

25604

TWURD WP #9

**URBAN DEVELOPMENT DIVISION  
TRANSPORTATION, WATER, AND URBAN DEVELOPMENT DEPARTMENT  
ENVIRONMENTALLY SUSTAINABLE DEVELOPMENT  
THE WORLD BANK**

**Zambia in the 1980s: A Historical Review  
of Social Policy and Urban Level Interventions**

**July 1993**

**WORKING PAPER**

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First Printing July 1993

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## **ACRONYMS AND ABBREVIATIONS**

<b>ADB</b>	<b>African Development Bank</b>
<b>ARPT</b>	<b>Adaptive Research Planning Team</b>
<b>CCZ</b>	<b>Christian Council of Zambia</b>
<b>CDC</b>	<b>Curriculum Development Center</b>
<b>CDES</b>	<b>Classified Daily Employees</b>
<b>CIDA</b>	<b>Canadian International Development Agency</b>
<b>CISV</b>	<b>Children's International Summer Villages</b>
<b>CMAZ</b>	<b>Churches Medical Association of Zambia</b>
<b>CSPF</b>	<b>Civil Service Pension Fund</b>
<b>CSO</b>	<b>Central Statistical Office</b>
<b>DOE</b>	<b>Department of Energy</b>
<b>DOT</b>	<b>Department of Transportation</b>
<b>DTCD</b>	<b>Department of Technical Cooperation for Development</b>
<b>DVS</b>	<b>Danish Volunteer Service</b>
<b>DWA</b>	<b>Department of Water Affairs</b>
<b>EEC</b>	<b>European Economic Commission</b>
<b>FINNIDA</b>	<b>Finnish Department for International Cooperation</b>
<b>FLMZ</b>	<b>Family Life Movement of Zambia</b>
<b>FNDP</b>	<b>Fourth National Development Plan</b>
<b>GO</b>	<b>General Orders</b>
<b>GRZ</b>	<b>Government of the Republic of Zambia</b>
<b>GRZ</b>	<b>German Agency for Technical Cooperation</b>
<b>HUZA</b>	<b>Human Settlements of Zambia</b>
<b>IAS</b>	<b>Institute for African Studies</b>
<b>ILO</b>	<b>International Labor Organization</b>
<b>INDP</b>	<b>Interim National Development Plan</b>
<b>JICA</b>	<b>Japan International Cooperation Agency</b>
<b>KFW</b>	<b>German Bank For Reconstruction and Development</b>
<b>KPH</b>	<b>Christian Children's Fund</b>
<b>LASF</b>	<b>Local Authority Superannuation Fund</b>
<b>LFS</b>	<b>Labor Force Survey</b>
<b>LUDC</b>	<b>Lusaka Urban District Council</b>
<b>LUTs</b>	<b>Large Urban Towns</b>
<b>MGEY&amp;S</b>	<b>Ministry of General Education Youth &amp; Sport</b>
<b>MHE</b>	<b>Ministry of Higher Education</b>
<b>MLGH</b>	<b>Ministry of Local Government and Housing</b>
<b>MLSDC</b>	<b>Ministry of Labor, Social Development &amp; Culture</b>
<b>MMD</b>	<b>Movement for Multi Party Democracy</b>
<b>MOH</b>	<b>Ministry of Health</b>
<b>MTP</b>	<b>Medium Term Plan</b>
<b>NAC</b>	<b>National Action Committee</b>
<b>NASC</b>	<b>National AIDS Surveillance Committee</b>
<b>NASC</b>	<b>National AIDS Prevention &amp; Control Programme</b>

<b>NCDP</b>	<b>National Commission for Development Planning</b>
<b>NDSR</b>	<b>National Council for Scientific Research</b>
<b>NEC</b>	<b>National Energy Council</b>
<b>NGOs</b>	<b>Non-Governmental Organizations</b>
<b>NGO/CC</b>	<b>Non-Government Organizations Coordinating Committee</b>
<b>NHA</b>	<b>National Housing Authority</b>
<b>NORAD</b>	<b>Norwegian Agency for International Development</b>
<b>PFP</b>	<b>Policy Framework Paper</b>
<b>PHC</b>	<b>Primary Health Care</b>
<b>PIC</b>	<b>Prices and Incomes Commission</b>
<b>PIP</b>	<b>Public Investment Programme</b>
<b>PPAZ</b>	<b>Planned Parenthood Association of Zambia</b>
<b>PTA</b>	<b>Parent Teacher Association</b>
<b>PUSH</b>	<b>Project Urban Self-Help</b>
<b>SADCC</b>	<b>Southern African Development Coordination Conference</b>
<b>SAP</b>	<b>Structural Adjustment Programs</b>
<b>SELP</b>	<b>Self Employment Learning Programs</b>
<b>SEP</b>	<b>Small Enterprises Promotion</b>
<b>SIDA</b>	<b>Swedish International Development Authority</b>
<b>SIDO</b>	<b>Small Scale Industries Development Organization</b>
<b>SNV</b>	<b>Volunteers of Netherlands</b>
<b>SUTs</b>	<b>Small Urban Towns</b>
<b>TA</b>	<b>Technical Assistance</b>
<b>TAZA</b>	<b>Truckers Association of Zambia</b>
<b>TAZARA</b>	<b>Tanzania-Zambia Railway</b>
<b>TDAU</b>	<b>Technical development and Advisory Unit</b>
<b>TNDP</b>	<b>Third National Development Plan</b>
<b>UBZ</b>	<b>United Bus Company</b>
<b>UNCHS</b>	<b>United Nations Center for Human Settlements</b>
<b>UNDP</b>	<b>United Nations Development Planning</b>
<b>UNESCO</b>	<b>United Nations Educational, Scientific &amp; Cultural Organization</b>
<b>UNICEF</b>	<b>United Nations Children's Fund</b>
<b>UNIP</b>	<b>United National Independence Party</b>
<b>UNZA</b>	<b>University of Zambia</b>
<b>UTH</b>	<b>University Teaching Hospital</b>
<b>UTTA</b>	<b>United Transport and Taxi Association</b>
<b>VIS</b>	<b>Village Industry Service</b>
<b>WB</b>	<b>World Bank</b>
<b>WCF</b>	<b>Workman's Compensation Fund</b>
<b>WHO</b>	<b>World Health Organization</b>
<b>WID</b>	<b>Women In Development</b>
<b>WVI</b>	<b>World Vision International</b>
<b>YWCA</b>	<b>Young Women's Christian Association</b>
<b>ZCCM</b>	<b>Zambia Consolidated Copper Mines</b>
<b>ZCSD</b>	<b>Zambia Council for Social Development</b>
<b>ZEPIU</b>	<b>Zambia Education Project Implementation Unit</b>

<b>ZESCO</b>	<b>Zambia Electricity Supply Corporation</b>
<b>ZNPF</b>	<b>Zambia National Provident Fund</b>
<b>ZPA</b>	<b>Zambia Pre-School Association</b>
<b>ZSIC</b>	<b>Zambia State Insurance Corporation</b>

## TABLE OF CONTENTS

INTRODUCTION	v
I. NATIONAL DEVELOPMENT PLAN AND THE URBAN POOR	1
Urbanization and the Urban Poor	1
Housing and Basic Services	1
Energy	2
Employment and Income	2
Education	3
Health and Nutrition	4
Conclusion	4
National Development Plan and Urban Poverty Reduction	5
Public Expenditure on the Social Sectors	8
Public expenditure for 1975-1988	8
Public investment programme 1990-1993	9
The Social Policy Debate Within Zambia	10
The Social Action Program	12
Resources for the social action program	14
II. SECTORAL INITIATIVES	15
Housing	15
Water and Sanitation	19
Transportation and Infrastructure Services	24
Energy	28
Employment	33
Education	37
Health Infrastructure and Services	47
AIDS	58
Population	61
Social Welfare	68
Social Security	72
OVERALL CONCLUSION	76
REFERENCES	77
TABLES AND FIGURES	88

## INTRODUCTION

This social policy paper was written collaboratively by World Bank and local consultants during January through April 1992. It is one of a number of economic and social policy background papers written as part of the research project on "Urban Poverty and Social Policy in the Context of Adjustment". The Urban Development Division of the World Bank is undertaking this research project, with case studies in Budapest, Guayaquil, Lusaka, and Metro Manila. This research project is concerned with the coping strategies of urban low-income households in the past decade. Its purpose is to identify the capacity of households to respond to the conditions created by macro-economic change and policy reform. Understanding household coping strategies has important implications not only for the design of specific poverty alleviation strategies but also for the formulation of coherent social policy consistent with economic reform.

In this research project social policy is defined holistically and inclusively. Its broad objective is the development of a just, equal and prosperous society. Its concern is more equitable wealth distribution and poverty reduction through the active participation of different social groups in the satisfaction of both their economic and social rights. This definition means that not only is it concerned with sectors usually defined as 'social', such as Education, Health, Social Welfare and Social Security, but also includes sectors more commonly identified as 'economic', such as Employment, or 'infrastructure' such as Housing, Water, Transportation Infrastructure and Services, and Electricity.

This social policy review paper, which uses both Bank and non-Bank sources, has two purposes. First, to describe the national level policies and plans for the period 1989-1993. Second, to review sectoral level policies, programs and projects and assess the extent to which such interventions affect the welfare of the urban poor. This includes an examination of relevant initiatives that have been identified as directly or indirectly targeted to assist in 'poverty alleviation' and consequently are intended to contribute to urban poverty reduction.

The paper is divided into two parts. Part One provides a brief examination of the overall policy framework at the national level. This includes a description of current national development plans as outlined in the Fourth National Development Plans and an assessment of its social policy objectives from a poverty reduction perspective. Part Two is concerned with sectoral initiatives and describes the various policies, programs and projects being designed or undertaken in Zambia during this plan period. Where data is available, an assessment is made of the extent to which current sectoral initiatives assist urban poor communities, households and individuals to meet their needs.

## **I. NATIONAL DEVELOPMENT PLAN AND THE URBAN POOR**

### **Urbanization and the Urban Poor**

1.1 This section serves two purposes. First, it contextualizes the study by tracing the urbanization process in Zambia and presents a profile of the situation in which the urban poor live. Second, it provides an overview of the sectoral policies in the Fourth National Development Plan (1989-93) and assesses the extent to which urban poverty concerns are addressed. This provides the broad framework within which the sectoral initiatives described in Section II are discussed.

1.2 Rapid and large scale urbanization has been taking place in Zambia since independence. The proportion of the population that lived in urban areas almost doubled during the 1965-80 period from 23 percent to 43 percent. The annual rate of increase for the urban population averaged 6.6 percent during this period. In 1980, 78 percent of all urban dwellers (or one-third of the total population) were concentrated in ten large towns and cities along the Copperbelt (World Bank, 1984). The Copperbelt and Lusaka Provinces, with proportions of urban populations of 92 percent and 82 percent respectively, are the two most urbanized provinces within the country (UNICEF, 1986: 14). Rapid urban population growth has continued during the 1980s as well. The annual rate of increase of the urban population averaged 6.2 percent during 1980-89. At present, almost 42 percent of the total population of the country lives within urban areas; 24 percent of which live in the capital city (World Bank, 1991a: 264).

1.3 Two major factors have contributed to this rapid rate of urban growth. First, rural-urban migration has led to a substantially to the increase in the urban population as rural dwellers have migrated to urban centers in search of employment opportunities. Second, the natural increase of the population within urban areas has been significant due to high fertility rates within these areas.

### **Housing and Basic Services**

1.4 Rapid urbanization during the past two decades has been accompanied by the growth of squatter settlements which make up to ten percent of the population in major cities such as Lusaka. High population densities have exerted enormous pressure on available housing and related services. Residents in densely populated squatter settlements often live in sub-standard housing units which lack basic infrastructure such as water and sanitation facilities.

1.5 In 1980, approximately 45 percent of households in small urban areas had acceptable water service and 28 percent had acceptable sanitation services. Twenty six percent of households residing in small urban townships had individual flush toilets while two percent used communal flush toilet facilities. In large urban areas, approximately 70 percent of households had access to acceptable water supplies with 48 percent of households having their own water services and 22 percent sharing communal taps. Fifty-two percent of households had acceptable sanitation services with 45 percent having individual flush toilets and seven percent using

communal flush toilet facilities. By 1992, 66 percent of the total urban population had access to safe water and 66 percent had access to adequate sanitation facilities (World Bank, 1993).

1.6 Deficiencies in access to and quality of water and sanitation services have had severe consequences on the health status of a significant proportion of the population. Periodic epidemics of cholera and water-borne diseases have periodically increased and threatened the health and nutrition status of households in Zambia. High morbidity and mortality from diarrhoeal diseases and parasitic infections have been particularly critical in densely-populated squatter compounds (GRZ, 1990b: 11).

### **Energy**

1.7 The primary form of energy used by urban households are woodfuels which account for 23.1 percent of their fuel needs. Urban household energy use is dominated by two sources of energy: charcoal (58 percent) and firewood (26 percent). Charcoal is used by over 80 percent of urban households and is the principal fuel for 55 percent of the urban population (about 1.6 million people) in particular, the urban poor (World Bank, 1988: 35).

1.8 An urban household energy study undertaken by the World Bank in 1988 and 1989, revealed that in 1988, urban households spent an average of 11 percent of their monthly income or 22 percent of their total expenditure to purchase fuels in 1988. Of this, charcoal accounted for 55 percent, firewood 25 percent, electricity 11 percent and kerosene 9 percent of total expenditure (World Bank, 1988: 43).

1.9 Poor urban households in Zambia do not have access to modern energy services such as electricity which accounts for only seven percent of total urban household energy consumption and is primarily used for cooking (57 percent of consumption) and lighting (20 percent of consumption). About 60 percent of urban houses do not have access to electricity as high up-front costs for home wiring are major impediments to electric connections.

### **Employment and Income**

1.10 Comprehensive information on income distribution in Zambia is not readily available. However, various surveys undertaken by the International Labor Organization and the Central Statistics Office indicate that there are stark income disparities between urban and rural areas as well as *within* urban areas. According to a household budget survey conducted in 1974, covering 1,196 urban and 618 rural households, stark disparities in income existed both between rural and urban as well as within urban areas. Within urban areas, the survey revealed that the average income of households in high cost areas was about six times greater than that of households in squatter areas. In terms of rural-urban disparities, the average income of rural households was less than half the income of the lowest earning urban households in squatter areas. Overall, the wealthiest five percent of Zambian households received over 30 percent of

the total income, while the poorest 60 percent of households received 20 percent (World Bank, 1986: 51).

1.11 Another study conducted in 1980 covering 720 rural and 413 urban households revealed that about 60 percent of all households were categorized as poor or very poor with monthly incomes of less than K80 in rural areas and less than K104 in urban areas<sup>1</sup> (UNICEF, 1986: 28). More recent comprehensive data on income distribution in Zambia is not readily available, however it is believed that the disparities in income distribution have been further exacerbated due to the economic crisis within the country.

1.12 Rapid population growth has been a hinderance in terms of providing employment for a ever expanding labor force. Employment in the formal sector has been declining since the mid-1970s and this has influenced the growth of the informal sector.

1.13 This sector is an important source of employment within urban areas, particularly for the poor. Data from the 1986 Labor Force Survey indicate that 64.5 percent of the total economically active labor force were engaged in informal sector activities, including petty trading and marketing of charcoal, fuelwood, beer, second—hand clothes and other commodities.

### Education

1.14 The qualitative and quantitative improvements made in the education sector during the 1960s through the early 1980s have been reversed. Construction of new schools has not kept pace with the rapid increase in enrollments resulting in over-crowding and under-equipped classrooms, particularly in urban and peri-urban areas where average classroom sizes are over 100 students. Even with such large class sizes, and the introduction of multiple sessions, it is estimated that within urban areas, over 30 percent of seven year—olds who are eligible to attend school are unable to do so due to lack of classrooms. In addition, schools in urban areas are in dire need of rehabilitation and maintenance.

1.15 These schools are also characterized by severe shortages of qualified teachers, educational materials such as textbooks and exercise books as well as essential education inputs such as desks, chairs and chalkboards. It is estimated that even within those schools which are relatively better supplied, only one textbook is available for every six students (World Bank, 1991b).

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1. The definition of poor in urban and rural areas is based upon the basic needs income. In urban areas, the basic needs income for a family of six was estimated at K102; in rural areas this figure was calculated at K100 (ILO/JASPA, 1981: 52).

## Health and Nutrition

1.16 Although positive trends in health indicators such as a fall in the infant mortality rates and increased immunizations have been evidenced during the past decade, overall, the health status of Zambia does not appear to have improved significantly. In fact, the continuing economic decline has resulted in an overall deterioration of health, particularly among the poor (Zewde and Remstrand, 10). Estimates made using data from the Central Statistics Office indicate that mortality rates in urban areas are about 80-90 deaths per 1,000 births (CSO, 1984: 70). Significant variations in mortality rates *within* urban areas have been recorded, with squatter areas having three times the infant mortality rate of low density areas (UNICEF, 1986: 48).

1.17 The leading causes of outpatient morbidity in children under 14 years of age are upper respiratory illnesses, diarrhea, malaria, fevers, eye and ear diseases, and malnutrition/anemia. Malnutrition is a serious public health problem in Zambia with protein-energy malnutrition being chronic in urban, as are deficiencies in vitamin A, iron and iodine. The declining economic situation and rapid inflation rate have had serious nutritional consequences for low-income groups particularly those residing in squatter settlements near major towns and cities. Nutritional data from the provincial medical office in Lusaka shows a steady increase in the percentage of children under weight as well as those losing weight during 1984 to 1985.

## Conclusion

1.18 Zambia has a large urban population which is currently estimated at approximately 42 percent of its total population. The majority of urban dwellers are concentrated in the two provinces of Lusaka and the Copperbelt where they constitute approximately one third of the total population. Rapid urbanization has taken place in Zambia primarily as a result of two factors. First, rural dwellers moved into cities in search of better employment opportunities and improved access to social services. Second, high fertility rates within urban areas has further increased the natural population increase. This rapid urban population growth has created an increasing demand for social services such as housing, water and sanitation, employment, education, health care and other basic services. In spite of government efforts to adequately provide basic services and employment to urban households, however, the expansion of such services has not adequately met demand.

1.19 The situation of the urban poor in Zambia has deteriorated, particularly since the advent of the economic crisis during the past decade. Almost half of the urban population reside in squatter settlements with sub-standard housing and limited access to basic services such as water and sanitation. The health infrastructure is dilapidated which, compounded with inadequate water and sanitation infrastructure, has made water-borne diseases and periodic epidemics commonplace within urban areas. Deficiencies in and lack of access to these services have made the urban poor vulnerable to diseases and threaten the nutrition and health status of urban

households in Zambia. Further, the education infrastructure within urban areas is also deteriorated and characterized with overcrowding and under-equipped classrooms.

1.20 Formal employment opportunities are limited in urban areas, particularly for the poor. Income disparities are prevalent within urban areas in Zambia with households residing in squatter areas earning significantly less than those residing outside. The urban poor depend heavily on informal sector activities such as trading and marketing for their livelihood as they face limited access to formal sector employment.

### **National Development Plan and Urban Poverty Reduction**

1.21 This section presents an overview of the sectoral policies stated in the Fourth National Development Plan (FNDP), the Government's development plan for the period 1989 through 1993. An assessment of the overall policy framework and its priority concerns for urban poverty alleviation are made. The sectors included are housing, water, transportation, energy, employment, health and nutrition, education, population, social welfare, and social security.

1.22 One of the major objectives stated in the FNDP is the alleviation of poverty. To this effect, the overriding goal stated in the sectoral strategies is improving the welfare of the poor. While urban poverty alleviation is not stated as a *specific* priority concern within the policy framework of the FNDP, the concerns of the urban poor are emphasized within several sectoral development plans.

1.23 Within *housing*, the promotion of home-ownership and the provision of adequate land delivery services and programs for urban areas is identified as an integral strategy for achieving the "shelter for all" ideals of the national development plan. This major strategy involves material and financial support to the construction and upgrading of units within squatter settlements as well as the encouragement of self-reliance strategies in housing construction in urban areas.

1.24 Providing a safe and adequate *water* supply to the population is identified as a major objective within the FNDP. For urban areas, one of the major targets of the Government is the provision of a safe water supply to all inhabitants of large and small urban townships by the year 2000. The Government intends to achieve this through the improvement and expansion of water supply facilities within these areas.

1.25 Priority concerns within the *transportation* sector are biased towards the development of rural infrastructure. The FNDP emphasizes the improvement of the functioning and operations of rural transportation infrastructure through improved quality of services and efficiency in service delivery within these areas.

1.26 Within the *energy* sector, the need to develop defined policy with regards to household energy issues is clearly stated in the FNDP, with particular emphasis on energy issues

relating to low-income urban households. As such, one of the major objectives includes the provision of energy to low-income urban households at affordable prices and at a minimum cost to the economy.

1.27 The major objectives of the *employment* policies are aimed at employment generation both through formal sector activities utilizing public works, and informal sector activities, through the development of small scale enterprises. It is recognized that the formal sector can not generate sufficient employment, particularly for the poor, and therefore increased emphasis is placed on employment creation in the informal sector in both *urban* and rural areas.

1.28 For informal sector employment, the objectives within the FNDP include: 1) identifying and promoting informal sector activities which have potential to expand and generate employment; 2) upgrading the production, managerial, organizational and marketing capabilities of informal sector participants, especially youths; 3) identifying training schemes for youths in informal sector activities; 4) providing infrastructure for the informal sector; 5) promoting accessible credit facilities for informal sector participants; and 6) increasing incomes by expanding the production of the informal sector especially among subsistence farmers and the self-employed (GRZ, 1989a).

1.29 Informal sector employment strategies target youths and women and include: 1) providing collective services, infrastructure, specialized tools and equipment for common use in informal sector activities; 2) establishing innovative institutionalized credit facilities tailored to meet the needs of informal sector participants; 3) promoting the use of local resources and appropriate technology; 4) promoting cost-efficient measures such as the formation of small cooperative unions or natural assistance organizations for bulk purchase of inputs, sale and distribution of output and joint use of tools and equipment; and 5) promoting skills upgrading through formal training schemes of extension services.

1.30 The major objectives of the *population* policy are to reduce fertility rates and stabilize *urban growth rates*. The Government is attempting to regulate population growth through active encouragement of voluntary measures. This policy is premised on the assumption that people are would limit the size of their families once they understand the implications of high fertility and large-scale rural-urban migration on access to employment and social services. An information and education campaign (IEC) has been initiated in urban areas, in an effort to improve the public's understanding of population dynamics and their impacts on economic growth. To facilitate the IEC, family planning services are being promoted in an effort to extend coverage to all adults.

1.31 Within the *education sector*, the FNDP's major emphasis is on the consolidation of existing facilities within urban and rural areas to enhance quality of services. The major focus is on the provision of universal primary education (grades one through seven) with additional provision for grades eight and nine to both males and females. Within urban areas, improving the quality of and access to primary education is stressed through increased supply of educational

resources, expansion of education services through the use of double and triple sessions and encouraging the participation of NGOs, community organizations and private companies in the provision of educational services.

1.32 In the *health* sector, the FNDP continues to support policy objectives identified in the Third National Development Plan and the Interim National Development Plan which emphasized "Health for ALL". The Health for ALL theme is embodied in the primary health care (PHC) concept and prioritizes preventive measures in conjunction with the provision of curative services. Emphasis is placed on channelling resources towards the rehabilitation and maintenance of existing health facilities, with emphasis on primary health care and preventive medical services. The Government is embarking on an extensive, remedial program aimed at rehabilitating existing urban and rural health infrastructure and ensuring that resources are available for meeting recurrent and operational expenses. The private sector and local communities are expected to assume a larger role in the health sector through the privatization of health services and the establishment of cost-sharing measures.

1.33 The policy aims identified for the health sector can be categorized into five main areas. These include: 1) consolidating and rehabilitating health infrastructure within urban and rural areas; 2) developing health sector personnel; 3) integrating the provision of Government and non-government health care services; 4) reducing the prevalence of preventable diseases such as malaria, TB and sexually transmitted diseases; and 5) strengthening of existing health units.

