTERNATIONAL COOPERATION**

Zambia has collaborated with various countries and international organisations in dealing with solid waste management initiatives. The countries and international agencies that have collaborated with Zambia include but are not limited to Norway, Canada, Sweden, Germany DANIDA, UNDP and the Netherlands Government.

The Lusaka City Council is currently being assisted by the Danish Development Agency (DANIDA) to set up a waste management system.

## **Chapter 22**

### **SAFE AND ENVIRONMENTALLY SOUND MANAGEMENT OF RADIOACTIVE WASTES**

#### **DECISION MAKING**

The coordinating Zambian government body on Chapter 22 of Agenda 21 is the Radiation Protection Board under the Ministry of Health which is the regulatory body. Its function is to advise the government on radiation matters and allocation of priorities and coordinating activities in order to formulate a cost effective regulatory programme, which will achieve safety goals in a manner compatible with national resources and needs. The radiation Protection Service is the executing arm of the Board in regulatory control, occupational exposure control, environmental radioactivity monitoring and waste management.

#### **LEGISLATION AND REGULATIONS**

The legal status of the Radiation Protection Board is derived from an Act of Parliament of 1972, which was passed to regulate the use of ionising radiation. This legislation is found in CAP 311 of the Laws of Zambia. Regulations on waste management have been prepared and are available in draft form.

There are other instruments supporting the environmental radioactivity monitoring in Zambia and these are:

- (i) The Environmental Protection and Pollution Control Act of 1990 and
- (ii) The Mines and Minerals Act of 1995.

#### **PROGRAMMES AND PROJECTS**

The Radiation Protection Board through the licensing procedures, is able to trace all radioactive materials that come into the country and hence is able to advise its clients on how to dispose or manage the radioactive materials. However, the Board has to deal with some radioactive materials that have been abandoned (referred to as 'orphaned sources') by companies that have left or are no longer in existence.

There has been satisfactory progress made in the establishment of a radioactive waste storage facility at Nkana Mine for the storage of radioactive wastes produced by the then ZCCM. The registry for the spent sealed sources has been updated and a record of these sources has been maintained.

No major programmes have been undertaken on radionuclides. apart from initiating discussions with new owners of the mines and also efforts are being made to involve non governmental environmental organisation in the management of technically enhanced natural occurring radioactive materials (TENORM).

#### **STATUS**

In Zambia, radioactive waste is generated mainly from hospital, industry and mining operations. Low level waste is presently conditioned and stored in Kitwe. Zambia's objectives in the management of radioactive waste is to deal with radioactive waste and dispose it in a manner that ensures protection of human health and the environment now and in the future. More specifically, the following are the major concerns in managing radioactive waste:

- (i) protection of human health, both within and beyond national borders
- (ii) protection of the environment both within and beyond national borders
- (iii) protection of future generations
- (iv) burden of future generations
- (v) control of radioactive waste generation
- (vi) safety of waste management facilities

### **CAPACITY BUILDING, EDUCATION, TRAINING AND AWARENESS RAISING**

In terms of capacity building, the Radiation Protection Board has been conducting training courses for radiation safety officers and radiation workers. In addition, it organises national workshops/seminars for radiation workers as and when financial resources become available. In terms of awareness raising, very little has been done.

Zambia has continued to benefit from the International Atomic Energy agency training courses on various subjects concerning radioactive waste management. Participants at such courses came not only from the regulatory authority but also from the user institutions or radioactive waste generators.

### **INFORMATION MANAGEMENT**

Licensing of importers, exporters and user institutions by the Radiation Protection Board gives information on how radioactive wastes are being managed. The Radiation Protection Board maintains information on radioactive wastes produced in Zambia.

### **RESEARCH AND TECHNOLOGY**

Currently there is no research being undertaken in the area of radioactive substances.

### **FINANCING**

The government of Zambia through its national budget finances the Radiation Protection Board through the Ministry of Health. Institutions that attend training courses, workshops and seminars organised by the Board pay participation fees.

### **REGIONAL/INTERNATIONAL COOPERATION**

The International Atomic Energy agency (IAEA) is assisting the Radiation Protection Board in capacity building by the provision of equipment, training and expert services in radiation protection and waste management. At regional level It is hoped that the development of the 'Bore Concept' for disposal of radioactive wastes can be viable and be attained. South Africa has been given the mandate to study the viability of the concept under the International Atomic Energy Agency (IAEA) AFRA Programme.

## PART 3 STRENGTHENING THE ROLE OF MAJOR GROUPS

### Chapter 24 GLOBAL ACTION FOR WOMEN TOWARDS SUSTAINABLE AND EQUITABLE DEVELOPMENT

#### DECISION MAKING

The Government of the Republic of Zambia has established integral institutional mechanism for gender mainstreaming and the structure exists at three levels, namely: national, provincial and District.

- a. Coordination government/body responsible for the issues

Body / Government	Responsibilities
Gender In Development Division	<b>Parliament and Civil Society organizations. The GIDD is mandated with the responsibility co-ordinating, monitoring and evaluating the implementation of the National Gender Policy.</b>
Gender Focal Points	<b>At sectoral level, Gender Focal Points have been appointed to co-ordinate gender mainstreaming activities in their respective Ministries.</b>
Parliament through the Parliamentary Committee on Legal Affairs, Governance, Human Rights and Gender matters	<b>, is responsible for subjecting the activities of Government Administration to detailed scrutiny to ensure, among others, that gender mainstreaming is given priority and prominence at all times.</b>
the Non-Governmental Co-ordinating Committee	<b>In terms of civil society, NGOCC, is an umbrella organisation which is responsible for co-ordinating activities of affiliate NGOs involved in the implementation of Gender and Development activities. The NGOCC has established Provincial Chapter in all the nine provinces of the country to ensure effective co-ordination at provincial and district level.</b>
Provincial Administration	<b>At provincial level, the Provincial Administration is responsible for the co-ordination of programmes and projects on gender. To ensure the effective co-ordination, GRZ have been appointed in planning unit. The efforts of the Gender Focal Point are further enhanced through the Provincial Development Co-ordinating Committee (PDCC).</b>
District Administration	<b>At the District level, the District Administration is responsible for co-ordinating gender and development activities. Their co-ordinating role is further strengthened by the District Development Co-ordinating Committees.</b>

## **LEGISLATION AND/OR REGULATIONS**

Zambia has demonstrated commitment and political will through various pieces of legislation to ensure that women are not hindered from participating in and contributing to sustainable development. The Republican Constitution, bestows upon all persons in Zambia regardless of race, place of origin, political opinions, colour, creed, sex or marital status, the rights and freedoms enshrined therein.

## **STRATEGIES, POLICIES AND PLANS**

The Government of the Republic of Zambia developed and adopted an explicit National Gender Policy in March 2000. The Policy provides guidelines for mainstreaming gender in the public and private sectors. Gender being a cross cutting issue, the implementation of the National Gender Policy is therefore co-ordinated by the Gender In Development Division at cabinet Office.

In addition to the National Gender Policy, the Government has developed Guidelines and Checklist for Mainstreaming Gender into the Public Sector. The Guidelines and Checklists have been distributed to all Government ministries and stakeholders to ensure that gender issues and concerns are incorporated into their respective policies, programmes and activities.

**Zambia attaches great importance to the promotion of women's health. At national level, a number of factors have been identified as areas of concern and these include: nutritional status of girls; maternal morbidity and mortality; high fertility rates; access to and utilisation of family planning services; safe motherhood; and HIV/AIDS.**

**The Maternal Mortality ratio currently stands at 649 per 100,000 live births and is as high as 800 per 100,000 live births in some remote rural areas (ZDHS 1996). The major causes of this high mortality rate include young age at first pregnancy; high fertility rates; short spacing between pregnancies; lack of knowledge of high risk pregnancies; high number of deliveries done at home; heavy workload; and limited access to health services.**

**Antenatal care service is available in almost every health institution in Zambia. According to the Zambia Demographic and Health Survey (ZDHS) of 1996, the number of women receiving antenatal care from medically trained providers increased from 93 percent in 1992 to 96 percent in 1996. However, despite the recorded increase in the number of women receiving antenatal care, most Zambian women do not seek antenatal services in the early stages of pregnancy. This has resulted in delayed detection of unsafe pregnancies, thereby increasing the risks of infant and maternal mortality.**

**Fertility rate has remained high in Zambia. According to the 1990 Census, the Total Fertility Rate (TFR) was estimated at 7.2 children per woman. Results from the ZDHS, 1996 indicated that the TFR had declined to 6.1 children per woman. The high fertility rates could be attributed to low contraceptive use, limited access to family planning services and lack of control over their reproductivity by women, early marriages, especially in rural areas. Results from the ZDHS 1996 indicate that 26.1 percent of currently married women were reported to be using any method of family planning and only 20.9 percent of married rural women were using such methods compared to 33.3 percent of urban married women. According to the available information, although Family Planning Services are offered by 80 percent of all health institutions, these services are only provided on regular basis in one third of health institutions in the country.**

## PROGRAMMES AND PROJECTS

Programme	Background	Constraints & Challenges
The Good Governance Capacity Building Programme	which has incorporated measures to strengthen the legislative measures and facilitate civic education on matters dealing with gender related matters and children;	<ul style="list-style-type: none"> <li>• <b>Resources</b></li> <li>• <b>Gender analytical skills</b></li> <li>• <b>Poor relation and coordination between NGO's and Government.</b></li> </ul>
Victim Support Unit	<b>The establishment of the Victim Support Unit in the Zambia Police Service to specifically deal with issues of gender-based violence from a social perspective.</b>	<ul style="list-style-type: none"> <li>• <b>Communication problems</b></li> <li>• <b>Lack of transport by Police</b></li> <li>• <b>Slow sensitization</b></li> </ul>
Human Rights Commission	<b>The establishment of the Human Rights Commission, which has enhanced the promotion and protection of human and women's rights;</b>	<ul style="list-style-type: none"> <li>• <b>Human and Financial Resource</b></li> <li>• <b>Very centralized. Out reach poor.</b></li> </ul>
Programme for the Advancement of Girls Education (PAGE)	<b>Through PAGE, measures have been put in place to raise the level of the public, institutional and pupil awareness of the essential equality of boys and girls. In addition, the school curricular at primary school level has been revised to ensure that sex-role stereotyping in text books is removed to ensure that boys and girls are portrayed in a positive manner;</b>	<ul style="list-style-type: none"> <li>• <b>Financial resources lacking</b></li> </ul>
Family Planning in Reproductive Health: Policy Framework Strategies Guidelines	<b>In order to ensure that women and men have same right to decide freely responsibly the number and spacing of their children, the Government through the Ministry of Health has formulated and is implementing the Family Planning in Reproductive Health: Policy Framework Strategies Guidelines. The Guidelines recognize the need to empower women and male responsibility as cardinal for healthy and sustainable development.</b>	<ul style="list-style-type: none"> <li>• <b>men not wanting to participate in family planning due to stereotype.</b></li> <li>• <b>Funding inadequate</b></li> </ul>

## STATUS

There has been progress in the participation of women in power and decision-making, in the past ten years although their number is still low compared to that of men. The average national percentage of women in power and decision making is less than 30 percent. Zambia has committed herself, to achieve at least 30 percent of women in power and decision making by 2005 as contained in the Southern African Development Community (SADC) Declaration on Gender and Development of 1997, to which Zambia is a signatory.

However, the number of female representation in power and decision-making has been fluctuating. The ninth session (2001 – 2006) of the Zambian National Assembly (Parliament) recorded the highest number of female Parliamentarians at 19 ( 12.02 percent) followed by the eighth session (1996-2000) which had 16 representing 10.13 percent out of 158. The first (1964-1968) and the seventh (1991-1996) sessions recorded 6.67 and 6.7 percent representation of women respectively. This represents a 79.40 percentage

increase in female representation in Parliament between the first and ninth National Assembly.

At ministerial level, there were 2 (9.09 percent) female Cabinet Ministers out of 22 in 1995 and 1996 and 2 (8.33 percent) female Cabinet Ministers out of 24 in 1997 and 1998. The current number of female Cabinet Ministers is 3 out of 20 representing 15.04 percent. By June 2000, there were 8 female Permanent Secretaries out of 46, 2 female Supreme Court Judges out of 7 and 4 female High Court Judges out of 16.

The Non Governmental Organisations also played a vital role in encouraging women to participate in the electoral processes and have put in place programmes to facilitate the increased participation of women in the Presidential, Parliamentary and Local Government Elections that were held in December 2001. In particular, the National Women's Lobby Group (NWLG) was very instrumental in this process and held a number of training workshops for female parliamentary candidates and political parties to ensure that Zambia's commitment to ensuring the achievement of 30 percent female representation in politics and decision-making is achieved by the 2005.

#### **CAPACITY- BUILDING, EDUCATIION TRAINING AND AWARENESS-RAISING**

Capacity Building	<b>Programmes for capacity building are in place at all focal points. However intense training is required subject to availability of funding. Guidelines and checklist have been given to various sectors to enable them mainstream gender matters into their programmes.</b>
Education	<b>There is a Gender Studies Unit at the University of Zambia and at the National Institute for Public Administration. Gender is also being introduced into the curriculum for higher education.</b>
Training	
Awareness-raising	<p>In order to eliminate the persistent negative images and stereotypes against women, the Government has been working in collaboration with various Non Governmental Organisations in creating awareness on the value of girl children. This is being undertaken in schools, communities and workplaces. The media personnel have been sensitised on the importance of promoting the image of women and girls and on the need to avoid publishing stereotyped information.</p> <p><b>The Zambia Information Services have been instrumental in advocating for the promotion of women and girls' rights throughout the country. In order to ensure that as many stakeholders as possible are incorporated in the awareness creation and advocacy, the Information, Education and Communication Committee has been established at national, provincial and district levels.</b></p>

The GIDD in collaboration with co-operating parties have facilitated gender training for Gender Focal Points to enhance their gender analytical and planning skills. In addition, other stakeholders in civil society have been trained in gender in recognition of their vital role in the development process.

