

Workshop on Poverty and Environment in Uganda.

Report of Uganda National Workshop.

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1. INTRODUCTION

The OSSREA Zambia National chapter held its one day local workshop on the theme "**Environmental, Social and Economic Development Issues in Zambia's Third Republic**" on 26th August 1998. Bringing together University of Zambia scholars from different disciplines the workshop's objective was to assess the economic and social development that has taken place in Zambia since the coming to power of the MMD Government in 1991. In all a total of nine papers were presented at the workshop by academic members of staff of the University of Zambia drawn from different disciplines. The seminar was attended by a total of 23 people out of 30 that were invited.

2. THE PAPERS

The first paper by Dr Laurence Mukuka, *The Conceptual Framework for Poverty Analysis and Reduction in Zambia*, argues that poverty analysis and reduction in Zambia is generally misconceived because of lack of adequate understanding of its real causes and vision. The author explains that the first decade of Zambia's independence, i.e., from 1964 to 1974, saw some relative prosperity, but the country has deterioration in the living condition so much that all the gains of which were achieved during the first decade have been reversed. Dr Mukuka traces the origins of this decline to the economic reforms of 1968 to 1972, which though politically appealing spelled economic disaster. This new economic system was characterised by mismanagement of the economy, adoption and application of inappropriate technologies, poor management and enormous waste of resources, high unemployment and underemployment, deteriorating of foreign exchange position, rising inflation, increasing public debt, high levels of poverty and inequality in the distribution of wealth and a considerable part of the social service infrastructure in a state of disrepair. Dr Mukuka further explains that in general Zambia's poverty is largely "structural". It is caused by structural biases and distortions that are inherent in the country's political, economic, educational, and cultural institutions and its relations with rich countries. The paper recommends five strategies to reduce poverty in Zambia. These are; increasing broad-based economic growth in agriculture and rural development, providing public physical infrastructure, increasing productivity of the urban micro-enterprises and informal sector, developing human resources and the need to co-ordinate, monitor and evaluate poverty reduction programs.

In the second paper on *Prediction of Agricultural Production Using Census Data*, Dr Henry Sichingabula uses the 1990/92 census data to assess agricultural performance and the success of various activities conducted in Zambia. According to Sichingabula in general census population and agricultural data are useful in a variety of ways including assessment of productivity, prediction of future crop production levels, assessment of drought impacts as well as in the assessment of regional development around the country. Regression approaches were used in the prediction of future crop yields, thus, demonstrating how census data can be utilised by researchers, planners and others in the country. In the paper, therefore, Sichingabula attempts a) to show typical uses of population and agricultural data, and b) to develop predictive models for

agricultural production. The paper concludes that the proposed linear multiplicative model for predicting crop production in Zambia is useful for both planners and farmers.

The third paper by Mr Augustine Katotobwe titled *The Privatisation of the Mines in Zambia* looks at the problems and dynamics involved in the sale of copper mines. The paper traces the origins of Zambia's privatisation policy to the Second Republic's debates on the issue. These debates culminated in full implementation of privatisation in the Third Republic. Despite some feeble resistance through procrastination by those negatively affected, the privatisation policy seems to have been easily implemented in nearly all the sectors of the economy. The mining sector is the only exception to this smooth transfer of SOEs from the public to private investment. A problematic situation in the mining industry has developed as the parties concerned have had their protracted negotiations over the sale of Nchanga and Nkana mines broken down. Katotobwe suggests that other considerations besides the "low Price" advanced by the Zambian Government as the reason for the deadlock in negotiations. He argues that Zambia's socio-economic and political stability, now and in the future, depends heavily on the mining industry. The MMD Government is, therefore, finding it difficult to let these key mines go into private hands at a time when the political consequences for the ruling party and Government leaders may not be predictable. Consequently, the paper concludes that it is for political reasons and not the low price offered that the mines are proving difficult to sell as the MMD Government belatedly seems to realise that whoever controls the mines, controls the politics of Zambia. Having reached this conclusion the paper makes two suggestions. First that the mines should be sold to the people of Zambia in partnership with foreign investors, and secondly either Anglo-American or Kafue Consortium should be offered the partnership.

The next two papers, one by Mr. Excellent Hachileka *A Comparative Evaluation of the Application of Economic Instruments for Sustainable Natural Management Between the Second Republic and Third republic* and that by Francis Chigunta *Gendering Environment Policy in Zambia* deal with issues of environmental policy in Zambia.

The paper by Hachileka is a comparative review of the application and enforcement of economic instruments between the Second and Third Republics in Zambia, in view of the economic, political and policy changes that have and are still taking place in the Third Republic. The review is against the background that economic instruments are preferable to predominantly command-and-control instruments in a liberalised economy because they integrate environmental and economic policy and are efficient in their use of scarce development and management resources. There are four types of instruments used for environmental management in Zambia since independence in 1964. These are regulatory, economic, anticipatory and consultative instruments. The most used of the four instruments in both the Second and Third Republics are regulations enforced by legislation. These have since been strengthened in the Third Republic through the Environmental Protection and Pollution Control Act. No, 12 of 1990 which also established the Environmental Council of Zambia. Various regulatory instruments have since been enacted for pollution control and resource management for water, air, waste and noise pollution among other uses. The use of economic instruments remains uncommon for both environmental protection and natural resource management. To-date only non-compliance fees are charged to polluters who exceed the emission levels imposed by the regulations. Economic instruments in natural resource management are in the Third republic, like in the Second

Republic, still only being used in form of user charges for water, energy and other metered resources. The paper concludes that no significant changes have taken place in environmental policy instruments as far as the application of economic policy instruments for sustainable natural resource management is concerned. Further, the consequences of policy failure on sustainable development are still largely the same between the Second and Third Republics. This is largely because regulatory policy instruments remain dominant in environmental and natural resources policies. The paper therefore, recommends that a more balanced mix of regulatory, economic and consultative instruments be used in the environmental protection and natural resources management policy in the country if sustainable development is to be attained. Future environmental policy reforms should be inclined towards increased use of economic instruments in view of the economic liberalisation and privatisation policies of the government.

The paper by Francis Chigunta discusses the role of women in environmental management in Zambia. The author's position is that in recent years, particularly after the MMD came into power there has been a lot of Government action on environment in Zambia. However lacking in the Government's action on environmental issues are gender issues. While Government pronouncements indicate the need for a gender affirmative policy, there has been no new gender policy, no administrative machinery and no practical action to integrate gender issues into development policies, let alone environmental policy. The primary focus of Chigunta's paper therefore is on the valuable role that rural women play in resource management through their dominant involvement in agriculture and woodfuel gathering. It focuses on the cultural, social and economic constraints which women face. It thus argues that for any meaningful resource management and sustainable development to occur there is need to integrate gender into environmental policy. This argument stems largely from the observation that the dominant role of women as farmers and as gatherers and users of woodfuel means that they have the potential of not only conserving natural resources but also of destroying them.