1.34 As an area of planned activities, *AIDS* prevention is integrated into the PHC and falls under the jurisdiction and guidelines of the Ministry of Health (MOH). The severity of AIDS has been recognized by the Government which has embarked upon a set of activities to contain the spread of the HIV infection and to manage the effects of full-blown AIDS patients. To date, Zambia's approach to the control and containment of AIDS has been through interventions within the health sector, particularly through medical services. There is inadequate recognition of the economic impact of AIDS beyond the MOH. The major policy objectives with regards to AIDS include: 1) monitoring the HIV virus and AIDS disease; 2) developing and coordinating research on AIDS; 3) decreasing the transmission of the HIV virus; and 4) improving the management of infected individuals and cases of full-blown AIDS.

1.35 Urban populations are not *specifically* targeted as the current status of the infection of the population as well as the population at risk are not known. However, the public education campaigns are being promoted both in urban and rural areas in an effort to discourage high risk behavior. Further, educating health cadres to ensure safe medical practices and determining as well as reducing the potential risk of traditional practices in the transmission of HIV is one of the stated objectives of the government's activities in this area.

1.36 The stated policy objectives within the *social welfare* sector are directed at the welfare improvement and the satisfaction of social development needs through the provision of statutory and non-statutory services to the entire population (FNDP, 1989). There is no specific

urban focus in terms of the *target* population covered as the beneficiaries include a wide range of groups including children, youth, juvenile offenders, adults, the destitute, the elderly, women, the illiterate, the disabled, artists, performers and retired public workers in both urban and rural areas.

1.37 The sectoral objectives and strategies are broad including: 1) reducing illiteracy through a national literacy campaign; 2) promoting self-reliance among urban and rural communities through self-help; 3) assisting the disabled and disadvantaged; 4) rehabilitating juvenile offenders and delinquents; 5) establishing wage and income policies and expanding supplementation of pension benefits; and 6) integrating child services in communities using health, nutrition and sanitation interventions (GRZ, 1989a).

1.38 The social security system provides limited services targeted to a small population of gainfully employed persons in the private, parastatal sectors and those individuals working in the mines. The major objectives of the social security system is to protect employed people against undue social and economic disasters resulting from redundancies and reduced earnings. The FNDP emphasizes the need to protect workers against events that might jeopardize their income-earning capacity, e.g. retirement or illness. As defined in this context, social security refers to programs designed to protect employed persons against economic and social distress caused by reduced earnings, unemployment, injury old age, medical needs and death. The system provides benefits only to those in gainful employment who contribute to a particular pension, retirement or gratuity program, where employers make counterpart contributions to employees' contributions. This system, therefore, does not provide medical assistance or other benefits to the unemployed.

### **Public Expenditure on the Social Sectors**

1.39 This section examines the trends in the level and composition of public expenditure in Zambia during the 1975-1993. First, central government expenditure for the 1975-88 period is presented. Then, the Public Investment Programme (PIP) for 1990-93 and its sectoral allocations are examined.

### **Public expenditure for 1975-1988**

1.40 Table 1 presents the allocation of public expenditure in selected sectors for 1975-88. Total expenditure as a proportion of GDP averaged about 35 percent for the entire period. While government expenditure as a proportion of GDP increased somewhat during specific years such as 1977, 1980, 1982, and 1985-86, the general trend was that of a decline reaching a low of 29 percent in 1988.

1.41 Housing and social amenities and Other Community and Social Services received the least amount of resources for the 1975-88 period. Public expenditure on housing and community amenities averaged 1.26 percent of total expenditure for the 1975-1988 period. This

figure remained constant at two percent during 1975-1980 period but declined drastically during the 1981 through 1985 period, averaging about 0.6 percent for the period. The lowest level was reached in 1984 when expenditure on housing and community amenities was 0.04 percent of total expenditure. This proportion increased to about one percent during 1985 and 1986 and declined to 0.05 in 1988. Public expenditure on Other Community and Social Services has been relatively stable averaging 1.6 percent of total expenditure for the 1975-1988 period.

1.42 Expenditure on Economic Services averaged 24 percent during 1975-1979 reaching a peak of 33 percent in 1980. Since 1981, however, this proportion declined continuously reaching a low of 8 percent in 1987 and increased significantly to 25 percent in 1988.

1.43 Throughout this period, the education sector received a greater proportion of resources relative to other sectors such as health, housing and community amenities and social security, averaging 14.5 percent of total real expenditure during the period. The proportion of public expenditure going towards education fell to an average of 13 percent during 1981-86 and continued to decline in 1987 and 1988 to a low of 9 percent for the two years. Within the education sector, resources allocated towards schools averaged 65 percent of total sectoral allocation for the 1975-80 period. This proportion reached a high of 71 percent in 1981 and in subsequent years declined reaching its lowest level in 1987 at 52 percent. In 1988, there was a substantial increase in public expenditure on education to 64 percent.

1.44 The proportion of expenditure allocated to the health sector during the 1975-1985 period has been stable, averaging between 6-8 percent of total expenditure. This proportion declined however during 1986 and 1987 to 4 and 5 percent per year respectively. In 1988, health sector expenditure slightly increased to seven percent of total public expenditure.

1.45 During the period 1975-1980, the proportion of total expenditure towards social security and welfare was below 2 percent. A slight increase was evidenced during 1980-85 with the average increasing to about 2.14 percent for the period. Since 1986, there has been a substantial decline in public expenditure allocated towards this sector.

### **Public investment programme 1990-1993**

1.46 The Government's public investment strategy for the 1990-93 period entails two main elements: 1) a restructuring of recurrent expenditures with the aim of improving public services; and 2) reorienting public investment towards selected priority sectors such as health, water and sanitation, education, energy, manufacturing, transportation and communication and agriculture (GRZ, 1991b). Efforts at restructuring recurrent expenditure include the reduction of subsidies (initiated in 1989), increases in recurrent expenditure for the delivery of public services such as health and education, improving monitoring and planning of expenditure to ensure productivity and efficiency and improving the efficiency of the civil service through restructuring its size and enhancing remuneration.

1.47 The Public Investment Programme (PIP) reflects the priorities outlined in the FNDP discussed above and the Policy Framework Paper which was prepared in 1989 as part of the government's structural adjustment program. Priority investments to be undertaken by the central government as well as those intended for implementation by parastatals are identified within the program. Emphasis is placed on the rehabilitation and maintenance of existing social and economic infrastructure. Priority is given to projects and activities included in the Social Action Program which is discussed later and which are aimed at protecting vulnerable groups from the negative effects of the adjustment program.

1.48 The investment program for the period totals expenditure of K49,442.5 million of which 48.6 percent (K24,029.1 million) is to be invested by the central government and 51.4 percent (K25,413.4 million) by the parastatals (see Table 1a). In terms of sectoral breakdown, agriculture, mining, and transportation and communication receive the majority of resources amounting to 67 percent of total expenditure. The remaining resources are allocated to the energy sector (8.3 percent); manufacturing (5.8 percent); education (5.8 percent); water, sanitation and public works (5.3 percent), women in development (0.5 percent) and non-traditional exports (2.9 percent).

#### **The Social Policy Debate Within Zambia**

1.49 The formulation of social policy in Zambia has been based on incremental responses to social needs. When Zambia gained independence in 1964, the ruling party, UNIP, designed a number of policy and programmatic responses which utilized public expenditure to extend service provision to those areas which were believed to have been neglected by the colonial administration. Gradual increases in budgetary allocations were made during the 1960s and 1970s as expansion of basic education and health services, replacement of expatriate labor through Zambianization, and the promotion of social equality between the rich and poor were made main features of policy efforts.

1.50 Policy content under the UNIP was influenced by ideology as Humanism, the political philosophy of the party, which stressed communal responses to social issues and a commitment to the equitable distribution of resources to the population. Between 1964 and the early 1970s, the Government's commitment to finance and provide social services to the population intensified as it began to invest heavily in the social and infrastructural sectors. During this period, a relatively significant amount of resources was invested in the development of the country's education and health infrastructure. The Government's role in the provision of education services expanded as it took over church run schools and expanded primary and secondary schools across the country. Clinics, hospitals and health centers, particularly within rural areas were also constructed by the Government in its efforts to extend health services towards disadvantaged areas. In addition to its efforts in these sectors, is also implemented various other initiatives aimed at facilitating equitable distribution of resources including controlling and subsidizing prices for agricultural products and basic food stuffs to ensure cheap food for the poor (Mudenda, n.d.).

1.51 During the early 1970s, increasing world prices for Zambia's main export commodity, copper, resulted in high export earnings and macroeconomic policies were generally aimed at maintaining consumption levels and standards of living based on the assumption that favorable world copper markets would continue to generate export revenues. During the mid-1970s, however, a fall in world copper prices and a sharp rise in the price of oil resulted in the deterioration in Zambia's terms of trade and threw its economy into a deep recession.

1.52 In spite of the deteriorating economic situation, however, during most of the 1970s and early 1980s, expansionary fiscal and monetary policies were pursued. Subsidies were increased, fiscal deficits grew and domestic credit was expanded. Exchange rates and price controls were imposed in an effort to contain accelerating inflation. The resulting price controls contributed to a severe misallocation of resources, an increased import intensity of production and further discouragement of non-traditional exports. The agricultural sector stagnated due to a lack of incentives caused by maize price distortions with the result of a fall of 50 percent in GNP per capita during the 1980s (World Bank, 1991b).

1.53 The Government made several efforts to restructure its economy during the early 1980s. A series of structural adjustment programs were implemented with the assistance of the IMF and the World Bank. These efforts were aimed at restraining growth of domestic demand, reducing balance of payment arrears and discouraging imports through devaluation. During 1985-1987, the Government undertook a World Bank/IMF supported program aimed at liberalizing foreign trade, eliminating price controls especially in agricultural goods, reforming interest rate policy and introducing foreign exchange auctioning. This program was abandoned by the Government in May 1987 on the grounds that it generated excessive economic and political instability and was in turn replaced by the its own adjustment program.

1.54 In spite of the efforts undertaken during this adjustment period, the economy became increasingly unstable between 1987 and 1989. Inflation rose from 35 percent in 1986 to 64 percent in 1988 and then increased drastically to 154 percent in 1989. Chronic shortages of foreign exchange and essential imported inputs were experienced and economic activity increasingly shifted to the parallel market. The Government faced severe difficulties in servicing its external debt obligations, much of which was contracted on commercial terms.

1.55 In 1988, the Zambian Government resumed its policy dialogue with the World Bank and the IMF and undertook several steps aimed at stabilizing the economy. Interest rates and reserve requirements were raised to slow money supply growth. The Kwacha was devalued by 25 percent. In an effort to reduce the budget deficit and the burden of paying subsidies, the consumer price of maize meal was tripled. To mitigate against consumption losses for the poor, a coupon scheme was introduced so that the maize meal subsidy would be targeted to assist vulnerable groups.

1.56 In 1989, the Government reached an agreement with the World Bank and the IMF on a Policy Framework Paper. In addition, an annual IMF monitored program for 1990 was

approved by the Fund Steering Committee in March 1990. In the short-term, the strategy outlined in the Policy Framework Paper was the establishment of a more stable macroeconomic environment. A fundamental component of this strategy was the rapid reduction of the rate of inflation that had prevailed since 1989. The medium-term strategy expressed in the Policy Framework Paper aimed to diversify the economy away from copper, reduce the high capital and import intensity of production and consumption, improve economic efficiency, increase savings and investment rates to restore economic growth and improving social services. The main macroeconomic targets set for the 1989-1993 period in the Economic Recovery Program included: 1) achieving an average annual real GDP growth rate of at least 3.5 percent, with a positive real per capita GDP growth in the later years; 2) reducing the rate of inflation from 154 percent in 1989 to 15 percent or less in 1993; and 3) increasing non-traditional exports by at least 10 percent per year in real terms.

1.57 The strategy for attaining macroeconomic stability proposed a substantial reduction of the fiscal deficit, primarily through an expansion of revenue and a rationalization of expenditures. Priorities in expenditure were shifted towards social services and operations and maintenance. Public sector expenditure was redirected to infrastructure and human resources that are complementary to the private sector, with particular attention placed on improving the efficiency of public spending through the emphasis of maintenance and rehabilitation of infrastructure and increased resource allocation to agriculture, health and education. To raise economic efficiency, increased emphasis was placed on market-determined pricing for the allocation of resources and the role of the private sector.

### **The Social Action Program**

1.58 The economic crisis of the 1970s and the various reform and adjustment measures undertaken by the Government during the 1980s limited its capacity to maintain an extensive and free social sector. The Government recognized that some of its reform measures, such as the reduction in public expenditure in the social sectors and the elimination of subsidies of basic foods, would have a negative impact on various segments of the population, particularly the poor. In an effort to mitigate against this, it launched a Social Action Program for the period 1990-1993 as part of its overall adjustment program. The following provides a description of the various sectoral activities in the Social Action Program.

1.59 The Social Action Program is designed to initiate activities that would cushion the impact of the recovery program on the poor and others who may be adversely affected in the short run by elements of the economic recovery program (GRZ, 1990b: 1). The SAP includes activities in health, education and training, food security and nutrition, women in development, water and sanitation, employment generation, household energy, women in development and transportation infrastructure. In the short term, the Social Action Program aims to improve the availability of social services and employment opportunities for the poor. In the long term it aims to initiate policy analysis and reform that will enable improved and sustainable social service delivery (GRZ, 1990b; World Bank, 1991b). A strong emphasis is placed on the

redirection of public spending to social services, in particular on the rehabilitation and maintenance of basic infrastructure. Further, emphasis is placed on community participation in activities in an effort to better meet households' needs at the community-level. Target groups specifically identified for activities include women and children.

1.60 Within the *water* sector, the Social Action Program emphasizes the need to ensure safe drinking water to the population through the improved access to and quality of water and sanitation services. To this effect, resources are channelled towards the rehabilitation and expansion of basic water and sanitation infrastructure.

1.61 In *transportation*, emphasis is placed on the rehabilitation and maintenance of the road and railway infrastructure. With roads, the rehabilitation of the existing network and development of a program to carry out maintenance on a regular basis is given priority. With railways, the development of a comprehensive strategy and action plan for ensuring its commercial viability is emphasized. In order to generate the resources necessary to sustain the rehabilitation and maintenance of the transportation infrastructure, resources are to be mobilized through increased user charges and tolls.

1.62 With regards to *energy*, the importance of woodfuel and woodfuel products such as charcoal in household energy use is emphasized. Although, it is recognized that the exclusive use of wood has potentially negative environmental consequences, the Social Action Program does not provide specific actions to address these issues. Rather, two general approaches are suggested: 1) finding alternatives to woodfuel, and 2) making more efficient use of wood that is being used. Two activities are being developed aimed at: 1) improving the efficiency of charcoal production and distribution and 2) the improvement of the efficiency of charcoal-burning through better designed stoves (GRZ, 1990b: 16).

1.63 For *employment*, two major types of activities have been included in the Social Action Program as part of the Government's employment creation strategy. The first, labor-intensive public works programs are designed with the dual objectives of rehabilitating social and economic infrastructure and providing employment opportunities to the unskilled and underemployed. The second, the development of small-scale enterprises (SSEs), are designed with the recognition that SSEs provide an opportunity for targeted income generation assistance to vulnerable groups (GRZ, 1990b: 19).

1.64 Within *education* the importance of reorienting public expenditure toward primary education with the objective of improving the quality of learning and enhancing access to primary education is stressed (GRZ, 1990b; GRZ, 1989a; GRZ, 1990b). Emphasis is placed on the redirection of expenditure towards primary education, particularly in poor urban and rural areas. Increased resources are to be allocated to rehabilitating existing facilities as well as improving the provision of educational materials. In addition, literacy programs and other non-formal education programs are to be strengthened in an effort to improve access to educational services to the population.

1.65 In *health*, improvement of access to facilities and services, in particular primary health care, for the rapidly growing population of Zambia is stressed. To this effect, emphasis is placed on channelling resources towards the rehabilitation and maintenance of existing health facilities, with primary health care and preventive medical services receiving priority. In addition, resources are to be channelled towards the provision of supplies, equipment, and medical staff support for primary and family health care programs.

1.66 The Social Action Program emphasizes the need to strengthen efforts to improve the role of women in development through providing employment opportunities, increasing their access to credit, health and education services and more fully integrating them into all development activities. Although women constitute about half the population, they account for only about 7 percent of the labor force, 65 percent of the illiterate population, 30 percent of secondary school enrollment and less than 20 percent of university and technical college graduates. Within Zambia, approximately 30 percent of all households are headed by women. Women have inadequate access to employment, credit and extension, and have the highest levels of food insecurity and malnutrition, particularly in rural areas.

1.67 Activities targeted specifically towards women include: 1) improving women's access to credit, extension, supplies and marketing services; 2) promoting better practices in agriculture and energy use; 3) reducing barriers to entry and expansion, and improving access to appropriate technologies for women in the informal sector; 4) improving access to jobs, career advancement, and entrepreneurship opportunities for women in the formal sector; 5) raising the overall literacy rate; 6) establishing accessible child care services in the workplace, including facilities and supplementary feeding for children; and 7) providing training and research on women's issues including research on women's conditions and the impact of development programs on their livelihood (GRZ, 1990b: 25).

#### **Resources for the social action program**

1.68 Resources for the Social Action Program are incorporated in the Government's Public Investment Program for the 1990-1993 period. Total resource requirements for the Social Action Program over the 1990-1993 period is estimated at about US\$ 354 million (GRZ, 1990b: 4). Table 2 presents the budgetary allocations for each component within the program. In terms of sectoral allocations, education and training receive the largest proportion amounting to approximately 32 percent of total allocation. The health, nutrition and food security components receive the second largest proportion amounting to about 28 percent of total allocations. Roads, markets and public transportation receive 23 percent and water and sanitation receives about 12 percent. The women and development and household energy components receive about 2.7 and 2.1 percent of total allocations, respectively.

## **II. SECTORAL INITIATIVES**

**2.1** The purpose of this section is to provide background information to enable a better understanding of the sectoral initiatives being undertaken in Zambia to assist the urban poor. First, a detailed description of the sectoral policies, programs and projects presently being designed and implemented are discussed. Second, the institutions and agencies involved in the design and implementation of these sectoral initiatives are presented. Third, an analysis of the effectiveness of service delivery is made and constraints in implementation are discussed.

### **Housing**

**2.2** By way of background, this section begins with a short description of the present housing situation in urban areas in Zambia. It then discusses current housing sector initiatives and the institutions and agencies involved in their design and implementation. Finally, an assessment of service delivery is made and constraints to implementation are identified.

### **Housing and the urban poor**

**2.3** Rapid and large scale urbanization has occurred in the country since independence. The proportion of the population that lived in urban areas almost doubled during the 1965-1980 period to 43 percent of the entire population. By 1980, 78 percent of all urban dwellers (or one-third of the total population) were concentrated in ten large towns in cities along the Copperbelt. Urban population growth has increased during the 1980s as well. By 1989, approximately 42 percent of the total population of the country lived within urban areas; 24 percent of which lived in the capital city (World Bank, 1991a). This rapid urbanization has resulted in severe pressure on housing, particularly within densely populated peri—urban areas.

### **Current Policy**

**2.4** Since 1972, the Government has promoted home-ownership based on the assumption that the long-term solution to the need for shelter is dependent on resources available both to the nation and to individuals within the context of self-reliance (NHA, 1991). In spite of the support for private ownership however, the housing sector has not performed satisfactorily during the past two planning periods. Targets have not been met in terms of units constructed and the change from “tied” housing to owner-occupied accommodations (GRZ, 1989a).

**2.5** The policy initiatives in the FNDP are actively seeking to remove barriers and constraints to home-ownership. Many of these initiatives, such as the revision of legislation, streamlining of land transactions and financial procedures, and the provision of infrastructure are proposed so as to promote growth and development in the housing sector. The Government of the Third Republic has begun the process of changing the law so that land is no longer vested in the state but rather owned by individuals and private companies. This policy re-orientation is perceived to be necessary to promote investment in the housing sector. Concurrently, a number of schemes are being supported aimed at providing access to low— and

medium-income people to housing loan facilities. The concept of collateral and stable employment are being reappraised to enhance eligibility among low-income workers.

### **Institutional framework**

2.6 The institutional framework in the housing sector has been reorganized several times during the past few years. However, the formulation and regulation of policy continues to be fragmented, discontinuous and, at times, contradictory. Several administrative divisions of the Government are responsible for housing, with parastatals, private developers and individuals also having prominent roles in this sector.

2.7 Although all Government ministries are involved in housing activities through the provision of housing or housing allowances to employees, two ministries have specific portfolios for sector activities — the Ministry of Local Government and Housing and the Ministry of Works and Supply. The Ministry of Local Government and Housing has responsibility for the district councils which implement housing policy through various programs. The Ministry of Works and Supply is responsible for Government buildings such as office blocks, schools and residences for civil servants.

2.8 The National Housing Authority (NHA) is a statutory body which was created by an Act of Parliament and has the mandate to advise government on matters pertaining to housing. In addition, the NHA promotes home ownership through the provision of affordable shelter, provides technical assistance to local authorities, constructs, manages and maintains housing estates, and undertakes research and development on low-cost technologies (NHA, 1988).

2.9 Most parastatals and private companies provide housing or an allowance in lieu of shelter for their employees. This practice has roots in the colonial period when housing services were tied to employment (Heisler, 1974). Employer-provided housing in Zambia has increasingly become prevalent with the private sector becoming the largest supplier of housing, meeting the needs of 95 percent of the urban population. The proportion of the population who are unassisted by employer-provided housing or allowances is not known although estimates indicate that 32 percent reside in squatter compounds.

### **Programs and Projects**

2.10 Various types of housing programs and projects are presently being designed and implemented in urban areas targeted towards both low and medium-income households. These include:

2.11 *Site and service schemes* which involve the demarcation of residential plots, providing roads, storm water drainage, piped water supply, security lighting, refuse collection, and other services are prevalent in urban and rural areas. Participants are assisted through loans,

usually in-kind, which enable them to purchase building materials. In large urban areas, district councils are responsible for these schemes while in smaller urban areas and rural communities, the NHA is the administering agency.

2.12 *Squatter Upgrading Programs* which involve the legalization of illegally settled areas by the district councils. These programs enable residents to gain title deeds to their properties and to be eligible for basic services. The district councils are the major implementors and are assisted by NGOs such as HUZA.

2.13 *Site and service projects in Kaoma, Mongu and Serenje* are intended for households in low-income categories. These projects are being implemented by the NHA.

2.14 The *Kalingalinga Integrated Upgrading Project* involves the upgrading of one of the poorest communities in Lusaka using community participation techniques. The project is funded by the GTZ and executed by LUDC.

2.15 The *Urban Development Project*, presently operational in Bauleni — an area that has been recently recognized by the Lusaka Urban District Council — aimed at improving squatter areas through community participation. The project is executed by HUZA.

#### **Analysis of Effectiveness in Service Delivery**

2.16 The Government's emphasis on home ownership has been directed almost exclusively towards the urban population. In spite of this, current housing initiatives have not satisfied the housing needs of the urban poor. Efforts at upgrading illegal shelters were partially successful but not adequate to meet the demands of the growing population. In fact, as this report was being prepared, the Lusaka Urban District Council (LUDC) was engaged in destroying illegal, squatter settlements, which resulted in an estimated 5,000 people becoming homeless (*Times of Zambia*, 10th December, 1991).

2.17 Decent shelter continues to be a problem for the urban poor. Two major programs specifically designed to assist them — site and service schemes and squatter upgrading projects— have not been successful. The costs of building materials and infrastructure make low-income housing schemes unaffordable even for high-income groups. District councils supply infrastructure such as piped water, sewage lines, roads and drainage ditches for urban plots and pass on the cost of the infrastructure to developers such as the NHA or private companies. Financing of infrastructure as well as construction costs make home-ownership inaccessible for most urban residents.