## INFORMATION

Institution	Type of Data
<b>CSO – Gender statistics Unit</b>	<b>Generation of Gender Statistics Report</b>
<b>National Gender Resource Centre</b>	<b>Dissemination Centre Links GIDD to other institutions</b>

Media personnel have been sensitized on gender issues and concerns to ensure that media and print programmes are gender sensitive.

**The GIDD has established an Information and Documentation Unit to ensure increased knowledge and information on gender related matters**

**It is however, worth noting that despite having in place this mechanism, a number of constraints have been encountered, the major ones being the following:-**

- **Limited human and financial resources for gender and development activities;**
- **Limited appreciation of and resistance to the concept of gender at all levels; and**
- **Concentration of gender and development activities by Government, civil society and other stakeholders in urban areas which has led to the marginalisation of rural areas where the majority of poor live.**

## RESEARCH AND TECHNOLOGY

**SADC in 2000 conducted a study to determine the level of participation in decision making. Another study to review laws against violence on children and women was concluded in 2000.**

## FINANCING

**Financing for the coordination of gender and development activities have been financed for regular budgetary allocation in the recent past. Prior to 1996-97 NORAD and UNFPA provided support for co-ordination of activities as well as capacity building. Other cooperating partners such as DANIDA, FINIDA, CIDA and other cooperating partners are providing financial support for gender mainstreaming in specific sector.**

## COOPERATION

**The Government encourages increased partnership with the civil society organizations in the implementation of gender and development activities. At regional level, Gender is co-ordinated by the SADC Gender Unit while the SADC Gender Minister's Meeting is held annually.**

**Other initiative being undertaken through cooperation include:**

- **The Commission for the Status for Women – Review implementation on Gender matter particularly monitoring the implementation of Beijing Platform for Action.**
- **UNDP – National Gender Policy Implementation Plan.**
- **National Gender Resource Centre – Funded by the World Bank under PSCAP.**

**Chapter 25**  
**CHILDREN AND YOUTH IN SUSTAINABLE AND EQUITABLE DEVELOPMENT**

**DECISION MAKING**

**COORDINATION GOVERNMENT/BODY RESPONSIBLE FOR THE ISSUES**

Body / Government	Responsibilities
Ministry of Sport, Youth and Child Development	Is responsible for the development of Children and Youth. The Ministry has confined its activities to the provision of the legal and policy framework for the development of the child and youth and put in place an effective regulatory mechanism to ensure that high standards are maintained.

**LEGISLATION AND/OR REGULATIONS**

Legislation / regulation	Background
Juvenile Act Cap 217	Act dealing with juvenile (0-14 years) Offenders
Adoption Act Cap 218	Legal framework for adoption.
Probation of Offenders Act Cap 147	Act dealing procedures leading to juvenile offender probation, probation centres and reformatory conditions during probation custody.

Other legislations that have a bearing on children and youth development include the Education Act, Health Act and the Criminal Procedures Act.

STRATEGIES, policies and plans

Youth Policy, (which defines “youth” as a male or female person aged between 15 and 25 years) is concerned with the widest range of issues affecting youth, and with coordinating the efforts and responses of all its Ministries and Agencies, to ensure an effective development programme. Thus it includes education and training, health and welfare, sport and culture, environmental concerns and so on. Each of these will be examined later in this document.

However, at crucial moments in a nation’s development, priorities have to be made, and resources and effort concentrated. In Zambia at this time, youth employment must be the main focus of activity. Thus, the major concentration of this National Programme is on measures to create better employment prospects for youth, particularly by providing fresh training opportunities to those who have dropped out of systems.

But, the overall theme will be a focus on self enterprise, and particularly in the nonformal sector. The Programme concentrates on the provision of a coordinated, holistic programme with five principle components:

- (i) Skills training responsive to local need.
- (ii) Enterprise training for small-scale business.
- (iii) Small start-up loans.
- (iv) Availability of infrastructure.
- (v) Mentor support of young entrepreneurs.

The programme assumes delivery through Youth Resource Centres strategically placed in each Province, built up from existing and proposed Youth Skills Training Centres.

### MAJOR GROUPS INVOLVEMENT IN THE DECISION MAKING.

Besides the Ministry of Sport, Youth and Child Development ,there are a number of Government Ministries and Departments, Parastatals, and NGOs which are involved in decision making for youth development..

### PROGRAMMES AND PROJECTS

Programme	Background	Constraints & Challenges
National Programme of Action for Children in Zambia	The National Programme of Action (NPA) for children in Zambia is a commitment by the Government and people of Zambia to our children. It is a statement of the set of goals, which were to be undertaken to reach the year 2000 and it represented a minimum level of development for our most precious resource. The National Programme of Action has been prepared to meet the commitment the Government entered into at the 1990 World summit for Children. This National Programme of Action provides a focus for specific actions to improve the living conditions for Zambian children and to ensure that the programmes of economic recovery and social mobilization directly address their needs.	Inadequate funding. Unable to build capacity to conduct monitoring and evaluation. Attempting to take over community halls from local councils for use as children guidance centres. Reaching all districts.
National Programme of Action for Youth in Zambia (NPAY)	The National Programme of Action for Youth has been progressively developed through out 1996 and early 1997, and is based on the Youth Policies development and approved by Cabinet Office in 1994. This document refers to a set of guidelines concerning response to Youth, as well as a mechanism for programme planning, implementation, coordination and monitoring to enable the nation attain planned goals in youth development.	Funding inadequate. Reaching all districts. Building capacity amongst youth workers.

### STATUS

Structure of the Education/training and employment System

Despite significant increases in the number of primary schools over the past decades, the percentage of children in school-going age who enrol still too small. Population growth has outstripped the supply of places. Consequently, there has been a significant rise in the number of children both in urban and rural areas who have never been to school at all.

Education stage	Enrollment	Drop Outs
Primary Level Grade 1 to 7	260,000	170,000
Junior Secondary, Grade 8 to 10	90,000	67,000
Senior Secondary, Grade 11 to 12	23,000	17,000
University	1,800	
Voc. Training	4,000	

<b>Employment by Sector</b>	<b>Number</b>
<b>Informal Sector- employed and self employed</b>	
Urban	330,000
Rural	1,970,000
<b>Formal Sector – employed</b>	<b>500,000</b>

#### **The Status of Children as Vulnerable Group**

The social crisis in the country, as a result of deprivation due to poverty, the debt burden and HIV/AIDS has increased the vulnerability of the majority of children in Zambia. These vulnerable children are primarily orphans, street children, child headed households, and child labour. 15 percent of children are orphans and Ministry of Health estimates indicate that in 15 years there will be one million orphans. They represent the biggest burden of households. Although the extended family system exists, its capacity, especially in the era of structural adjustment, is not infinitely elastic. Consequently of particular concerns are an increasing number of orphans who do not have a traditional safety net of extended families and who are victims of various forms of neglect, abuse – sexual, physical and mental, and discrimination.

Three years ago it was estimated that 75% of households were caring for at least one orphan. Orphans normally live in a typical households: grandparents-headed households, child-headed households, single parent-headed households and rarely do they live in household headed by two parents.

Related to, but not exclusively, to the orphan growth is the emergence and growth of street children. Two decades ago, street children were an unheard of phenomenon in Zambia, but today their visibility has created a social concern. Current estimates of the number of street children are not available. However, the most recent figures estimate 75,000 between 15 and 18 years.

Among the street children, the most vulnerable are the homeless children who live, work, eat and sleep on the street. In 1991, a sample study revealed that 2 percent of the children were homeless. By 1996, this proportion had grown to 7 percent. With the growing number, especially of double orphans, the number of homeless children could rise.

The living conditions of children on the street are in many instances sub-human. This makes them highly vulnerable to illness, and yet because they don't have an adult to accompany them to health clinics or hospitals, it is unlikely they will be attended to. Given this situation their likelihood of attaining adulthood is sadly diminished.

Child-headed households are being increasingly talked about in Zambia although no statistics are available to assess their magnitude. Child-headed households again are an offshoot of the orphan crisis. The conditions in child-headed households are worse than those obtaining in female-headed households. Child-headed households again are the result of death of both parent leaving a trail of children and the responsibility on the eldest child, often a teenager, to look after the younger siblings. Extended families are increasingly become unavailable to assume this role.

With the diminishing prospects of grandparents and other being available due to diminishing life expectancy and the increasing proclivity of families to turn nuclear due to increasing economic hardships, the number of child-headed households could increase in the future.

Child labour is yet another phenomenon that contributes to the growth numbers of children without normal childhood. It was estimated that during the period 1986-1991, 40

percent of the increase in the labour force was due to the incidence of child labour. The Priority Survey I of 1991 estimated that 4 percent of the working population belonged to the age category 7-11 years and 10 percent belonged to the 12-19 years group. The Priority Survey II of 1993 estimated that 7 percent of working population belonged to the age group of 7-11 years.

The LCMS, 1996 report states that 3 percent of the children 5-11 years were involved in income generating activities. In all, 56,000 children were involved, of which 12,000 were 5-6 years, 25,000 were 7-9 years and 19,000 were 10-11 years. According to LCMS(1998), 28 percent of the persons in the age group 12-19 years were part of the labour force. These again are children one would have expected to be in upper primary and secondary schools in normal circumstances. A larger proportion of the children in this age group in the rural areas (35 percent) entered the labour market as compared to the children in the same age group in the urban areas (16 percent).

Government's Response to the Realisation of the Rights of Children

**Nine years after ratifying CRC, and its commitment to ensuring the fulfillment of the rights of every Zambian child, Zambia is now completing its Initial State Party Report on how it has met that commitment. The report has, with candor, recognized that the situation of children in Zambia is far from being satisfactory and has recommended a number of actions for the State to undertake as the principal duty bearer. A priority among these actions is the review and revision of various Zambian laws and policies relating to children to ensure that they reflect the provisions of the CRC as well as CEDAW. This is to be followed by the sensitization of all duty bears at nation and community level on the revised laws and policies. However urgent action will also need to be taken to create an enabling environment to develop social policies and to scale up effective community-based models as part of establishing social safety net mechanisms, which will provide better protection for vulnerable children.**

It must also be understood that many of these phenomena of vulnerability did not spring up overnight but have been the result of a systematic decline in the macro economy over a protracted period and of the impact of such decline on vulnerable households. Therefore, improving the welfare and protection of vulnerable children, cannot only be limited to legal review, policies and programmes, but must by necessity include arresting the macro economic decline and minimizing its debilitating impact on household

The Status of the Youth as Vulnerable Group

**The key issues for Youth are education and health, and they are largely disenfranchised in all of these areas.**

**Twenty-one percent of the population (approximately 2 million) are categorized as youth, being aged between 15 and 24 years. As described under the section on Education, only a minority are able to access their rights to an adequate education which would equip them well for obtaining reasonable employment. One study showed that 19% drop out before reaching Grade 7 and a further 46% drop out at Grade 7. Out of the 34% that enter secondary school, 74% drop out before attaining a school certificate, 24% go onto formal vocational training and only 2% enter university. Disaggregated for sex, girls fare less well than do boys in the educational stakes.**

**Consequently, the majority end up being their under or unemployed. A study conducted by government in 1993 found that 75% of the urban unemployed were under 25 years of age. For the urban youth, 3 out of 4 aged 15-19 years and 1 out of two aged 20-24 were unemployed. In the rural areas the situation is somewhat better, presumably because of the farming opportunities – two out of 10 of those aged 15-19 years and 105 out of 10 aged 20-24 years were unemployed. In 1997 it was estimated that a total of half a million youth were unemployed and given the extent of the economic deterioration the figure could be**

even higher. Where youth are employed the majority are in the informal sector, without access to decent wages, promotion opportunities, job security or safe and health conditions of work.

As described elsewhere in the report, an increasing number of youth are AIDS orphans and homeless and consequently at particular risk of sexual abuse and disease, as well as exposure to drug and crime.

Given this situation, it is not surprising that juvenile crime is a problem, largely for the males. When caught and charged young people are committed with adults, exposing them to great risk of sexual and other forms of abuse, and consequently to STDs, including HIV infection. Under or unemployed female youth, in an effort to achieve economic self-sufficiency, are easily tempted to provide sexual favours in return for money, food and clothes, risking early pregnancy and STDs, including HIV.

Health-wise, females become sexually active at a median age of 16 years, and given their biological immaturity, they are at increased risk of contracting STDs, including HIV. Many make an early marriage (70% by the age of 20) and commence childbearing, with 4% of teenagers having 2 children by the age of 19 years. The latter in itself is risky, in terms of the health of both mother and child. Others resort to what is frequently unsafe abortion, resulting in morbidity and sometimes death. Thirty percent of abortion related cases at UTH were among women under the age of twenty-five years of age. Morbidity and mortality arising from the ten major causes of disease, including malaria and respiratory infections, are also high for youth.

Government's Response to the Realization of the Rights of Youths

Government recognizes that Youth are an important section of the population and has put in place a policy and programme of action as well as structures, including the Ministry of Sport, Youth and child Development. Its work is complemented by that of other ministries, NGOs and churches. National Youth Council exists. At the implementation level, Skills Centres have been created, as well as a Youth Enterprise Development Fund and a Constituency Youth Fund which aim to assist economic empowerment of youth. In regard to health services, some attempt has been made to make them more "youth friendly", especially for reproductive health related services but the generally poor state of health services means that efforts are not always effective and they are certainly sufficient to meet the need. In the education sector, the cost of school fees, the pressure to obtain an income and poor state and limited teaching capacity of many schools contribute to non-attendance and early drop out. In short, the lack of funds for the social sector is a major constraint to help youth meet their basic rights for health, education and meaningful employment.

While the approach is appropriately multi-sectoral, resources are insufficient to meet the need consequently, a significant segment of the population is seriously deprived and not well equipped to lead a healthy and productive life.