The next three papers, i.e. the sixth, seventh and eighth all deal with issues related to educational policy.

The sixth paper by Dr. Darlington Kalabula, *Perceptions of Disability in Zambia: Implications for Educational Policies and Other Service Delivery*, discusses the perceptions of disability in Zambia's Third Republic and how the mixture of foreign and local interpretations have influenced educational policy and service delivery for children and young people with disabilities or special educational needs. The paper traces the history of attempts at teaching children with disabilities which were first made in 1905 in the Eastern Province. The first schools for children with visual impairments were established in 1923 and 1929. By 1950, other schools for children with hearing and physical impairment were established by missionaries. Thereafter the Zambia Council for the Handicapped was established to continue with service delivery first under the Ministry of Labour and Social Services and in 1971 under the Ministry of Education. The paper then goes on to argue that the provision of education to the disabled has not been quite successful. Out of a population of 160,000 to 250,000 of 7-13 olds with disabilities only about 2,000 are catered for in the country's residential and integrated schools. Among some of the suggestions the author makes to improve the provision of education for the disabled are establishing a department for special education within the Ministry of Education, translating policy pronouncement into law to empower parents and children with disabilities

concerning their rights and privileges, running workshops and seminars to sensitise the Zambia populace about disability and special needs and mobilise financial and human resources locally and abroad, to support special needs education.

The seventh paper *University Experience as a Change Agent in Improving Managerial Capacity in Zambia's Education System* by Henry J. Msangu looks at the problems of training managers in Zambia's educational system. Msangu's paper begins by making general identification of concepts in education, training, objectives and the need for effective management. He argues that to manage effectively there is need for highly trained personnel. He identifies indicators of effective and efficient management can be looked at in terms of i) incidences of dialogue with the teachers and other members of staff in relation to policy issues, ii) evidence of community mobilisation for specific plans, iii) evidence of creativity in dealing with and solving problems at School, District or College level, iv) evidence of records of the following: clear mission statement, staffing in the district, distribution of material resources in the district, educational institutions in the District according to defined criteria, gender desegregated records of pupils in the District, minutes of staff meetings and other records, evidence of utilisation of education. Msangu then examines efforts that have been made by the Government and donors through the Zambia Educational Rehabilitation Project and the University of Zambia. The author explains that the Zambia Educational Development Project (ZEDP) was a joint Ministry of Education and the International Development Agency (IDA) project. The project was established in order to reverse the continued deterioration of the education system and to sustain educational revitalisation. Among the project's objectives is to increase the capacity of the education sector to manage an increasingly complex sector in the context of greatly circumscribed resources through the strengthening of educational management and planning and through improvements in the Ministry of Education capacity for policy formulation and analysis. The University of Zambia's School of Education has also collaborated with the Ministry of Education to try to improve the managerial capabilities of inspectors of schools, heads of schools, district education officers, planners as well as provincial educational officers. While acknowledging some success in this programme Msangu also identifies a number of shortcomings. He concludes his paper by stating that for Zambia to develop the whole concept of management should be refocused. The effective delivery of education will increasingly depend on the quality of educational administration and management. School heads, education officers and inspectors need training in educational management and supervision. The Government should make appropriate training a pre-condition for appointment or promotion to managerial and supervisory positions while the University of Zambia should have tailor-made programmes to meet the Ministry of Education's needs.

The eighth paper by Mr. Joy H. Kalyalya titled *Formal Schooling as an Effective Means of Promoting Democracy in Zambia* focuses on formal schooling as an agent of democracy. It argues that democracy will not be deeply rooted in Zambia unless it is offered as the core of school curriculum. The paper further argues that democracy will not be effectively disseminated through the school system unless, i) the current aims of the national education are made democratic, ii) the current school curriculum and organisation are restructured in order to make them conform to the demands of democracy, iii) teachers are given orientation in democratic teaching methods and techniques of managing classroom discipline and problems iv) education managers are given orientation in democratic management skills. The paper concludes by stating that although offering democratic education through formal schooling would be hampered by

opposition in the initial stages, Zambia has tremendous potential of evolving a strong democratic society.

The last paper by Dr Annie Sikwibele, *Gender Relations and HIV/AIDS in Kapulaga, Mongu: Some Social Policy Implications*, is based on a case study of some rural locality in Western Province of Zambia which was part of a wider study to look at gender relations in the fight against HIV/AIDS in Zambia. One of the objectives of the study was to investigate gender relations as aspects of the struggle against HIV/AIDS in Zambia, taking into account of the fact that in Africa, HIV/AIDS has been spread primarily through heterosexual relations. On the basis of a variety of sources, which included interviews, focus group discussions, observations and surveys the study established a number of facts from the study of this rural community. The first is that all the people who were interviewed were aware of HIV/AIDS and had personal knowledge of someone infected. A high proportion of the respondents considered themselves at risk with the young girls being more vulnerable to infection from elder men due to the "sugar daddy" syndrome. A high proportion also know that the disease is got through heterosexual transmission, blood transfusion, sharing razor blades, needles, syringes and pre-natal transmission from mother to child. Respondents identified the symptoms of HIV/AIDS as including: chest problems, persistent coughs, persistent diarrhoea, weight loss, malaria, high fever, vomiting, change in skin and hair colour and texture, falling hair, sores on the body, swelling of the body, heart burns, painful legs and feet and back aches. It was established that young girls and women are most at risk and responsible for its spread due to their vulnerable situation. The study further established that the community had strong patriarchal structures with strong traditional beliefs about sexual roles of women and men, where women remain subordinate to men. It was generally agreed too, that women have no power to say "NO" to men, particularly when it came to sex. The author concludes the paper by making a number of recommendations. The first is the need for some co-ordinated social policy programmes, especially in health education. Secondly community based education programmes need to be developed to educate the community. Third is the need to implement some support programmes for orphans and widows. Fourthly there is need to target the much younger school age population who are not yet affected and collaborating with the NGOs, churches etc. Fifth is the need to devise functional literacy and skills training programmes that combine with health education. Finally there is need for policies and programmes aimed at assisting children from poor female headed households, who drop out from school early to contribute to family incomes and by so doing making them the most vulnerable to infection with HIV/AIDS.

THE CONCEPTUAL FRAMEWORK FOR POVERTY ANALYSIS AND REDUCTION IN ZAMBIA

Lawrence Mukuka*

Poverty analysis and reduction in Zambia is generally misconceived because it lacks an adequate understanding of its real causes and a vision. Part of this problem is caused by the nature and type of the formal education provided, which is as wide as the Atlantic and Indian Oceans combined but as shallow as a bathtub! In fact, too shallow to enable one to know and understand history, and too naïve to predict the future.