2.18 The cost of building materials has escalated to the point that a conventional structure satisfying building codes is very expensive. Although research efforts are being undertaken to develop low-cost technologies, the institutions involved have not produced materials or technologies directly accessible to poor urban residents. The most promising efforts so far have

been made by NGOs, which have introduced laterite blocks and roofing tiles made from sisal into low-income areas. HUZA leads in the dissemination of low-cost, appropriate technology and runs training programs for groups of individuals desiring to learn how to make blocks and roofing materials using this technology.

2.19 Access to plots for residential development has been another inhibiting factor, particularly for the urban poor. In the past, there have been biases in favor of men with regards to plot allocation procedures. Land in peri-urban under district councils was allocated by councilors as a group meeting or as individuals in their capacity as ward chairmen. The system was gender-biased with councilors who were mostly men, making decisions on the basis of conventional wisdom and custom. This declared that men as heads of household or potential heads should provide shelter for the family and women should be housed by their husbands. Therefore, unmarried women, who were also heads of households, could only acquire land if their cases were put sympathetically before the Council. Since female heads of household are in the minority (21 percent of the urban population according to the latest PIC's Household Expenditure Survey), women generally tend to have less chance than men to acquire plots. However, as the laws regarding housing loans are changing, the procedures for acquiring plots are expected to change.

### **Constraints to Implementation**

2.20 The constraints to effective program implementation and service delivery are both political and technical in nature. The lack of low-cost building materials is a technical problem resulting from limited research and development, lack of qualified researchers, and poor marketing infrastructure. The political constraints relate to the system under which land has been controlled. Although the Government wants to institute new procedures, delinking land from the office of the President, land allocation is still a political decision reflecting the Movement for Multiparty Democracy's (MMD) desires rather than through technical assessment. Therefore, the outcome reflects political expediency above grass-roots generated needs.

### **Conclusion**

2.21 Despite continued efforts by the Government to promote home ownership in urban areas, housing initiatives have not been able to provide adequate housing for the urban poor. The various schemes targeted towards the urban poor including upgrading and improvement of sites and services, have not been successful in improving the conditions of illegal squatter settlements where the majority of the urban poor still live without access to basic services such as water and sanitation.

## **Water and Sanitation**

2.22 This section begins with a brief description of the availability of water and sanitation services in urban areas. It then discusses current sector initiatives and identifies the various institutions involved in the provision of water and sanitation services. The section then presents a brief assessment of service delivery and identifies constraints to implementation.

### **Access to water and sanitation services in urban areas**

2.23 Statistical data from the NHA for urban areas and surveys of district councils and the Ministry of Health show that in 1980, 80 percent of water supplied to the large urban areas was surface water. Comparatively, approximately 75 percent of the small urban townships had surface water as a source of water supply (UNICEF, 1986). Approximately 70 percent of households had access to acceptable water supplies with 48 percent of households having their own water services and 22 percent sharing communal taps. 52 percent of households have acceptable sanitation services with 45 percent having individual flush toilets and seven percent using communal flush toilet facilities. Within low-income areas, communal taps are the most common method of water supply.

2.24 Recent DHS data show that in 1991, approximately 66 percent of urban households have access to safe water with the same proportion having access to adequate sanitation facilities. 56 percent of urban households have their own water services while 34 percent share communal taps. 47 percent of households in urban areas have access to unimproved pit latrines and 1 percent have ventilated and improved pit latrines. (Seshamani, V. et al, 1993)

2.25 The water supply and sanitation infrastructure within the country is severely dilapidated. Deficiencies in access to and quality of services have had severe consequences on the health status of a significant proportion of the population. Periodic epidemics of cholera and water-borne diseases are becoming increasingly serious and threaten the health and nutrition status of households in Zambia. In particular, high morbidity and mortality from diarrhoeal diseases and parasitic infections are particularly critical in densely-populated squatter compounds (GRZ, 1990b).

### **Current Policy**

2.26 The stated goal of the Government in the water sector is the extension of access to safe drinking water to all households in Zambia. The targets for the present planning period are all small urban townships with schemes supported by the Department of Water Affairs (DWA) and 50 percent of the rural population through a combination of government assisted and self-help initiative. In addition, several large urban water supply schemes are in the process of undergoing major rehabilitation.

**2.27** The water sector is plagued by a number of institutional problems which hamper efficient management and administration and inhibit effective service delivery. The 1988 *Reorganization Study of Water and Sanitation Sector* undertaken by Cooper and Lybrand identified several institutional issues that required policy adjustments. The report provides recommendations which are in line with the Policy Framework Paper and the Social Action Program and which have been endorsed by the MMD.

**2.28** Some of the problems identified by Cooper and Lybrand are poor financial performance, ineffective investment planning and development policies, unclear definitions of responsibility, authority and accountability, and shortfalls in experienced manpower. To address these problems the Government, in collaboration with other institutions working within the sector, intends to undertake the following:

- Change the price of water services to at least cover the cost of producing and distributing it.
- Initiate institutional changes so that overall responsibility for water supply and sewage operations will be concentrated, to the maximum extent, in a single line ministry.
- Charge the Ministry of Local Government with the mandate to support the initiatives of other larger cities to privatize water supply and sanitation services by adopting the model used by the Lusaka Water Supply and Sewage Company.

**2.29** The above-mentioned reforms are a departure from previous policy emphases on water supply at any cost. This strategy involves suppliers, such as the DWA and the district councils, to bear the cost of an inefficient or highly subsidized system. The primary aim of the new policy initiatives is to satisfy demand while also promoting administrative efficiency and cost-effectiveness.

#### **Institutional framework**

**2.30** Responsibility for the development and maintenance of water supply systems is fragmented among several Government ministries and departments. There are five main ministries which are active in the water sector. These include:

- The Department of Water Affairs in the Ministry of Energy and Water Development which is responsible for water resources data, planning and conservation, and the provision of piped water supply.
- The District Councils under the aegis of the Ministry of Local Government and Housing which are responsible for water and

sanitation schemes in their areas. However, in some urban and rural townships, this responsibility is undertaken by the DWA for water supply and the Ministry of Works and Supply for sewage and sanitation.

- The Ministry of Works and Supply which has responsibility for the provision, operation and maintenance of water, sewage and sanitation services in Government institutions and buildings (e.g. schools, office buildings, etc).
- The Ministry of Health which is responsible for monitoring water source and quality, providing community health education, enforcing environment health regulations and monitoring discharges from sewage works.
- The Ministry of Community Development and Social Welfare which is responsible for promoting self-help water and sanitation programs in rural communities.

2.31 In addition to these ministries, the National Council for Development Planning (NCDP) plays an important role in planning and mobilizing capital investment for the sector. There are also other institutions such as the Parent Teachers' Associations (PTAs) and other private organizations which are active in water provision schemes.

2.32 The Water Development Board, which is a judicial body chaired by the Director of the DWA, is responsible for administering the provision of the Water Act which empowers it to grant water rights and allocate water resources.

### **Programs and Projects**

2.33 Most water supply and sanitation programs fall under the jurisdiction of the DWA, although a few programs are jointly administered with other agencies. There are various water sector programs and activities that are targeted towards urban and peri-urban areas. These include:

2.34 The *Water Supply Program to the Western Province* is supported by NORAD, aims to upgrade both urban and rural water supply systems as well as supply safe water to secondary service centers. The DWA, working in conjunction with the Ministry of Local Government and district councils, is the administering agency responsible for implementing this program.

2.35 The *Urban Water and Sanitation Rehabilitation and Improvement Program* aimed at improving existing water reticulation systems, minimizing wastage and improving overall sanitation conditions in large urban areas. Major donors include the African Development Bank,

the Italian AID and NORAD. District councils are the main administering agents. In the case of Lusaka, the district council collaborates with the Lusaka Water Supply and Sewage Company.

**2.36** The *Rehabilitation and Improvement of District Level Sanitation and Water Supply Program* aims to improve existing schemes in small urban townships through infrastructure rehabilitation, training of management personnel and community participation in public works. District councils, in collaboration with the DWA, are the administering agents.

**2.37** The *Water-to-the Village Project*, funded by local Rotary Clubs in conjunction with Rotary International and Rotary Club of Norway, promotes community participation through self-help in the provision of clean water to peri-urban and rural areas. The Rotary Club is the administering agency with the DWA having the responsibility for the supervision of project implementation.

**2.38** The *Irish-Aided Project* provides support to water supply and infrastructure rehabilitation in the Kasama District in selected peri-urban and rural areas. The NCDP is the administering agency with the DWA having responsibility for implementation.

**2.39** The *Social Recovery Project* funds community-level water and sanitation projects in both urban and rural areas including the rehabilitation and expansion of water supply systems and rehabilitation and construction of latrines and other sanitation facilities. In addition, a majority of the school rehabilitation efforts of the Social Recovery Fund include the provision of water services to schools with concurrent rehabilitation of sanitation facilities.

#### **Analysis of Effectiveness of Service Delivery**

**2.40** In the past, emphasis has been placed on the provision of potable water to the extent that operation and maintenance issues have been delegated little priority. Deficiencies in access to and quality of water and sanitation services are perennial problems where shortages in water supply, low water pressure and poor water quality are prevalent due to the lack of chemicals for treatment. Severe water shortages and a general deterioration in service delivery has resulted in the deterioration in the standards of hygiene. In densely populated squatter settlements, deficiencies in service delivery have resulted in high morbidity and mortality from diarrhoeal diseases and parasitic infections.

**2.41** While urban populations have better access to water supply and sanitation systems than their rural counterparts, the systems existing in urban areas are severely dilapidated. Communal taps are the most common method of water supply in low-income areas and are subject to abuse, contamination from frequent digging of pit latrines, frequent breakdowns and little accountability. Small urban townships, which have been prioritized along with large urban areas in the International Drinking Water Supply and Sanitation Decade (IDWSSD) Plan, are particularly affected due to power cuts, inadequate reticulation systems and shortages of spare

parts and chemicals. There is likely to be a continued shortage of water supply in the poorer areas unless better management of water usage and water conservation is undertaken.

2.42 The problems being experienced in the water and sanitation sector are attributed to institutional as well as financial bottlenecks. Institutional weaknesses are caused by the fragmentation of administrative and operational responsibilities between numerous institutions and agencies. The sector is also characterized by poor financial management and a serious shortage of qualified and experienced personnel, particularly in technical positions. This inadequate technical capacity has resulted in poor operation and maintenance of existing facilities.

2.43 Consequently, the water and sanitation needs of the urban poor are not being met. A high proportion of the poor live in the fringe areas of towns where the responsibility for the development and management of infrastructural services is poorly defined (GRZ/DWA, 1990a). Services in these areas are poorly managed and environmental degradation is prevalent with solid refuse littering the roadside and remaining uncollected for long periods.

2.44 This sector is also characterized by extremes in expectations of community input in the provision of services. In urban areas, for example, consumers and suppliers perceive that the provision of water services is the responsibility of government, or a service provided by a parastatal or private company. Consumers do not expect to have a major role in service provision other than paying a fee for service. On the other hand, rural consumers are expected to participate in the operation and maintenance of their schemes. In fulfilling this responsibility women are expected to take the lead as they are identified as primary consumers, but rarely are included in the decision-making or design of water and sanitation projects. (NORAD, 1986). Although it is not openly verbalized the community input is generally perceived as a substitute for user fees (Mapulanga and Chileya, 1991).

2.45 The notion of community participation in service provision has been extrapolated to urban areas, to some extent, where public works projects are used to provide low-cost infrastructure (Osei-Hwedie and Mijere, 1989). Residents are reluctant to pay service charges in areas where they have been involved in creating services. Mapulanga and Chileya found female-headed households being penalized in the use of water facilities where community labor input was involved. Female household heads were constrained from involvement due to labor shortages within the household. Whereas, male household heads either participated themselves or delegated the responsibility to wives and children.

2.46 Although the new policy initiatives attempt to address the current deficiencies in the institutional arrangement in the sector, they do not take into consideration the larger needs of the various sections of the population. Nor do they consider the socio-cultural factors existent in urban areas of the country, which make some approaches to water supply feasible and others inappropriate.

### **Constraints to Implementation**

2.47 Constraints to effective implementation in the sector are both technical and political in nature. One of the technical constraints to implementation is the shortage of experienced manpower. As mentioned earlier, the sector lacks skilled and technically experienced personnel to effectively plan, develop and manage water and sanitation activities. Another technical constraint is the lack of mechanisms that would ensure financial accountability by guaranteeing payment of user charges for water services.

2.48 A major political constraint to effective implementation is the inability of service providers to distribute costs fairly among users. For example, with the removal of government subsidies to the sector, the cost of pricing and distributing water is to be borne by the consumer. However, inequities in the distribution and usage of services exist to the extent that some sectors of the population subsidize others. Further, even with an improved reticulation system for example, water shortages are likely to continue in major urban areas because of social behavior, i.e. the use of piped water for gardens and swimming pools etc. The cost for these usages, including wastage will have to be borne by consumers. The political problem in this instance is the decision of which group of consumers are to bear the cost. Should people be forced to pay service charges because they are connected to a district or private company-scheme even though they lack adequate supplies of water? Should consumers using communal sources subsidize households with individual connections because of assumed economy of scale? Or, should high-income households subsidize low-income ones in order to promote social equity? These questions will have to be addressed under the institutionalization of cost-recovery measures.

### **Conclusion**

2.49 Deficiencies in access to and the deterioration in the quality of water and sanitation services are prevalent problems in urban areas with water shortages and poor water quality being common, particularly in poorer areas. The lack of adequate services has resulted in periodic epidemics of cholera and other water-borne diseases threatening the lives of the urban poor. Major constraints in service delivery in the water and sanitation sector are institutional and financial and have hampered effective delivery particularly to peripheral areas of cities where the urban poor live.

### **Transportation and Infrastructure Services**

2.50 This section begins with a brief discussion of current transportation policy in Zambia. It then outlines the institutions and agencies involved in the design and implementation of transportation initiatives and discusses various programs presently being implemented. Finally, an assessment of service delivery is made and constraints to implementation are identified.

## **Current Policy**

**2.51** Rapid population growth coupled with a high degree of urbanization has placed a heavy strain on transportation infrastructure network within Zambia. In spite of previous government efforts to develop an extensive network of transportation facilities, the country's road and rail infrastructure and services have deteriorated significantly during the past decade.

**2.52** In previous years, a coherent and comprehensive policy to guide developments in the transport sector has not been articulated. Policy formulation and operational responsibilities have been fragmented amongst various ministries. A National Transport Policy Committee was appointed by the Government in 1989 to prepare a comprehensive Transport Policy which is currently awaiting ratification. This policy is consistent with the objectives identified in the FNDP in that it advocates the following measures:

- Including transport issues in the priority sectors for the determination of the country's national development plan.
- Promoting transport investment to facilitate balanced regional growth, taking into account social costs, such as those caused by congestion, pollution, accidents and noise.
- Ensuring that transport ventures cover at least their short-run operating costs and earn enough surplus to replace their capital.
- Enabling transport agencies to set their own fares and freight rates on the basis of their costs so long as they do not violate the broad pricing guidelines set by government.
- Ensuring that energy conservation, especially petroleum fuel be one of the important guiding considerations for the determination of an optimal mix in Zambia's transport system.
- Promoting interactions between land use and transport in the formulation of transport policy to ensure that an effective land use policy assists in reducing total transportation effort.
- Ensuring that the impact of transport on the environment is considered, and that sound traffic management has an important role in regulating traffic flow and reducing the adverse effect of environmental pollution and hazards in urban areas (UNDP/DTCD, 1990).

## **Institutional framework**

2.53 The overall responsibility for the provision of transportation infrastructure and services belongs primarily to three ministries in the government, with parastatals and the private sector also having important roles. The Ministry of Transport and Communications has responsibility for policy formulation, coordination and implementation. It is also responsible for administering activities initiated by sub-regional and international bodies, which have relevance to Zambia's transport sector. The Ministry of Works and Supply is responsible for the construction and maintenance of primary roads through its Roads Department which plans, constructs and maintains inter-territorial, territorial main roads and district roads which have significance for national development. The District Councils, through the Ministry of Local Government and Housing, are responsible for planning local land-use and development and are also responsible for the maintenance of intra-district roads.

2.54 Among parastatals, the United Bus Company (UBZ) and Contract Haulage are the two most prominent operating in the transport sector. UBZ is responsible for passenger services while Contract Haulage is responsible for domestic and international freight. UBZ is assisted by Mulungushi Travellers, a Zambia Consolidated Cooper Mines (ZCCM) transport company.

2.55 In the private sector, United Transport and Taxis Association (UTTA) and Truckers Association of Zambia (TAZA) coordinate the activities of private transporters. The market share for private passenger transporters is estimated to be 90 percent, whereas the market share for private haulage carriers is estimated to be 70 percent (FNDP, 1989).

## **Programs and Projects**

2.56 A number of investment programs have been identified which are oriented to the rehabilitation and maintenance of transportation infrastructure services. These programs are:

2.57 The *Investment Program for UBZ and Contract Haulage* is aimed at assisting these two parastatals procure new vehicles, machinery and equipment for the purpose of service improvement and expansion.

2.58 The *Investment Program for TAZA and UTTA* is aimed at assisting private operators procure new vehicles and spare parts so as to improve and expand services into urban and rural areas.

2.59 *Project Urban Self-Help (PUSH)* is a food-for-work project that promotes improvements in local infrastructure such as roads and drainage ditches through community labor in urban and rural areas. The administering agency is HUZA.

## **Analysis of Effectiveness of Service Delivery**

2.60 The FNDP and Policy Framework Paper (PFP) stress the critical importance of an efficient and effective transport network system to Zambia's development efforts (GRZ, 1990b: 63). However, in spite of efforts to create and develop an extensive network of transport facilities, the nation's road and rail transport infrastructure has been steadily deteriorating during the past decade. This is partly due to the fact that in the past there has been an over-emphasis on the construction of new infrastructure and a disregard for commensurate expenditures on maintenance and repair. This problem has been exacerbated by the lack of coherent transport policy guidelines and weak sector planning.

2.61 The Government is attempting to address this situation through a road improvement program which will have a community participation component. This is intended to provide income-enhancement opportunities for residents as well as give them better community roads. However, this approach is likely to be more effective in rural areas where community-based feeder road programs have already been introduced and have been proven to be viable. In urban communities, the approach is new and may be limited by procedural and operational constraints.

2.62 One of the major objectives of the Government is to assist transporters to improve their fleet of vehicles and thereby increase the effectiveness and efficiency of services. It is hoped that improved efficiency will also translate into cost-reduction for the consumer, particularly in densely populated urban areas.

2.63 Responsibility for the design and implementation of transportation policies and programs is fragmented amongst various levels of government, between ministries and the public and private sectors. Lack of coordination among the various agencies has had a severe impact on the effective development and delivery of transport services. The District Councils are responsible for planning urban road development as well as determining land use. However, private transporters are not obligated to travel on hazardous routes such as those existing in the peri-urban areas where potholes and poor road quality can damage their vehicles. Due to the lack of cooperation between District Councils and private transporters, this oftentimes results in chronic transport problems in low-income, high density peri-urban areas where roads are poorly maintained. The deterioration of transportation infrastructure is so severe that even critical public services such as emergency ambulance service is not provided in these areas.

2.64 The new transportation policy initiatives attempt to ameliorate this situation by promoting road development in these areas in addition to providing transporters with incentives to travel along unprofitable routes. Transporters will be persuaded, through tax credits and other incentives, to use a system of cross subsidization in which the more profitable routes absorb losses incurred from less economic ones. To soften the blow it is proposed that services on such routes be shared between public, private and parastatal transporters. If successful, this should improve access to transport services at affordable rates to low-income residents.

2.65 One potential benefit for the urban poor is the support given to cheaper forms of transport like bicycles and buses. The use of private vehicles will be discouraged at specific times so as to reduce fuel consumption while public transport will be promoted and inputs into the public transport sector made to ensure that the quality of services provided improves.

### **Constraints to Implementation**

2.66 The major constraint to policy and program implementation in the transportation sector is technical. Neither the government nor the district councils have sufficient personnel to adequately execute the planning and implementation of the recommended initiatives. The district councils have an acute shortage of technical staff and depend on ministries to second personnel to them, while the ministries themselves are equally pressed for competent and experienced people, especially road engineers and transport specialists.

### **Conclusion**

2.67 The transportation system within Zambia has been steadily deteriorating during the past decade due to insufficient maintenance and rehabilitation. The lack of adequate financial resources and trained personnel has hindered the Government's efforts to expand transportation services to the poorer segments within urban areas. As a consequence, poor roads are prevalent particularly in low-income, high-density peri-urban areas resulting in chronic transport problems.

### **Energy**

2.68 By way of background, this section begins with a brief description of the energy situation within Zambia. It then discusses current initiatives within the energy sector and the institutions and agencies involved in their design and implementation. Finally, the section presents an assessment of service delivery and identifies constraints in implementation.

#### **The energy situation in Zambia**

2.69 Zambia is well endowed with energy resources including wood, hydropower and coal. Woodlands and forests cover an estimated 58 million hectares, or about 77 percent of the total land area. The growing wood stock on this area is estimated at 4.3 billion tons of wood with production of about 130 million tons per annum. Zambia also has hydropower potential and proven coal reserves. These indigenous energy resources satisfy about 88 percent of total energy demand, the remainder being met by imported petroleum products (World Bank, 1988: 18).

2.70 In 1988, total energy supply was 5.13 million tons of oil equivalent of which woodfuel accounted for 64 percent (fuelwood 38 percent and charcoal wood 26 percent respectively), electricity accounted for 12 percent, petroleum products for 11 percent, coal for seven percent and crop residues for six percent (see Table 3). The energy consumption patterns in 1988 highlight the importance of woodfuel in meeting national energy needs. Woodfuel

accounted for 58 percent of total final energy consumption. Electricity and petroleum products both accounted for 13 percent with coal and crop residues accounting for eight percent each.

### **Household Demand for Energy**

2.71 Households are the major users of energy in Zambia. According to estimates of energy consumption in 1988, households accounted for 58 percent of final energy consumption (see Table 4). The primary forms of energy used by households are woodfuels which meet about 84 percent of household energy needs. For urban households, woodfuels account for 23.1 percent of their needs. Urban poor households in most instances cannot afford nor do they have ready access to modern energy sources such as electricity and therefore depend heavily on charcoal for their domestic energy uses.

2.72 In 1988, urban households spent an average of K116.4 per month (US\$ 15 equivalent) to purchase fuels. This represented 11 percent of their monthly income and 22 percent of their expenditure. Of this expenditure, charcoal accounted for 55 percent, firewood 25 percent, electricity 11 percent and kerosene nine percent (World Bank, 1988: 43).

2.73 Table 5 presents estimated energy balances for urban households by end use for 1988. Overall, urban household energy use was dominated by two sources of energy: charcoal (58 percent) and firewood (26 percent). Charcoal is used by over 80 percent of urban households and is the principal fuel for 55 percent of the urban population (about 1.6 million people) in particular, the urban poor (World Bank, 1988: 35). In terms of end-use, cooking, space heating and water heating are the three major uses for household fuel, accounting for about 88 percent of total household energy consumption.

2.74 Electricity, which represents only seven percent of total urban household energy consumption, is primarily used for cooking (57 percent of consumption) and lighting (20 percent of consumption). About 60 percent of urban houses do not have electric connections with high up-front costs for home wiring and connection being major impediments to the adoption of electric cooking. For homes that do have electricity connections, the costs of cooking with electricity include the high costs for cooking equipment as well as energy costs. For low-income urban households, electricity is primarily used for lighting, ironing, radios etc.

2.75 Kerosene accounted for five percent of urban household energy consumption and is mainly used for lighting (54 percent of consumption) and fire ignition (27 percent of consumption). Crop residues, mainly consisting of sugar cane waste, are mainly used by low-income households residing in towns close to sugar factories for cooking and water heating purposes.