#### **CAPACITY- BUILDING, EDUCATION, TRAINING AND AWARENESS-RAISING**

Capacity Building	<p>Human resource development is of high priority for Zambia in establishing an environment that provides young people with knowledge, information and skills required for their empowerment. Particular attention is paid to capacity building among girls and young women especially in rural areas.</p> <p>For many years, Zambia paid special attention to the development of her human capital, ensuring improved access to education and health facilities. But the declining economy, since the mid 1980s, negatively affected the access and quality of these two essential social services. This has resulted</p>
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	<p>in substantial erosion in human capital formation. In addition, population increases have almost consistently been above the capacity of the country to invest in the social sectors (education, health, water and sanitation and housing) needed to both maintain and enhance human capital within the country. Allied to this, by the early 1990s the guarantee of jobs for school leavers and graduates within the public sector – which then dominated economic activities – could no longer be assured. Coupled with the slow private sector response, the job market remains unattractive.</p> <p>Since late 1980s high inflation and continued devaluation of the Kwacha have reduced the purchasing power of professionals, leading to increasing brain drain, as many qualified Zambians left the country for “greener pastures”.</p> <p>Human capital has also been adversely affected by HIV/AIDS as deaths from the pandemic are expected to lead directly to a reduction in the number of workers available. Deaths are affecting workers in their most productive years, and as younger, less experienced workers replace experienced ones, productivity is inevitably reduced (The Economic Impact of AIDS in Zambia in 1999). Furthermore, AIDS cause significant increases in labour costs, both direct and indirect. These include increased health care costs, burial fees, absenteeism (due to funerals) and training and recruitment of replacement employees.</p>
Education	<p>Education is rightly recognised to be the cornerstone in the development process and this is especially true for females because of their influential role in family welfare. Since independence educational institutions have been expanded to cater for increased number; but as indicated above, the trend had been downward in the recent decades. Considering the State’s obligation for progressive realisation of this right to access free primary education, this regression poses a serious concern, and urgent corrective measures are called for.</p> <p>The evidence above, particularly with respect to access to primary education, suggests that government’s policy of universal primary education one of the most powerful means of escaping poverty is not being fully respected nor fulfilled, particularly among the most vulnerable the rural poor and girl child. The disadvantage faced by females in the education sector is of particular concern considering the globally acknowledged linkages between the level of education and fertility and maternal mortality, which are both intricately associated with the state of poverty. Policy targets, established in line with International Development Targets, include:</p> <p>Every child should have 7 years of basic education by the year 2005;  Every child should have access to nine years of good quality basic education by the year 2015; and  The upgrading of all primary schools to full basic school status in the year 2015, and  Reduction in adult literacy from 25 percent to 12 percent, and female literacy from 33 percent in 1990 to 12 percent by 2000.</p>
Training And Awareness-raising	<p>The Zambian Government has taken action for the development and maintenance of human resources and intellectual capital; for example:</p> <p>Priority for basic education and literacy programmes, especially for young women and girls and young people in rural areas.</p>

	<p><b>Skills and management training for youth work through supported distance training.</b></p> <p><b>Skills and entrepreneurship training</b></p> <p><b>Review educational curricular to include elements of enterprise, work ethic, health conflict resolution, cultural environment, sports, values, family life and parenting skills education, according to the respective needs of individual countries.</b></p> <p><b>Promote the practice of such positive values as equality, tolerance, cooperation and respect for diversity.</b></p> <p><b>Raise young people's awareness of indigenous knowledge so as to promote the development and protection of indigenous intellectual capital.</b></p> <p><b>Promote awareness programmes on environmental conservation and the protection of natural resources.</b></p>
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### **INFORMATION**

The Government through the Ministry of Sports, Youth and Child Development has undertaken measures to promote and advocate for the improvement of access to information and Communications Technology (ICT) and to providing young people with the skills to make use of; for example

**ICT in school curricular.**

Government is seeking donor and private sector partnerships to increase levels of computer literacy and access to ICT.

Government is also encouraging girls and young women to make use of ICT through targeted programmes, as well as establishing public telecentres and train young people in the use of ICT.

### **RESEARCH AND TECHNOLOGY**

The Government through the Ministry responsible for Child and Youth Affairs has been and is directing its efforts at developing and strengthening Child and Youth development institutions, child and youth policies, legislate and constitute provisions impacting on child and youth development.

### **FINANCING**

Government and cooperating partners have endeavored to allocate resources for the Plan of Action through existing planning cycles and programmes including microeconomic and sectoral budgetary processes, integrating a child and youth perspective into such activities.

Recognizing the fact that there are constraints on the availability of funds for new areas of activity, the Plan of Action also recommends the provision of resources to strengthen existing child and youth specific programmes.

As outlined above Cooperating Partners have been very instrumental in assisting in child and Youth Development programmes.

### **COOPERATION**

Development Partners' Response on the Rights of Children

The principal actor in this area has been UNICEF, whose activities in this regard are similar to those outlined under Chapters 4 and 5. special emphasis in this area is on supporting the HIV/AIDS orphans, and in collaboration with ILO, trying to eliminate child labour.

**Development Partner's Response on the right's of Youth**

The bilateral donors and the UN Agencies provide considerable assistance to youth programmes. As a group, the UN Country Team, through the Peak Performance Project, is providing training to young people on conflict management and positive attitudes as well as facilitating the placement of a number of young high school and university graduates as interns. The ILO is supporting youth activities in the employment sector, while WHO, UNFPA and UNAIDS are supporting the health needs of youths.

## Chapter 26 RECOGNISING AND STRENGTHENING THE ROLE OF INDIGENOUS PEOPLE AND THEIR COMMUNITIES

### DECISION MAKING

The Ministry of Community Development and Social Services and the Ministry of Local Government and Housing are the government institutions responsible for strengthening community structures for sustainable development. Several NGOs have also actively participated in organising communities for effective participation in community and national development issues.

### LEGISLATION

There is no specific legislation dealing with community organisation issues other than the Local Government Act.

### PROGRAMMES AND PROJECTS

A process of empowering communities and preserving indigenous knowledge systems through policies and legal instruments is in place and community initiated projects and development programmes are being implemented in all the nine provinces of the country. Community Natural Resources Management Programmes (CBNRMP) have been initiated and are being implemented in Western, Central and NorthWestern provinces. Community Environmental Management Programmes (CEMP) are being implemented in all the nine provinces of the country. The Soil Conservation and Agro-forestry Extension Programme (SCAFE) is being implemented in Eastern, Central, Lusaka and Southern Provinces while ADMARE is being implemented in all the Game Management Areas. ZAMSIF is building district capacity in establishing community structures for social and development initiatives throughout the country.

Zambia has continued to recognise traditional leaders, supports and encourages traditional cultures and ceremonies. At the local government level, traditional rulers nominate their own representative in the Council of elected leaders. However, the House of Chiefs which is supposed to advise government on traditional matters and on national development has not been constituted for over a decade.

### CAPACITY BUILDING, EDUCATION, TRAINING AND AWARENESS RAISING

Communities participating in integrated natural resources management programmes have been exposed to participatory learning and action methods including participatory rural and urban appraisal. With expert support, they use these approaches to analyse their problems, identify solutions and devise management plans for sustainable livelihoods.

The Traditional Health Practitioners Association of Zambia (THPAZ) have had their members trained in hygiene and sustainable harvesting methods for herbal and other alternative medicines. THPAZ has also been integrated into National Working Committees on validating traditional medicines.

### INFORMATION MANAGEMENT

There is very little documented information on community structures, participation and indigenous technical knowledge in integrated natural resource management. However, the Traditional Health Practitioners Association of Zambia have been assisted to establish a data base on their members and various plants, herbs and materials they use in traditional and alternative medicine.

## **RESEARCH AND TECHNOLOGY**

Over the past few years, case studies on community attitudes, knowledge and practices have been undertaken focusing on various natural resources. To strengthen and build knowledge and information on environment related issues, the Zambian Government has created a specific studies fund under the ESP's Pilot Environmental Fund (PEF) and under the Zambia Social Investment Fund ZAMSIF).

## **FINANCING**

The Zambian Government is financing community based initiatives through the national budgetary allocations to various ministries and agencies. However, all the Community Based Natural Resources Management Programmes are largely being supported by NGOs and various Cooperating Partners. The only perceived constraint is that Cooperating Partners seem to support the action planning processes but tend to shy away when it comes to implementation of those plans.

## **REGIONAL / INTERNATIONAL COOPERATION**

Zambia has continued to actively participate in regional initiatives on Community Based Natural Resources Management and Indigenous Technical Knowledge. The only constraint is that community intellectual property rights are not yet recognised and rewarded by various researchers and specialists who are using this knowledge. The Dutch Government, UNDP, World Bank, DANIDA, EU, WWF, USAID, Care International, GTZ and others are involved in Community Based Natural Resources Management efforts at various levels.

## Chapter 27

### **STRENGTHENING THE ROLE OF NON-GOVERNMENTAL ORGANISATIONS: PARTNERS FOR SUSTAINABLE DEVELOPMENT**

#### **DECISION MAKING**

Government designated the Ministry of Community Development and Social Services as a focal point for NGO coordination. It was also given the responsibility to initiate an enabling policy and legal framework whose purpose was to facilitate the coordination and regulation of these organizations. At the point of programme implementation, line Ministries are also expected to coordinate the activities of NGOs operating within the respective sectors.

#### **LEGISLATION AND/OR REGULATIONS**

Societies Act Regulates the formation, governance and operations of non-profit making institutions, charities and associations in Zambia. Lands and Deeds Act for the registration of trusts.

#### **STRATEGIES, POLICIES AND PLANS**

Among the actions that Government has taken to strengthen and consolidate the role of NGOs in line with Agenda 21, has been the formulation of an NGO policy and an accompanying legal framework. The NGO policy was developed in close consultation with NGOs. It was intended to provide guidance on NGO operations and ensure that standards and best practices are upheld. Also the NGO policy provides an attempt to develop framework leading to the development of an NGO Act although this process is stalled as NGO's broad consensus on the drafting of an act has not been reached. NGO's are being included in Government Capacity Building Programmes with the theme building partnerships and strengthening partners. In this regard government has contracted certain NGO's to implement government project as in the case of Programme Against Malnutrition (PAM).

#### **MAJOR GROUPS INVOLVEMENT IN THE DECISION MAKING.**

Cooperating partners, communities, NGO's

#### **PROGRAMMES AND PROJECTS**

They are no specific programmes, which focus on strengthening the role of NGO's in sustainable development.

#### **STATUS**

The NGO policy was adopted in principle by Cabinet in 1998 but had to await the drafting of an NGO Bill. This process has, however, stalled.

**There are views from civil society that Government abandons the idea of an NGO policy and that NGOs be left to regulate themselves and identify among themselves a focal point to oversee this responsibility.**

#### **CAPACITY- BUILDING, EDUCATION, TRAINING AND AWARENESS-RAISING**

They are no specific initiatives in the area of Capacity Building, Education, Training and Awareness-raising for NGO's.

#### **INFORMATION**

Information on NGO and operations in Zambia is available in line Ministries, NGO umbrella organizations and specific NGOs themselves. More information is needed on the impact that NGOs are making towards sustainable development. There is also need for more readily available information on the amounts of donor inflows into the NGO sector.

## **RESEARCH AND TECHNOLOGY**

Research was conducted in 1994 on the role of NGOs in Zambia. The research findings provided information on the numbers, coverage and sector leanings of NGOs operating in the country. The study showed that NGOs are concentrated mainly along the line of rail, while rural areas are not serviced due to among other factors, poor infrastructure which increases their operational costs. There is need to undertake another research since more NGOs have been established.

## **FINANCING**

**Strengthening of NGOs through various capacity building activities has been supported by a number of International Development Partners. The drafting of the NGO Policy was financed by the world Bank through the Social Recovery Programme (SRP). Government has also entered into an Agreement with GTZ to finance a project on the strengthening of Civil Society organizations.**

## **COOPERATION**

Government, International Development Partners, NGOs and CBOs are working together at various levels.

## **CHALLENGES**

With the proliferation of so many NGOs in Zambia, the onus still is on Government to ensure that a mechanism for self-regulation is put in place.

Chapter 28  
LOCAL AUTHORITIES' INITIATIVES IN SUPPORT OF AGENDA 21

**DECISION MAKING**

The Ministry of Local Government and Housing is responsible for local government administration at the policy level. However, in the absence of a strong government commitment to decentralisation due to financial constraints, and the lack of an agreed overall framework for governance at the local and district levels, donors have acted through a variety of agencies, both governmental and non-governmental to implement their own forms of decentralised development, particularly at sub-district levels. The result has been a proliferation of unofficial parallel structures and organisations.

**LEGISLATION AND REGULATIONS**

The basic law on local government is the Local Government Act of 1991 and subsequent amendments of 1992, 1993 and 1995. This principal law suffers from various omissions and ambiguities. This is further exacerbated by a series of other Acts which, although not specifically concerned with local government, have further changed the functions, powers and revenue sources of local authorities.

**PROGRAMMES AND PROJECTS**

The lack of legally constituted, local government institutions at the local and ward or area levels is a major weakness in the current system. The Cabinet circular of 1995 which established the District Development Coordinating Committees (DDCC) envisaged that these committees would integrate a process of 'bottom-up' local development planning and implementation, but failed to specify any institutional format for such a process.

Government through the Zambia Social Investment Fund (ZAMSIF) is reestablishing sub-district consultative bodies based upon different areas as defined by sector specific services and donor/NGO projects and what ZAMSIF calls 'communities of interest'. This is in addition to the communities defined by traditional demarcations.

**STATUS**

Zambia currently has a dual system of (i) devolved elected local governments (ii) deconcentrated sector ministries reporting to their parent ministries in Lusaka. The District Council Secretaries or Town Clerks have no legal or financial power over the line ministry representatives.

In spite of their relatively long existence, Local Authorities in Zambia are in a poor financial and human resource state, and are unable to fulfil their obligations and challenges effectively. The deteriorating state can be seen from a set of various indicators: These are inconsistent and unpredictable level of government grants to councils; non-functioning income generating activities; staff attrition levels; poor service delivery; insufficient maintenance of public infrastructure etc. Thus the Local Government Association of Zambia concludes that *"Central Government has not yet developed a national local government policy with a clear vision and implementation strategies*. However, there is a newly drafted local government policy under which it is proposed to give District Councils responsibility for all or nearly all development activities at and below their level. It is also government intention to provide local authorities with sufficient financial and administrative resources for effective local governance at district level.