In the first decade of Zambia's independence (1964-1974) the country experienced some relative prosperity from a booming economy. This was facilitated by a small national population of about 4 to 4.5 million people. Before 1964, up to the Mulungushi Declaration of Zambia's economic reforms in 1968, which brought in government's direct participation in the economy, the country's formal economy was dominated by copper mining which was heavily controlled by non-Zambians.

The 1968 Mulungushi Declaration of direct government intervention in the economy, and the full implementation of the Declaration from 1972 to 1989, marked the establishment of a more restrictive policy environment that:

- (i) limited the degree of competition (internal and external) to which the domestic economy was exposed.
- (ii) suppressed the role of market mechanisms in guiding the allocation of resources; and
- (iii) overly extended the role of the public sector (World Bank, 1994, p.11).

While politically this move appealed highly to the electorate and became consistent with the new self-determination, the inefficiencies of state-run commercial enterprises, mainly emanating from the government, spelled economic disaster:

- . mismanagement of the economy;
- . adoption and application of inappropriate technologies;
- . poor management and enormous waste of resources;
- . deterioration of social indicators of health, education, nutrition, infant mortality, life expectancy and access to safe drinking water and sanitation;
- . low or negative rates of GDP growth;
- . high unemployment and underemployment;
- . deteriorating of foreign exchange position;
- . rising inflation;
- . increase in public debt;
- . high levels of poverty and inequality in the distribution of income and wealth; and
- . a considerable part of the social service infrastructure in a state of disrepair.

In the past twenty-three years (1974-1997), Zambia's living conditions have deteriorated so much that most of the gains which were achieved in income distribution and social indicators during the economic years 1964 to 1974, have been reversed. The decline in economic productivity, output and investment between 1974 and 1997, have made Zambia's per capita national income and all its social indicators to fall dramatically.

In view of the foregoing argument, a working definition of poverty is proposed. Poverty means low life expectancy, low educational opportunities, inadequate access to resources for a decent standard of living (e.g., income and consumption, housing, health, clean water and sanitation, nutrition, productive potential, and other central dimensions of well-being), and lack of freedom to exercise choice and participate in society.

In addition to the post-independence macro-economic inappropriate policies and external shocks, there have also been other, probably even more formidable, causes of Zambia's poverty, that lie inside and outside of Zambia. Secondly, poverty in Zambia is typically 'structural poverty' (i.e., it is man-made and NOT a result of the country's poor soil, harsh climate, inadequate resources and other physical or biological conditions). Instead, it is caused by the structural biases and distortions that are inherent in the country's (a) political; (b) economic; (c) educational; (d) relationships with rich countries; and (e) cultural institutions, in that order. It is these biases and distortions which mainly cause poverty and suppress national development in the country.

Ultimately, in order for the national development process in the country to succeed, there should be comprehensive and well-targeted 'structural transformations' in all these areas discussed above, in order to propel the country forward. These transformations should be more extensive, growth- and poverty reduction-oriented than the on-going structural adjustment program, and supported by progressive and development-oriented organisations. The proposed interventions in the discussed biases and distortions, are likely to cause the greatest impact on poverty reduction.

The paper recommends the following five strategies for poverty reduction in Zambia:

- . To increase broad-based economic growth in agriculture and rural development;
- . To provide public physical infrastructure;
- . To increase productivity of the urban micro-enterprises and informal sector;
- . To develop human resources; and
- . To co-ordinate, monitor and evaluate poverty reduction programs.

These five strategies encompass many sub-areas which have been at the centre of national development discussion for Zambia and other developing countries with similar characteristics. It is, therefore, recognised that other actors and stakeholders need not recognise their own areas but rather identify themselves with the national goals and co-

operate with and support the government to make national development and poverty reduction a reality in Zambia. This would help to concentrate efforts and resources on specific goals, lessen scattering and misusing limited resources, and increase chances of success.

PREDICTION OF CROP PRODUCTION IN ZAMBIA USING CENSUS DATA

Henry M. Sichingabula*

1. Introduction

Agriculture production has been emphasised since Zambia's independence in 1964, both in the Second and Third republics. The major concern of the planners has been the provision of seed, fertilisers, drought animals and credit. Proposed programmes in the past achieved variable levels of success for a variety of reasons.

In the Third republic, there is need to do things differently with economic liberalisation. Planning methods geared towards increased agricultural performance should spread to farmers so that they utilise them in their bid to increase production. However, some methods especially those used in the estimation of expected crop yields are still obscure to many, including some elites.

Assessment of regional development is vital for national development in order to ensure equitable allocation of resources, for promoting those activities best suited to certain parts of the country, discovering new developments in an area such as the emergence or decline of medium scale or large scale farming, deciding on whether or not to introduce new innovations in agriculture, as well as the assessment of impacts of internal trends of population migration.

This study utilised the census data published by the Central Statistical Office (CSO) in 1994 to assess agricultural production and the variety of agricultural activities in the country. The objective was to develop a simple technique for farmers and planners for predicting crop production in different districts of the country. This objective is in concert with CSO objectives of (i) fostering data user-producer interaction and dialogue; (ii) collecting census data, and the development of an agricultural data bank... suited to the needs of the internal and external users; (iii) and the creation of analytical ability at the institution. Therefore, this work will partly assist CSO in analysing census data and in assessing data needs for various purposes. Some limitations of published census data and methods of assessing information content are outlined.

2. METHODOLOGY

Data analysed in this study was obtained from CSO published in 1994 and included crop production figures at district level, areas planted to 12 different types of crops. Productivity was assessed from crop production figures at provincial level. It was not possible to compare production levels between crops because of differences in units of measurements used. For instance, maize, millet, beans and sorghum were measured in 90 kg bags; rice and ground nuts in 80kg bags; sunflower and cassava in 50 kg bags; while cotton and tobacco were measured in

units of kilogram. These differences in units of measurements imply that meaningful comparison of crop production can only be done by categories of similar units.

All types of data collected contain errors whether systematic or random. As a result, there is need to assess the level of information content in each data set. According to Adamowski information may be defined as the decrease in uncertainty associated with the q parameter resulting from the acquisition of that information (Adamowski, 1984). A usual measure of uncertainty is the variance of a statistic. The information content of a statistic estimated from a sample is defined as the inverse of the variance of that statistic. There are different statistics used in the measurement of errors, which include the mean, standard deviation, coefficients of variation and the coefficient of skew. The inverse square of the standard error provides the information content of that statistic.