### **Prices for different types of fuels**

2.76 Data from an urban household energy survey undertaken during 1988 show that the share of household income and expenditures spent on charcoal for cooking by low-income households is very high. In 1988, in urban households reporting incomes of K800 per month or less (64 percent of all urban households), 19 percent of household income and 24 percent of total expenditure was spent on charcoal (World Bank, 1988: 52).

2.77 Prices for charcoal fluctuate drastically due to various factors such as supply disruptions and scarcity. Price increases are very drastic, particularly so during the wet season (December-February) when charcoal scarcity is high. This rapid and drastic increase in charcoal prices during the wet season increases the burden of already high energy costs for low-income urban households and forces them to substitute other fuels. During the 1988/89 wet season, for example, evidence indicates that about one-third of urban households shifted from charcoal to other fuels such as kerosene.

2.78 Table 6 presents the relative costs of cooking with different fuels during the November 1988 to October 1989 period. As can be seen, the relative costs of cooking with different fuels has fluctuated during this period. For example, as mentioned, during the 1988/89 wet season, the disruption in supply of charcoal, resulted in changing it from the least to most expensive means of cooking. Consumers responded to this change in relative costs by trying to shift their energy consumption from charcoal to kerosene, collected wood or electricity (World Bank, 1988: 57).

### **Current Policy**

2.79 Until recently, household energy needs and demands were not adequately considered in national development plans. The FNDP is a departure from this in that it provides specific objectives and strategies for meeting household demands. This is in recognition that the energy demand situation in Zambia is dominated by the household (Hibajene, 1991).

2.80 Zambia has an abundance of hydro-electric power and the government is interested in extending domestic usage. Electricity is available to only a small portion of the population and, within this group, it is used primarily for lighting (Hibajene, 1991). Appliances such as stoves, refrigerators, irons, etc are very expensive and unaffordable to the vast majority of the population so there is little incentive to utilize electricity for purposes other than illumination. Further, connection costs to the national grid is unaffordable for low-income households unless highly subsidized or economy-of scale is achieved through commercial arrangements. This approach has been tried in large urban towns such as Lusaka where peri-urban communities have been assisted under housing programs in the housing sector (Goethert, 1987).

2.81 The current energy policy encourages electrification so as to conserve the forests through decreased dependency on woodfuels, and to promote the viability of Zambia Electricity

Supply Corporation (ZESCO). However, because the market is so small, electricity consumption by households has to be subsidized by ZESCO (Hibajene, 1991).

### **Institutional framework**

2.82 Both government and parastatal institutions have responsibility for energy policy planning and implementation. The government institutions include the National Energy Council (NEC) and the Department of Energy (DOE) in the Ministry of Energy and Water Development. The NEC was formulated to provide policy advice on energy issues to the Government. The DOE also has the mandate to make policy as well as responsibilities for program implementation. There is little coordination between these two agencies and on occasion, duplication of efforts has taken place.

2.83 Parastatals prominent in the energy sector include the ZESCO, Maamba Collieries, and ZIMOIL. ZESCO is the most relevant parastatal in providing energy for household needs. Biomass sources of energy which have great significance to household energy supplies are controlled by private entrepreneurs.

### **Programs and Projects**

2.84 Various programs and projects are being designed and implemented by different agencies to promote the effective and cost-efficient use of energy sources. These include:

2.85 *Substitution Programs* which promote the use of alternate energy sources and the eventual replacement of woodfuel with electricity or coal briquettes. Solar energy, biogas and wind energy are being promoted as well for use in rural communities. These are seen as suitable for small water schemes, fuelling hammer mills, water heating and crop drying. The DOE is the administering agency for this program.

2.86 *Conservation Programs* which promote the production and efficient use of charcoal and the dissemination of improved kilns and charcoal stoves in urban and rural areas. The DOE is the administering agency for this program.

2.87 The *Low-cost Electricity Stove Project* is being implemented by the National Council for Scientific Research (NCSR) under the aegis of the DOE. The project is aimed at developing a prototype low-cost electric stove which will be tested in selected urban areas for performance characteristics and acceptability. The stove is to be marketed by private entrepreneurs.

2.88 *Coal Briquettes Project* is JICA-funded and is being undertaken by the NCSR. The aim of the project is to develop and popularize coal briquette use among urban populations. Coal slurries from the Maamba collieries will be used to produce the product which will be targeted to urban populations.

2.89 The *Improved Charcoal Stove Project* is supported by the DOE with assistance from the government of Netherlands and NORAD and is administered by NGO-CC. Its objective is to popularize energy-saving cooking techniques through the use of the improved charcoal stove (imbaula). In addition, the project trains tinsmiths to make stoves as a way for supporting small-scale, self-employment opportunities.

2.90 The *Improved Supply and Marketing of Charcoal Project* is funded by SIDA through a grant to construct a network of charcoal depots in strategic areas. The purpose is to ease charcoal shortages in urban areas during the rainy season.

2.91 The *Promotion of the Use of Biogas Project* is being undertaken by NCSR and promotes the use of biogas as an alternate source of energy for lighting and cooking. The present target populations for this project are peri-urban and rural communities.

2.92 The *Women and Energy Project* which is aimed at identifying responses among women to energy issues in the context of household responsibilities such as cooking, planning family meals, and decisions concerning household resource allocations. The target groups are low- and medium-income households in urban and rural areas using charcoal as their main cooking fuel and kerosene as the main lighting source of energy.

2.93 The *Urban Electrification Project* is a SIDA project and is aimed at studying the feasibility of extending electricity to low-income households in peri-urban areas.

#### **Analysis of Effectiveness of Service Delivery**

2.94 Zambia is largely self-sufficient in energy, except for petroleum which is imported primarily for use in the transportation, mining and industry sectors. Domestic household energy use in Zambia is dominated by woodfuel and woodfuel products. According to recent studies, some 80 percent of households use charcoal for cooking (Hibajene, 1991). The majority of households in this category consist of low-income, urban residents. Electricity is another important household energy source but is used primarily for illumination, and is available to only a small proportion of urban residents (Hibajene and Kaweme, 1991).

2.95 The near exclusive use of wood for household energy has generated a situation of localized shortages, particularly along the line-of-rail provinces where local forests have been depleted. To arrest this situation, the Government is attempting to develop a household energy policy which will ensure access to energy supplies for household needs while limiting environmental damage.

2.96 Until recently household energy issues were not a prominent feature in energy policy planning. Concern about the degree and extent of woodfuel use emanated primarily from environmentalists. However, this has changed as data on energy use has revealed that households dominate the energy sector. The current sectoral initiatives are focussed on urban household

needs, especially those of the urban poor. This is evidenced by the prominence given to woodfuels in DOE activities. The current policy initiatives attempt to address energy issues by investigating alternative solutions to present energy uses within the country. They also attempt to enhance policies and programs in other sectors such as employment by promoting entrepreneurship in the energy sector among workers in the informal sector. This is achieved through training tinsmiths and investigating the marketing of charcoal for purposes of improving the system. These activities are expected to enhance income-generating opportunities for both men and women as tinsmithing is overwhelmingly a male profession and marketing of charcoal is dominated by women (Hibajene, 1991).

### **Constraints to Implementation**

2.97 Woodfuels have been a cheap and easily accessible source of energy, particularly for those living in rural and a few peri-urban areas, where it is essentially “free” where fuel can be obtained by scavenging for wood. To convince this group to switch to a source of energy which must be purchased will be problematic. This may be a political constraint as it depends on the will of the leadership to enforce policy and programmatic initiatives. The previous political regime was reluctant to forcefully pursue such policies which were unpopular. As households spend a considerable proportion of their income on fuel, rent and lighting, making household energy a more costly product may be a politically sensitive issue.

### **Conclusion**

2.98 The FNDP is the first national development plan in which household energy needs have been taken into account in overall national planning. Energy issues have become prominent because of environmental reasons as well as in an attempt to alleviate problems faced by the poor with regards to energy consumption. Current energy sector initiatives are primarily targeted towards urban populations, particularly the urban poor and are aimed at finding alternative, cheap solutions to the use of woodfuels, a source of energy consumed by poor urban households. While these strategies have presently been outlined by the Government, no viable alternatives have been found for the urban poor which still rely almost exclusively on woodfuels for their energy needs.

### **Employment**

2.99 This section begins with a brief description of employment sector policy and the institutions and agencies involved in its design and implementation. It then discusses various employment programs and projects presently being implemented to assist the urban poor. Finally, an assessment of the effectiveness of service delivery is presented and constraints to implementation are identified.

## **Current Policy**

2.100 Government policy for employment during the FNDP is two fold. In the formal sector, policy objectives aim to generate employment through public works directed at rehabilitating and maintaining current infrastructure. Informal sector policy aims to generate employment and income through the promotion of small-scale industries (SSI)(GRZ, 1989a; GRZ, 1990a). The main features of the policies include the emphasis on using community labor in public works and the utilization of local raw materials to enable industries to operate independently of foreign exchange constraints. In recognition of the increasing number of women and children in the labor force, emphasis has been placed on these two groups in employment generation activities. One important departure from previous efforts is the recognition of the potential role of the informal sector in both employment and income generation, particularly for the poor.

## **Institutional framework**

2.101 In the formal sector, various government ministries such as Health, Education, Transport, Water and Sanitation are involved in employment generation activities. These, in conjunction with the Ministry of Public Works and Supply, provide employment through infrastructure rehabilitation and maintenance activities at the provincial and district levels.

2.102 In the informal sector, various donor agencies, NGOs and churches have activities which provide employment for specific groups. In addition to this, the government also supports institutions such as the Small Enterprises Promotion (SEP) and the Small-Scale Industries Development Organization (SIDO) which are specifically designed to promote employment and income generation in the informal sector.

2.103 The SEP was founded in 1983 as a limited liability company to support production-oriented activities such as woodwork, steelwork, craftmaking, food processing, manufacturing, tailoring, assistance and credit. SEP receives loans from the Government through the NCDP and its overall policy is guided by government policy pronouncements to help generate employment and income. Although the SEP was initially targeted towards both rural and urban areas, it is now primarily urban-focused due to insufficient funds and infrastructure to reach rural areas.

2.104 SIDO was established in 1981 through an Act of Parliament and is charged with the responsibility of formulating, coordinating and implementing national policies and programs related to the promotion and development of small-scale industries in the country. It supports the development of manufacturing, assembling, food processing, wood industries with the provision of loans up to a maximum of K1.5 million to eligible applicants. Eligibility requirements include security, possession of certificate, registration from Ministry of Commerce and manufacturer's license.

2.105 Other organizations involved in employment activities include local and women's organizations, women's clubs, and NGOs such as the YWCA and PUSH. In addition, organizations such as the production-oriented Zambia National Service and the military also provide employment opportunities for youths.

### **Programs and Projects**

2.106 The theme of the FNDP, "Growth from own Resources with emphasis on Self-reliance" influences the development and design of employment initiatives. The following programs and projects are being undertaken to assist urban populations:

2.107 *Public Works Programs* are aimed at rehabilitating health and education facilities, markets and water and sanitation facilities in various urban areas.

2.108 The *Small-scale Industries Program* is aimed at encouraging and promoting the development and productivity of small-scale industries in urban and rural areas through the provision of credit, machinery, and technical assistance.

2.109 *Youth Resettlement and Business Programs* are aimed at resettling unemployed youths from selected urban areas where they can engage in a variety of productive activities from family to agro-based and other commercial enterprises.

2.110 *Youth Skills Training Projects* are aimed at training youths in skills such as mechanics, woodwork, metalwork, tailoring etc. Approximately twelve centers are in operation across the country in urban and rural areas.

2.111 *Youth Settlement Schemes and Business Projects* are aimed at resettling youths so that they can engage in productive activities which can eventually make them self reliant. The projects contribute towards community development, consolidation of skills and employment generation. Cooperative and individual approaches have been encouraged with major funding being provided by the Government.

2.112 The *SELP Project* is aimed at providing skills for self-employment to unemployed school leavers in urban and rural areas. The project is administered by SEP in conjunction with the ILO/UNDP.

2.113 *Public Works Projects* are aimed at generating employment and improving incomes by employing people to work on the construction and rehabilitation of infrastructure such as hospitals, clinics, schools and other public infrastructure in urban and rural areas. These projects are primarily funded by the government with assistance provided by various donors.

2.114 The *Women in the Informal Sector Project* provides skill training to women and is aimed at increasing their income—generating potential in the informal sector. Various

institutions are involved in these projects including the Government, district councils, NGOs, donor agencies, SIDO, and SEP.

2.115 ***Community-based Employment Projects*** are aimed at promoting community-level participation in rehabilitating infrastructure. Such projects include the Project Urban Self-Help (PUSH) and the Community Rehabilitation of Water Supply and Sanitation Project which is being implemented in various urban and rural areas. These projects are funded and implemented by NGOs, such as HUZA/PUSH, and donor agencies such as the World Food Programme and the GTZ.

2.116 ***Small-scale Industries Projects*** which are aimed at supporting small-scale businesses and are funded by the SIDO, SEP, various government institutions and NGOs.

### **Analysis of the Effectiveness of Service Delivery**

2.117 A combination of economic and demographic trends such as the declining economy, increase in the labor force, including a large pool of school leavers of over 200,000 per year and rural-urban migration, have aggravated the employment situation in Zambia. Zambia's high population growth has been a hinderance in terms of the country's ability to provide productive employment for its eligible work force, particularly in the formal sector. Employment in this sector has been declining for more than a decade, falling from 26.6 percent in 1975 to 15.4 percent in 1988 (Mhone, 1991). The decline in formal sector employment has directly influenced the growth of the informal sector in both urban and rural areas, where it is a major source of income and employment for a significant proportion of the population, particularly the poor.

2.118 It is for this reason that the government is implementing a two-pronged strategy targeted at both the formal and informal sectors. Efforts in the formal sector are primarily labor-intensive public productive activities while in the informal sector the provision of collective tools, services and infrastructure for use by cooperatives and other organized groups and individuals is being attempted. In addition, the government is concerned that a significant proportion of women and youth are unable to enter the formal labor market and has specifically identified strategies aimed at addressing their needs.

2.119 In spite of continued efforts to provide employment opportunities in both the formal and informal sectors, the various employment initiatives have been unsuccessful in effectively meeting the needs of an ever expanding labor force. In the formal sector, problems exist particularly for school leavers and women. For school leavers, especially young girls who have limited technical and vocational skills, employment opportunities are limited. Evaluations of various programs targeted towards these groups indicate that most school leavers, particularly females, still lag behind in the participation of various programs. Although the government has stated its objective to promote employment opportunities for women, few programs are specifically designed to improve their access to employment opportunities. Within the informal

sector, lack of coordination between agencies providing services has resulted in duplication of efforts with certain groups being bypassed by programs and projects.

### **Constraints to Implementation**

2.120 One major constraint in the implementation of employment initiatives is the lack of resources to effectively implement programs and projects. Agencies involved in the implementation of these activities face severe resource constraints and though are unable to do not have to implement programs and projects aimed at improving employment opportunities in the formal and informal sectors.

2.121 Legal constraints also exist particularly for women which impede their access to a full range of employment opportunities both in the formal and informal sectors. For example, the formal sector, discriminatory labor laws prohibit women from working underground in mines or in shifts in some industries. Lack of access to credit and other resources for women also limits their employment potentials, particularly in the informal sector.

### **Conclusion**

2.122 The Government is attempting to utilize a two-pronged strategy in the employment sector to increase opportunities both within the formal and informal sectors. Despite its efforts, however, the various employment initiatives have been unsuccessful in providing employment for an ever-expanding labor force. Particular problems exist for women and school leavers both within the formal and informal sector as various technical and legal constraints have limited their access to income and employment generating activities. In addition to these constraints the Government also faces severe financial resource constraints which also thwart its efforts to improve employment opportunities for the poorer segments of the population.

### **Education**

2.123 This section begins with a detailed description of the current education system in Zambia. It then discusses current education policy and outlines the institutions and agencies involved in its design and implementation. The section then discusses various education initiatives which are presently being implemented aimed at improving education services within urban areas. Finally, an assessment of service delivery is presented and constraints to implementation identified.

#### **The current education system in Zambia**

2.124 Zambia's current education system consists of pre-school, primary, secondary, tertiary, vocational/technical training and continuing education levels (see Figure 1). The pre-school education system consists of organized institutions that cater towards the development of children before the attainment of the age of seven. These institutions are designed to provide

assistance in the social, educational and health development of the growing child and are aimed at assisting children in their overall development. Pre-school education in Zambia is increasingly being provided through the private sector, namely NGOs, community groups and churches, but still is available only to approximately 10 percent of the eligible age group.

## **Primary and secondary education**

### ***Enrollment and progression rates***

2.125 A recent study undertaken on Zambia's education system, indicates that overall substantial quantitative expansions have taken place at the primary and secondary educational levels during 1975-85. Total primary school enrollment increased by more than 50 percent from 872,392 in 1975 to 1,348,689 in 1985 (see Table 7). The gross enrollment ratio increased from 90 percent in 1975 to 95.5 percent in 1985. This occurred in spite of an increase of more than 45 percent in the school-age population for this period and was achieved primarily through physical developments, increasing class size, systematic use of double session teaching programs and the introduction of triple sessions for the lower primary cycle (Kelly, 1991c: 86). The total enrollment of girls in primary schools increased by about 60 percent during this period.

2.126 Enrollment rates at the secondary school level also increased during the 1975-85 period. As Table 8 shows, total enrollment increased by 80 percent from 73,049 in 1975 to 131,502 in 1985. One significant change is the substantial increase in the enrollment rate of girls in secondary schools which increased by about 92 percent during this period.

2.127 One of the most positive developments in the education system in Zambia during this period is the increasing participation of girls at the primary and secondary levels. Overall, the proportion of girls in primary schools increased from 45.4 percent in 1975 to 47.1 percent in 1985. In secondary education, the proportion of girls increased from 34.4 percent to 36.6 percent (Kelly, 1991).

2.128 At the national level, progression rates from grade four to five increased steadily during the 1975-85 period with an increase of 92.9 percent in 1984-85. However, for each year during this period, the proportion of boys proceeding to grade 5 exceeds that of girls at the national level. The transition rate from primary to secondary school for boys is higher for girls at the national level, although in some regions, rates for girls are higher. Higher transition for boys may be due to the fact that there are more boarding schools for boys as well as the fact that boys tend to outperform girls in the secondary selection examinations (Kelly, 1991c: 96).

2.129 The transition from junior to senior secondary school is based on performance in the Junior Secondary School Leaving Examination (JSSLE) which students take on completion of grade 9. Government policy during the 1970s was to establish enough senior secondary places to allow for about 50 percent of those completing junior secondary to continue into senior secondary schools. However, this policy could not be sustained as the provision of places at the

junior secondary level increased at a faster rate than at the senior secondary level. Total enrollments in the final year of the junior cycle (9th grade) were 107 percent greater in 1984 than in 1974, but the increase in enrollment in the first year of the senior cycle (10th grade) during the same period was 78 percent. Consequently, the transition rate from junior to senior secondary school fell from 53.7 percent in 1975 to 46.8 percent in 1984.

2.130 As is the case in all other educational levels, the proportion of girls proceeding to the senior secondary level is consistently lower than for boys for all years during the 1974-84 period. This has been so in spite of the fact that several all-girls secondary schools and a number of coeducational boarding schools had been established (Kelly, 1991c: 98).

#### *Repetition and dropout rates*

2.131 Students are allowed to repeat a grade if they are young enough and if their repetition does not prevent access to a non-repeater. Promotion to the next grade level is automatic at the end of grades one, two, three, five, and six therefore the repetition rates for these grades are low and have not changed significantly since the mid-1970s. The highest rates of repetition during 1975-1985 were at grades four and seven with repetition at grade seven tending to be higher in urban areas than in rural areas.

2.132 The issue of school leavers is a serious problem in Zambia. Table 9 presents data on the number of school-leavers by different grade level for the 1975-1987 period. While the number of students terminating their education at Grade 4 declined during the 1975-85 period, at all other levels, the numbers increased in spite of the rapid increase in secondary school enrollments.

#### *Quality of schooling*

2.133 The progress made in previous decades in the development of the educational infrastructure within Zambia has been reversed during the 1980s (World Bank, 1991b). The availability of essential educational materials such as textbooks, exercise books and writing materials has not kept up with the rapid rise in enrollments in primary and secondary schools in both urban and rural areas. As a consequence, most classrooms are under-equipped lacking basic essentials such as textbooks and writing materials. Textbook supplies are so limited that even those schools which are considered to be better supplied, only have one book for every six students (World Bank, 1991c).

2.134 The proportion of funds allocated towards school maintenance has been declining steadily at all levels and has resulted in the deterioration of a large proportion of educational facilities with a significant proportion of classes lacking desks, chairs and blackboards. Overcrowding is also prevalent in primary and secondary schools within urban and rural areas with classes reaching over 100 students in urban areas. Even with these large class sizes and the

introduction of multiple session school curriculums, 30 percent of all seven year olds in urban areas are unable to attend schools because of the lack of classrooms.

2.135 Rapid population growth has severe consequences by increasing the demand for educational facilities. It is estimated that to maintain enrollments at par with the population growth rate, it would be necessary to construct at least 550 new primary classrooms and 40 new junior secondary schools per year. Only about 25 percent of these targets have been achieved during the 1985-90 period (World Bank, 1991c). One consequence of the severe deterioration of the education system, is the increased involvement of communities, in particular through Parent Teacher's Associations (PTAs), in the rehabilitation and maintenance of educational facilities.

#### *Teacher supply*

2.136 There is sufficient evidence that at the primary school level, the supply of teachers is adequate to satisfactorily staff the primary education system. The attrition rate for primary school teachers is about four percent. However, at the secondary level, the output of teachers is not sufficient to staff the secondary level education system. Student-teacher ratios at the secondary level increased from 22 in 1980 to 24.1 in 1983. This occurred in spite of the substantial increase in the supply of teachers during this period, indicating that the output of teachers has not been sufficient to meet the needs of secondary level institutions. Imbalances in geographic distribution of secondary level teachers exist with urban areas often overstaffed in some subject areas.

#### *Tertiary education*

2.137 There is a wide variety of tertiary education institutions within Zambia, some of which are administered by the Ministry of Education and some administered by other governmental agencies. The University of Zambia constitutes the highest level of the educational pyramid in the country. The University offers degree and professional programs through twelve academic and professional schools. Two of these, the Business and Environmental Studies Schools are located in Kitwe and the remaining ten are located in Lusaka. Overall, enrollment figures for tertiary education indicate a steady increase during the past decade.

2.138 Tertiary level programs which the Ministry of Higher Education provides include programs in teacher education, technical education and vocational training. Table 10 presents enrollment rates in tertiary education institutions under the Ministry of Education. As can be seen, there was a steady increase in enrollment from 1971 to 1978 with a decline between 1979 and 1981 and then a slight increase in 1982.

## **Current Policy**

2.139 Government policy in education is currently biased towards the provision of quality basic "Education For All" (EFA) by the year 2000. Emphasis is placed on education at grades one through seven which needs to be attained through expanded access to education for all 7 year old children, all out of school youth and all illiterate adults. Both formal and non-formal education service provision is emphasized with further priority placed on marginalized groups such as women, girls, disabled and others.

2.140 Apart from the government ministries and political parties, several other agencies, including bilateral and multilateral donor agencies, NGOs, churches, and trade unions, directly or indirectly influence the development of education policy in Zambia. The Government has therefore attempted to utilize multi-sectoral cooperation and linkages or alliances between these agencies in its effort to meet its EFA goal.

## **Institutional framework**

2.141 The organizations which constitute the overall institutional framework for education include the Government, NGOs, churches, district councils, private companies such as ZCCM, private individuals, communities, donor agencies, and political organizations.

2.142 At the central government level, there are three ministries responsible for overall education policy — the ministries of Education, Technical Education, Vocational Training, Science and Technology which are responsible for formal education and the Ministry of Information and Continuing Education which deals with non-formal, adult continuing education activities. Other ministries having educational functions are the Ministry of Community Development and Social Welfare which provide educational programs for children, youths and adults and has responsibility for adult literacy and rehabilitation programs for juvenile delinquents. The Ministry of Agriculture Food and Fisheries is responsible for extension services and related community-based educational activities. At the political level, the ruling party collaborates with professionals in the Education Committee, a policy-making body, and influences government policy and implementation.