There is still need for District Councils to receive a large portion of their funds from the Central Government for them to make any meaningful contribution to local initiatives in support of agenda 21. This is especially necessary now that the councils are desperately short of funds.

## Chapter 29 STRENGTHENING THE ROLE OF WORKERS AND TRADE UNIONS

### DECISION MAKING

Zambia has been a member of the International Labour Organisation (ILO) since 1964 and has embraced the principles of tripartite consultation on which the ILO operates. In the tripartite arrangement, the Government acts as Secretariat through the Ministry of Labour and Social Security, the Zambia Congress of Trade Unions (ZCTU) represents the workers' organisations and the Zambia Federation of Employers (ZFE) represents the employers' organisations. The Government ratified ILO Convention Number 144 on Tripartite consultation to underscore its resolve to such consultation. Government, Employers' organisations, Employees' representatives and other fringe organisations constitute the Tripartite Consultative Labour Council (TCLC) which is a supreme consultative body that deliberates on Employment and Labour Market issues. The Tripartite Consultative Labour Council (TCLC) has two working groups, viz:

- Working group on Occupational Health and Safety.
- Working group on Employment and Labour Market Policy.

Coordination government/body responsible for the issues

Body / Government	Responsibilities
<b>Ministry of Labour and Social Security</b>	
<b>ZCTU</b>	The largest congress and umbrella of all trade unions in Zambia.
<b>ZFE</b>	The representative body for employer.

### LEGISLATION AND/OR REGULATIONS

Zambia has ratified a number of International treaties and recommendations to ensure social justice and promote "decent work" in this era of globalisation. As at today, Zambia has ratified a total of 43 ILO Conventions (39 of which are in force). These 43 include the eight (8) Core Labour Conventions which were first established in the conclusions reached at the World Summit for Social Development in Copenhagen in 1995 namely:

Legislation / regulation	Background
ILO Convention 87	– On Freedom of association and protection of the right to organise
ILO Convention 98	– On right to organise and collective bargaining
ILO Convention 29	– On Forced labour.
ILO Convention 105	– On Abolition of forced labour.
ILO Convention 138	– On Minimum age.
ILO Convention 182	– On Worst Forms of Child Labour.
ILO Convention 111	– On Discrimination (Employment and Occupation).
ILO Convention 100	– On equal remuneration for work of equal value.
Factories Act Chapter 441 of Laws of Zambia.	Administers by the Factory Department and Factories Inspectorate. Provides the legal framework for the inspection of factories and construction sites to promote safety and health of workers environment.
Employment Act Chapter 268 of Laws of Zambia	Regulates workers and employers relationships in the work place. Gives guidance on minimum condition of service.

<b>Industrial and Labour relations Act Cap. 269.</b>	<b>Governs industrial and labour relations system in the sense that it provides a framework for the creation of unions and employers associations/federations. Gives guidance on the formation of such institutions and their governance.</b>
<b>Employment of Young Persons and Children's Act Cap. 274.</b>	<b>Addresses issues of child labour and defines minimum age and child labour. It also stipulates penalties for default. However, the act is outdated and needs review.</b>
<b>The Minimum wages and Conditions of Employment Act of 1982.</b>	<b>Provides the state with authority to intervene in the determination of minimum wages and conditions of employment in circumstances where collective bargaining is not possible or effective.</b>

Since the country adopted the policy of economic liberalisation, need arose to ensure that legislation in respect of Labour relations is not in conflict with this policy. Consultations were engaged with employers; workers' and women's organisations in reviewing these laws. This review which is on going has seen the amendments of the Employment Act Cap. 268 and the Industrial and Labour relations Act Cap. 269 undertaken in 1997

As far as International Law is concerned, workers' rights apart from ILO Conventions, are also enshrined in the Universal Declaration of Human Rights of 1948, the International Covenant on Civil and Political Rights and the International Covenant on Economic, Social and Cultural rights. The rights accorded by these instruments are more extensive than those ILO Conventions that have been designated basic rights Conventions. They include the right:

- To work.
- To just and favourable conditions of work, including safe and healthy working conditions (environment).
- To form Trade Unions.
- To rest and leisure and reasonable hours of work.

#### STRATEGIES, POLICIES AND PLANS

Hitherto, Zambia does not have an Employment and Labour Market Policy in place and has consequently been using labour legislation to manage the Labour Market. A draft Labour Market Policy was produced in the year 2000 after a long consultative process.

#### PROGRAMMES AND PROJECTS

Programme	Background	Constraints & Challenges
<b>ILO/UNDP JOBS FOR AFRICA PROGRAMME</b>	<b>Programme aimed at resolving the perennial problems of youth unemployment have been designed involving NGOs, ILO, UNDP and other stakeholders. The programme uses advocacy techniques. National and Provincial advocacy groups were formed to lobby for investments that are job intensive.</b>	<ul style="list-style-type: none"> <li>• Started in 2000</li> <li>• Infrastructure and framework in place.</li> <li>• Funding erratic</li> <li>• Counter funding inadequate</li> </ul>
<b>PROGRAMME FOR THE ELIMINATION OF THE WORST FORMS OF</b>	<b>A programme aimed at eliminating all forms of Child Labour with emphasis on the Worst forms such as Child prostitution, stone crushing, child domestic workers and street vending is being implemented in partnership with ILO, ZCTU, ZFE and several</b>	<ul style="list-style-type: none"> <li>• This project is in it early stages and is generally proceeding well. Effects are being monitored.</li> <li>• However more funding required to upgrade</li> </ul>

<b>CHILD LABOUR</b>	implementing local NGOs. The programme has adopted five key strategic areas of Prevention, Withdrawal, Rehabilitation, Policy and Capacity Building.	human resource, infrastructure and logistical support.
<b>STRENGTHENING LABOUR MARKET INFORMATION SYSTEM (LMIS)</b>	This programme is meant to create a mechanism for collecting, processing, analysing and disseminating LMI	<ul style="list-style-type: none"> <li>• Funding has been poor previous although k500m has been allocated in this years budget.</li> <li>• Poor national infrastructure for data collection. Need to build capacity in the district labour offices.</li> <li>• Need to strengthen relations and have a permanent network between stakeholders.</li> <li>• Require infrastructure to conduct labour survey.</li> </ul>

### **STATUS**

Zambia has had a very strong trade union tradition dating back to the colonial era. Under the previous labour law, trade unions affiliated to one mother body, the Zambia Congress of trade Unions (ZCTU). However, the amendments to the Industrial and Labour Relations Act Cap 269 of the Zambian laws saw a proliferation in trade unions and formation of another representative body the Federation of Free Trade Unions (FFTU). This was perceived to have undermined solidarity of the workers' movement. But largely, the current economic hardships and increasing unemployment due mainly, to closure or privatisation of former parastatals have weakened trade unions. A large number of the labour force is found in the informal sector where Employers' and workers' organisations are absent. The prevailing scenario is therefore that:

- Trade Unions have lost strength due to decline in membership.
- The majority of workers are not unionised as these are found in the informal sector.

Trade unions activities in Zambia centre on promotion of fair terms of employment and decent working conditions. Other activities include workers rights education and employment promotion.

### **CAPACITY- BUILDING, EDUCATION, TRAINING AND AWARENESS-RAISING**

<b>Capacity Building</b>	They are desires moves to strengthening the TCLC by making the secretariate independent.
<b>Education</b>	The Department of Education and The Occupational Assessment Services Department have an input in developing training and curriculum programmes at the TEVETA.
<b>Training</b>	
<b>Awareness-raising</b>	These are conducted through sensitisation workshops on workers' rights and Labour Laws.

### **INFORMATION**

The Planning Unit coordinates all Ministerial activities and has mandate to host a database on LMI. Information obtaining at the ministry of labour includes:

- **Basic Labour Market Data:** ILO Conventions, labour laws, retirement figures, occupational accidents, vacancies notified.
- **Social Security Beneficiaries Database:** A registry of social security schemes and keeps record of the number of beneficiaries by gender.

#### **RESEARCH AND TECHNOLOGY**

**STRENGTHENING SOCIAL DIALOGUE:** A study on all social dialogue institutions (on Labour matters) commissioned by the ILO was undertaken late 2001. This assessed the capacity of key Labour market institutions including the tripartite Consultative Labour Council in undertaking social dialogue on labour market issues.

#### **FINANCING**

The Government provides finances for implementing of programmes. However, some programmes are supported by the ILO.

#### **COOPERATION**

The ILO takes a leading role in promoting employment and workers' rights. ILO supports programmes aimed at strengthening tripartism, social dialogue and employment policy.

Other partners include: UNDP, Other Govt. Ministries, Workers' and Employers' organisations, NGOs.

#### **CONSTRAINTS**

Lack of capacity in terms of resources at the Ministry of Labour and Social Security has negatively affected implementation of programmes such as: -

- Holding of tripartite Consultative Labour Council meetings.
- Efficiency in ratification and implementation of International treaties and Conventions.
- Finalisation of the draft Employment and Labour Market Policy.
- Creation of an Occupational Health and Safety Information Centre.
- Conducting of research especially on the informal sector.

Lack of Coordination among institutions producing Labour Market Information has affected its management

**Chapter 30**  
**STRENGTHENING OF THE ROLE OF BUSINESS AND INDUSTRY FOR**  
**SUSTAINABLE DEVELOPMENT IN ZAMBIA**

**DECISION MAKING**

Body / Government	Responsibilities
<b>The Ministry of Commerce, Trade and Industry</b>	is the central Government decision-making institution on trade and industrial policy formulation in Zambia. The Ministry plays a regulatory role for all matters relating to promotion of economic growth with regard to the Commercial, Trade and Industrial sectors within a market economy through the creation and maintenance of conducive legal and policy regulatory framework.

The Ministry also works closely with the Ministry of Finance and National Planning, National Associations concerned with Commercial, Trade and Industrial sector development, the Zambia Revenue Authority and other line economic institutions to develop a conducive environment for industrial development.

**LEGISLATION AND/OR REGULATIONS**

The Ministry administers a number of legislation through the Statutory Bodies that fall under its ambit. These include the:

Legislation / regulation	Background
<b>Competition and Fair Trading Act</b>	Regulates the market to ensure fair trading practices and prevent market domination through the Competition Commission.
<b>Investments Act</b>	Regulates, Promotes and monitors foreign investment coming into the country through the investment centre.
<b>SED Act</b>	Promotes SME Development. Allows the SED Board to put in place measures to assist SME's through incentives and grants.
<b>Standards Act</b>	Provides the legal framework for regulating and enforcing standards.
<b>Companies Act</b>	Regulates company formation, corporate governance and company operation in Zambia.
<b>Trade Mark Act</b>	Regulation and protection of trademark use.
<b>Privatisation Act</b>	The legal framework for the establishment and operation of the Zambia Privatisation Agency. Gives guidelines and modalities for the privatisation of state owned enterprise.
<b>Patents and Designs Act</b>	Regulates and protects Intellectual Property Rights.
<b>Trade Licensing Act</b>	Administered by local authorities. The legal framework for authorising and regulating formal trade.
<b>Registration of Business Names Act</b>	

**STRATEGIES, POLICIES AND PLANS**

Zambia's sustainable Commercial, Trade and Industrial reform policies were adopted in 1994 under the Industrial, Commercial and Trade Policy. This policy seeks to advance Zambia's achievements and to promote a dynamic environment based on growth and productivity. The Policy document is currently under review.

The Industrial, Commercial and Trade Policy is pursued within a liberalised and market-oriented framework. To this end, the policy enables enterprises that have capacity and potential to compete and make necessary adjustment and assist others to find viable options within a supportive trade and commercial environment.

**The Zambian Government believes that stimulation of the private sector is the key to growth in the industrial and commercial sectors through the provision of medium and long-term credit, to finance investment projects. The CTI sector has however, been faced with a number of problems that have affected the competitiveness of Zambian industries and some of these are:**

- a narrow export base,
- unfair competition arising from smuggling and export subsidies in some of our trading partners' economies,
- lack of effective long-term capital,
- high cost of utilities like electricity and fuel,
- inadequate infrastructure,
- a compressed domestic demand and
- limited access to sub-regional, regional and international markets.

**This is has sometime led to relocations of some companies to neighbouring countries.**

Zambia's Trade policy has been through the liberalisation of the trade sector. The implications of the trade policy has been manifested in the privatisation programme which have been achieved through the privatisation of a number companies. This has however seen a closure of some companies that could not compete due to the opening up of the markets. There has been a general out cry from the business community for need to have some form of protection.

The trade liberalisation has also seen the reduction of tariff in the economy. Currently Zambia has four tariff bands of 0% for capital goods, 5% for raw materials, 15% for intermediate goods and 25% for finished goods.

The Ministry of Commerce, Trade and Industry has tried to resolve some of these inadequacies, the ministry has come up with initiatives including:

- promoting institutionalised consultative dialogue with the business community,
- regional and multilateral agreements
- Bilateral Agreements
- competition policies – promote fair trading
- Investments Promotion
- Privatisation Programme
- Establish Export Processing Zones

The industrial policy document has recommended the following strategies:

- **Rehabilitate and maintain roads on a sustainable basis, to areas identified to have economic potential.**
- **Provide development finance to assist Manufacturers update their technology and procure new machinery in order to increase their productivity.**
- **Ministry of Technology and Vocational Training should provide information on products, technologies available and their prices.**
- **Provide fiscal incentives to financial houses to entice them to extend short-term working capital loans to exporters at lower interest rates than is the case currently where exporters are compelled to finance short-term operations at very high interest rates.**

- **Government in particular should give preference to local suppliers when procuring goods and services.**
- Ministry of Commerce, Trade and Industry and Zambia Investment Centre should embark on a 'Buy Zambia' campaign in order to encourage locals to buy Zambian products.
- Ministry of Commerce, Trade and Industry should put in place Safeguard measures to protect the local industry from unfair competition.
- Ministry of Commerce, Trade and Industry should strengthen Private Sector Support Institutions i.e. ZACCI, ZENA, etc
- Establish a central government planning Authority that will take into account the new environment, which is created, to ensure that government projects and programmes are focused, complementary and well coordinated. The same institution would develop a national strategic plan and vision.
- Reduce taxes to the levels that will leave manufacturing firms with funds for re-investment and declaration of dividends.
- Widen the tax base by bringing current non-tax payers into the tax net and encourage relevant government departments and local authorities to strengthen the collection mechanism through payment of collection fees.
- Encourage local production of raw materials and inputs by giving tax and non-tax incentives to firms.
- Improve provision of information to local industries on inputs availability within Zambia, COMESA and SADC.
- Carry out capacity building in the Ministry Of Commerce, Trade & Industry and Missions abroad and ZRA to carry out thorough investigations of unfair trading practices
- Equip ZABS with necessary financial resources to inspect/test goods at points of entry to stop importation of substandard goods.
- Upgrade and accredit Laboratories for them to effectively participate in enforcing the set standards and regulations.
- Review the tariff structure to encourage local production as opposed to importation of finished products
- Need to strengthen collaboration between ministries.