Knowledge of the level of information content contained in a data set is useful if the data are to be used for prediction or projection of future production of an activity. For instance, rainfed agricultural data are generated during the growing season and little during the remainder of the year. This means that such data have greater information content during certain times of the year. Some limitations of published census data is that it does not give measures of data dispersion about the means, if the means of the data are given.

3. ANALYSIS AND RESULTS

Before looking at levels of crop production, it is worth assessing the size of the economically active population in agriculture, as it is a good measure of productivity and is, therefore, essential for planning purposes. In Zambia, the economically active population is above ten thousand persons per province with some variations of up to one order of magnitude for both sexes.

However, the large sizes of an economically active population does not necessarily mean higher productivity, say, of maize. For instance, in North-western province the economically active population is comparatively higher than maize production levels which is the reverse in other provinces. Also, maize production by males is generally one order of magnitude greater than the production by females in Central, Eastern, Northern and Southern provinces.

To fully understand the variations in female productivity we probably have to look at the traditional social organisations in terms of land and other property ownership in different provinces which are important factors in production. However, regression analysis has shown that economically active males and females explain about 97% and 96% of the variation in maize production. This implies that in terms of productivity males and females are not significantly different. Thus, given equal means of production as that available to males, production by females could easily equal or surpass that of males.

Comparison of published production figures revealed that maize production in Central, Eastern, Northern and Southern provinces was greater by an order of magnitude to the production in Copperbelt, Luapula, Lusaka and North-western provinces. This shows that by 1990 no single province could claim to be the most important in maize production. This situation shows that Southern province ceased to be the leader in maize production. This is a good development as no

province should be expected to toil alone feeding the rest of the nation. All must work for their livelihood.

Conversely, rainfed wheat is predominantly grown in Northern, Central, Lusaka and Western provinces. Millet is important in at least seven provinces with Northern province producing the highest and Lusaka the lowest. Sorghum is grown in large quantities in provinces. Mixed and Soya beans production is important in all provinces especially in Northern, Central, Eastern and Southern provinces. Groundnut production is grown in all provinces with less than an order of magnitude between the highest and lowest production.

According to the Ministry of Agriculture, Food and Fisheries between 1980 and 1998 there has been an overall increasing trend in production levels of most crops albeit some fluctuations caused by factors like drought, floods and lack of inputs, etc. This calls for improved or better methods of determining production levels from year to year in order to increase food security.

4. PREDICTION OF CROP PRODUCTION

One of the main reasons for wanting to predict crop production is to help in the planning of agricultural activity. Because planning at the national level is difficult and requires more and reliable information, other ways of making the planning process easy should be devised. In this study, using 1990 census data of areas planted to various crops and production figures, power linear regression (multiplicative) models or equations were developed for the prediction of crop production in Zambia at district level (Table 1). The amount of variation in crop production accounted for by area planted per hectare alone for 14 crops ranged from 67% for rainfed wheat to 99% for Soya beans and sunflower each. In a majority of cases the variation explained by area planted was over 90%. This suggests that the area planted is good predictor of expected yield for most crops and should be utilised for prediction purposes.

Note that due to the many factors that influence crop production, the best approach for prediction of crop yield is the stepwise multiple regression approach in which a number of controlling variables such as rainfall, probability of drought, inputs of fertilisers and chemicals/pesticides, etc. are entered as independent variables. When more data of some of these variables become available multivariable prediction models for crop production will be investigated.

Table 1. Linear multiplicative models for predicting crop production from area planted in hectares by district in Zambia

No.	Type of Crop	Unit.	Prediction model	n	r ²
1.	Maize	90-Kg bag	$Y = 15.981A^{1.0145}$	56	0.966
2.	Sorghum	90-Kg bag	$Y = 21.072A^{0.84926}$	56	0.941
3.	Millet	90-Kg bag	$Y = 30.989A^{0.83931}$	56	0.762
4.	Mixed beans	90-Kg bag	$Y = 4.209A^{0.98958}$	56	0.981

5.	Soya beans	90-Kg bag	Y = 4.5958A 1.0667	56	0.991
6.	Rainfed Wheat	90-Kg bag	Y = 6.0613A 0.9011	43	0.670
7.	Irrigated Wheat	90-Kg bag	Y = 3.2949A 1.2559	43	0.882
8.	Cassava	90-Kg bag	Y = 4.0968A 1.0887	56	0.925
9.	groundnuts	50-Kg bag	Y = 4.3825A 1.0248	56	0.977
10.	Sunflower	50-Kg bag	Y = 11.24A 1.0076	56	0.996
11.	Seed Cotton	Kg	Y = 177.45A 1.1014	53	0.960
12.	Burley Tobacco	Kg	Y = 173.97A 1.0568	53	0.916
13.	Virginia Tobacco	Kg	Y = 176.29A 1.1078	48	0.940
14.	Paddy Rice	80-Kg bag	Y = 11.555A 1.0051	56	0.983

Source of data used: CSO, 1994, *National Census of Agriculture 1990/92, Part I*, CSO, Lusaka

5. DISCUSSION

The growth of many crops throughout the country is good as it implies that no single province is expected to produce, in terms of food crops, the food requirements of the nation. Since some provinces are more prone to drought than others, this implies that the country should produce enough food in drought-free provinces and food should not be expected to be in short supply. Sickingabula, in a paper he wrote for the International Conference on Water Resources Variability in Africa During the 20th Century in Senegal in 1998, has alluded to the need for drought response system in Zambia and repeated evaluation of scenarios of future drought impacts with changing times and circumstances. Those activities doing well in certain areas should be encouraged and supported while those not suited to their environments should be discouraged so that financial and manpower resources are not wasted. Overall, there is need to review the methods of agricultural practices more frequently and make improvements where necessary. Also the proposed predictive models should be tested against the performance of other models. Other models such as those utilising log transformed data, simple linear regression or stepwise multiple regression models should be developed and compared against the multiplicative models. However, testing of these models requires accurate field data which is generally more difficult to obtain, thus suggesting the need to collect data regularly or more frequently.

6. CONCLUSION

Farmers need to be supported and encouraged in their daily endeavours so that production of crops continues to increase. Census data are useful for various purposes in order to meet developmental and research goals. Since these data are generally requested by people not involved in their collection it is important that they are compiled in readily usable manner. The major limitation of these data is that they are not collected more frequently such that they do not allow for assessment of short-term trends in agricultural activities and production. It is concluded

that the proposed linear multiplicative models for predicating crop production in Zambia should prove useful to both planners and farmers.

PRIVATISATION OF THE MINES IN ZAMBIA

Augustine B.C. Katotobwe*

NCHANGA AND NKANA MINES 'PROBLEMATIC SITUATION'

Whereas privatisation of parastatals in Zambia has generally been successful, the same cannot be said for the mines which, despite privatising a few, are still proving difficult to sell in some cases. The Nchanga and Nkana Mines saga is still going on, thereby creating a problematic situation.