2.143 District councils, local communities and PTAs also have the mandate to implement educational policy at local levels. While the councils are restricted to the lower levels, local communities and PTAs undertake community self-help to provide educational infrastructure at lower and higher levels and obtain a portion of their funding from the government. Self-help has been used for educational service provision since independence and has been recognized as having good potential to further increase and improve access to education for EFA to be attained by the year 2000.

2.144 Due to the decline in the performance of government schools, the private sector has increasingly become involved in recent years in the provision of alternative quality schooling

especially at the pre-school and primary levels. At the secondary level, private schools have developed as alternatives for those student who have dropped out of the school system but have the money to pay in order to reach a certain education level. Private schools have the potential to provide additional classroom space and can do so effectively if their standards are monitored. However, private schools are still limited in number.

2.145 NGOs and churches are also major providers of education services in Zambia. Missionary education has been instrumental not only in introducing formal education, but also in the expansion and maintenance of quality within the education sector during recent years. Previously, church organizations used to run their own schools at both primary and secondary school levels, but the government took over these responsibilities at the primary school level. At present, the Government is committed to returning the administration and management of these schools to NGOs and churches (MMD, 1991).

2.146 ZCCM, as a private company, provides educational services at pre-school, primary, secondary and adult education levels and also sponsors students for higher education. The Health and Educational Trust, a subsidiary of ZCCM, is responsible for administering educational service provision, and the schools under this system have continued to be model schools in terms of operation, management and performance of teachers and students.

2.147 In addition to the above, bilateral and multilateral donors are also playing an increasingly important role in the provision of education services in a number of ways including providing funding for physical infrastructure, technical assistance, and material resources.

### **Programs and Projects**

2.148 Various programs and projects have been given priority in an effort to re-orient public expenditure towards primary education. These include:

2.149 *The Provision of Learning Materials, School Desks and Equipment Program* which stresses the importance of strengthening local capacity for printing and distribution of educational materials.

2.150 *The Adult and Continuing Education Program* which is aimed at reducing illiteracy and facilitate skills acquisition.

2.151 *The Expansion of Primary Schools Program* aimed at reducing overcrowding and improving access to education to all those eligible to attend primary school.

2.152 *The Rehabilitation and Maintenance of Primary Schools Program* aimed at improving primary education infrastructure through the provision of blackboards, doors, windows, new roofs, safe water and sanitation facilities (GRZ, 1990a; GRZ, 1990b).

2.153 **The *EC Microprojects Programme***, administered by the Micro-Projects Unit in the Ministry of Finance, involves community initiatives including the rehabilitation, construction and expansion of educational facilities across the country. In 1990, the EEC Microprojects Programme funded 78 education projects across the country for a total of K92.45 million (World Bank, 1991b).

2.154 In addition to the above programs, a number of projects have been recommended for implementation during the period covered by the FNDP. Special attention is given to projects given priority in the Government's Public Investment Program and the Social Action Program. The projects include:

2.155 **The *Teaching/Learning Materials Project*** which aims at producing and providing teaching resources such as educational equipment, textbooks, science kits to schools in order to enhance educational quality. Administering agencies include all ministries dealing with various levels of education, the Zambia Education Publishing House and the Ministry of Community Development and Social Welfare. There is already an on-going project which started in 1984 dealing with the production and distribution of educational materials. The project, the Zambia Educational Materials Project (ZEMP), is supported by FINNIDA and now is in its second phase. Although the project focused on junior secondary text books and teacher's guides, it has also reprinted primary school readers and mathematics textbooks and plans to proceed to the senior secondary level. Although the PIP mentions the ZEMP, the new projects will need to coordinate and liaise with the existing framework. Under the next phase, ZEMP will begin to provide teachers' guides and pupils books to primary schools in cooperation with the IDA supported education project.

2.156 **The *Adult and Continuing Education Project*** which aims to expand adult and continuing education programs to reduce the high levels of illiteracy especially among women and girls. This is to be achieved through the development of learning materials, training teachers, adult education, and the launching of a National Literacy Campaign Program. The project aims at raising literacy to 75 percent (GRZ, 1990a). Administering agencies include the ministries of Education, Technical Education, Vocational Training, Science and Technology, Information and Continuing Education, Community Development and Social Welfare, the Centre for Continuing Education (UNZA), School of Education (UNZA), the Zambia Association of Adult Education, District Councils, the Mines, the Zambia Railways, prisons, the Zambia Association of Literacy Clubs, the YWCA, churches, and the Ministry of Agriculture.

2.157 **The *Rehabilitation and Maintenance of Primary and Secondary Schools Project*** aims at emergency rehabilitation and maintenance of existing primary and secondary schools, through the provision of blackboards, windows, doors, roofs, safe drinking water, sanitation services and installing security measures to protect school resources. Administering agencies include the ministries of Education, and Works and Supplies, the Zambia Educational Projects Implementation Unit (ZEPIU), MPU, SRF, PTAs, Self-Help Action Plan for Education (SHAPE), and Self-Help Community Projects.

2.158 **The *New Primary Classrooms Project*** aims at constructing 15,000 new classrooms for primary schools in order to improve access to education and reduce overcrowding. The project is also a key component of the Social Action Programs public works initiatives which are designed to increase employment through public works for the unemployed, especially youth. Administering agencies include the ministries of Education, Works and Supplies, PTAs and community organizations.

2.159 In addition to these government programs and projects, other education activities have been designed by donor agencies and NGOs to run parallel to the above. While it is not possible to list all such projects, a few are mentioned below:

2.160 **The *Child-to-child Project*** which aims at integrating basic health education across the curriculum (Grades one through seven) by teaching pupils skills in basic health care which they can transfer to their families and communities. Administering agencies include the ministries of Education and Health, UNICEF, DCD, and TTCS.

2.161 **The *Functional Literacy Project*** which focuses on the development and provision of materials and equipment to reduce illiteracy in the country and make literacy skills relevant to the daily needs and lives of learners. Administering agencies include the ministries of Education, Technical Education, Vocational Training, Science and Technology, Information and Continuing Education, Community Development and Social Welfare, the Centre for Continuing Education and the School of Education of the University of Zambia, the Zambia Association of Adult Education, district councils, the Mines, the Zambia Railways, prisons, the Zambia Association of Literacy Clubs, the YWCA, churches, and the Ministry of Agriculture.

2.162 ***Education for All*** initiatives undertaken by UNICEF, UNESCO, UNDP and the World Bank in collaboration with the Government are aimed at developing a national strategy and plan of action, as well as establishing inter-sectoral linkages in the education sector.

2.163 **The *School/Community Linkages Project*** aimed at facilitating community initiatives and participation in narrowing gaps between formal and non-formal education (UNICEF, 1990). Administering agencies include the ministries of Education and Community Development and Social Welfare (UNICEF, 1991).

2.164 **The *Self-help Action Plan for Education (SHAPE)*** stresses professional development of teachers through local initiatives and self-help, including improvements of production units, school maintenance programs and school-based research work. The administering agency is the Ministry of Education with substantial support from SIDA.

2.165 **The *Primary Education Project***, undertaken by the World Bank, aims to arrest the deterioration in the primary education system through rehabilitating and constructing a selected number of peri-urban schools. This is to be achieved by providing instruction materials, training education managers, providing technical assistance for management of grade seven exams and

undertaking studies on primary education issues. Administering agencies include the ZEPIU within the Ministry of Education which serves as the coordinating unit, the MPU within the Social Recovery Fund which is responsible for the peri-urban school rehabilitation components, PTAs and district councils.

2.166 The *Social Recovery Project*, another World Bank project, is designed to support community initiatives in the education sector. Activities include the rehabilitation and expansion of primary and secondary schools and training in skills development.

#### **Analysis of the Effectiveness in Service Delivery**

2.167 The majority of the programs and projects in the education sector focus on the construction, expansion, maintenance and rehabilitation of educational infrastructure as well as the provision of teaching, learning materials. These activities are expected to improve both the qualitative and quantitative aspects of education. Currently there is overcrowding in urban classrooms reaching to over 100 students per class. In spite of the overcrowding and the use of double, triple and even quadruple sessions, not all eligible children are enrolled in schools due to lack of facilities. The expansion, rehabilitation and construction of new classes will hopefully assist in increasing access to education for urban and peri-urban populations. The provision of educational materials may assist in improving the quality of education provided.

2.168 One important factor that needs to be taken into account in the formulation of education policy is the increase in the number of school-aged children in the next few years. Some estimations project that the population of children aged 0-4 years will increase by 52.9 percent during 1984-1999. Similarly, increases in the population of those aged 5-9 and 10-14 are expected to increase by 57.8 percent and 63.3 percent respectively by the year 1999. This rapid increase in the size of the school-aged population has implications for the effectiveness of the delivery of educational services. In particular, this is so in the case of most urban schools where severe overcrowding already exists. In these areas it is harder for children from poor neighborhoods to find places due to limited school places which have not increased even with the rate of growth of the population and increased migration to these areas.

2.169 Arresting the decline in the quality of education is one of the major policy objectives of the Government. This is being attempted through the provision of learning materials to schools. However, problems have been encountered with distribution where in some instances materials meant for free distribution to students in poor neighborhoods were sold and never reached intended beneficiaries. It is necessary to ensure that measures are implemented that guarantee resources reach the poor. The current situation shows that urban poor schools and learning centers do not receive priority in terms of allocation of funding for school materials and teachers.

2.170 The strategy to provide employment through the construction and rehabilitation of schools, i.e. through the various labor-intensive rehabilitation projects, will be beneficial if the

jobs will reach the poor and vulnerable people. It is essential that participants are provided incomes for their work in order to enable them to improve their standard of living. Currently, communities and PTAs are engaged in the construction and rehabilitation of schools on self-help basis and therefore participants do not directly benefit from their work in terms of increased income.

2.171 The emphasis on adult education and literacy is crucial in terms of access to education for a significant segment of the population, particularly the unemployed, youths and adults. It is, however, important to ensure that the poor, especially women, have access to these programs. Gender issues and problems, therefore, need to be addressed in project design and implementation. Currently there are more illiterate females than males, suggesting that programs have not been very effective in reaching females (Sikwibele, 1990). This may be because classes are held at times when women are busy with household chores or other family responsibilities.

### **Constraints to Implementation**

2.172 Due to reduced funding in education, there has been a decline in resources available for learning materials. This has affected the quality of education provided and has led to low teacher morale further affecting the quality of education. The reduction in government funding is part of the cost-effective strategy identified in the FNDP which has introduced cost-sharing between beneficiaries and the government. Although the fees are mainly aimed at secondary and higher levels, parents of primary level students are also presently being required to buy school requisites such as books and uniforms for their children. This has placed severe constraints on poor households especially female-headed households, who are in most instances unable to bear these additional costs (Sikwibele, 1990).

2.173 Gender issues are not adequately addressed and therefore need to be given more emphasis because in spite of the Government's objective to provide equal access to educational opportunities, more female students drop out at all levels, especially at primary and secondary levels. The current policy which allows for pregnant girls to be expelled from schools and colleges has had an additional constraint on female advancement in education and training as expelled students are not allowed to re-enter and complete their programs. If the objectives of EFA are to be met, it will be necessary to pursue actions specifically targeted towards girls and women.

### **Conclusion**

2.174 Current education policy is biased towards the provision of quality basic education for all with emphasis placed on the improvement of both quantitative and qualitative indicators, particularly for grades 1 through 7. Despite continued efforts by the Government and private agencies to improve educational facilities and the quality of education services, severe overcrowding and under-equipped educational facilities are still prevalent in urban areas.

Further, in spite of this the use of double and triple sessions in urban schools, many eligible children are still unable to enroll due to the lack of availability of classrooms.

### **Health Infrastructure and Services**

2.175 This section begins with background information on the health sector within Zambia and provides a brief description of the health status of the population and the present health sector infrastructure. The section then discusses current health sector policy and identifies the institutions involved in its design and implementation. A brief description of current health sector programs and projects is then presented. Finally, an assessment of the effectiveness of service delivery is made and constraints to implementation are identified.

### **Health conditions within Zambia**

2.176 Although positive trends in health indicators such as the fall in infant mortality rates and increased immunizations have been evidenced during the past decade, overall health conditions in Zambia have not improved significantly. In fact, the continuing economic decline has resulted in an overall deterioration in the health status of the population, particularly among the poor (Zewde and Remstrand, 1991: 10).

2.177 Malnutrition is a serious public health problem in Zambia with food insecurity and high levels of chronic and acute malnutrition prevalent, particularly among small children and women. Protein-energy malnutrition is chronic in urban areas as are deficiencies in vitamin A, iron and iodine. Protein-energy malnutrition is assumed to be high in women of reproductive age (World Bank, 1984: 10). Hospital mortality data for children between the ages of 1 and 14 years show malnutrition to be the leading contributor to recorded deaths in hospitals. For 1986 it accounted for 40 percent of all such hospital-based mortality nation-wide (GRZ, 1990b: Annex B, 8).

2.178 Most survey data undertaken show that more than 25 percent of children under the age of 5 years show evidence of malnutrition. Data from a nutrition sector study conducted by the Swedish University of Agriculture Services, found that malnutrition is pronounced in children between the ages of 6-24 months (Ibid, 7). The prevalence of malnutrition differs among regions with the highest rates evidenced in the Northern, Eastern, Northwestern and Luapula provinces. A study conducted by the National Nutrition Surveillance Program in 1988 on the assessment of the nutrition sector in Zambia, showed that during 1985, Central, Copperbelt, Southern and Lusaka provinces recorded about 20 percent of children being underweight while the other provinces reported averages around 30 percent.

2.179 There are various reasons for food insecurity and high malnutrition rates in Zambia. One of the major causes is households' lack of access to adequate income to purchase foods due to various factors including inadequate employment opportunities and low wages. In addition to this however, inequitable intra-household allocation of food, poor feeding practices and food

taboos also contribute to food insecurity and malnutrition. Variations in seasons, geographical differences and poor transportation infrastructure are also contributing factors to food insecurity and malnutrition.

2.180 In urban areas, although some food is grown on small plots, virtually all urban households rely on the food market system for the attainment of food. The major problem in terms of food security in urban areas is the rapidly escalating prices of basic consumption items, particularly those of foods consumed by the urban poor. For example during 1985-1989, the Consumer Price Index for low-income groups increased at an exponential rate with the monthly cost of a food basket sufficient to feed a family of six increasing by approximately 46-fold (see Figure 2). This sharp increase in prices was accompanied by a fall in average real wages in constant 1975 Kwacha which fell from an annual level of 1140 Kwacha per year in 1975 to 851 Kwacha per year in 1983 (World Bank, 1990b: Annex B, 15).

#### **Causes of morbidity and mortality**

2.181 In 1981, upper respiratory illness, injuries, fevers, diarrhea, malaria, abdominal conditions, malaria, skin conditions, and venereal diseases were leading causes of adult outpatient morbidity at both hospitals and health centers (see Table 11). For children between the ages of 0-14 years, upper respiratory illnesses, diarrhea malaria, fevers and injuries were the leading causes for child outpatient morbidity at both hospitals and health clinics (see Table 11). The leading causes of outpatient morbidity in children over 14 years of age are upper respiratory illnesses, diarrhea, malaria, fevers, injuries, skin diseases, eye diseases, ear diseases and malnutrition/anemia.

2.182 AIDS and its attendant complications are being reported as a main cause of morbidity and mortality. Recent studies undertaken provide differing figures on the portion of the population infected by the HIV virus. However, all studies indicate a general trend of an increase to the number of cases with tuberculosis increasing during the past few years. AIDS and HIV sero-positive cases account for a significant proportion of the admissions to medical wards and the cases seen at the University Teaching Hospital, one of the major hospitals in Lusaka.

#### **Health sector infrastructure**

2.183 The key health care providers in Zambia are doctors, registered and enrolled nurses, medical assistants, health assistants and traditional practitioners. The distribution of health manpower among the different provinces of the country is imbalanced. The majority of the health manpower is concentrated in urban areas in Lusaka and Copperbelt provinces, where 75 percent of the doctors and dentists and over 65 percent of the matrons, registered nurses and midwives are stationed. Because of this imbalance, health facilities located in the periphery areas are understaffed and consequently under-utilized (World Bank, 1984).

2.184 The availability and distribution of physicians is one of the most important indicators of the quality and quantity of medical facilities. Zambia suffers from a severe shortage of health personnel. This manpower shortage was exacerbated in the early 1980s by resignations of health personnel brought about by the devaluation of the Kwacha, deteriorating economic conditions and the attraction of jobs outside of Zambia. The distribution of physicians varies significantly between the line-of-rail provinces such as the Copperbelt and Lusaka provinces where the physician/patient ratios are 1:5 and 1:3 respectively, to the off-the-rail provinces where the ratios are 1:19 or higher.

2.185 Traditional healing still plays a significant role in the lives of both urban and rural dwellers. Prior to independence, traditional medicine was banned but since independence, the ban has been lifted and the Government has recognized the importance of traditional practitioners in Zambian society. It has been estimated that there are approximately 10,000 traditional medicine practitioners in the country and approximately 3,000 traditional birth attendants. Despite the expansion of health infrastructure and modern health services, traditional medicine is still one of the major source of health care in urban areas. There is evidence in urban areas of the multiple use of traditional and modern health services (UNICEF, 1986: 82).

2.186 Depending on the location, it is estimated that a traditional practitioner may have a patient load of 5-100 patients per day. Charges for services vary, depending on the healer's standing in the community, and payments are oftentimes paid in cash or in-kind. While accurate figures in terms of patient load, average charge per consultation and the number of active traditional practitioners is not readily available, there is substantial evidence that traditional practitioners contribute extensively to health care delivery in Zambia.

### **Health facilities**

2.187 Health facilities in Zambia provide both preventive services such as MCH and family planning, nutrition, and immunization as well as curative services. The number of health facilities in Zambia has increased significantly since independence. Overall, the number of hospitals and inpatient beds has almost doubled and there has been a large expansion of both urban and rural health centers. Almost 95 percent of the urbanized population lives within 12 km of a health facility although physical access is more difficult in the off-line-of-rail provinces. The two most urbanized provinces, Copperbelt and Lusaka, have the most number of urban health centers.

2.188 In 1991, the total number of health facilities in Zambia is reported to be 1,024 with 20,665 beds and 3,097 cots (Zawde and Remstrand, 1991: 10). The facilities include central and local government hospitals as well as mission and industrial hospitals. An extensive system of urban and rural health clinics exists with approximately 208 urban clinics in operation in 1991.

2.189 Health facilities vary widely in size, catchment area, staffing and status of physical infrastructure by province. Health staff are mostly concentrated in urban areas where there tends

to be housing and other amenities. Services vary in quality by province and by the type of facility providing services. Inadequate maintenance, however, is a serious problem throughout the entire health system.

2.190 Utilization of health services also varies considerably primarily on the basis of the quality of care provided, as well as the availability of essential drugs. In general, health service utilization in mining company health facilities is higher due to the better quality of services provided and the availability of drugs. Bed occupancy rates for district hospitals and health centers have declined due to lower quality of services in the facilities, particularly those located in peripheral areas. Occupancy rates for mission hospitals are higher than those for government health centers presumably for the same reasons.

### **Current Policy**

2.191 Primary health care (PHC) was adopted by the Government in 1981 as the national health policy and was identified as the nucleus of the national health system (GRZ, 1991h). The major objective of the PHC strategy is to make essential health care services, including health education, promotion of nutrition and food supply, promotion and maintenance of safe water supply and basic sanitation, MCH services and other services, accessible to the entire population. The major strategy aims to develop basic health services, especially in rural areas; and to achieve better coordination of health programs (Chama, 1991).

2.192 In 1991 overall policies and strategies in the health sector were reviewed by the Government to take cognizance of the present economic conditions prevailing in the country. A national conference convened to review operational health policies in the MOH and after much deliberation, the following policy package was recommended to reverse the negative impact of the economic crises and the economic restructuring policies in the health sector:

- Improving planning, management and program budgeting in the sector.
- Introducing cost recovery measures for health services.
- Revising current regulations which inhibit private enterprises from playing a more active role in the provision of health services.
- Implementing a program of public expenditure which emphasizes the allocation of resources on primary, preventive health services and focuses on rehabilitation and maintenance of existing health infrastructure.
- Mobilizing additional resources both from external sources as well as within the health sector through community contribution in the form

of user charges, community financing of private beds, economic-generating enterprises and insurance schemes.

- Concentrating on the fulfillment of manpower requirements through the promotion of manpower development and retention policies.
- Provision of quality health care as close to the community as possible.

2.193 The policy package proposed in the National Health Policies and Strategies Plan is consistent with the objectives identified in the FNDP. These policies, which will form the basis of activities embarked upon in the 1990s, reinforce the preventive aspect of health care through service integration and inter-sector cooperation. This policy package attempts to move closer to the ideal of PHC proposed by WHO which stipulates that:

‘The primary health care approach is fundamentally different from its predecessor the “basic health service strategy”. It requires that services be client-oriented - for individuals, families and communities as targets; that resources be mobilized and well coordinated from the health sector, other health-related sectors and the client communities, that there be a careful selection of health technologies, traditional or modern, local or imported; and that these activities be supported by continuing health management improvement efforts (planning and evaluation, training and supervision, research and development)’ (WHO, 1989).

### **Institutional framework**

2.194 The health sector institutional framework is very diverse comprising government, NGO and private agencies. The Government is involved primarily through MOH activities and services provided by district councils. Private health service providers include churches which operate independently and under the auspices of Churches Medical Associations of Zambia (CMAZ), as well as private surgeries, doctors, registered nurses, enrolled nurses, medical assistants, health assistants and traditional healers.

2.195 Public health services are organized according to the following structure of care:

- Community Health Workers (CHWs)
- Health Centers
- District Hospitals
- General Hospitals
- Central and specialized hospitals

2.196 The administration of health services in Zambia was decentralized through the Local Administration Act of 1980. Under the guidelines for decentralization of health services, all

functions previously performed by the MOH at the district level are to be devolved to the district councils through the office of the Social Secretary. Districts councils are to be responsible for establishing health needs, identifying priorities for action and monitoring the implementation of health plans and resource allocation in this sector. However, complete devolution of responsibilities from MOH headquarters to provincial and district levels has not been possible primarily due to economic constraints as well as inadequate technical capacity. To date, this exercise has only been carried out in the larger urban districts along the line-of-rail such as Lusaka and Copperbelt Provinces, where district councils have a greater capacity to generate tax revenues.

2.197 The Local Administration Act also created a role for the provincial level of Government to provide health services. Among its roles, the provincial health team coordinates the activities of the district health teams, prepares provincial health plans and budgets and monitors implementation and assesses the province's drug and medical supply requirements and distributes them appropriately.

2.198 The MOH headquarters continues to retain the overall authority for health service delivery as well as the mandate for national health planning. This includes manpower training, bulk purchase and delivery of drugs to provincial and district distribution centers, as well as the responsibility for the inspection of national health-related institutions.

2.199 Health services offered by churches are managed by the Zambia Episcopal Conference, the Christian Council of Zambia, the Evangelical Church of Zambia and independent churches such as the Seventh Day Adventist and Christian Missions of Many Lands (Chonya 1989). These denominations coordinate their services through the CMAZ although some churches have independent outreach services as a part of the PHC strategy. Church offered health services range from hospital care to counselling for chronic or terminal illnesses.

2.200 In addition to the above, most parastatals provide health services to employees and their dependents. For example, ZCCM, the largest and most prominent mining company in the country, operates its own health care system which consists of hospitals, clinics and two nursing schools. Although these facilities were originally intended to serve the mining community exclusively, the general public now has access to services at a fee. A ZCCM subsidiary, the Medical and Education Trust, has been established to facilitate the availability of mine-supported health and education services to the general public on a commercial basis.