#### **MAJOR GROUPS INVOLVEMENT IN THE DECISION MAKING.**

Various associations, individual companies sometimes, GRZ/Private Sector Consultative Dialogue Forum which meets 4 times a year.

Women have traditionally not been a major force in the formal sector, although the situation is changing. However, their role in the informal sector has been a major source of employment. Government sees this as the greatest immediate outlet to employment creation and a basis to build up and enhance productivity. To support this activity, the following strategies shall be pursued:

- **Government will assist with the establishment and strengthening of business associations for women for the purposes of networking, information sharing and exploitation of business opportunities.**
- **It will promote the education of women on the opportunities that exist in a market economy and impart technical and entrepreneurial skills.**

## PROGRAMMES AND PROJECTS

Programme	Background	Constraints & Challenges
Privatisation Programme	<b>Administered under the Zambia Privatisation Agency which plans, implements and controls privatisation of state owned enterprises.</b>	<ul style="list-style-type: none"> <li>• <b>Political Interference</b></li> <li>• <b>Finding the right mode of Privatisation.</b></li> <li>• <b>Inability to follow up and enforcement Investment pledges.</b></li> </ul>
Private Sector Development Programme	PSDP is an integral part of the EU third phase of the Structural Adjustment Facility, in support of the Zambian Governments on-going efforts at reforming the economy and supporting the private sector.	
Enterprise Development Project	<p><b>This is a US\$45 million World Bank funded project that has three main objectives:</b></p> <ul style="list-style-type: none"> <li>• <b>To provide financial resources needed for investment purposes and working capital for exporters.</b></li> <li>• <b>To provide technical assistance to private firms to enable them prepare detailed marketing, technological, organisational and investment strategies.</b></li> <li>• <b>To provide technical assistance to financial institutions .</b></li> </ul>	
Export development Fund	<b>EU fund which supports projects exporting to the EU market. They providing funding and technical assistance.</b>	

## STATUS

Government has realised that Business and Industry play a very important role in the social economic development of a country. Through the liberalisation policy, the Ministry has continued to support the business community through putting in place a conducive legal regulatory framework for business to operate in.

**The formulation of industrial, commercial and trade policies took into consideration consistent and complementary macroeconomic developments and policies. In this regard the reform process sets the most important parameter for the sectoral growth.**

**The most relevant aspects of the reform programme to commercial, industrial and trade policies are already in place. These are investment, privatisation, financial sector, legal and trade reforms which have been successful.**

**It however, needs continued support by an active industrial policy, whose primary purpose is to secure a dynamic comparative advantage in the global economy for Zambian enterprises.**

- **The Ministry through SEDB facilitate the identification of potential projects for SME development. However, the capacity of SEDB need to be strengthened and resource would be mobilised.**

- To promote more efficient production process, the Ministry has, through the Zambia Bureau of Standards (ZABS) been promoting the adoption and use of international recognised standards in industry and commerce.

While the ZABS has been trying to provide facilities for testing and calibration of physical standards, the institution faces a number of serious constraints which include:

- lack of infrastructure – This has made Zambia to have one of the least developed national standards bureau in the region,
- lack of adequate numbers of technical staff
- inadequate levels of operational material and logistical resources.

However, the Ministry is looking forward to a situation where the constraints are overcome so that the business community is helped and technical requirements become critical in the production process of industry to reduce on wasteful production processes.

### **COMPETITIVENESS OF ZAMBIAN INDUSTRIES**

The competitiveness of the Zambian Industry has been influenced largely by economic reforms embarked upon in 1991, which saw the shifting of the industrial and commercial policy from import substitution, protectionism and heavy public sector involvement to promotion of an open liberalized market economy. The reduction of trade tariffs, however, opened Zambian companies to foreign competition before they had the chance to re-tool and upgrade equipment. This led to a shift in demand from local to foreign cheaper products. Regional conflicts have also hindered efforts to export.

**The manufacturing sector is the third largest contributor to GDP averaging around 10-11% and employing 47,782 people in 2000, which has been the average for the period 1997-2000. The composition of the manufacturing sector includes food, beverages and tobacco, textiles and leather, wood and wood products, paper and paper products, chemicals and pharmaceuticals, non-metallic minerals products, basic metal products and fabricated metal products and other manufacturing.**

Reports of company closures, lay offs and relocations to other countries continued in 2001. It has been generally observed that those industries that depend on raw materials and other inputs imported outside COMESA and target the local market have had problems surviving in the liberalised market environment. The COMESA Free Trade Area is expected to benefit firms sourcing inputs from within COMESA where duty on raw materials is zero-rated. This measure is expected to reduce production costs thereby making locally produced products competitive.

**Other factors affecting the manufacturing firms in Zambia include high transport cost, obsolete machinery, communication and energy costs, high interest rates, lack of development finance, unfair trading practices by some COMESA member's states, poor economic infrastructure, high taxes and lack of capacity to enforce quality assurance and standards. Distorted duty structure, lack of a strategic plan and vision and shortage of critical raw materials also contribute to Zambia's uncompetitive ness both locally and abroad.**

## CAPACITY BUILDING, EDUCATION, TRAINING AND AWARENESS-RAISING

<b>Capacity Building</b>	The Ministry has developed good relationship with the business community and is making efforts to work closely with them on all matters related to Commerce, Trade and Industry. The Ministry through the Small Enterprises Development Board has been building technical capacity for SME through offering business skills training.
<b>Education</b>	<b>The University of Zambia, the Zambia Institute for Chartered Accountancy Studies and other colleges offer degree to diploma certificates course in business, IT and accounting related subjects.</b>
<b>Training</b>	<b>SEDB has training programmes to equip SME's under there membership. ZABS also has training course to make companies aware of standards. Technical standards have been identified as the biggest barrier to trade.</b>
<b>Awareness-raising</b>	<b>There funding available to MCTI under PSCAP to develop a website. MCTI holds regular awareness meeting with associations and initiates awareness campaigns for various programmes. A MCTI bulletin is supposed to be published quarterly however this is not being achieved. Creative Group has recently been contracted to develop a monthly commerce gazette.</b>

## INFORMATION

Numerous databases exist at various statutory institutions and these include the following:

Institution	Key Indicators / Databases Generated
<b>Investment Centre</b>	<b>Pledged investment and jobs, implementation, sector</b>
<b>Registrar of Companies</b>	<b>Incorporation details, Directors and shareholder, Authorised Capital, area of business</b>
<b>MCTI – Planning and Information Department</b>	<b>Trade Database, import and export data. Products, quantities, destination and value.</b>
<b>Patents and Trademarks Registry</b>	<b>Registration of Patents and Trademarks</b>

**An Industrial Audit is to be conducted by MCTI under PSCAP.**

## RESEARCH AND TECHNOLOGY

The challenge is for Government to continue to strengthen public research institutions, such as the Technology Development Advisory Unit and the National Institute of Scientific and Industrial Research, to undertake technological development and adaptation, choice and selection of equipment, provision of information on raw materials and quality assessment. Public research institutions should be linked to the private sector.

The transfer of technology is a key input into industrial and commercial sector growth. It is critical for raising productivity in both small and large-scale enterprises. Government continues to

promote and encourage adaptation of new technology. Firms should have access to appropriate technology.

### **FINANCING**

Financing of the commercial, trade and industrial sector activities mainly been through the normal budget allocations from the Central Treasury. The Government however at isolated times receive funding and technical assistance from donors which is usually for capacity building within the Ministry.

Finances have been provided through donor support to the Ministry under different projects. Some of the programmes that were undertaken included:

- (a) **The Ministry in collaboration with the World Bank formulated the Enterprise Development Project to enhance private sector development. The Enterprise Development Project is a credit meant to facilitate for the expansion, rehabilitation and modernisation of the Zambian small and medium enterprises.**
- (b) **Further, the Export Board of Zambia has an Export Development Programme, which became operational in December 1993 and is on going. The Export Development Programme is intended to address production and export market constraints in the horticultural and floricultural, textiles and cotton, coffee and tobacco sectors. It is financed by the European Union under the Export Development Fund.**
- (c) **The Ministry also received Technical Assistance from the United Nations Development Programme (UNDP), to establish at the Ministry of Commerce, Trade and Industry (MCTI), an effective national capacity comprising human skills and systems to enable Government formulate capacity, policy research and analysis so as to enhance private sector development throughout the country. The project sought to strengthen the MCTI's capacity to formulate and implement conducive commercial, trade and industrial policies for private sector development. This mandate was particularly cardinal to the Ministry given the country's transition from a public led economy to one based on the private sector.**
- (d) **Further, the Ministry hosted another donor-funded project namely "GTZ Advisory Services to the Ministry" funded by the German Government for capacity building of the Ministry.**
- (e) **Zambia is through the Ministry of Commerce implementing the AGOA. An AGOA Implementation Committee to oversee Zambia's participation under the Act has already been put in place, which predominantly involves the business community. As regards exports of textiles and apparels to the USA market, the visa system has been formalised and the Statutory Instrument no. 127 was gazetted in the Government Gazette in November 2001. The Gazette was forwarded to the United States Trade Representative and we have since received the final approval of the visa system.**

### **COOPERATION**

The Zambian Government encourages increased partnerships with the private sector. NGOs, other members of the civil society, and the international community (COMESA SADC, WTO, ACP-EU, USAID, GTZ etc) for the development of the commercial, trade and industrial sectors.

**Chapter 31**  
**SCIENTIFIC AND TECHNOLOGICAL COMMUNITY**

**DECISION MAKING**

The decision-making and co-ordination of strategies to enhance community appreciation in science and technology primarily and to promote the uptake of science and technology based careers is versed in government.

**COORDINATION GOVERNMENT/BODY RESPONSIBLE FOR THE ISSUES**

Body / Government	Responsibilities
<b>Ministry of Science, Technology and Vocational Training (MSTVT)</b>	To plan, implement, co-ordinate and regulate policy developments in the science and technology and technical and vocational skills sectors for sustainable economic growth.
<b>Department of Science and Technology (DST)</b>	Co-ordination and provision of linkages between the government and institutions in the national science and technology system in the promotion, developing and monitoring S&T Policies in the country.
<b>Department of Vocational and Entrepreneurial Training (VET).</b>	Co-ordination and provision of linkages between the government and concerned institutions in the promotion, provision, developing and monitoring technical education and vocational training in the country.
<b>The National Science and Technology Council</b>	<p>Set up under the Science and Technology Act. 26 of 1998, co-ordinates and regulates R&amp;D, set broad direction for R&amp;D, recommend the establishment of new institutes and S&amp;T support and services centers, collect and disseminate S&amp;T information, mobilize and distribute S&amp;T Funds and carry out public awareness campaigns.</p> <p>The public awareness promotion involves both research and development institutions and the service and support centers. The services and support centers involved are the National Technology Business Centre (NTBC) for transfer and promotion of sustainable environmental technologies and the National Remote Sensing Institute for provision of remote sensed data for sustainable environmental management.</p>

## LEGISLATION AND/OR REGULATIONS

Legislation / regulation	Background
Science and Technology Act No.26 of 1997	The legal framework developed from the National Science and Technology Policy (NSTP) of 1996 on which the provisions of the policy are being implemented
Technical Education, Vocational and Entrepreneurship Training Act No. 13 of 1998	The legal framework developed from Technical Education, Vocational and Entrepreneurship (TEVET) Policy of 1996 on which the provisions of the TEVET Policy are being implemented
Statutory Instrument No. 73 of 1998	Effected the establishment of the National Institute for Scientific and Industrial Research (NISIR) from the former laboratories of the National Council for Scientific Research (NISIR).
Statutory Instrument No. 136 of 1999	Effected the establishment of the National Technology Business Center (NTBC). The NTBC is a technology and promotion merchandising institution with special emphasis on indigenous technology and importation of appropriate technologies from outside so as to enhance productivity.
Statutory Instrument No.137 of 1999.	Effected the establishment of the National Remote Sensing Centre (NRSC). The NRSC will process and provide remote sensed data for informed planning.

## STRATEGIES, POLICIES AND PLANS

The National Science and Technology Policy (NSTP) developed in 1996 and the subsequent institutional framework, which has been put in place, places the advocacy and public awareness campaigns on the role of science and technology for the betterment of the socio-economic of the communities as a key strategy. The appreciation of the role and power of Science and Technology in both the productive and sustainable utilization and management of available natural resources by the community is viewed as the cornerstone of a sustained productive culture.

The Government has since 1996 implemented institutional and public targeted Science and Technology promotion and awareness campaigns.

The strategies for the attaining of this broad policy objective object include: recognition of gender concerns; rationalisation of the existing and establishing new institutions; ensuring that research is guided by national developmental goals; establishing a mechanism for increased innovation, transfer, diffusion and commercialisation of technologies, especially for the small and medium scale industries, with emphasis on indigenous technology; putting in place efficient facilities to formulate and enforce standards and undertake quality control testing and assessment of industrial products; developing appropriate training which imparts skills and application of knowledge to develop proto-type products and processes in changing environment of market technology; establishing a comprehensive data bank which is easily accessible at strategic locations by scientific, management and industrial users; and providing incentives and high targeted promotion on the importance of science and technology to economic development in the key sectors.