A 'Problematic situation' in Public Policy Analysis requires policy analysts to refuse to accept what is being said by stakeholders. Analysis is expected to go beyond the face-value reasons or evidence in order to arrive at what may plausibly be the real problem as the right solution can only be found and prescribed when the real problem is identified.

In this Nchanga and Nkana mines 'Problematic Situation', "low price" has been given as the main reason for the failure to sell the two mines, which constitute the first of the 9 packages into which all the ZCCM mines have been unbundled (ZCCM Annual Report, 1997:15). In order to verify if the "low price" is indeed the reason for not selling, I will begin my search for the answer by analysing ZCCM Annual Balance Sheets from 1992 to 1997. The emphasis would be on 1996 since it is my sincere belief that the bidders must have looked at this Balance Sheet with keen interest, for their first 'Bid' was made in February 1997. All other years before and after 1996 Balance Sheet have been included in order to enable us to trace the trend in the financial position of the mines over this period of six years.

THE ZCCM BALANCE SHEETS

These Balance Sheets are in two sets. Whereas, Table 1 deals with the figures contained in the Annual Reports, Table 2 shows what the real financial position of ZCCM is each year before taking remedial measures.

Table 1: ZCCM Balance Sheets for Six Years as at 31st March 1992/97.

K MILLION						
ACCOUNT	1992	1993	1994	1995	1996	1997
Current Assets	71,743	215,146	324,765	458,171	539,122	633,746
<u>Less: Current</u>	(59,287)	(191,754)	(369,936)	(417,457)	(516,850)	(775,044)

Liabilities						
Working Capital	12,456	23,392	(45,171)	40,714	22,272	(141,298)
<u>Ad</u> Fixed Assets	111,721	579,565	1,752,832	1,731,583	1,715,378	1,674,021
Total Assets	124,177	602,957	1,707,661	1,772,297	1,737,650	1,532,723
Less: Fixed Liabilities	(82,437)	(300,797)	381,953)	452,064)	(618,622)	58,375)
Net Worth	41,740	302,160	1,322,708	1,320,233	1,119,028	51,348
REPRESENTED BY:	893	893	893	893	893	893
Share Capital						
General Reserve	23,861	75,180	72,624	180,478	251,093	158,258
Revaluation Surplus	80,242	472,742	1,540,492	1,433,948	1,291,971	1,163,742
Unrealised Exchange Loss	(63,256)	(246,655)	288,301)	(295,086)	(424,929)	(371,545)
Shareholders Funds	41,740	302,160	1,325,708	1,320,233	1,119,028	951,348
Net Profit/(loss)	3,602	38,757	(73,774)	985	29,929)	(197,833)
Earnings/(loss) Per share	K40.34	K434.03	(K826.17)	K11.03	(K335.16)	(K2,215.46)

Source: Adapted and computed from the data contained in ZCCM Annual Reports for the years ending 31st March, 1992/97.

Table 1 above generally indicates that ZCCM mines were financially sound and strong in four of the six years under study. It was only in 1994 and 1997 when the mines incurred negative working capital of K45.171 billion and K141.298 billion respectively. This means that if all the creditors wanted their money at the same time, the Current Assets were all going to be set off against the Current Liabilities, but still leaving credit balances to be cleared by selling some of the fixed Assets. Under normal circumstances no Bank Manager would have lent money to the Mines in these two years as they had no Working Capital, for whatever was going to be lent out would have been spent not in generating more money, but in paying off the already incurred debts!.

Table 2:ZCCM Balance Sheets for Six Years as at 31st March, 1992/97

	K MILLION					
	1992	1993	1994	1995	1996	1997
Current Assets	71,743	215,146	324,765	458,171	539,122	633,746
<u>Less:</u>	(59,287)	(191,754)	(369,936)	(417,457)	(516,850)	(775,044)
Current Liabilities						
Working Capital	12,456	23,392	(45,171)	40,714	22,272	(141,298)
<u>Add:</u> Fixed Assets	31,479	106,823	212,340	297,635	423,407	510,279
Total Assets	43,935	130,215	167,169	338,349	445,679	368,981
<u>Less:</u>	(82,437)	(300,797)	(381,953)	(452,064)	(618,622)	(581,375)
Fixed Liabilities						
Net Worth	(38,502)	(170,582)	(214,784)	(113,715)	(172,943)	(212,394)
<u>REPRESENTED</u>	893	893	893	893	893	893
<u>BY</u>						
Share Capital						
General Reserve	23,861	75,180	72,624	180,678	251,093	158,258
Exchange Loss	(63,256)	(246,655)	(288,301)	(295,086)	(424,929)	(371,545)
Shareholders' Funds	(38,502)	(170,582)	(214,784)	(113,715)	(172,943)	(212,394)
Net Profit/(Loss)	3,602	38,757	(73,774)	985	(29,929)	(197,833)
Earnings/(Loss) per Share	K40.34	K434.03	(K826.17)	K11.03	(K355.16)	(K2,215.46)

Source: Adapted and Computed from the data presented in the ZCCM Annual Reports for the years Ending 31st March 1992/97.

Table 2 clearly indicates that the Mines have been worthless on paper all these years as Net Worth is negative for all the six years from 1992 to 1997. It is my belief that what is shown in Table 2 is the real and true financial position of our copper mines!

Table 3: Bids by Kafue Consortium

	US\$ Million				

DESCRIPTION	1 ST	2 ND	3 RD	4 TH	5 TH
DATE	FEB. `97	JUN `97	SEPT `30	MAR `98	MAY `98
Cash	140	160	150	200*	130
Debt Assumption	125	150	75	75*	35
Committed Investment	200	400	400*	-	150*
Uncommitted Investment	550	350	1,500*	-	
Working Capital Investment	-	-	-	-	76
5-year Capital Invest Programme	-	-	-	-	708
Substantial Tax Concessions	x	x	-	-	-
Less Demanding Tax Adjustments	-	-	x	-	-
Retained ZCCM Interest = 10%	x	-	-	-	-
Retain ZCCM Interest: 12%	-	x	-	-	-
	1,015	1,060	1,125	275	1,099

Source: Compiled from Theo Bull's Article "Bungled Talks" published in the Post edition of June 15, 1998.

The contents of Table 3 seem to be self-explanatory. My brief comments here are that the best 'bids', in the light of Table 2 above, are the second and first in that order. But indexing cash and fulfilment of certain conditions to copper and cobalt price, as shown in appendix 5, is a non-starter since the vendor, unlike the buyers, has got no manipulative linkages to ensure price stability at the London Metal Exchange (LME).