### **Programs and Projects**

2.201 Health sector activities are aimed at improving the overall health status of the population and include programs and projects in environmental health, nutrition, preventive and curative health services, AIDS control, MCH, mental health and traditional medicine. These include:

2.202 **The *Promotion of Environmental Health Program*** which aims to improve the basic sanitation of urban populations by ensuring adequate safe water supplies, controlling the spread of pest-borne diseases through vector control activities, spraying campaigns and initiating occupational health activities. This is an inter-sectoral program spearheaded by the MOH in collaboration with the DWA, the Development Secretary's Office in the district councils and the District Medical Office.

2.203 **The *National Nutrition Surveillance Program*** monitors growth in children under five years of age, maintains surveillance of the nutritional status of urban and rural populations, and trains nutritionists to strengthen the work being undertaken by the Nutrition Unit in the MOH. The program falls under the MOH through the National Nutrition Surveillance Program (NNSP) Unit and is administered in collaboration with the National Food and Nutrition Commission which is an autonomous body, and institutions falling under the CMAZ.

2.204 **The *Prevention and Control of Endemic Diseases Program*** is divided into four separate sub-programs: the Leprosy Control Program, the Tuberculosis Control Program, the Malaria Control Program and the Sexually Transmitted Disease Program. The program provides both preventive and curative services in order to treat existing disease patterns while also controlling future contagion through educational activities and research. The program is run by the MOH through its clinical-based services in collaboration with Statutory Boards such as the Tropical Disease Research Center, and the Pneumoconiosis Research Bureau.

2.205 **The *Maternal and Child Health Services Program*** is aimed at reducing maternal and perinatal mortality and morbidity through improvements in the coverage and quality of care. MCH services are provided by the MOH, CMAZ institutions and, for some services such as family planning, NGOs such as PPAZ, FLMZ, UNIP Women's League, and the Catholic Women's Organization. Several activities are administered under this program aimed at improving the health situation of children and women in both urban and rural areas. These include:

- ***Universal Childhood Immunization Program*** which operates to provide universal coverage to children aged 6-11 months against six target diseases (Tetanus, Diphtheria, Pertussis, Polio, Measles and Tuberculosis.) The program also attempts to vaccinate women of child-bearing age against Tetanus.
- ***Control of Diarrhoea Disease Program*** which operates to reduce diarrhoea related mortality through educational/informational activities and promotes breast feeding and correct weaning/child feeding practices.
- ***Maternal Health Program*** which aims to improve the availability and quality of ante-natal care, deliveries and post-natal care. The program

trains TBAs and works with women's organizations to educate women on health care issues.

- ***Family Health Program*** which promotes family planning services.
- ***School Health Services Program*** which provides rudimentary health care for school going children through immunization and screening for treatable disorders. Children in need of more extensive medical care are referred to hospital or the local clinic.

2.206 The ***Promotion of Mental Health Program*** includes a series of activities aimed at educating health care workers as well as the general public about mental health and the caring for the mentally ill through home and community-based activities. The MOH is directly responsible for this program through the Chainama Hills Mental Hospital and the College of Mental Health Services which is affiliated to the hospital. The MOH is assisted by the Mental Health Association of Zambia, a NGO which campaigns for the rights and needs of mental patients.

2.207 The ***Food and Drugs Control Service Program***, operated by the MOH, is primarily oriented towards the promotion of public health through the maintenance of minimum standards in the processing and selling of food on a commercial basis (including small-scale marketing), and in the provision of proprietary drugs.

2.208 The ***Health Education Program*** is directed at providing the public with information and education on the various components of the PHC program, Expanded Drug Supply Program, and issues concerning environmental health and water supply. Various mediums are used to promote activities such as family planning, use of oral rehydration therapy, use of MCH facilities, etc. The program falls under MOH operational guidelines with close cooperation maintained with the print and broadcasting media who produce materials for the educational campaigns.

2.209 The ***Traditional Medicine Program*** aims to facilitate the integration of traditional medical practice with the western medical model promoted by the Government through the MOH. The program seeks to identify practitioners utilizing herbal treatment and other allopathic remedies, investigate and substantiate the validity of their treatment regimes, and establish a system of regulations (formulated in conjunction with the healers) on standards and methodology. The program falls under the auspices of the MOH and operates in close collaboration with the Traditional Healers Association of Zambia.

2.210 The ***Health Manpower Development Program*** involves the training of health care personnel, in an attempt to expand existing training facilities in various institutions in order to provide personnel at the various levels of public service (e.g. district, provincial and national)

and for private practice. The program is operated under the Ministry of Vocational Training, Science and Technology.

2.211 **The *Drugs, Medical Supplies, Equipment and Transport Program*** includes several activities aimed at improving the health sector through the provision of essential inputs and the rehabilitation of infrastructure in urban and rural areas. One of the main features of this program is the Essential Drugs Program which aims to develop a system of drug supply designed to improve administration, utilization, and distribution of essential drugs to health centers and CHWS in urban and rural communities. These activities are administered by the MOH with support from donor agencies such as SIDA, UNICEF and WHO.

2.212 **The *Food Stamp/Coupon Program***, a major government food transfer scheme, provides free rations of maize meal to urban households with monthly incomes of less than K20,500. It is estimated that the scheme serves 2.5-3 million people and covers about 25 percent of household monthly caloric requirements. While accurate data is not readily available, data from informal surveys indicate that this scheme has not been effective as many urban households must subsist for many days of the month on one meal per day, even when the transfer scheme is taken into account.

2.213 **The *EC Microprojects Programme***, administered by the MPU in the Ministry of Finance, funds small-scale, community initiatives in the health sector. Activities include the rehabilitation and consolidation of hospitals, clinics and health centers across the country. In 1990, the EC Microprojects Programme funded 45 projects totalling K84.4 million.

2.214 **The *Maternal Health/Safe Motherhood Project***, a UNICEF-assisted project, aims at reducing maternal morbidity and neonatal death rates. It is also aimed at empowering young girls with knowledge about HIV infection and teenage pregnancies and ensure measures for caring for pregnant teenage girls. The project is to be carried out under the aegis of MOH as part of the overall PHC strategy.

2.215 **The *UCI/EPI Project*** is aimed at expanding immunization coverage and reducing under five mortality. The project also includes the immunization of women so as to eliminate neonatal tetanus and polio in this decade. Support to this project comes from external agencies such as WHO, UNICEF, SIDA and local agents such as Rotary Club and the UNIP Women's League.

2.216 **The *Social Recovery Project***, a World Bank project, is designed to support community-based initiatives in the health and nutrition sectors among others. Specific activities in this sector include the expansion, rehabilitation and construction of health posts, child-care centers and shelters, as well as various food and nutrition programs. In addition, as water-borne diseases are becoming increasing prevalent and threatening health status of households, water supply and sanitation activities are included, particularly in peri-urban areas (World Bank, 1991b).

### **Analysis of the Effectiveness in Service Delivery**

2.217 In terms of access to health services, urban population groups are believed to be better off than their rural counterparts and therefore development plans are biased towards the provision of quality health care services to rural populations. Specific problems faced by urban population groups does not feature *per se* in health sector strategies, although the geographical disparities in the service delivery and a concern with diseases like cholera and dysentery which are more prevalent in high-density urban areas are noted in the FNDP.

2.218 Zambia has been relatively successful in at least one of its health care programs in the past 20 years — the UCI Program in which coverage of children 0-11 months is estimated to be 80 percent (UNICEF, 1991). The Essential Drugs and Supplies Program has slightly alleviated the problems of drug shortages in health centers. Essential drugs supplied through this SIDA-supported program now include condoms which are important not only to the Government's fight against AIDS but also for its family planning strategy (WHO, 1991).

2.219 In spite of the progress made in a few areas, however, the health sector is seriously threatened by the economic crisis. The PHC policy is based on complementary program implementation in other sectors such as water and sanitation and agriculture. However, due to the continuous decline in resource allocation to all sectors, health programs are endangered. The National Health Policies and Strategies Report (1991) identifies the following consequences of the on-going economic crises in the health sector:

- Sharp rise in infant mortality rate.
- Deteriorating infrastructure and medical equipment.
- Increased cases of malnutrition.
- Inadequate supply of drugs.
- Decline in quantity and quality of medical care and health services.
- Poor staff morale due to unfavorable working conditions.

2.220 Health care policy in the past was focused primarily on meeting the needs of the rural population as many rural areas continued to lack basic infrastructure, including health care facilities (GRZ, 1980; GRZ 1987a). Comparatively, urban population have been better served but in recent years facilities within urban areas have deteriorated drastically, thus "narrowing the gap" between rural and urban population. This decline has been occurring in a period when the urban population has been increasing, creating a higher rate of demand for health services.

2.221 The present policy is still biased toward improvements in rural health care infrastructure although some concession is made to the special problems faced by urban populations. For example, it is recognized that the higher population density in urban areas makes it essential to have an efficient water supply and waste disposal system as a health measure. As a consequence, several programs/projects have been designed specifically directed towards the control of contagious diseases such as cholera and dysentery in these areas.

**2.222** The health care needs of women in terms of their reproductive roles, and children with regards to their developmental needs, have been recognized and prioritized in publicly-sponsored health programs as MCH services are receiving priority funding. The Government has stipulated that various MCH services and family health programs are likely to be subsidized during the period of structural adjustment so that the poor and vulnerable groups are protected from the adverse effects of cuts in health sector expenditures. However, government policy does not fully recognize women's multi-faceted role in the maintenance of household health status. Although many of the common health problems in Zambia are not gender-specific, women shoulder a heavier burden than men in maintaining the health and nutritional status of the family (Siamwiza and Munachonga, 1989). Tasks such as securing household foodstuffs, maintenance of hygiene and sanitary standards in the home, and convalescent care of the ill are commonly perceived as feminine responsibilities (Munachonga, 1988 and Bardouille, 1991).

**2.223** In terms of household food security, as changes in the agricultural sector occur, placing more emphasis on cash crops, household food security will be threatened, even in urban areas (GRZ/UNICEF, 1990). Malnutrition among adults as well as children is likely to increase. This is particularly so for women as traditional etiquette requires the housewife to reserve better food for her husband and, secondly, for children.

**2.224** Lastly, as health care becomes more expensive in the hospital setting, many requiring convalescent care will prefer to receive it in the home as is already being evidenced among patients who are ill with AIDS (Williams, 1990). Nursing care in the home is usually provided by women. Even when a family does not have a patient of its own to care for, assistance is provided to neighbors in the spirit of communal responsibility and goodwill. Women are usually expected to make this gesture of goodwill by visiting the sick and assisting their female relatives and neighbors.

### **Constraints to Implementation**

**2.225** The constraints to effective implementation are financial and technical. During the past decade, the expansion of health infrastructure and services was pursued by the Government at the expense of maintenance of existing facilities. This was done primarily to satisfy the demands of an ever increasing population and to expand services to the rural areas. However, financial support to the health sector has been shrinking in real terms while demand has grown because of rapid population growth. Further, the deterioration in the overall economy has exacerbated the brain drain in the health sector as trained health professionals have left Zambia in search of more lucrative jobs in neighboring countries, thus depriving the sector of much needed personnel.

### **Conclusion**

**2.226** Previous health sector initiatives were biased towards the improvement of rural health infrastructure as it was believed that there were severe disparities in health infrastructure

between rural and urban areas. The current policy is also biased towards the improvement of rural health care infrastructure although consideration is made towards the improvement of health services within urban areas.

2.227 Overall, the health sector is being threatened by the economic crisis. The PHC strategy being pursued by the Government involves complementary program implementation within other sectors such as water and sanitation (for cholera control) and agriculture (for food-security initiatives), but these sectors have also been affected by cuts in public expenditure. However, the Government has been relatively successful in its universal child immunization (UCI) and Essential Drugs and Supplies programs within urban and rural communities.

2.228 Financial constraints pose serious threats to the health sector, as adequate resources are not available to adequately redress the deterioration in infrastructure and services and to prevent the serious brain drain in the sector. This is clearly evidenced by the rising proportion of the health care budget currently being financed by donors.

## **AIDS**

2.229 This section begins with a brief description of the institutions and agencies involved in the design and implementation of AIDS-related activities in Zambia. It then discusses the various programs and projects that are presently being implemented to deal with the AIDS epidemic. Finally, an assessment of the effectiveness of service delivery is made and constraints to implementation are identified.

### **Institutional framework**

2.230 AIDS was recognized as a major public health threat in Zambia in 1986 when the Government established the National AIDS Surveillance Committee (NASC), to formulate policies and coordinate all activities concerning the prevention and control of AIDS (GRZ, 1991f). To facilitate the implementation of policies and programs, the National AIDS Prevention and Control Program (NAPCP) was created and through its Program Unit coordinates all AIDS activities in Zambia through six sub-units which are headed by the MOH or University Teaching Hospital professionals (GRZ, 1991g).

2.231 A separate national AIDS policy does not exist but operational guidelines have been formulated through NAPCP to regulate MOH and NGO AIDS-related activities. To combat the problem of under-reporting, and facilitate better diagnosis and reporting to MOH for statistical purposes, a national case definition for AIDS has been adopted. The Government has indicated its intention to integrate NAPCP activities within the PHC concept and has developed a process of decentralization and integration of AIDS-related activities (GRZ, 1991b). In this regard, the NAPCP has established working relations with NGOs and other institutions involved in AIDS prevention and education activities, to review and discuss planning and implementation issues at periodic meetings, workshops and conferences.

## **Programs and Projects**

2.232 Activities aimed at dealing with the AIDS epidemic mainly consist of prevention, information and education campaigns, and home-care services to AIDS patients. While activities were not originally targeted towards urban areas, most activities are presently provided to urban groups due to the existence of the necessary infrastructure within these areas. AIDS-related activities include:

2.233 The *Information, Education and Communication (IEC)*, a NAPCP program, which aims to disseminate information on AIDS to target groups and encourage modification of behaviors which are associated with the risk of HIV-infection. Although not originally intended, IEC programs have been provided almost exclusively in urban areas.

2.234 *Counselling Programs* are aimed at ensuring that appropriate, sensitive and well-informed counselling is made available to all needing the service. The Counselling Unit of the NAPCP has the task of ensuring the integration of counselling into all relevant health related programs and monitors counselling activities being undertaken by NGOs.

2.235 *Home-based Care Programs* seek to improve the quality of life for persons infected by the HIV virus and their families through the provision of psycho-social, medical and material support.

2.236 *Clinical Care Service Program*, administered by the Government, is aimed at improving the management of HIV-infected persons and clinical AIDS patients. The program provides educational supports to clinicians so as to ensure the safety of health care workers and promotes activities which are focused on improving the quality of life of AIDS patients.

2.237 *Family Health Trust Projects*, implemented by various NGOs, sponsor home-care, education and children-in-distress projects aimed at establishing support programs for AIDS orphans.

2.238 The *Kara Counselling Project* is executed by Kara House, an NGO, and provides counselling services on positive living habits and educational outreach to various communities in Lusaka.

2.239 *CMAZ Projects* consist of various home-based care and educational activities, training and program management within the context of the CMAZ structure.

2.240 *Family Life Movement of Zambia* conducts education campaigns, produces IEC materials for youth and parent education, and conducts research.

2.241 In addition to the above, other projects, primarily IEC activities and counselling services, are also provided by the Zambia Red Cross, Planned Parenthood of Zambia, NGO/CC, UTH Chaplaincy, and Artists Against AIDS.

### **Analysis of the Effectiveness of Service Delivery**

2.242 Most of the efforts to date have been on educating the public about HIV infection and its consequences. This has been achieved primarily through active donor support of activities although the total amount of money, materials and human resources invested towards these efforts by donors is not known. Palliative treatment of AIDS patients is provided by Government, mission or mine hospitals with the costs of the services being borne by the patient.

2.243 Information, education and communication (IEC) campaigns have been quite intense, especially in urban areas where the problem of AIDS was initially identified. Efforts have been made to target information so that it reaches the various segments of society, but there is some evidence that high-risk behaviors associated with poverty is still prevalent among some groups of urban residents. In particular, prostitution has become a way of life for many un- or undereducated poor young women who have few alternatives to earn an income. It appears that IEC activities are reaching the target population but economic conditions currently prevailing are more powerful than the anti-AIDS messages. Even among prostitutes and their customers, there is little evidence that any behavioral change has occurred as a result of the IEC activities. The deficiencies in the present anti-AIDS strategies, i.e. that IEC activities by themselves are not sufficient, are beginning to be recognized by the Government, however few programs have been initiated which provide viable alternatives to the urban poor.

2.244 The long-term needs of HIV-positive and AIDS patients have not been seriously considered, primarily because these needs are largely unknown. Current policy and programmatic responses are reactionary and try to cope with the epidemic with a substantial proportion of the population still lacking knowledge about the disease.

2.245 Most of the non-medical activities such as psycho-social counselling, material assistance and caring for dependents are being performed by NGOs. These are primarily urban-based and situated in Lusaka and Copperbelt Provinces. The exceptions are the CMAZ institutions which are dispersed throughout the country with a substantial number existing in rural areas. Because of their physical location, most of the resources provided by NGOs are therefore directed towards meeting the needs of urban populations, although the degree to which they are assisting them is not known.

2.246 The latest review of the Government's Medium Term Plan undertaken in 1991 indicates that the effectiveness of various AIDS-related programs and projects has been compromised as many of these projects, particularly those sponsored by NGOs, are too personalized. The review also notes that the NAPCP has been ineffective in coordinating NGO activities as many are still unaware of NAPCP guidelines relating to AIDS activities.

## **Constraints to Implementation**

2.247 Since AIDS control and prevention activities have been integrated within the PHC strategy, the program tends to experience many of the problems encountered in the health sector. These include shortages in personnel, drugs, equipment as well as poor staff morale. The causes of these problems are both political and technical in nature as discussed in the health section above. Moreover, however, with regards to AIDS-related activities there appears to be inadequate linkage and collaboration on the part of NGOs, who play an important role in activities. This lack of coordination between NGOs and government institutions stems from political reasons as donors have in the past been reluctant to support social welfare services provided by Government institutions.

## **Conclusion**

2.248 The Government and other agencies involved in AIDS-related activities, have concentrated their efforts on various information and education campaigns (IEC) aimed at educating the public about HIV infection and its consequences. These efforts have been particularly intense within urban areas where various high risk groups have been targeted. However, IEC activities have not been effective in changing high risk behaviors, particularly those associated with poverty, such as prostitution, as they do not provide an alternative source of income to the urban poor.

2.249 NGOs have increasingly become involved in AIDS-related activities through the provision of non-medical services such as psycho-social counselling, material assistance and caring for dependents of AIDS patients. As most of the NGOs involved are urban-based, these services are being provided mainly in urban areas within Lusaka and Copperbelt provinces. However, one of the major problems concerning the design and implementation of AIDS-related activities within Zambia, is the lack of coordination between these institutions and government agencies involved in providing similar services.

## **Population**

2.250 By way of background this section begins with a description of the population trends in Zambia during the past two decades and discusses the implications of population growth for the next decade. It then presents a brief description of current population policy initiatives and the institutions and agencies involved in their design and implementation. Finally, an assessment of the effectiveness of service delivery is made and constraints to implementation are identified.

### **National population situation and trends**

2.251 The population growth rate in Zambia is quite high. Between 1963 and 1969, the annual average rate of growth was 2.8 percent and increased to 3.1 percent during 1969-1980. At the time of the 1980 census, the population of Zambia was 5.68 million of which 48.9

percent were male and 51.1 percent were female. The proportion of the population aged 14 years and under constituted 49.8 percent in 1980. The growth rate increased to 3.2 percent during the 1980-89 period and total population is expected to double to 12 million by the year 2000 (UNICEF, 1986: 19).

2.252 The rapid population growth during the 1969-80 period was mainly due to natural increase with migration or refugee movements also contributing to this growth. Provincial growth rates were strongly affected by rural to urban migration (and in some instances refugee inflows) and varied significantly, in particular between the more developed "line of rail" provinces (through which the south-north railway passes) and the much less developed "off-the-rail" provinces. Of the three "line of rail" provinces, the two more urbanized provinces, the Copperbelt and Central, grew at 3.9 percent and 4.8 percent respectively, while the Southern Province which is largely rural, grew more slowly at rates ranging between 1.6 and 2.4 percent per annum (World Bank, 1984: 1).

2.253 Population distributions vary considerably across provinces. Due to the concentration of economic development in four provinces along the north-south railway — the Copperbelt, Central, Lusaka and Southern — and because of fertile agricultural land found in these provinces, a disproportionately large part of the population is concentrated in or around these four provinces. These four provinces accounted for about 55.2 percent of the total population in 1980 (Kelly: 27).

### **Urbanization**

2.254 Relatively rapid and large scale urbanization has occurred in the country since independence. The proportion of the population that lived in urban areas almost doubled during the 1965-80 period. In 1980, 78 percent of these urban dwellers (or one-third of the total population) were concentrated in ten large towns and cities along the Copperbelt. The urban population growth has increased during the 1980s as well. In 1989, 42 percent of the total population of the country lived within urban areas; 24 percent of which lived in the capital city (World Bank, 1991a: 264).

2.255 The annual rate of increase for the urban population averaged 6.6 percent during 1965-1980 and 6.2 percent during 1980-1989. The Copperbelt and Lusaka Provinces, with percentages of urban populations of 92 percent and 82 percent respectively, are the two most urbanized provinces within the country. The proportion of the urban population in these two provinces has been increasing during the past decade (UNICEF, 1986).

### **Fertility, mortality and natural increase in population**

2.256 High fertility rates and declining death rates are two of the major factors contributing to the rapid population growth in Zambia. Fertility rates in Zambia have historically been high and are expected to remain so in the foreseeable future. These high rates have

persisted due to reductions in sterility and subfecundity due to improved medical services and improved nutrition.

2.257 The decline in mortality rates has also contributed to rapid population growth. The death rate which was estimated at 18.9 per thousand in 1974 declined to 16.7 in 1980. This decline is largely attributed to improved access to medical services. Associated with this decline in death rates, there has been an increase in life expectancy during the 1969-80 period — from 47.8 to 52.2 for females and from 44.6 to 50.4 for males.

2.258 The national infant mortality rate (IMR), defined as the number of deaths of infants under one year of age in a given year per 1,000 live births in that year, fell from 130 in the early 1950s to approximately 115 in the early 1970s. This rate declined to 97 in 1980. Correspondingly, the child mortality rate, the proportion of children dying between birth and five years of age, fell from 22 percent in the 1950s to 19 percent in the 1970s (World Bank, 1984).

2.259 Regional differentials in mortality levels are evident. Childhood mortality estimates for the mid-1960s showed a clear general pattern of highest mortality in the rural “off-line-of-rail” provinces. The lowest mortality rates were evidenced in the two most urbanized provinces with an intermediate level in the Southern province. Life expectancy rates also differ significantly between rural and urban areas. Based on 1980 CSO data, studies indicate that life expectancies at birth ranged from 56.3 years to 53.9 years among male and female urban dwellers to 50.3 and 48.6 among their rural counterparts (UNICEF, 1986). These regional differentials may be attributed to, among other factors, the differential distribution of medical facilities and services as well as availability of basic services.

### **Implications of rapid population growth**

2.260 Continued rapid population growth in Zambia is expected to have severe implications for the composition of the population and for socio-economic development. Three groups of the population are of particular relevance: 1) children, 2) the elderly, and 3) women.

2.261 In terms of the age structure, if continued unabated, high fertility in the country is expected to lead to an increasingly youthful age structure that will generate further population growth in future decades. Some estimates project that the population of children aged 0-4 years of age will increase by 52.9 percent during 1984-1999. Similarly, increases in the population of those aged 5-9 and 10-14 are expected to increase by 57.8 percent and 63.3 percent respectively by the year 1999 (UNICEF, 1986).

2.262 At the same time, the population of persons above age 65 is expected to increase during the same period by 68.5 percent while that of the economically active population between the ages of 15-64 is expected to increase by 62 percent. This would have severe impacts on investment as the economic burden of dependents, measured by the dependency ratio, i.e. the

ratio of children under 15 years of age plus people aged 65 years and over to working age group of the population aged 15-64, grows and diverts national income from savings towards consumption (World Bank, 1984).