## MAJOR GROUPS INVOLVEMENT IN THE DECISION-MAKING.

- (a) **The Ministry of Science, Technology and Vocational Training**
- (b) **The National Science and Technology Council (NSTC).** The NSTC is composed of 11 Councilors who are professionally qualified and represent the major science and technology application sectors, commerce and the private sector. The NSTC has a fully-fledged Secretariat headed by An Executive Secretary and is a full Government Granted Institution. The NSTC apart from the Council has specialized advisory Sub-Committee in relevant fields to deal with pertinent issues
- (c) **Research Boards.** Each Research Institute or science and technology services support center has a management Board (Research Board in terms of research institutes) made up not more than eight members who are qualified persons in matters relating to the research disciplines of that research institute. The Chairperson of the Board is elected by the members for a specified period, usually three years.

## PROGRAMMES AND PROJECTS

Programme	Background	Constraints & Challenges
<b>1.National Technology Business Centre.</b>	<b>Among the deficiencies identified in the National, Technology System is the lack of an institutional Mechanism to for technology diffusion, transfer and commercialization. The Project document was drawn up with the participation of stakeholders. The implementation is on and the Centre has been operationalised though most of the facilities have to be sought later due to lack of funds.</b>	<b>Lack of Facilities and equipment Training of manpower</b>
<b>National Remote Sensing Centre (NRSC)</b>	<b>In order to enhance planning and utilization of natural resources for a sustained growth, a national remote sensing center was planned for during the second phase of the implementation of the NSTP.</b>	<b>1.Lack of Facilities and equipment 2. Training of manpower</b>
<b>Science and Technology Public Awareness</b>	<b>In order to embed science and technology as a culture of life for the Zambian people, public awareness programmes are ongoing. On going. Different awareness themes are developed every on the power and gender neutrality of S&amp;T</b>	<b>Lack of resources to carry out national campaigns</b>
<b>Science and Technology Week and Forum.</b>	<b>Held every year between July and September. Scientific displays, talk shows and papers presentation on pertaining S&amp;T themes. Ongoing. Different themes and developed every year.</b>	<b>Lack of resources to conduct the science week and forum.</b>
<b>Survey and documentation of indigenous technologies</b>	<b>There is need to carry out a survey and documentation of indigenous knowledge and technologies with a view to upgrade them so as to promote cottage industries in peri-</b>	<b>Lack of resources and facilities to conduct the survey and documentation.</b>

Programme	Background	Constraints & Challenges
	<b>urban and rural communities. Project Document has been finalized and sponsors are being sought.</b>	
<b>Rationalisation of Existing and establishment of new institutes and centres</b>	<b>To strengthen capacities and capabilities and to maximize returns on investment the existing institutes need to be rationalized and new institutes and centers established Cap. 236 of was amended to separate the advisory and co-ordination from the laboratories of the former National Council for Scientific Research resulting in the establishment of the NSTC and the National Institute for Scientific and Industrial Research (NISIR). The establish of new institutes and centers is under way</b>	<b>Lack of resources</b>

## **STATUS**

In an effort to strengthen Communication and co-operation among scientific and technological community decision makers and the public, the Government has put in place the following avenues:

- 1. Established a Science and Technology Parliamentary Committee to lobby and make timely recommendations on issues affecting the development of Science and Technology**
- 2. Established the National Science and Technology Council (NSTC) to regulate and co-ordinate science and Technology Policy for the betterment of the community**
- 3. Provision of logistical and financial support to Science and Technology professional and promotional Associations to conduct community biased scientific and technological interventions and programmes.**
- 4. Conducting of Publicity Campaigns on the roles of Science and Technology in targeted solution seeking communities.**
- 5. Creation of a Databank on technology profiles with parameters on sustainable utilization of raw materials.**

**Promoting environmental friendly, harvesting, management and utilization processes especially at community cottage industries.**

## CAPACITY BUILDING, EDUCATION, TRAINING AND AWARENESS-RAISING

Capacity Building	<b>Establishment of S&amp;T Support and Services Centers and institutes.</b>
Education	<b>Establishment of the University of Science and Technology</b>
Training	<b>Development of various staff development plans in critical fields</b>
Awareness-raising	<b>Public Awareness Campaigns, School S&amp;T Career uptake promotions, Girls Science Camps</b>

## INFORMATION

Institution	Type of Data
<b>MSTVT</b>	<b>Science and Technology Indicators (not completed)</b>  <b>Technical and vocational education indicators</b>
NSTC	<b>R&amp;D Institutes</b> <b>Funding to R&amp;D</b> <b>R&amp;D Capacities and capabilities</b>
National Technology Business Centre (NTBC)	<b>Indigenous, local and imported Technology Profiles (being implemented)</b>

## FINANCING

Financing of the National Science and Technology System is through Government Grants

## COOPERATION

Technical co-operation mainly in human resource development and, project planning

## Chapter 32 STRENGTHENING THE ROLE OF FARMERS

### DECISION MAKING

The Ministry of Agriculture and Cooperatives is the responsible Government Institution charged with the responsibility of developing and coordinating agriculture and cooperatives policy. Agricultural cooperatives which are meant to facilitate farmers for efficient and effective input distribution and marketing of outputs have in the past been formed by middlemen whose primary objective has been to get cheap agricultural inputs and market them to vulnerable farmers at exorbitant prices. Other institutions looking into the welfare of farmers are the Zambia National Farmers Union, Tobacco Farmers Association and out grower schemes facilitated by the private sector.

### LEGISLATION

There is no specific legislation looking into the welfare of farmers. However, farm workers are covered by the labour laws and employment Act. The Investment Act also covers those who invest in the agricultural sector. The small-scale farmers in the rural areas are not adequately covered by law and as such they at times lose their lands to large investors who are adequately protected by the laws.

### PROGRAMMES AND PROJECTS

The major government programme in the agricultural sector since UNCED has been the Agricultural Sector Investment Programme (ASIP) whose main objective has been to improve and enhance the use of land in Zambia for agriculture and other land uses to ensure sustainability and lasting food security.

However, the implementation of ASIP was disappointing and did not have the desired impact. The other programmes such as SCAFE and out grower schemes have made an impact in improving farming systems and the supply of inputs and marketing of produce among small-scale farmers. The participation of the private sector in extension services is especially demonstrated in cotton with Lonrho Cotton operating in Central, Lusaka and Southern Provinces and Clark Cotton and Sable operating in Eastern Province.

The supply of inputs and marketing of produce among small-scale farmers by the private sector firms, through out-grower schemes, is proving valuable to the majority of farmers.

### CAPACITY BUILDING, EDUCATION, TRAINING AND AWARENESS RAISING

Agriculture is expected to be a key sector for future development of the Zambian economy, together with mining and tourism. At present, transport of agricultural inputs and outputs is a major constraint. The condition of rural roads is of key importance to farmers and wider agricultural and regional development, especially in trying to bring subsistence or marginally commercial farmers into the cash economy.

Field days are organised for farmers to share their experiences and practices. Extension services are also provided to farmers although the system appears to have broken down with the public service reform programme under which several extension workers have either been retrenched or retired.

Cooperatives are being encouraged as a means for farmers to access inputs and market their produce from a strong position. Training in cooperatives, farm management and food processing is being offered to farmers through the agricultural training centres spread throughout the country. Radio and Television broadcasts are also aired in several Zambian languages giving information to farmers on various aspects of agriculture.

### INFORMATION MANAGEMENT

There is no database on actual numbers and productivity of peasant farmers in the country. Information on commercial farmers can be obtained from the Zambia National Farmers Union. Due to the vastness of the country, poor communication and the population involved, farmers have proved difficult to organise without an elaborate extension system.

## **RESEARCH AND TECHNOLOGY**

Agricultural research generates appropriate technology for improving and sustaining the farming community in the country. Research has tended to emphasise the improvement and development of food crops and improving the productivity of farming systems.

## **FINANCING**

The Zambian Government through the national budgetary allocations to the Ministry of Agriculture and Cooperatives and other corporate bodies such the Golden Valley Trust, has been financing the agricultural sector though not to the desired levels. The World Bank, UNDP and other cooperating partners have been supporting the Zambian Government in its efforts to revamp the agricultural sector.

## **REGIONAL / INTERNATIONAL COOPERATION**

NGOs and Farmers Unions have been collaborating and exchanging experiences with their counterparts in other SADC countries. Small scale farmers have also been afforded opportunities to participate in regional training programmes such the land husbandry and integrated land use planning training workshops.

## PART 4 MEANS OF IMPLEMENTATION

### Chapter 33 FINANCIAL RESOURCES AND MECHANISMS

#### DECISION MAKING

At decision-making, the Ministry of Finance & National Planning has put poverty reduction for sustainable development as an overarching goal of government policies. In order to achieve this the Government has to address the long-term challenges of financing for development to promote sustained economic growth and redistribute wealth so that development benefits all

#### COORDINATION GOVERNMENT/BODY RESPONSIBLE FOR THE ISSUES

Body / Government	Responsibilities
Ministry of Finance and National Planning (MOFNP)	To ensure coordination of the total financial outlay (annual government grants to different Ministries and donor assistance to sector programmes) and ensure that the responsible institution is working.
Consultative Group (CG)	A grouping of Zambia 's main cooperating partners responsibly for bridging Zambia financial gaps arising the Government's implementation of development programmes and functions.

#### LEGISLATION AND REGULATIONS

1. **Money Laundering Act**
2. **Investment Act**
3. **Privatisation Act**

#### STRATEGIES, POLICIES AND PLANS

Zambia has indeed a very big task of fulfilling the challenging development goals, which include eliminating poverty, improving social conditions and raising living conditions. Zambia has to address long term challenges of financing for development to promote sustained economic growth and redistribute wealth so that development benefits all. Zambia accepts the primacy of national actions imbedded in sound policies, good governance and rule of laws. Much progress has been made in each of these areas. However, with passage of time, and as the economy and progress in human development failed to make significant positive improvement, it is becoming clearer that international actions that compliment national actions need to be reformed as well. Bold steps are required to reform the country's aid/loan relation, reduce debt to sustainable levels, reform and free the multilateral trading system and, amend the international architecture so that Zambia has a voice in the bodies that set norms, standards and policies which have a significant impact on her domestic actions.

Zambia will continue to pursue the goal of maximising resources to support the development efforts. In this regard, Zambia seeks to strengthening its ability to mobilize resources and capacity is being built at the Ministry of Finance and National Planning. Other initiatives being undertaken include:

- Carrying out a comprehensive review of the financing needs of the country.
- Continuing to review all the sources of financing for development (focusing of existing potential) and removing the hurdles that hinder the full realisation of that potential and the required policies and strategies to attain full realisation.

#### MAJOR GROUPS INVOLVEMENT IN THE DECISION MAKING.

Ministries, business leaders, civil society, and politicians.

## **PROGRAMMES AND PROJECTS**

In light of the challenge described the need for Zambia to create appropriate internal conditions to facilitate the mobilisation of sufficient resources to invest in development cannot be over emphasised. Zambia like most of the Sub Saharan African countries has been experiencing the problems in resource mobilisation. This has been compounded by the slow down in the global economy and the effects of globalisation, leading to the following:

- Reduced shares of trade
- Slower than expected Foreign Direct Investment
- Mounting debt burden
- Some domestic structural constraints that have inhibited the attainment of rapid economic growth.

Because of the small economic base and the slow pace of economic growth, the resources available to finance sustainable development programmes have been inadequate and have tended to be overstretched.

With the support of cooperating partners, Government is trying to define a strategy for better mobilisation of resources both domestically and Internationally.

## **DOMESTIC RESOURCE MOBILISATION**

Zambia's gross domestic savings as a percentage of GDP is one of the lowest in the world, having declined from 16.5% in 1990 to 5.4% in 1998.

The inadequacy of domestic savings to finance savings is worsened by the fact that the government is forced to borrow from the domestic financial markets through treasury bills and government bonds to finance its own operations leaving little domestic credit to the private sector.

Government has taken very important strides to help mobilise domestic revenue to fund its own development programs. These include:

- Creation of the Zambia Revenue Authority which is an autonomous tax body;
- Reforming the tax system;
- Creation of Capital Markets aimed at deepening the market and increasing participation, through the provision of low cost, long term financing for existing and new companies,
- Creation of Capital Markets aimed at increasing the volume of money available to business by encouraging foreign investment and providing an efficient fair orderly and transparent market for secondary trading in shares and other marketable securities;
- Reforms in the supervision of the financial sector by the creation of department in the Bank of Zambia for the supervision of the financial sector;
- Enactment of the Prohibition and Prevention of the Money laundering Act in 2001;
- Programmes and projects aimed at promoting transparency and accountability of public funds such as IFMIS and the Fiscal and Sustainability Accounting Project sponsored by the ADB.

## **INTERNATIONAL RESOURCES MOBILISATION**

### **FOREIGN DIRECT INVESTMENT**

Government recognises the importance of Foreign Direct Investment in bridging the gap between the low domestic savings and the country's investment needs. Zambia's share in world-wide flows in Foreign Direct Investment is very insignificant, standing at only US \$126 million in 2000 and having steadily declined from \$207 million in 1997.

Zambia has striven to create the necessary conditions to attract and enhance inflows of productive capital such as:-

- (a) The enactment of the investment act of 1991 under which the investment centre was created;
- (b) The government has also pursued an ambitious privatisation programme. Privatisation has also been a major way through which Foreign Direct Investment has been attracted to Zambia.

## **INTERNATIONAL TRADE**

Although it is widely accepted that trade is one of the single most important source of external development finance Zambia has faced serious difficult in ensuring that her external trade meets this idea. In nominal terms, Zambia's earnings from goods and services dropped from US \$1,625 million in 1980 to US \$1,016 million in 2001. This is a decline of 37.5%, with a substantial decrease recorded when reflected in real terms. Imports of goods and services have fallen less drastically, declining by 22.8% from US \$1,986 million in 1980 to US \$1,534 million in 2001, partly met from the balance of payments support from donors and partly by drawing down the country's international reserves.

The biggest factor that has given rise to this situation has been the fall in mineral earnings since the mid – 1970s. Copper prices have never consistently recovered since 1975. Zambia's terms of trade index has continued to deteriorate. The terms of trade index in 1990 terms fell to 83.8 in 1998. This has been reinforced by a sharp drop in mineral output which declined from nearly 700,000 metric tonnes in the mid 1970s to 450,000 tonnes in 1990 before going down further to 300,523 tonnes in 2001.