However, having unbundled ZCCM into nine (9) packages would have meant that a composite costs and prices should have been worked out by ZCCM Team so that each bid is viewed against the expected price. The Vendor's price would have taken into account the Houses to be sold to miners in addition to the vehicles, cookers, fridges auctioned to miners and the general public.

POLITICAL UNCERTAINTY

Clearly, factors other than economic efficiency determine the nature, pace, and extent of SOE reform. The most important of these factors is politics. State-owned enterprise reform can cost a government its support base. Consequently, politicians everywhere carefully weigh any changes in state-owned enterprise policy, naturally preferring policies that benefit their constituencies and help them remain in office over policies that undermine support and may precipitate their removal (World Bank Policy Research Report, 1995:175).

It is my opinion that behind the stated reason for not selling the mines for "a song", there is fear of political uncertainty which is entailed in selling such 'strategic' mining installations at a time when the country is walling in economic quagmire. The above quotation is quite pertinent for Zambia and the MMD Government has belatedly realised that it can easily lose its "political base" on the Copperbelt if privatisation of these two key mining divisions of ZCCM is not handled properly. I also agree with the World Bank (1995:178) when it further states that:

We begin with the proposition that state-owned enterprise reform becomes desirable when the political benefits to the leadership and its constituencies outweigh the political costs. We would expect this to happen in two circumstances: either there are changes in the leadership and its constituencies, or there is economic shock or crisis that alters the calculation of costs and benefits.

The Repeal of Cap. 593: Exchange Control Act in 1995 has also not helped since it is only ZCCM which is bearing the heavy socio-economic responsibility of maintaining socio-political order in the country by releasing its foreign exchange on the market each time the Kwacha depreciates.

CONCLUSION

Having come thus far, it is my conclusion, therefore, that the real reason for not selling Nchanga and Nkana is more political than the 'low price', for my thesis is that whoever controls the copper mines, controls the politics of Zambia. Having dealt with the matter at length, I feel that remedial measures should be recommended as follows:

That Nchanga and Nkana Mines should be sold to the people of Zambia in partnership with foreign investors.

That either Anglo-American Corporation and R.S.T. (Original Owners) or Kafue Consortium or both should be offered the partnership.

This way, Zambia would have earned itself credibility and investor confidence by ensuring that the country does not appear to have thrown away more than 60 years of tough-tested friendship with Anglo-American Corporation in Mining, and more than 100 years of equally tough-tested friendship with the British people and their kith and kin in the USA! Otherwise, no new investor, let alone India and China would feel secure if we can abandon our old socio-economic and socio-political friends of so many years just for

a few extra dollars which would neither in the short-term nor long-term solve our economic problems.

A COMPARATIVE EVALUATION OF THE APPLICATION OF ECONOMIC INSTRUMENTS FOR SUSTAINABLE NATURAL RESOURCE MANAGEMENT BETWEEN THE SECOND AND THIRD REPUBLICS IN ZAMBIA

Excellent Hachileka*

INTRODUCTION

In the world today there is a global concern for resolving environmental and natural resource management problems through the integration of development efforts with sound environmental protection measures. This requires elaborate legal, institutional and policy measures that can harmonise the two sustainable development imperatives adequately. A number of policy instruments are used for meeting the development and environmental management concerns. There are basically two universally applied policy measures in environmental and natural resource management. These are Economic Instruments and Command and Control approaches. These are used in different combination to compliment each other.

ECONOMIC INSTRUMENTS

Economic instruments are policy instruments that aim at inducing a change in the behaviour of economic agents by internalising environmental or depletion cost through a change in the incentive structure that these agents face.

There are seven broad categories of economic instruments. These are briefly described below.

Property rights

Market creation

Fiscal instruments

Charges

Financial instruments

Liability instruments

Performance bonds and deposit refund systems

The set of instruments available for implementing economic incentive approaches to natural resource management and environmental protection spans a wide range of options and possibilities and the potential permutations and combinations are virtually limitless (Panayotou 1994).

The role of economic instruments in sustainable natural resource management

The role of economic instruments in sustainable natural resource management is fourfold as follows:

Full-cost pricing

Internalising external costs

Efficiency, cost effectiveness and equity

Source of revenue

The key to the promise of economic instruments is their ability to harness the power of the market and self-interest and turn these presumed adversaries of sustainable development into powerful allies. However, in practice economic instruments are rarely used in isolation to achieve environmental protection objectives. They supplement direct environmental regulations to raise revenues for financing pollution control activities and stimulating technological innovation (Bernstein 1993).

COMMAND AND CONTROL (CAC) INSTRUMENTS

Command and control (CAC) instruments involve direct regulation, along with monitoring and enforcement systems and relies primarily on applications of regulatory instruments. Standards are the predominant means for direct regulation of environmental quality throughout most of the developed world. They define environmental targets and establish the permissible amount or concentration of particular substances or discharges into air, water, land or consumer products. Types of standards include the following:

Ambient environmental quality standards

Performance standards

Product standards

Process standards

Effluent or emission standards

ENVIRONMENTAL AND NATURAL RESOURCES MANAGEMENT INSTRUMENTS USED IN ZAMBIA

There are basically four types of instruments used for environmental and natural resources management policies in Zambia. These are:

Legislative / Regulatory instruments (CAC)

Economic instruments

Anticipatory measures

Consultative / Persuasive instruments

SECOND REPUBLIC

A number of instruments were used for both environmental protection and natural resource management in the Second Republic.

Instruments used for environmental protection and pollution control in the Second Republic

The Natural Resources Act, Cap 315 of 1970 was the main piece of legislation for environmental and natural resources management.

There were no specific provisions for the control of, for example air or water pollution.

Sectoral Acts provided for the protection of the environment in each sector.

There was no central or co-ordinating body for environmental protection and pollution control.

The regulatory instruments were largely the dominant system of environmental protection.

The EPPCA was enacted in the second republic, its implementation only came into effect in the third republic following the establishment of ECZ in 1992.

Instruments used for sustainable natural resource management in the Second Republic

In the second republic various Acts provided measures requiring institutions to issue licenses and permits for different activities with implications for natural resource management. All Acts dealing with natural resources management had established either directly or indirectly inspectorates responsible for enforcing standards. Such Acts include the Forest Act of 1973, the Natural Resources Act of 1970, the Water Act of 1949, the Fisheries Act of 1974, the National Parks and Wildlife Act of 1990, the Noxious Weeds Act of 1953 and many more. These Acts provided for:

- licensing and permit systems for regulating the use of the individual resources.
- criminal law followed by a panel close and fines. The fines were again too low to deter deleterious effects on the natural resources.

The common type of economic instruments used was in the form of user charges where the user of a resource is charged per unit of the resource used.