2.263 Another population group that is expected to grow significantly is that of women in the 15-49 age group which will increase from 1.45 million in 1984 to 2.33 million by 1999, an increase of 60.3 percent. This is mainly a result of improvements in mortality conditions. As a consequence, the child-woman ratio is expected to decrease from 877.4 in 1984 to 854.6 in 1989, and 789.9 in 1994 (UNICEF, 1986). The growth of this particular group will have implications for future population growth.

2.264 The implications of rapid population growth are many. This growth will produce substantial increase in national consumption needs, particularly in food supplies and government-funded social services. If unabated, over the next 30 to 35 years, rapid population growth will impede the country's economic progress. It could worsen the dependency burden on the economically active population, discourage savings and capital accumulation, intensify the problems of urban growth and labor imbalance (both through high natural increases and rural urban migration), and impede the country's progress to improve the living standards of its population.

### **Current Policy**

2.265 The current population policy is designed to complement other sector initiatives and create conditions for socio-economic development. This policy emphasis is in recognition that economic performance is influenced by population variables. Very high fertility levels combined with a decline in mortality during the past decade has placed inordinate pressure on the nation's resources. It has been argued that if the present population growth rate continues unabated (at 3.2 percent per annum), Zambia will have to table her present infrastructure for food production, health services, water supply, sanitation, housing and other services in the next 15 to 20 years simply to maintain present living standards (NCDP, 1989a). Such a prospect is particularly daunting considering that the present living standards for a significant proportion of the population are judged as unacceptable.

2.266 One of the few new features of the Population Policy is the introduction of population information targeted towards senior primary and secondary school children. The policy objectives mainly build upon existing practices and can be divided into three main approaches:

- Expansion and consolidation of existing health care programs which have fertility regulation implications.
- Removal of socio-cultural and legal barriers which inhibit or constrain the use of family planning service.

- **Expansion and maintenance of the country's population data base.**

2.267 This new approach has been possible largely because of the existence of family clinics and related family life services long before the Government accepted the idea of formulating a national population policy. These services were available primarily to a segment of the population, namely urban residents (Hopkins and Siamwiza, 1985).

2.268 Nationwide information on the number, distribution and type of facilities offering family planning is not readily available. The methods available depend on the type of facility in the vicinity. Sterilizations are only performed in hospitals, while injectables, IUD, oral contraceptives, jellies, and diaphragms are routinely available in health facilities and through NGO clinics. Condoms are gaining popularity but primarily as a prophylactic from AIDS. Female condoms have also been introduced on an experimental basis but this has also been in the context of AIDS prevention. Oral contraceptives are the most commonly used type of contraceptive method (90 percent of users) but data on continuation rates is not available (World Bank, 1984: 11). Recent DHS results show that less than 9 percent of women of reproductive age use modern contraceptives.

2.269 Abortions are not commonly perceived as a family planning method in Zambia although it is suspected that the prevalence of illegal abortions is quite high (Chilufya, 1979; Likwa, 1987; Castle, Likwa, and Whittaker, 1990; and Mwila, 1991). Zambia is the only country in Sub-Saharan Africa that permits abortions to be carried out on broad socio-economic or health grounds (Mwila, 1990). The Termination of Pregnancy Act - Chapter 554, enacted in 1972, allows a woman to secure a legal abortion provided it is approved by three physicians. However, the abortion must be performed in a hospital and decisions regarding eligibility for an abortion are a medical matter and therefore fall under the domain of the Ministry of Health (Mulati, 1990). As a result, the number of women who have effective access to safe and legal abortions is very limited.

### **Institutional framework**

2.270 The institutional framework for policy implementation includes governmental and non-governmental organizations. To ensure optimum coordination in policy-making, planning and mobilization of resources, the Government has established a National Population Council which provides advice on population issues and coordinates policy implementation. It consists of representatives from relevant government ministries, departments and institutions as well as NGOs. Policy guidelines for health-related programs under this sector, such as MCH and family planning, fall under the MOH.

2.271 A Population and Development Planning Unit has been established in the NCDP to ensure the integration of population factors into development plans and policy. The Government has also established the Interagency Technical Committee on Population whose function is to reinforce the institutional capacities for program design, development and coordination.

2.272 In addition to the above, a number of government ministries have specific responsibilities for promoting aspects of population policy. These include the Family Life Education Unit in the Ministry of Community Development and Social Welfare, the In-School Population Education Unit in the Ministry of Education, and the Population Communication Unit in the Ministry of Continuing Education, Information and Broadcasting.

2.273 Non-governmental organizations with responsibility for policy implementation include the PPAZ, the FLMZ, private surgeries and churches. NGOs are guided by their own policies regarding program implementation and interpret population policy in terms of their own mandate and program objectives.

### **Programs and Projects**

2.274 Beginning in 1981, the Ministry of Health incorporated family planning into the curricula of nurses and midwives. Facilities run by mining and other industries also provide these services along with MCH care. The Government's current policy stresses that family planning be a part of MCH services and, as such, be integrated into all service delivery points such as hospitals and health centers (Chisha, 1990). This would include health facilities run by private organizations and NGOs.

2.275 Family planning as a part of health care is clinic-based and community-oriented. The clinics remain the center of activities but reach out to communities through clinic-based field workers who make community visits for purposes of information, education and communication. Administering agencies in the provision of family planning services are MOH hospitals and clinics, CMAZ institutions, mining hospitals and clinics, private surgeries and NGOs such as the PPAZ and FLMZ.

2.276 The *Lusaka Responsible Parenthood Project* is designed to test the community-based distribution of family planning services in various areas of Lusaka. The project distributes non-prescriptive contraceptives such as condoms, foaming tablets and tubes, etc. to residents in established health center catchment areas. The Makeni Ecumenical Center is the administering agency and the project is supported by the Family Planning International Assistance (FPIA).

2.277 The *Non-clinic Based Scientific Natural Family Planning Service Project* is being undertaken by the Family Life Movement of Zambia and is also funded by the FPIA. The project aims to extend knowledge of and techniques in natural family planning to urban and rural population groups through the use of community volunteers. FLMZ is the administering agency and works with community groups such as churches and NGOs to disseminate knowledge about this method.

2.278 The *Zambia Union of Seventh Day Adventist* in Kabwe provides non-clinic based family planning services through counsellors. The major administering agency is the Seventh Day Adventist Church.

## **Analysis of the Effectiveness of Program Delivery**

2.279 The processes undertaken to formulate and adopt the present population policy were long and tedious, primarily because of the Government's previous adamant pro-natal stance. Throughout the 1970's, the Government had downplayed the significance of a population policy, however, attitudes changed during the 1980s as the declining economy forced politicians and policy-makers to re-examine their stance (CSO, 1984, World Bank, 1984 and UNFPA, 1984). Consequently, in 1984 the National Commission for Development Planning was given the mandate to draft a policy which was adopted within the framework of the New Economic Recovery Programme which was formally launched in 1989.

2.280 Facilitating access to family planning for all is one of the goals stated in the current population policy. Its purpose is twofold: 1) to reduce national population growth rates and 2) to reduce maternal mortality. WHO reports of causes of maternal deaths in selected health institutions during the period 1983 to 1988 reveal that poor ante-natal care, abortions and anaemia accounted for 70 percent of the deaths during this period (WHO, 1991). Family planning, therefore, has become a strategy in reducing maternal mortality among women in high risk groups.

2.281 In spite of the aims of this policy, however, contraceptive usage among the population remains low. The Contraceptive Prevalence Study undertaken by the MOH in 1988 revealed that only 9 percent of women in child-bearing age utilized contraceptives (GRZ, 1991d). Further, data from the Rapid Evaluation Methodology (REM) showed that only half of the health facilities offered family planning services (WHO, 1991). This implies that even if attitudes towards contraceptives usage change, most health care facilities are ill-equipped to meet demand.

2.282 Further, where family planning services are offered, service delivery is biased towards gaining female acceptors. While some IEC campaigns vigorously attempt to educate men about the merits of family planning and limited family size, contraceptive services are still targeted primarily to women placing the onus of fertility regulation on them.

2.283 Family planning programs have been most concentrated in urban areas because of the early history of these programs through voluntary medical services. However, it was perceived as a service available for the elite. The Government and NGOs have tried to counter these attitudes by making services available in low-income communities through static health care units and outreach activities. However, acceptor rates in these areas continue to be low as evidenced by continued high fertility rates in Lusaka (CSO, 1991).

## **Constraints to Implementation**

2.284 Barriers preventing widespread access to family planning services emanate from cultural values, social customs and the medical biases embodied in service provision (Siamwiza,

1988 and Chisha, 1990). The Population Policy is designed to remove administrative constraints by altering service allocation and delivery modalities. However, socio-cultural constraints continue to impede rates of utilization.

2.285 In a pilot study of family planning service providers' willingness to advocate the merits of the service, it was found that providers are very sensitive to community feelings, particularly the attitudes of community leaders (Siamwiza, 1988). As a result of this sensitivity, service delivery is oftentimes tailored to reflect local desires and opinions. PPAZ has attempted to ameliorate the effects of negative community assessment through information and education campaigns. This appears to be working at the level of commercial endorsement, but has been very ineffective in changing individual behavior. Family planning appears to be accepted as a service for "others". This reaction was also prevalent in certain circles in the previous government where on the one hand, leaders advocated population control and the need for smaller families, while, on the other hand delegated the right to choose family size to individuals. As it was not clear as to which position is most important, consequently, individuals continued to behave in the manner considered as most socially acceptable.

### **Conclusion**

2.286 The current population policy emphasizes the importance of population and demographic factors in overall national development planning. Facilitating access to family planning for all is a major objective of the Government's policy and is aimed to reduce the national population growth rates as well as maternal morbidity. In spite of concerted family planning efforts however, contraceptive usage among the population, including urban areas, still remains low. Constraints to the effective implementation of family planning services include cultural barriers and medical biases embodied in service provision. In addition, institutional and administrative bottlenecks have also impeded utilization of available family planning services.

### **Social Welfare**

2.287 This section begins with a brief description of current social welfare policy and the institutions involved in its design and implementation. It then discusses various social welfare programs and projects that are presently being implemented aimed at addressing the needs of the urban poor. Finally, an assessment of the effectiveness of service delivery is made and constraints to implementation are identified.

### **Current Policy**

2.288 The current social welfare policy aims to advance the overall social development of Zambians. Interventions are cross-sectoral and are designed to reduce illiteracy, improve health care and nutrition, provide public assistance to the destitute, protect children and juveniles and advance self-help projects to improve standards of living in communities.

**2.289** The social welfare sector is very crucial in terms of overall national development as it caters to a wide target population ranging from children to the elderly and deals with various aspects of social development. Although the government has implemented numerous programs in this sector, however, it has not been able to provide services for all deserving cases. The decline in funding, reduced number of qualified staff, inadequate transport and other resources have made it difficult for the Ministry of Community Development and Social Welfare (MCDSW), which is primarily responsible for activities in this sector, to operate effectively. As a consequence, the government has encouraged the participation of other agencies, particularly NGOs in sector programs and projects. Agencies involved in the administration of activities include various ministry departments, NGOs, the NGO Coordinating Committee (NGO-CC), district councils, church organizations, the YWCA and donors who influence policy either directly through lobbying or indirectly by supporting specific projects.

### **Institutional framework**

**2.290** The institutional framework for social welfare provision in Zambia is quite extensive with several agencies, including central and local government agencies, churches, the mines, NGOs, donor agencies and community-based organizations designing and implementing social welfare programs and projects.

**2.291** The MCDSW is responsible for overall policy formulation and guidance in relation to programs and projects implemented in the sector. It works in collaboration with relevant ministries whose mandate fall within the overall social sector framework including the ministries of Education, Information and Continuing Education, the National Commission for Development Planning, the Women-in-Development (WID) section of the Ministry of Agriculture (for extension services and rural information) and other agencies which administer adult education or community based programs.

**2.292** With regards to children's issues, a new ministry of Youth, Sport and Child Development has been created aimed at enhancing services to children and youths, through better funding and a much higher priority of these concerns in national planning. The district councils also implement various social and community development activities including community development activities in health, adult literacy, hygiene, home economics and pre-school activities.

**2.293** Increasingly, NGOs have become involved in the provision of social welfare services with some specializing in women's related projects as in the case of the YWCA, Christian Council of Zambia Women's Department, and Catholic Women's League. Other NGOs engaged in activities in this sector include World Vision International and the Danish Volunteers. The Zambia Council for Social Development coordinates NGO activities in the sector as well as assists NGOs financially. In addition, the NGO/CC has the mandate to coordinate all WID programs, particularly those initiated by NGOs.

2.294 Churches have been providing social welfare services to their members for a long time through various programs including adult education and literacy teaching skills for productive and income generation, material support to the disabled and destitute, children education and women and youth skills programs. In addition, the various mines and Zambia Railways have established strong institutional frameworks for the provision of social welfare through their clubs, including adult literacy, skills training and recreational activities.

2.295 Various donor agencies participate in both designing and implementing programs in specific areas. UNICEF, for example, has been prominent in supporting activities targeted towards children, youth and women.

### **Programs and Projects**

2.296 A number of programs and projects are currently being undertaken in the social welfare sector which cover a wide range of activities and target a broad group of beneficiaries. Those initiatives targeted towards urban groups include:

2.297 *The Family and Children's Services Program* provides services aimed at promoting healthy family life through counselling of cases involving couples, parents and children in urban communities.

2.298 *The Public Assistance Program* which provides in-kind or short term (repatriation and accident victims) relief to the destitute and long-term relief for the disabled, unsupported women, children and the elderly. Also, assistance in the form of school uniforms for students, school requisites, and orthopedic appliances for the disabled are provided. The administration of public assistance is decentralized and falls under the Provincial Permanent Secretary under whom the Provincial Welfare Assistance Committee operates.

2.299 *Delinquency and Correctional Services Programs* provide correctional and rehabilitation services to delinquent juveniles. These services are provided through training in correctional institutions such as the Insakwe Probation Center, Nakambala Training School, Katombora Reformatory school and other after-care centers. The administering agency is the MCDSW which designs and implements the programs and is assisted by the Ministry of Education Catholic Women's League, the Prisons Department of the Ministry of Home Affairs, the communities and NORAD.

2.300 *Basic Literacy Programs* provide literacy education to adults and are administered by District Councils, the Prisons and the Mines.

2.301 *Community Self-help Programs/Projects* aim to develop self-help, community development in the construction of classrooms, teachers' houses, health centers, housing for health workers, feeder roads, community centers and other infrastructure projects. In addition to the MCDSW, other agencies involved include the District Council, Human Settlements of

Zambia (HUZA), the Ministry of Health, the Ministry of Education and Parent Teacher's Associations, the Department of Water Affairs, and the Zambia Council for Social Development.

2.302 *Women's Education and Development Programs/Projects* are aimed at advancing the status of women through the provision of skill development services in income-generating activities. Supporting projects and programs include women's clubs, missions homecraft centers, and skills development for self-reliance projects.

#### **Analysis of the Effectiveness in Service Delivery**

2.303 The initiatives undertaken in the social welfare sector are multi-sectoral with a multitude of administering agencies involved in their design and implementation. However, multi-sectoral linkages, in terms of strategy development and coordination of activities, is limited thereby causing bottlenecks in implementation.

2.304 The various social welfare initiatives do not clearly distinguish target beneficiaries in terms of gender or location of residence. Consequently, the programs that are implemented do not effectively reach intended beneficiaries. This is particularly so in the case of the public assistance programs targeted towards poor urban women, orphans and youth. Further, due to lack of funding and inadequate infrastructure, these assistance programs have not been able to adequately provide relief assistance to intended beneficiaries.

2.305 Programs related to juveniles and rehabilitation of offenders are oftentimes biased towards males with most of the probation centers, skills and academic schools and reformatories designed primarily for the rehabilitation of young male delinquents. Consequently, female delinquents and offenders are not provided with correctional and rehabilitation services to enable them to become productive members of society.

2.306 Another constraint in terms of effectiveness in delivery of services relates to the failure of various adult and community programs to sustain the interest of the target population which has resulted in high drop out rates from program activities. In the case of women's programs for example, time constraints hinder women's access to and participation in many services as most are offered at times when women cannot attend due to reproductive responsibilities.

#### **Constraints to Implementation**

2.307 Inadequate funding, lack of basic resources such as transport facilities and well trained personnel have affected the availability and quality of Government provided services. As a consequence, NGOs and private organizations have become more actively involved in the provision of services such as in the case of family planning counselling and services to orphans. However, poor coordination and fragmentation in service delivery is prevalent. For example, although the Zambia Council for Social Development is in charge of coordinating all NGO

activities and assisting them with funding, NGOs do not utilize its services but rather operate independently. This oftentimes results in duplication of efforts in certain areas or non-delivery in others.

2.308 In previous years, political constraints were evident mainly in the form of interference by the ruling party in the administration of program and project activities. The UNIP Women League, for example, attempted to administer several women's programs, but was unable to effectively do so due to insufficient managerial and administrative skills among their party officials. Political patronage also played an important role in access to various programs and projects as applications for them required in many instances party membership. However, the vacuum left behind with the dismantling of this political organization has not been filled. As a result, grassroots level social service delivery has declined.

### **Conclusion**

2.309 Social welfare initiatives have not clearly identified their target groups in terms of gender and location of residence and as a result have not been effective in reaching their intended target beneficiaries. This is particularly so in the case of the various public assistance programs which are targeted towards poor urban women, youths and orphans. Inadequate funding and technical capacity have adversely affected the availability and quality of publicly provided social welfare services. NGOs and other private institutions have become increasingly involved in the provision of social welfare services to the poor, but poor coordination of activities between NGOs and with government institutions has resulted in the fragmentation of service delivery.

### **Social Security**

2.310 This section begins with a brief description of the current social security system within Zambia and the institutions involved in the provision of social security services. It then discusses the various social security programs in existence. Finally, an assessment of the effectiveness in service delivery is made and constraints to implementation are identified.

### **Current Policy**

2.311 Social security policy pertains mainly to the protection and advancement of workers through adequate preparation for retirement and other unforeseen circumstances such as injuries or death which may occur during the time they are employed. The Government's social security policy is severely limited in terms of its target group as it excludes the majority of the unemployed and small-scale and informal sector participants.

### **Institutional framework**

2.312 The institutions involved in the provision of social security services include government and private agencies. These include:

2.313 The Ministry of Labor and Social Security which operates at the policy level to develop and guide overall policy on social security issues.

2.314 The Zambia Consolidated Copper Mines (ZCCM) which operates a social-security program for mine employees and other employees in related companies.

2.315 The Government, through the Ministry of Finance, which has set up an autonomous institution to run its social security program. The Civil Servant Pension Board operates the Civil Service Pension Fund for all qualifying civil servants.

2.316 The Zambia National Provident Fund acts as a savings scheme and caters for a wide spectrum of workers which range from domestic servants to high level personnel in private, public, parastatal companies.

2.317 Cooperatives, Saving Associations and Credit Unions which operate to serve the interest of a specific group. These agencies operate autonomously or through a joint program offered by the Zambia State Insurance Company (ZSIC).

### **Programs**

2.318 The social security programs in existence are operated by different institutions, most of which are autonomous and serve different interest groups. Consequently, there is little coordination between the agencies administering them. The programs include:

2.319 The *Civil Service Pension Program* which is administered by the Civil Service Pension Fund and caters to civil servants.

2.320 The *Workmen's Compensation Fund* which is compulsory for all employed persons.

2.321 The *Local Authority Superannuation Fund (LASF)* which targets all employees of Local Councils and other public institutions.

2.322 The *Mukuba Pension Scheme (MPS)* which provides injury and retirement benefits to employees of ZCCM and other mines.

2.323 The *Zambia National Provident Fund (ZNPF)* which caters to a cross section of employees from the private, parastatal, government and for domestic servants.

2.324 **The Zambia State Insurance Corporation Ltd. (ZSIC) Pension and Life Assurance Programs** which are designed for a cross section of workers in the private parastatals etc.

2.325 **The Social Security Scheme for Political Leaders** which is administered through the Ministry of Finance, and provides lifetime benefits to retired political leaders.

2.326 **The Cooperatives Savings Associations and Credit Unions** which are designed to improve the standard of living of the disadvantaged in rural and urban areas, particularly women and youth. However, due to inherent delivery problems, the above programs are currently under assessment with a view to establishing a more comprehensive National Social Security Scheme (GRZ, 1989a).

#### **Analysis of the Effectiveness of Program Delivery**

2.327 At present, the various social security systems do not cover the informal sector nor do they provide services to the unemployed, thus limiting their target population. Social security in Zambia has developed as a class specific program catering for those persons in formal employment excluding the unemployed and the poor. There is, however, hope that the MMD Government will reverse this trend through the integration of self-employed persons into ZNPF using special contributions.

2.328 In all but one of the schemes, i.e. the Cooperative Savings Associations and Credit Unions, the social security programs currently in existence are designed *exclusively* for workers in the formal sector. This means that most of the urban poor, who work in the informal sector, do not have access to social security benefits although they are, in most instances, the group who deserve protection the most.

#### **Constraints to Implementation**

2.329 Constraints to implementation are political and technical in nature. Political hindrances were common during the one-party era where cases existed when institutions had to postpone implementation of some programs in order to accommodate party programs. Technical constraints in implementation relate mainly to inadequate resources and delays in payments of benefits. Administrative and management bottlenecks have also resulted in delays in payment of benefits and pensions. Given the rapid and substantial decline of the purchasing power of the kwacha during the past few years, any delays in payments erodes the actual real income to the worker and the household.

#### **Conclusion**

2.330 The social security systems presently in existence in Zambia do not provide services to the urban poor. With the exception of one program, namely the Cooperatives Savings Associations and Credit Unions, the various schemes target the *employed* within the formal

sector. Current social security programs do not target informal sector workers nor do they provide benefits to the unemployed. They therefore do not assist the urban poor who are primarily employed in the informal sector.

2.331 In order to address the needs of the urban poor and the unemployed, there is a need to expand the definition and application of social security in Zambia to the whole population with a special emphasis on the poor, especially women. At present, women's needs are not being addressed as relatively few women are employed in the formal sector.

## **OVERALL CONCLUSION**

**3.1** The formulation of social policy in Zambia has been based on incremental responses to social needs. At the time of independence in 1964 the ruling party UNIP and its Government used public expenditure to extend service provision, particularly towards rural areas. Expansion of basic education and health services, replacement of expatriate labor through Zambianization and the promotion of social equality between the rich and poor were main features of early policy efforts.

**3.2** Policy content was influenced by ideology as Humanism, the political philosophy of UNIP, stressed communal response to social issues including the provision of services and a commitment to equitable distribution of resources. As a consequence, responsibility for financing and providing basic social services was delegated to the Government which expanded its involvement in service provision during the 1960s and early 1970s. Until the beginning of the economic crisis of the 1970s and 1980s, these initial policy strategies were not changed radically although the conditions giving them impetus had. The early policies and programs have been built upon and expanded in scope to include newly arising problematic conditions. Subsequently though, particularly in the latter part of the 1980s, it became apparent that the Government's capacity to adequately provide for the needs of the population was severely limited.

**3.3** The poor, both urban and rural, have had to bear the brunt of the effects of diminished services. The very incentives which attracted mass numbers of people to the towns in the 1960s have decreased to the extent that some urbanites are voluntarily returning to the rural centers. The urban-rural migration is very small and disproportionate to the mass migrations experienced during the 1960s but demographers are detecting slight reversals in the population distribution. Rural towns and growth centers appear to be absorbing the returnees.

**3.4** The needs of the urban poor are not being met by the existing social policies, programs and projects as is evidenced by the acute problems being experienced in low-income areas of Lusaka, Copperbelt and other line-of-rail towns. The current policy initiatives are too general in terms of the rural-urban dichotomy to be targeted to the needs of specific groups in urban areas. The national plans only distinguishes between urban and rural, and make no distinction between various urban groups. In addition, little attention is paid to gender issues. Further, the various policy initiatives are characterized by fragmentation, discontinuity and, sometime, internal incompatibility. Accessibility for the quality and quantity of services within any sector is impeded because of overlaps in some areas and gaps in others.