## **INTERNATIONAL FINANCIAL AND TECHNICAL CO-OPERATION**

Various indicators show that Zambia's aid intensity is one of the highest globally. In 1994, the ratio of aid to GDP stood at 54.9%, aid per capita at US \$233 and aid to government spending at 56.1%. Aid flows to Zambia steadily increased since 1973 with a very significant rise in the 1990s, peaking in 1995 at US \$2,093 per capital. This was because of donors' satisfaction with Zambia's transition to a multiparty democracy and her embracing of liberal economic policies. However, thereafter, there has been some decrease in aid flows as governance issues started to take centre stage in the country's aid relations particularly in 1996 and 1998.

## **DEBT RELIEF**

Zambia is presently one of the world s most heavily indebted low-income countries. Based on long term debt figures, Zambia's external debt stock rose rapidly in the 1970s. In 1980 long term debt was 3.4 times higher that it was in 1970. Long term debt stock of US\$2.2 billion in 1980 was 68.3% of the total external debt stock. From US\$3.3 billion in 1980, total external debt increased 2.1 times to US\$6.9 billion in 1990. A combination of reliance on grants and debt forgiveness and rescheduling have ensured that the debt stock remains more or less stable around the 1990 figure, being lower in most years. With a high debt stock, as presented above, debt service presently absorbs a significant share of resources meant for critical development programmes.

## **STATUS**

### **DOMESTIC RESOURCE MOBILISATION FOR SUSTAINABLE DEVELOPMENT**

The following challenges are experienced.

- The need to get a critical right mix of tools for financing public expenditures taking into account the openness of a tax base to the global economy administrative bottlenecks and checks and balances of the collection and monitoring system.
- Resource generating difficulties arising from the substantial structural changes that the economy is undergoing as a result of reforms.
- The eroded tax base due to the substantial informal sector and the difficulties of obtaining high levels of compliance.
- Policy conflicts between enquiry consideration and the need to broaden the tax base make it difficult to design appropriate tax systems.
- To make the overall process of constructing the budget an effective tool for priority setting within and among activities while avoiding at the same time pitfalls that rise from an inadequate consideration of the future cost of new commitment.

### **FINANCIAL SECTOR STRENGTHENING**

The following challenges arise:

- The need to create a buoyancy in financial markets which has affected the extent to which for e.g. the Lusaka Stock Exchange could grow;
- Measures should be taken to promote long term lending which presently is grossly inadequate e.g. capitalisation of Development Bank of Zambia;
- Reduction in GRZ domestic debt which crowds out borrowers;
- Bringing down interest rates to more affordable levels;
- Dynamism to be brought back in the micro financing.

## **FOREIGN DIRECT INVESTMENT**

The following challenges arise:

- Privatisation programme has rolled back the dominance of the state in productive activities and raised the profile of the private sector. Challenges in this area have been in bringing the programme to a conclusion these include:
  - Choosing the best options for divestiture in some sensitive state owned enterprises e.g. railways and electricity supply.
  - The nations underdeveloped infrastructure, poor health, status, low education standards, corruption, lack of follow-up and mechanisms on Foreign Direct Investment and the country's low purchasing power.
  - The Africa factor in international media makes it difficult for Zambia to attract Foreign Direct Investment and other inflows.
- International Financed and Technical Co-operation Challenges
- Need to critically examine and address the relationship between issues of
  - (a) Aid effectiveness
  - (b) Aid management
  - (c) Aid coordination

## **CAPACITY BUILDING, EDUCATION, TRAINING AND AWARENESS-RAISING**

### **INFORMATION**

The Ministry of Finance and National Planning and Bank of Zambia holds and produces data on the flow and receipts of financial resources.

There is generally a goodwill from both bilateral and multi-lateral organizations towards Zambia. These include Canada, Denmark, Finland, France, Germany, Ireland, Italy, Japan, Netherlands, Norway, Sweden, UK, USAID, World Bank, AFDB and EU.

**Chapter 34**  
**TRANSFER OF ENVIRONMENTALLY SOUND**  
**TECHNOLOGY, COOPERATION AND CAPACITY BUILDING**

**COORDINATION GOVERNMENT/BODY RESPONSIBLE FOR THE ISSUES**

<b>Body / Government</b>	<b>Responsibilities</b>
<b>The Ministry of Science, Technology and Vocational Training (MSTVT)</b>	The government ministry charged with formulating and implementing policy on science, technology and vocational training.
The National Technology Business Centre	The prime objective of this institution is to promote and assist entrepreneurs and business in technology acquisition, adoption and upgrading literacy through the provision of technology information, linkages and syndication mechanisms and; evaluation and assessment services.
The Environmental Council of Zambia	was established by an Act of Parliament, Environmental Protection and Pollution Control (EPPCA), Act NO. 12 of 1994 to advise Government in the field of environment. It undertakes environmental information generation and exchange, plan and implement activities and capture early lessons through monitoring systems. The main activities of ECZ as regards environmental information management include, inventory of natural resources and other environmental conditions, forecasting resource status, hazard predictions and risk of environmental degradation, problem solving, action planning and policy formulation, reporting status of the environment and natural resources.
ZABS	

These various institutions operate under different acts and hence there is no comprehensive policy governing the transfer of environmentally sound technology in Zambia.

**LEGISLATION AND REGULATIONS**

<b>Legislation / regulation</b>	<b>Background</b>
Science and Technology Act	Legal framework for the whole science and technology sector. Gives the minister powers to establish Science and Technology support centres and for them to derive their functions from the act by statutory instruments.

**PROGRAMMES AND PROJECTS**

Currently, there have been initiatives made in the sense that a multi-stakeholder adhoc committee being spearheaded by the National Institute for Scientific and Industrial Research which also happens to be the focal point for the development of biotechnology policy and legislation.

<b>Programme</b>	<b>Background</b>	<b>Constraints &amp; Challenges</b>
The Cleaner Production Program	under ECZ and ZACCI involving industry is also another program aimed at reducing environmental stress resulting from various production streams by among others investing in environmentally sound technology.	This has been a very successful program with more than 50 companies trained and as a result of various measures taken, millions of kwacha have been saved due to reduced wastes and less raw materials.

## **STATUS**

For a long time, there has been a fragmented approach towards the transfer of environmentally sound technology into the country as has already been alluded to. There has been no single institution responsible for overseeing what kind of technology enters the country. This poses a great danger especially with the coming of the privatization program, which has seen a wide range of investors coming into the country usually with heavy equipment. This equipment is not screened for environmental soundness.

Another major constraint to the transfer of environmentally sound technology into Zambia has been the lack of tax incentives. A good example is in the case of solar energy which is a better kind of technology as compared to the present energy sources in the country, however, due to high taxes, the price of acquiring solar panels make them unaffordable, especially for rural populations who are not serviced by the electric grid lines.

However, on a more positive note, the Environmental Council of Zambia has in conjunction with the ZACCI and NORAD been successfully running a program for industry known as the Cleaner Production Program. This program as has been earlier mentioned encourages industry to invest in cleaner technology, which will reduce the waste flows from the production process resulting in more savings and bigger profits.

This program has encouraged industry to invest in environmentally sound technology because it has proved that raw materials reduce and sometimes, even what could have been discarded as waste is reused in the whole process and thus saving on the price of more raw materials.

On a more sustainable basis, technology transfer mechanism has now been institutionalized with the creation of a National Technology Business Centre (NTBC) by the Ministry of Science, Technology and Vocational Training. The NTBC will facilitate the technological transfer as well as ensure that the environmental sound technology being transferred into the country is for user clients.

## **CAPACITY- BUILDING, EDUCATION, TRAINING AND AWARENESS-RAISING**

In terms of capacity building in relation to the transfer of environmentally sound technology, this is being done so far by the ECZ and ZACCI under the mentioned Cleaner Production Program. Until a better harmonized system is put in place, it is very difficult to encourage a unified system of training for environmentally sound technology. In this regard, the NTBC under the MSTVT will play a very significant role in the training and awareness raising on environmentally sound technologies.

## **INFORMATION**

As earlier alluded to, the only information that has been available on environmentally sound technology transfer is through the Cleaner Production Program under ZACCI which also documents how much companies have saved as a result of investing in cleaner technology.

However, one of the functions of the NTBC is to create a database of all available new technology which will later be disseminated to all user clients.

## **RESEARCH AND TECHNOLOGY**

They are no research undertakings in the area of the transfer of environmentally sound technology.

## **FINANCING**

This Cleaner Production Program is funded by the Norwegian Government as well as counterpart funding in form of personnel and office space from the Zambian Government through the Environmental Council of Zambia and ZACCI. Companies that attend the training programs also pay a nominal fee for tuition, lodging and transportation. The NTBC will also contribute to financing the cleaner production program.

## **COOPERATION**

In relation to the transfer of environmentally friendly technology to Zambia, the cooperation has been through capacity building through the Cleaner Production Program under NORAD. The United Nations Environment Program (UNEP) Global Environment Facility (GEF) has also advanced some funding to Zambia for research concerning Climate Change and also the proper management of chemicals and hazards related thereof. The management of PCBs (poly-Chlorinated Biphenyls) which cause deleterious effects on animals and human life is also being sponsored under UNEP-GEF and CIDA. These pcbs are usually found in transformer oils used by ZESCO and so a National Plan of Action to phase them out is being drafted.

## **CONCLUSION**

It is evident that the transfer of environmentally friendly technology into Zambia has made considerable advances with the coming of new investors, especially into the mining sector who follow strict international environmental standards and so have to adhere strictly to the Environmental Pollution Prevention and Control Act (EPPCA) standard.

However, there has been an urgent need to have a more systematic system of screening technology coming into the country with the coming of different investors with different packaging systems as has been seen for the various drinks and so on. So if we could have a system where the different agencies involved with environmentally sound technology came together and formed a consortium, it would greatly facilitate the North-South transfer either through capacity building or the technology itself coming into the country since there would be a more organized structure to come through.

It is gratifying to note that the Zambian Government through the MSTVT has created an institution, which will be autonomous and will facilitate technological transfer and also ensure that those technologies are environmentally friendly.

## Chapter 35 SCIENCE FOR SUSTAINABLE DEVELOPMENT

### INTRODUCTION

Environmental research is basic prerequisite for meeting national and global challenges related to the carrying capacity of the nature, biodiversity and sustainable production and consumption. During the last 10 years environmental research has not been a field of priority in the Government's general research policy. Public spending on environmental research has only increased during the past four years with the introduction of the study fund under the Environmental Support Programme. Since this research is not institutionalised in research institutions, it would be an over statement to assert that environment and development issues have become an integrated part of the national research system.

Science is an important instrument in producing the knowledge needed to make wise and sound decisions for achieving sustainable development in Zambia. There are many gaps to be filled. For instance, the last known national forest inventory was undertaken in the early 1970s. The Government and its cooperating partners therefore, still requires to give priority to science for sustainable development.

Research Institutions such as the University of Zambia, Copperbelt University, National Institute for Scientific and Industrial Research (NISIR), Agricultural Research and Forestry Research are poorly funded to undertake any meaningful research aimed at adding value to the country's understanding of sustainable development. Threats to the environment must be identified as early as possible and work on environmentally friendly products developed.

### **Steps Taken to Improve Scientific Understanding, Long-Term scientific Assessments and Building of Capacity and Capabilities**

At the Government level the responsibility for Science related to sustainable development is organised as follows: The Ministry of Tourism, Environment and Natural Resources through the Environmental Council of Zambia has the direct responsibility for environmental research and an indirect overall responsibility for integration of environmental considerations. The Ministry of Science, Technology and Vocational Training has the responsibility for basic and long-term research. Other Ministries hold responsibilities for research within their sector areas of jurisdiction.

The most important institutional developments have been the establishment of the Science and Research Council and the transformation of the National Council for Scientific Research into the National Institute for Science and Industrial Research. However, none of these institutions have the capacity and necessary resources to undertake research relevant and specific to UNCED implementation.

## **Chapter 36**

### **PROMOTING EDUCATION, PUBLIC AWARENESS AND TRAINING**

#### **DECISION MAKING**

The Ministry of Education is responsible for environmental education in the formal education system and cooperates with other Ministries such as the Ministry of Information and Broadcasting Services on special educational programmes and public awareness campaigns and the Ministry of Tourism, Environment and Natural Resources on environmental policy and community environmental awareness activities. The Environmental Council of Zambia is charged with the responsibility of coordinating environmental education and public awareness campaigns under the Environmental Support Programme. Through the environmental support Programme and previous programmes such as the W W F Zambia Environmental Education Programme, Zambia has managed to review school education curriculum to include environmental education at Basic School level (grades 1 to 9).

#### **POLICY**

The School curricula for the formal education system up to secondary school level have been reviewed to include environmental education. However, it must be pointed out that the Ministry of Education has no Environmental Education Policy other than what is provided by the Ministry of Tourism, Environment and Natural Resources in the National Environmental Action Plan.

#### **CAPACITY BUILDING**

Capacity building at national, provincial, district and local level in natural resources management and environmental protection continues to be undertaken an integral part of the various natural resources management programmes and projects being undertaken in the country. Under the ESP programme, substantial public awareness campaigns were launched in both print and electronic media.

Since UNCED, steady improvements have been made in increasing environmental awareness among Zambians. This has been done through increased active participation of Government Institutions, NGOs, the media and the private sector.

#### **AWARENESS AND TRAINING**

Environmental Awareness in Zambia is strengthened by the increase in the number and quality of environmental education and awareness campaigns and activities including environmental articles in the print media, environmental programmes aired on radio and television. The Inclusion of environmental education in training courses for journalists is good evidence of increased environmental awareness among the public in Zambia.