The wide use of subsidies especially on consumption compromised the full-cost pricing of natural resources whose implications was extravagant use of the natural resources by consumers.

THIRD REPUBLIC

A number of instruments are currently being used for both environmental protection and natural resource management in the Third Republic.

Instruments being used for environmental protection and pollution control in the Third republic

Use of Regulatory Instruments

The use of regulatory instruments for pollution control in Zambia in the Third Republic is based on the Environmental Protection and Pollution Control Act (EPPCA). No. 12 of 1990. The Act provides for the protection of the environment and control of pollution. Various regulatory instruments are used for water, air, waste and noise pollution among other uses.

Specific instruments include:

- licenses and permits to discharge effluent by use of Effluent Standards

- licenses to emit air pollutants through use of Emission Standards

License to generate waste

- License to operate a waste disposal plant or site

License to transport waste

- Permits are used to control the emission of noise through noise emission standards.

- Product standards

In conclusion, regulatory instruments are used for environmental protection and pollution control.

Economic Instruments

The use of economic instruments for environmental protection and pollution control in Zambia is not common. The EPPCA has so far not incorporated any economic instruments in its pollution control measures.

Anticipatory Measures

Anticipatory measures have recently become common in preventing future environmental damage from various potentially polluting activities. These are:

Environmental Impact Assessments (EIAS)

Environmental Audits

Consultative / persuasive Measures

Consultative / persuasive measures are not yet common for environmental protection purposes in Zambia. However, they are increasingly becoming common through community involvement and participation in waste management and other related environmental matters.

Instruments used for Sustainable Natural Resource Management in the Third Republic

Regulatory Instruments

Regulatory instruments are still widely used in safe guarding natural resources from misuse through various Acts specific to key natural resource types. For example, as the case was in the second republic, the new Zambia Wildlife Act No.12 of 1998 still provides for the various categories of game licenses aimed at regulating the harvesting of game animals at sustainable levels. The various licenses and permits include:

Non-resident hunting license

Special license

District license

National license

Professional hunter license and permits

Special license

Through this licensing system, NPWS is able to control the off-take of wildlife and therefore manage the utilisation of the resources.

Similarly rights, licensing and permit requirements exist under other Acts and supporting regulations enacted in both the Second and Third Republics. These include the Water Act of 1949, Forest Act of 1973, Fisheries Act of 1974, Mines and Minerals Act of 1995 and the Energy Regulation Act of 1995 and the Electricity Act of 1995. All these Acts use regulations for their enforcement.

Economic Instruments

Economic instruments are increasingly becoming common in promoting sustainable natural resource use in Zambia. They are however, not yet used widely.

The common type of economic instruments used is in the form of:

user charges where the user of a resource is charged per unit of the resource used. This is common on water resources and energy (electricity). The bills are used as a user charge and are calculated according to the amount of water used.

The use of subsidies in the Third Republic has reduced tremendously as such there is a high level of full cost pricing in natural resources.

Property rights as the Lands Act No.29 of 1995 now provides for conversion of Customary Tenure to Leasehold Tenure of 99 years (GRZ 1995). This has led to an increase security of tenure (well-defined property rights).

Anticipatory Measures

The same anticipatory measures used for environmental protection and pollution control are used for natural resources management. These are Environmental Impact Assessments and Environmental Audits.

Consultative / Persuasive Instruments

The Community Based Natural Resource Management Programmes have become an important measure in sustainable natural resource management through the involvement of communities living with or near the resources. The new Zambia Wildlife Act of 1998 provides for the establishment of Community Resources Boards that will provide for the full participation of communities in Wildlife Resources Management in the Game Management Areas. Similarly, a number of Acts are under reveal (Forest Act, Water Act) to include a provision for community participation in natural resource management.

CONCLUSION

The economic liberalisation and privatisation of formerly state run enterprises in the Second Republic have not been accompanied by corresponding increases in the incorporation of economic instruments in the environmental and natural resources management policy in the Third Republic. In the Second Republic use of predominantly Command and Control Regulatory instruments was probably justified by the dual responsibility of government as entrepreneur and environmental protection regulatory authority. Government could not incorporate economic instruments, which among other things impose full cost pricing and ensure equity in environmental protection responsibilities and costs. This was so because government would have been charging itself for pollutant emissions and effluents from state run enterprises (Parastatals) for example. With the increase in privately run companies, one would expect the use of economic instruments to be more desirable for government and sustainable development in the Third Republic. Unfortunately the expected shift to increased use of economic instruments has

not taken place yet in the Third Republic. Nearly all the environmental related Acts enacted in the Third Republic to repeal older ones from the Second Republic and beyond have not fully incorporated economic instruments in environmental protection and natural resources management.

Government should take advantage of the liberalised economy and privatisation by incorporating more economic instruments with other existing policy instruments (i.e. CAC approaches) in environmental and natural resources management policies. This will enable us attain sustainable natural resource management and environmental protection by integrating development and environment efficiently, cost effectively while ensuring equity, full cost pricing of natural resources and above all generating revenues for better environmental and natural resources management.

It is however, important to note that there has been a marked increase in the application of anticipatory approaches and consultative / persuasive measures and a gradual improvement in the enforcement of regulations by ECZ.

It is recommended that future revisions of environmental and natural resources management related legislation should also consider incorporating economic instruments as is being done with consultative / persuasive measures involving community participation.

GENDERING ENVIRONMENTAL POLICY IN ZAMBIA

Francis Chigunta*

INTRODUCTION

The paper looks at the role of women in environmental management in Zambia. It primarily focuses on rural women, discussing the valuable role that they play in resource management through their dominant involvement in agriculture and woodfuel gathering. The cultural, social and economic constraints, which the women face are examined.

The paper argues that for reasons of proper resource management and sustainable development in Zambia, there is need to integrate gender into environmental policy. This argument largely stems from the observation that in spite of the dominant role of women as farmers and as gatherers and users of woodfuel, there has been no practical action to integrate gender into environmental policy in Zambia. The paper argues that in the Government's National Environmental Action Plan (NEAP) there is no recognition of gender issues that are embedded within and therefore shape, the nature of environmental problems and management in Zambia.

CONTEXT FOR WOMEN AND THE ENVIRONMENT

A brief attempt is made in the paper to examine the role of women in environmental management in Zambia within the context of the existing theoretical frameworks on gender and environment. The paper observes that the inextricable link between women

and the environment has been a recurring theme in intellectual discourse and development theory. It particularly identifies two competing theological perspectives that have been put forward for the analysis of gender and the environment. These are the 'women and environment approach' and 'ecoferminism'. However, both approaches are criticised in the paper for underestimating the complexities and interactions of men and women and the constraints that they face in social production and resource use.