**3.5** The failure of policies, programs and projects to meet the needs of the urban poor can be traced to the lack of a coherent social policy framework and commitment to resolve the problems of this segment of the population. National plans have not been sufficiently refined to identify special categories within delineated groups nor has there been impetus to do so. Efforts to meet the needs of the urban poor will need commitment as well as resources. It will also require a reassessment of the present service delivery systems so as to promote efficiency and effectiveness.

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## TABLES AND FIGURES

Table 1. Trend in percentage change in real government expenditure by sector

	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988
TE as % of GDP	42	35	36	30	32	38	37	39	32	29	35	42	35	29
Education as % of TE	14	17	17	17	15	11	12	15	15	16	12	8	9	9
Schools as % in Education	63	64	64	66	66	68	71	63	65	60	60	55	52	64
Health as % of TE	6	7	7	8	7	6	6	8	7	7	6	4	5	7
Housing & Community amenities as % TE	2	2	2	2	2	2	0.4	1	n/a	0.04	1	1	0.4	0.5
Economic Services as % of TE	20	19	29	24	29	33	22	24	25	16	18	21	8	25
Roads as % of expenditure in economic services	16	19	12	12	16	11	12	20	-	4	14	21	22	6
Social Security & Wages	.29	1.6	.14	.15	.12	.18	22	2.1	2.3	2.6	1.5	1.0	1.3	1.5
Other Communities Social Services	1.2	1.4	1.2	1.9	1.5	1.8	2.3	2.1	1.8	22	1.0	1.1	1.5	1.6
General Public Services	41.8	41.1	31	33	33	36	47	39	45	40	36	36	50	39
Other Expenditures	8.4	11.2	12.9	14.3	13.5	10.9	7.7	7.3	14.9	15.4	25.4	29	29.3	16.7

Note: Figures are rounded off, and derived from total expenditure figures.

Source: IMF-Government Finance Statistics Yearbook, various years

Table 1a. Public investment programme, 1990-1993. Sector investment programmes. (Millions)

	FOREIGN CONTENT S	LOCAL COST K	TOTAL COST K	%
AGRICULTURE	326.9	5490.2	13662.6	27.6
MINING	139.6	3728.8	7218.8	14.6
TRANSPORTATION + COMMUNICATIONS	348.4	3547.8	12250.7	24.8
ENERGY	139.1	630.0	4142.0	8.3
MANUFACTURING	90.0	646.5	2988.1	5.8
EDUCATION	85.9	721.7	2955.8	5.8
HEALTH	67.9	449.9	2144.1	4.2
WATER, SANITATION, PUBLIC WORKS	79.7	606.5	2598.7	5.3
WOMEN IN DEVELOPMENT	6.7	73.2	243.9	0.5
NON-TRAD. EXPORTS	19.8	959.4	1454.5	2.9
TOTAL*	1303.9 (55.9%)	16854.0 (34.1%)	49442.5 (100.0%)	100.0

\* Numbers may not add because of rounding.

Table 2. Summary table: Social Action Programme, 1990-1993\*. (Millions)

	1990			1991			1992			1993			TOTAL		
	Foreign \$	Local K	Total K	Foreign \$	Local K	Total K									
<b>TOTAL</b>	<b>45.7</b>	<b>509.2</b>	<b>1009.0</b>	<b>77.0</b>	<b>759.0</b>	<b>2093.0</b>	<b>71.7</b>	<b>548.0</b>	<b>2430.9</b>	<b>01.9</b>	<b>550.4</b>	<b>2007.0</b>	<b>257.2</b>	<b>2300.0</b>	<b>0000.0</b>
<b>HEALTH, NUTRITION AND FOOD SECURITY 2/</b>	<b>12.4</b>	<b>179.2</b>	<b>504.0</b>	<b>15.7</b>	<b>210.3</b>	<b>007.0</b>	<b>19.3</b>	<b>207.9</b>	<b>099.5</b>	<b>19.7</b>	<b>200.3</b>	<b>001.0</b>	<b>07.1</b>	<b>005.7</b>	<b>2474.0</b>
<b>EDUCATION &amp; TRAINING</b>	<b>19.5</b>	<b>203.0</b>	<b>091.0</b>	<b>20.7</b>	<b>225.0</b>	<b>942.0</b>	<b>21.3</b>	<b>176.0</b>	<b>091.2</b>	<b>10.5</b>	<b>110.0</b>	<b>530.7</b>	<b>00.0</b>	<b>722.2</b>	<b>2002.5</b>
<b>WATER &amp; SANITATION</b>	<b>3.9</b>	<b>30.9</b>	<b>130.5</b>	<b>0.7</b>	<b>09.0</b>	<b>285.0</b>	<b>10.0</b>	<b>03.4</b>	<b>333.0</b>	<b>0.4</b>	<b>70.7</b>	<b>201.5</b>	<b>31.0</b>	<b>254.0</b>	<b>1030.0</b>
<b>ROADS, MARKETPLACES, AND PUBLIC TRANSPORT</b>	<b>5.4</b>	<b>41.5</b>	<b>176.3</b>	<b>21.3</b>	<b>200.9</b>	<b>722.5</b>	<b>19.1</b>	<b>03.0</b>	<b>039.0</b>	<b>15.7</b>	<b>133.0</b>	<b>525.0</b>	<b>01.5</b>	<b>447.2</b>	<b>2003.0</b>
<b>WOMEN IN DEVELOPMENT</b>	<b>2.1</b>	<b>21.0</b>	<b>73.5</b>	<b>1.0</b>	<b>15.0</b>	<b>57.0</b>	<b>1.7</b>	<b>10.2</b>	<b>59.2</b>	<b>1.3</b>	<b>19.3</b>	<b>52.0</b>	<b>0.7</b>	<b>73.2</b>	<b>243.4</b>
<b>HOUSEHOLD ENERGY</b>	<b>2.4</b>	<b>32.0</b>	<b>92.0</b>	<b>1.9</b>	<b>29.5</b>	<b>77.0</b>	<b>0.3</b>	<b>1.5</b>	<b>9.0</b>	<b>0.3</b>	<b>1.5</b>	<b>9.0</b>	<b>4.9</b>	<b>04.5</b>	<b>107.0</b>
<b>PUBLIC WORKS<sup>a</sup></b>	<b>02.4</b>	<b>400.7</b>	<b>549.0</b>	<b>103.4</b>	<b>925.7</b>	<b>1009.0</b>	<b>5.4</b>	<b>30.0</b>	<b>1201.0</b>	<b>150.5</b>	<b>30.0</b>	<b>1040.0</b>	<b>407.0</b>	<b>1453.5</b>	<b>3942.0</b>

\* These figures are included in the amounts above for specific subsectors. Thus they are not added to the grand total, since that would be double counting.

<sup>a</sup> Figures included some minor amendments to the estimates presented in Chapter 7 of the Public Investment Programme. See Annex A for details.

<sup>b</sup> From (i) Table 2 plus (ii) the estimates for hammermills projects (see discussion in text).

Table 3. Energy supply and consumption by energy source in 1988. ('000 toe)

Energy Source	Primary Supply			Final Consumption		
	Quantity	(PJ) $\underline{c}$ /	Percent	Quantity	(PJ) $\underline{c}$ /	Percent
Woodfuel <u>a</u> /	3303.0	(141.2)	64	2466.0	(105.4)	58
Crop residues	321.0	(13.7)	6	321.0	(13.7)	8
Electricity <u>b</u> /	595.5	(25.5)	12	537.6	(23.0)	13
Coal	341.9	(14.6)	7	341.9	(14.6)	8
Petroleum	567.3	(24.2)	11	567.3	(24.2)	13
<b>Total</b>	<b>5128.7</b>	<b>(219.2)</b>	<b>100</b>	<b>4233.8</b>	<b>(180.9)</b>	<b>100</b>

a 000 Toe's; fuelwood 1964; charcoal 1339. The charcoal wood produced 502,000 toe's of charcoal.

b Excludes exports. Distribution losses 57,900 toe.

c 1 TOE = 42.74 GJ (10<sup>7</sup>); 1 PJ = 10<sup>12</sup>J.

Source: ESMAP/DOE Energy Sector Strategy Study, 1988, amended and updated by the project.

Table 4. Final energy consumption by sector and fuel in 1988 (PJ)

Sector/Fuel	WF	CR	Coal	Petroleum	Elec.	Total	%
Household (Rural)	(64.3)	(11.7)		(0.4)	(0.2)	(76.6)	(43)
Household (Urban)	(23.1)	(0.9)	-	(1.4)	(1.9)	(27.3)	(15)
Household	87.4	12.6	-	1.8	2.1	103.9	58
Agriculture & Forestry	8.6			0.7	0.4	9.7	5
Mining	0.5		7.9	6.6	16.8	31.8	18
Industry & Commerce	8.5	1.1	6.0	3.1	3.0	21.7	12
Government/service	0.4		0.7	0.3	0.7	2.1	1
Transport				11.7		11.7	6
<b>Total</b>	<b>105.4</b>	<b>13.7</b>	<b>14.6</b>	<b>24.2</b>	<b>23.0</b>	<b>180.9</b>	
<b>Percent</b>	<b>58</b>	<b>8</b>	<b>8</b>	<b>13</b>	<b>13</b>	<b>100</b>	

Source: ESMAP/DOE Energy Sector Strategy Study, amended and updated by the project.

Table 5. Zambia 1988: Energy balance for urban households<sup>a</sup>. Units TOE (PJ)

	Cooking	Water Heating	Space Heating	Cooling	Ironing	TV	Fridge	Lighting	Fire Ignition	Other	Total	%
Charcoal	186,600 (7.98)	62,580 (2.67)	96,710 (4.13)	-	25,030 (1.07)	-	-	-	-	1,140 (0.05)	372,060 (15.90)	58
Firewood <sup>b/</sup>	86,880 (3.71)	28,210 (1.21)	40,060 (1.71)	-	12,130 (0.52)	-	-	-	-	570 (0.02)	167,850 (7.17)	26
Crop Residues	14,330 (0.61)	7,160 (0.31)	-	-	-	-	-	-	-	-	21,490 (0.92)	4
Electricity	25,650 (1.10)	2,290 <sup>c/</sup> (0.10)	2,070 (0.09)	130 (0.00)	2,290 (0.10)	630 (0.03)	2,830 (0.12)	9,030 (0.38)	-	-	44,920 (1.92)	7
Kerosene	3,110 (0.13)	260 (0.01)	-	-	-	-	-	18,060 (0.78)	9,000 (0.38)	3,300 (0.14)	33,730 (1.44)	5
<b>TOTAL <sup>d/</sup></b>	<b>316,570 (13.53)</b>	<b>100,500 (4.30)</b>	<b>138,840 (5.93)</b>	<b>130 (0.00)</b>	<b>39,450 (1.69)</b>	<b>630 (0.03)</b>	<b>2,830 (0.12)</b>	<b>27,090 (1.16)</b>	<b>9,000 (0.38)</b>	<b>5,010 (0.21)</b>	<b>640,050 (27.35)</b>	<b>100</b>
Percentage	50	16	22	0	6	0	0	4	1	1	100	

<sup>a</sup> 528,000 households; 2,966,000 people - 40 percent of Zambia's population.

<sup>b</sup> Excluding firewood used in funerals estimated at 16,000 TOE (43,000 tons) which when added brings the total household energy consumption to about 656,000 TOE.

<sup>c</sup> Geysers for water heating only.

<sup>d</sup> This table does not take into consideration end use efficiency.

Table 6. Consumer cooking cost per gigajoule with different fuels at three specific time periods<sup>a</sup>. Units ZK (US\$) per gigajoule of useful energy.

FUEL	November 88	Ratio to Charcoal	March 89	Ratio to Charcoal	October 89	Ratio to Charcoal
Wood (Purchased)	170 (22)	1.0	n/a	-	670 (36)	1.3
Charcoal	170 (22)	1.0	560 (56)	1.0	520 (28)	1.0
Kerosene	215 (27)	1.3	260 (26)	0.5	580 (31)	1.1
Electricity <u>b/</u>	220 (28)	1.3	270 (27)	0.5	340 (18)	0.7
Electricity <u>c/</u>	320 (41)	1.9	410 (41)	0.7	560 (30)	1.1
<b>Exchange rate</b>						
ZK to US\$	7.86		10.0		18.5	

a Includes fuel and amortized stove prices and wiring plus connection fees where relevant. Only currently available electric hot plates are considered.

b Homes with connection.

c Homes needing connection.

Table 7. Primary school enrollments, 1970-86

Year	Boys	Girls	Total
1970	385,676	308,994	694,670
1971	402,331	327,470	729,801
1972	428,693	349,180	777,873
1973	445,009	365,225	810,234
1974	470,191	388,000	858,191
1975	467,008	396,384	872,392
1976	492,899	414,968	907,867
1977	504,669	432,148	936,817
1978	516,358	448,117	964,475
1979	531,354	465,243	996,597
1980	554,503	487,435	1,041,938
1981	568,039	505,275	1,073,314
1982	593,674	528,095	1,121,769
1983	631,973	562,097	1,194,070
1984	666,347	594,263	1,260,610
1985	713,032	635,657	1,348,689
1986	761,171	680,962	1,442,133

Source: Ministry of General Education and Culture (1986) and unpublished data.

Table 8. Secondary schools enrollments, 1970-86

<i>Year</i>	<i>Boys</i>	<i>Girls</i>	<i>Total</i>
1970	35,205	17,267	52,472
1971	37,518	18,487	56,005
1972	39,943	20,108	60,051
1973	40,348	21,006	61,354
1974	43,564	22,200	65,764
1975	47,983	25,066	73,049
1976	51,871	26,934	78,805
1977	55,498	28,389	83,887
1978	58,737	30,243	88,980
1979	60,200	31,595	91,795
1980	61,351	33,244	94,595
1981	63,996	34,866	98,862
1982	67,622	37,237	104,859
1983	73,588	41,502	115,088
1984	80,339	45,472	125,811
1985	83,407	48,095	131,502
1986	95,112	55,286	150,398

Source: Ministry of General Education and Culture (1986) and unpublished data.

Table 9. School-leavers by grade and year, 1975-85

<i>Year</i>	<i>Number who left school at the end of</i>				<i>Total</i>
	<i>Grade 4</i>	<i>Grade 7</i>	<i>Grade 9/10<sup>a</sup></i>	<i>Grade 12</i>	
1975	23,586	69,369	7,793	7,341	108,089
1976	23,556	74,858	9,111	7,724	115,249
1977	23,596	79,694	9,948	8,307	121,545
1978	23,178	83,443	10,419	9,120	126,160
1979	18,392	85,330	10,851	10,426	124,999
1980	18,556	94,938	11,206	10,739	135,439
1981	15,458	96,694	11,280	11,491	134,922
1982	13,103	96,836	12,069	11,678	133,686
1983	13,459	104,942	13,796	12,434	144,631
1984	10,371	104,126	13,726	13,253	141,476
1985	11,795	112,079	18,841	13,575	156,290

<sup>a</sup> The figures in this column refer to school-leavers after grade 10 for the years 1975-84. For 1985 they refer to a combined total from grades 9 and 10 because of the 1985 reorganization.

Source: Education ministries (1978-81), *Education Statistics*; Ministry of General Education and Culture unpublished data.

Table 10. Enrollments in Department of Technical Education and Vocational Training Institutes, 1971-1982. Full-time pre-employment training programs enrollment by institution and year of study, 1981-1982.

Institution	1971	1972	1973	1974	1975	1976	1977	1978	1979	1980	1981	1982	Total
Evelyn Hone College of Applied Arts and Commerce	812	882	1026	1048	958	1216	1204	1221	1170	1282	1100	1158	13141
Zambia Institute of Technology	360	476	478	479	1020	1245	1088	1089	962	842	958	1014	8994
Northern Technical College	796	719	748	785	892	487	561	515	512	602	659	584	7520
Zambia Air Service Training Institute	375	285	310	213	267	258	180	98	118	95	218	172	2568
Livingstone Trades Training Institute	188	231	380	508	428	482	498	530	865	411	370	450	4817
Lusshya Tech. and Voc. Teachers' Col.	88	101	92	108	114	117	288	302	321	348	388	380	2648
Kabwe Trades Training Institute	300	408	440	602	578	453	524	445	299	385	348	380	5258
Lusaka Trades Training Institute	204	200	338	338	290	208	202	208	219	220	218	300	3172
Chama Trades Training Institute	82	98	198	189	125	124	158	160	141	141	108	148	1810
Lusshya Trades Training Institute	262	388	388	402	359	334	320	368	299	347	318	337	4108
Lusshya Trades Training Institute	82	28	28	25	71	80	120	178	191	185	284	178	1871
Mhumbi International College	118	80	124	418	275	325	371	365	345	288	347	348	3424
Mansa Trades Training Institute	59	52	59	138	208	125	180	59	100	89	88	61	1178
Kasuyi Secretarial College	-	-	-	78	82	80	105	158	228	121	138	99	1044
Total	3658	4118	4801	5248	5440	5508	5798	5778	5282	5185	5498	5615	61861

Source: Ministry of General Education and Culture (MGEC), unpublished data.

Table 11. Ten leading causes of outpatient morbidity (new cases) - children (0-14 years) - 1981

Diagnosis	Hospitals		Diagnosis	Health Centers	
	Male Percent	Female Percent		Male Percent	Female Percent
Upper resp. illness	18.7	19.0	Upper resp. illness	19.7	20.0
Diarrhea	11.4	11.3	Diarrhea	11.9	11.6
Malaria	9.9	10.2	Fevers	10.8	12.1
Fevers	9.0	9.0	Injuries	9.0	7.5
Abd. conditions	6.6	6.9	Malaria	8.2	8.5
Injuries	7.6	6.1	Abd. conditions	6.9	7.2
Skin conditions	4.6	4.4	Skin conditions	5.7	5.5
Eye conditions	4.9	5.1	Eye conditions	5.6	5.7
Ear conditions	2.6	2.4	Worms	3.2	2.9
Malnutrition/Anaemia	2.0	2.1	Ear conditions	2.3	2.3
Not specified	22.7	23.5	Not specified	16.7	16.7
<b>Total</b>	<b>100.0</b>	<b>100.0</b>	<b>Total</b>	<b>100.0</b>	<b>100.0</b>

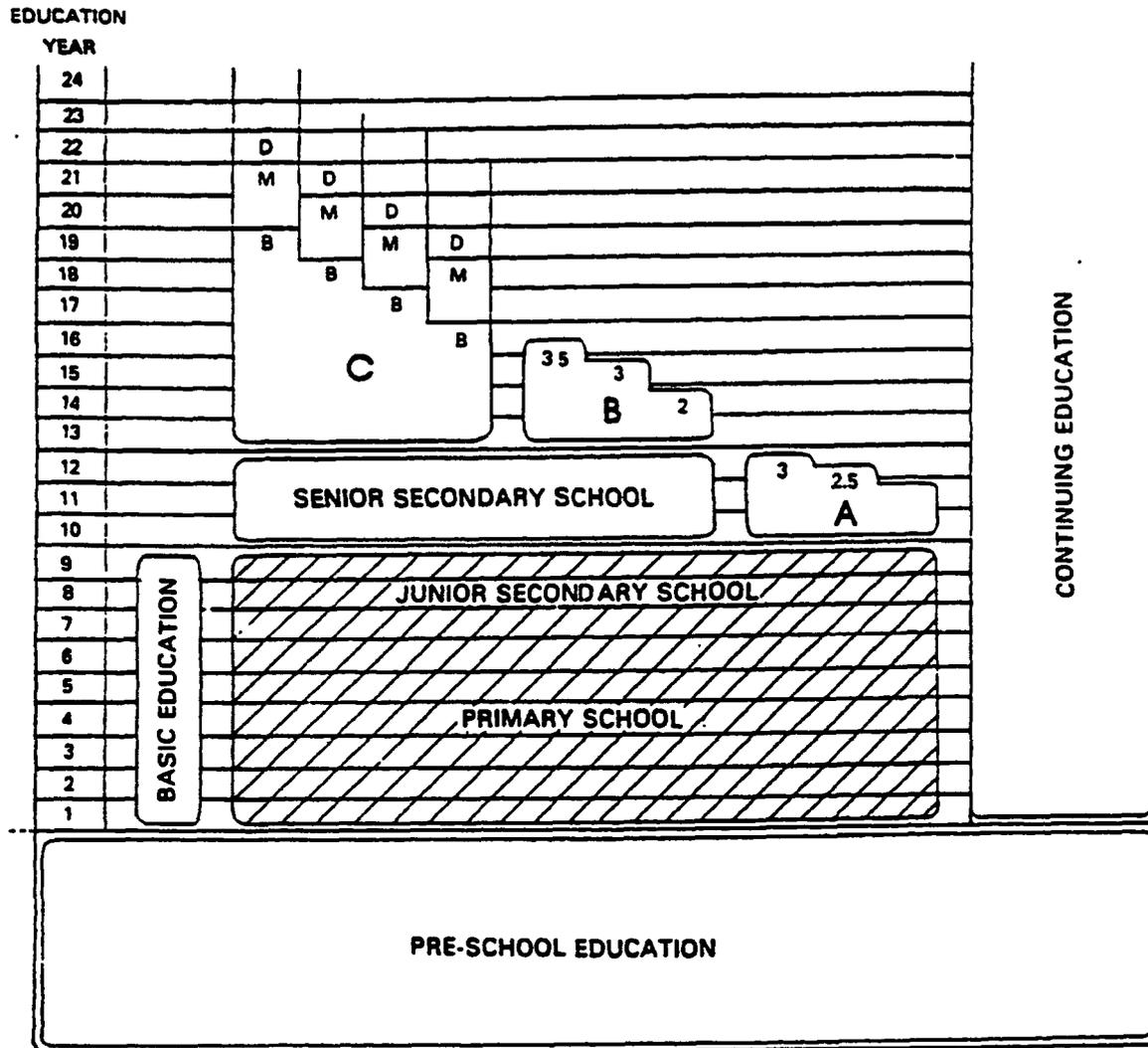
Source: Ministry of Health

Ten leading causes of outpatient morbidity (new cases) - adults (14 and above) - 1981.

Diagnosis	Hospitals		Diagnosis	Health Centers	
	Male Percent	Female Percent		Male Percent	Female Percent
Upper resp. illness	14.0	13.8	Upper resp. illness	18.6	17.4
Abd. conditions	7.4	13.0	Injuries	10.1	7.8
Injuries	9.9	7.1	Fevers	9.8	9.7
Fevers	7.2	7.5	Diarrhea	8.3	8.0
Diarrhea	6.0	6.0	Abd. conditions	8.2	12.1
Malaria	5.9	6.9	Malaria	6.6	7.0
Dental conditions	5.4	5.9	Skin conditions	4.2	4.2
Eye conditions	4.9	4.5	Eye conditions	3.9	4.5
Venereal disease	4.8	3.0	Venereal disease	3.4	2.2
Skin disease	4.2	4.2	Dental conditions	2.1	2.5
Not specified	30.3	28.1	Not specified	24.8	24.6
<b>Total</b>	<b>100.0</b>	<b>100.0</b>	<b>Total</b>	<b>100.0</b>	<b>100.0</b>

Source: Ministry of Health

Figure 1. Final structure of education



Notes:

A Various vocational programmes e.g., Trades, Nursing, Teacher Training, etc., leading to a certificate.

B Various programmes, e.g., Agriculture, Technology, Commerce, Nursing, etc., leading usually to a diploma.

C University degree: D = Doctorate. M = Master. B = Bachelor: 4 years - Ordinary; 5 years - Engineering, Agriculture, etc.; 6 years - Veterinary Science; 7 years = Medicine.

NB: In A and B there are also some courses which take less than 2 years.

From primary to senior secondary an education year represents a grade.

Figure 2. Consumer price index - low-income population (1975 = 100)