It is evident that Zambia has made progress in environmental education and awareness. At the policy level, parliament past rules and regulations in relation to the Environmental Impact Assessment, the first action of this kind by parliamentarians in the SADC region. However, this was achieved after awareness training workshops for parliamentarians. There is also evidence of changed attitudes in the industry where the Zambia Electricity Supply Company (ZESCO) has set up an Environmental and Social Affairs Unit, which has made an impact in the internal operations of the company and in the communities in which ZESCO operates. Zambia has also seen a number of successful district and community projects spearheaded by NGOs such as the Environmental Conservation Association of Zambia (ECAZ), WWF, District Water, Sanitation and Health Education Programme (DWASHE) and many more In which communities have actively participated unlike in the past.

Despite this achievement in public awareness, there is a big challenge in terms of changing peoples attitudes by equipping them with knowledge of the environment and ensuring their participation in solving environmental problems. The following are the important issues, which must be addressed:

- (i) Government Institutions to raise public awareness in their sector work
- (ii) Improve information exchange and coordination among different environmental education actors through the development of an environmental education strategy.
- (iii) Making environmental education strategic by targeting certain groups of the society for strategic reasons.
- (iv) Use of local languages in information dissemination to the communities

Sustainable development requires that the natural resources are managed in a prudent manner. In this regard, environmental awareness has a critical role to play. Therefore, continued support to environmental education to reach different stakeholders in the economy is imperative.

## Chapter 37

# NATIONAL MECHANISMS AND INTERNATIONAL COOPERATION FOR CAPACITY-BUILDING IN DEVELOPING COUNTRIES

### DECISION MAKING

Besides the Ministry of Tourism, Environment and Natural Resources (MTENR) a number of ministries have significant environmental responsibilities. Some of these are: the Mines and Minerals; Agriculture, Food and Fisheries; Lands; Energy and Water; Local Government and Housing Science and Technology and Education.

Under the purview of the Ministry of Tourism, Environment and Natural Resources, the Environmental Council of Zambia (ECZ) has the main responsibility for coordinating and managing sustainable environmental management by ministries and other agencies. ECZ also carries the responsibility for technical management of the environmental mandate, while MTENR is charged with high level coordination and policy direction. In addition to being empowered to oversee the implementation and enforcement of the environmental policies, ECZ is also responsible for setting, enforcing and monitoring standards and measures of pollution control.

### LEGISLATION AND REGULATIONS

Under Section 44 of the Constitution of Zambia, the President has the power to establish and dissolve Government Ministries and departments subject to the approval of the National Assembly.

### PROGRAMME AND PROJECTS

#### NATIONAL LEVEL

Since their inception in 1992 the two environmental apex institutions (MTENR and ECZ) have been constrained by insufficient financial and technical support. ECZ which relies on Government for its regular budget only manages to maintain its operations through donor support. The Ministry of Tourism, Environment and Natural Resources has limited capacity to deal with environmental issues. To overcome these constraints and introduce a mechanism for poverty reduction within the framework of economic development and protection of the environment and natural resources, the Environmental Support Programme (ESP) was designed to foster intersectoral linkages, promote capacity building at central and district levels, raise awareness, rationalise environmental legislation and main stream the use of EIAS in investment operations.

Five years after the commencement of the Environment Support Programme, the benefits that were envisaged have not been fully realised mainly due to the weak institutional capacity to manage environment and sustainable development issues and programmes.

#### INTERNATIONAL LEVEL

The United Nations Environmental Programme did much to put environmental issues on the world agenda. For a long time development remained an overwhelming economic prescription to cure all ills and nourish the well-being of the people.

The 1986 declaration on the Right to Development of the UN General Assembly stated in its preamble:

“Development is a comprehensive economic, social cultural and political process, which aims at the constant improvement of the well being of the entire population and of all individuals on the basis of their active, free and meaningful participation in development and in the fair distribution of the benefits resulting there from.”

This holistic approach was forcefully expressed in the Human Development Report (UNDP, 1990) where development was defined as a process of enlarging people choices for the present and the future. We have since arrived at the notion of “sustainable development” aimed at meeting the needs of the present without forfeiting or compromising the ability of future generations to meet their needs (World Commission on Environment and Development - WCED, 1987). Hence comes the question of inter-generational equity that takes the dimension of conflict of development with environment beyond the periphery of rights and interests of present generations.

The UNCED Declaration states that human beings are entitled to a healthy and productive life in harmony with nature (principle 1). It further states that the 'right to development must be fulfilled so as to equitably meet developmental and environmental needs of present and future generations (principle 3 ), and development and environmental protection must of forward as an integral process (Principle 4).

Unfortunately, the international community is not organised along these principles in terms of Institutional mechanisms for environment and development. Therefore, international cooperation for capacity building in Zambia has been fragmented and compartmentalised. The primary objective of 'development' being to improve the quality of life by increasing incomes, improving health and nutrition. However, the impacts of many project have endangered rather than improved life and the environment. Moreover, impacts of many World Bank and multinational development projects will be felt for a long time, and not all future impacts will necessarily be positive, as the nation has learnt from many years of copper mining operations whose environmental consequences are more evident now.

## **Chapter 38**

### **INTERNATIONAL INSTITUTIONAL ARRANGEMENTS**

#### **INTRODUCTION**

AFRICA was as far back as the 70s and 80s described as a continent in crisis. In fact the United Nations Environment Programme (UNEP) referred to Africa as a continent suffering from a continual drain on, and degradation of, its natural resources - plant cover, soils, water, animal resources and climate.

In responding to this crisis, UNEP facilitated an African institutional structure in the form of the African Ministerial Conference on Environment (AMCEN) in 1985. As a follow up to the recommendations of the World Commission on Environment and Development (WCED), African Ministers responsible for Economic Planning, Education and Environment together with representatives of non-governmental organisations (NGOs), again met in Kampala, Uganda in 1986 to refine further the continent's joint onslaught on environmental degradation. This provided yet another signal that African leaders had come to realise that to deal with environmental issues required a cross sectoral approach at the local, regional and international levels.

Until 1980s, most environmental initiatives in Africa were taken by individual countries or groups of countries affected by a common problem. These included the West African drought which led to the establishment of CILLS- the Permanent Inter-State Committee on Drought Control, the United Nations Sudano-Sahelian Office (UNSO), the Sub Regional Environment Groups and later the SADC - Land and Water Management Sector in which Zambia participated very actively. These regional groupings were very critical in articulating and bringing to the world agenda Africa's issues of concern such as natural resources degradation which culminated into negotiations leading up to the convention on biological diversity, the convention to combat desertification and the tropic forestry action plan.

Much as UNEP coordinated these efforts, the past decade has seen the fragmentation of efforts with the establishment of secretariats for these conventions scattered all over the world but Africa. Coordination between these secretariats has been little or non-existent. Issues of great concern to the North such as climate change have received more attention and resources than African issues of concern such as desertification and drought. Until recently the Global Environment Facility (GEF) could not finance projects of global significance in the area of land degradation except if a link with climate change or biodiversity is established.

At the local level, UNDP has strived to coordinate the activities of the UN system in Zambia. However, it should be appreciated that specific programming by various UN agencies is done in isolation and it is only implementation, which may appear to come through the various UN system agencies to give a semblance of a coordinated approach. Zambia has had to develop action plans under the convention on biological diversity, the convention on desertification and undertaken various studies under the climate change convention and Montreal protocol. All these efforts were spearheaded by respective secretariats in isolation.

There is therefore need for the Commission on Sustainable Development to ensure a coordinated and integrated approach to development and environment efforts.

**Chapter 39**  
**INTERNATIONAL LEGAL INSTRUMENTS AND MECHANISMS**

**DECISION MAKING**

The responsibility of domesticating international legal instruments that Zambia is obliged to is the responsibility of the Ministry of Legal Affairs in collaboration with respective line ministries and civil society

**PROGRAMME AND PROJECTS**

Under the Environmental Support Programme the Zambian Government has assessed the legal framework and enforcement capacity with the purpose of enhancing the ability of the Government to draw up and enforce laws and regulations protecting the environment. This activity exhibits close complementarity with the institutional capacity building component of ESP. This programme comprised three main elements: (a) harmonising environmental statutes and regulations; (b) strengthening institutional enforcement capacity; and (c) enhancing community awareness and enforcement capacity.

The harmonising aspect of the project sought to address legal inconsistencies, conflicts and gaps in order to produce a consistent and mutually supporting set of environmental legislation. This process of harmonisation included: (a) reviewing the Environmental Protection and Pollution Control Act in order to clarify the mandates and responsibilities of the institutions involved in environmental management and to reflect new initiatives at local and community levels; (b) reviewing regulations for environmental impact assessment; and (c) reviewing legislation related to environment, natural resources management and development to harmonise it with international instruments such as the convention on biological diversity, the convention to combat desertification, the convention on international trade in endangered species and the UNCED declaration and agenda 21.

The strengthening of institutional enforcement capacity has been undertaken through seminars and training programmes in environmental law, environmental assessment and monitoring, and enforcement techniques. A small core of trained staff was identified and supported in some of the key ministries and agencies responsible for environmental activities. In addition, staff in the Ministry of Legal Affairs and ECZ have received graduate training in environmental law and enforcement respectively.

The strengthening of community awareness and enforcement capability was aimed at increasing the capacity of communities to participate in environmental initiatives and to manage and police their own resources. This was done by revising the legislation and by conducting workshops to raise community awareness of environmental issues.

Chapter 40  
INFORMATION FOR DECISION MAKING

**DECISION MAKING  
COORDINATION GOVERNMENT/BODY RESPONSIBLE FOR THE ISSUES**

Body / Government	Responsibilities
<b>Ministry information and Broadcasting Services</b>	To ensure the release and free flow of vital information from all ministries and related public institutions for dissemination to the public through the government owned electronic and print media institutions', namely the Zambia Information Services (ZIS), Zambia News Agency (ZANA), Zambia National Broadcasting Corporation. (ZNBC), the Times of Zambia and the Zambia Daily Mail.

**STRATEGIES, POLICIES AND PLANS**

**Mission Statement:** “ To promote and facilitate the growth of a sustainable media industry capable of enhancing free flow of information and freedom of expression for national development”

**Goal Statement:** To provide legal and policy framework for the development of a sustainable public and private media and increase coverage for a well-informed society”

The following objectives are being pursued by the Zambian Government:

1. To formulate appropriate policies and develop guidelines for the growth of a sustainable media industry.
2. To initiate and update laws to guarantee and safeguard press freedom and individual rights to information and privacy.
3. To increase media outreach and access throughout the country resulting in free flow of information.
4. To effectively manage and develop human resources for efficient and effective performance of the ministry and to facilitate capacity building in the media and promote professionalism.
5. To effectively monitor the implementation of and compliance to media policy and related laws.
6. To facilitate the creation of a self-regulatory professional body backed by law to enforce ethics and standards.
7. To establish and maintain an efficient and effective consultative system with stakeholders
8. To interpret government policies to the public in order to solicit their participation in national development.
9. To provide efficient and effective administrative and logistical support services for the effective operation of the ministry.
10. To establish and maintain a management information system for improved information flow and decision making.

**PROGRAMMES AND PROJECTS**

In its dissemination of information on development programmes to the general public, Zambia Information Services apart from channelling its material to ZNBC - TV and radio where the articles are broadcast in English and Vernacular languages and also to the two daily newspapers, the Times of Zambia and the Zambia Daily Mail, the department uses the following channels of its own:-

<b>Programmes</b>	<b>Background</b>
VIDEO DOCUMENTARIES	Video documentaries on various development issues for various sectors are produced in English by the department's video unit and are translated in various vernacular languages for airing on ZNBC TV and radio. The same are also taken to provinces and districts for mobile video shows to communities especially in the remote rural areas where there is no radio and television reception.
RADIO PROGRAMMES	Radio programmes on various development issues are recorded for airing on ZNBC radio in English and various vernacular languages.
SIX VERNACULAR NEWSPAPERS	Zambia Information Services publishes six vernacular newspapers which are as follows: - <b>Ngoma Newspaper</b> - Luvale, Kaonde and Lunda languages; <b>Lukanga Newspaper</b> - Lenje language; <b>Intanda Newspaper</b> - Tonga language; <b>Liseli Newspaper</b> - Lozi language; <b>Imbila Newspaper</b> - Bemba language <b>Tsopano Newspaper</b> in Nyanja language. All the above carry articles accompanied by photographs on various development issues and are circulated in areas where the languages are spoken covering all the 72 districts in the country.
ZAMBIA MAGAZINE	The Zambia Magazine, popularly known as 'Z' Magazine which is published in English, is also produced periodically carrying stories on various development issues.
POPNEWS	This is an English publication which is also produced periodically carrying stories on population related issues which have a bearing on development. The Popnews is a publication produced by ZIS Population Communication project (POCOM) which is donor supported and funded by UNFPA. This project has the mechanism of keeping the people informed on various programmes which border on the people's social and economic life styles.
PUBLIC ADDRESS SYSTEM	The public address system used by ZIS has proved to be one of the most effective channels of information dissemination when it comes to issues requiring immediate response from the people. This is a community mobilisation process whereby the government uses the mounted mobile Public Address System to inform the people in their communities about government programmes and activities. This is accompanied by video shows which are staged at selected centres on various development issues. Video shows also offer entertainment to the people.
BROCHURES AND POSTERS	The brochure and posters produced by Zambia Information Services Graphic Artist section have also proved very effective channels, in that the materials are obtainable and could be retained as reference materials.

## **STATUS**

### **ZAMBIA INFORMATION SERVICES**

In this regard therefore, the Ministry of Information and Broadcasting Services has mandated the Zambia Information Services as the main public relations wing of the government to collect vital information from all sectors for dissemination to the public at large and educate them on government policies, development programmes and activities as well as major national events.

The above, therefore, makes the operations of ZIS, in terms of information dissemination to cut across all other sectors in interpreting their roles and operation programmes to the public through the print and electronic media.

### **INSTITUTIONAL LINKAGES**

In order for the Zambia Information Services to effectively carryout its mandate of collecting and disseminating information to the public, the Ministry of Information and Broadcasting Services has been mandated to attach well trained Information Officers from ZIS to all ministries as public liaison officers for the purpose of ensuring release and free flow of vital information to the Zambia Information Services and other public media for dissemination to the general public.

The above linkage, although not yet fully implemented, is important as it provides for harmonisation, coordination, synchronisation and consultation on services and functions amongst institutions responsible for the implementation of development programmes.