WOMEN AND ENVIRONMENT IN ZAMBIA

The paper observes that although women and men play critical roles in managing natural resources in Zambia, it is women's gender roles in a wide range of activities that make them the daily managers of natural resources; that is, to wisely handle and use natural resources. Through their roles in production, reproduction and community management women, more so than men, have greater influence on the use of environmental resources, their redistribution, and, in this regard, their potential conservation or destruction.

The paper observes that in rural areas of Zambia especially, women's relationship with the environment is critical to their daily lives for, inter alia provision of water, fuel, food and fodder. Women collect a great variety of 'natural' produce, are almost exclusively responsible for cooking and are involved in a variety of activities such as cutting and collecting grass for thatching and plastering houses.

To illustrate the dominant role of women in environmental management in Zambia, the paper uses agriculture and woodfuel gathering as case studies.

AGRICULTURE

The paper observes that over 80 percent of the work in subsistence agricultural production in Zambia is done by women. Women are generally responsible for sowing, weeding, crop maintenance and harvest, and are almost exclusively responsible for growing food crops for the family. Men, on the other hand, are mainly responsible for field preparation though here again the degree of involvement by women is quite high.

But, as the paper notes, the efforts of women in food and agricultural production are hampered by cultural and institutional constraints. Not surprisingly, this has led to the lack of official acknowledgement of the pivotal role that women can play in resolving environmental problems in the agricultural sector in Zambia. The Government position on the environment, as outlined in the NEAP, merely addresses general problems in the agricultural sector, especially those that originate from inappropriate agricultural practices and use of agro-chemicals. Even envisaged strategies for dealing with agro-related environmental problems are silent on gender issues.

WOODFUEL

The paper observes that the collection of woodfuel for rural household use is mainly done by women, sometimes with the help of their children. Depending on the ecological

characteristics of the area, women can sometimes spend up to five hours in collecting firewood.

Although some writers blame firewood collecting for household use as being responsible for deforestation in rural areas, the paper notes that the environmental impact of firewood collecting by women is minimal in relation to the activities undertaken by men such as logging and charcoal making.

The paper argues that women, unlike men, largely consider the trees in form of basic needs. Hence, they are generally careful to conserve the trees in order to safeguard the future supply of woodfuel and other products. It is argued that it is activities by men that tend to force women into damaging the environment through their desperate circumstances and need for survival. As more and more trees are logged or cut to make charcoal, women, who previously used to collect dead twigs and branches to supply their own subsistence needs, are today collecting as much as they can get from the forests.

Ironically, it is women who mainly suffer the adverse impact of deforestation. Through their gender roles as household producers, women must walk substantially longer distances and spend more time and energy in fetching firewood.

Strangely, the NEAP section on woodfuel does not recognise the critical role of women as gatherers and users of woodfuel, nor does it recognise that they can play a critical role in forest conservation.

CONCLUSION

The paper concludes by stating that there is need for the government and policy-makers to formulate and design gender-sensitive environmental policies and programs that will not only enhance the participation of women in environmental management, but also release their economic and social potential.

PERCEPTIONS OF DISABILITY IN ZAMBIA: IMPLICATIONS FOR EDUCATIONAL POLICIES AND OTHER SERVICE DELIVERY

D. M. Kalabula *

INTRODUCTION

Generally, the term "disability" is understood as a functional limitation of an individual's ability to carry out normal activities of daily living caused by either a permanent physical or mental impairment or a chronic clinical condition as epilepsy, bronchitis or schizophrenia. Thus it is implied that there is a standard of activity which is normal and those who fall below it are regarded as disabled. The McCorguodale Committee on the Assessment of Disablement referred to the principle that assessment should be determined by 'means of a comparison between the condition of the disabled person and that of a normal healthy person'. The term 'disability' is sometimes used synonymously with handicap but this is inaccurate: handicap is the effect of

disability in restricting achievement and causing social disadvantage: for example, chronic bronchitis is a disability since the sufferer would not be able to take part in activities involving moderate exercise; a sedentary worker living in a bungalow would be much less handicapped by it than a labourer living in an upstairs flat. Similarly a boy with a leg amputated suffers gross disability, but may not be academically handicapped at all.

PERCEPTIONS OF DISABILITY

Wolfensberger (1971) stated that "man's behaviour is in good part determined by what I want to call his ideologies. By ideology, I mean a combination of beliefs, attitudes, and interpretations of reality that are derived from one's experiences, one's knowledge of what are presumed to be facts, and above all, one's values".

During the 1970s, Wolfensberger, perhaps more than any other author, articulated the developing Western philosophy of "normalisation and integration" which began in Scandinavia in the late 1960s with particular reference to mentally retarded people. Over the centuries, and more rapidly in the past two and half decades, approaches to people with disabilities have undergone an evolutionary process. Increased scientific understanding and the adoption of principles of human rights have helped to change practices from those of regarding people with disabilities as inhuman and outcasts of society to people with positive attributes, contributions to make, and rights like anyone else.

In the past, social attitudes towards disability have led persons with disabilities' status subordinate to majority's interests and as a result, persons with disabilities have suffered innumerable restrictions on entry into certain roles such as education and employment.

Unless societal perceptions of disability are understood, it is difficult to gauge the impact on the individual's opportunities to learn in school and function in society. It is important to know the belief system supported by the majority culture, and broad social factors that impinge on the settings within which the individual with disabilities functions. This context includes society members' general perceptions of individuals with disabilities, teachers, educational authorities, schools, business and industry. According to Riegel, society's general perspective of teachers, the social role of students, and community values all affect each student's education.

CURRENT SITUATION

The situation regarding educational services in Zambia today, 1998 does not seem to be any better than it was in 1995. Because of having no strong voice to speak for the children with disabilities, education support which has been given by international non-governmental organisations and development agencies, has been discontinued. The state also seems to be in serious financial doldrums which makes it impossible for it to fund educational and other services to children with disabilities. However, this situation should not be condoned. The state has the responsibility to educate children with disabilities. It is better to do so now than to continue handing out alms for the rest of these children's lives.

The fact that only about 2,000 out of between 160,000 and 250,000 children with disabilities of primary school age were being catered for in 1995 (Educating Our Future, 1996) presents a serious situation. It is gratifying however, to see that the Ministry of Education seems to have positive policy pronouncements embodied in "Educating Our Future" which among other things states that:

- The ministry of education will ensure equality of educational opportunity for children with special educational needs.
- The Ministry is committed to providing education of particularly good quality to pupils with special educational needs.
- The Ministry will improve and strengthen the supervision and management of special education across the country. This makes good reading, only if the Government can hasten to enact a Law, otherwise pledges will remain hollow as has been the case with the two earlier policy documents.

HAVE THERE BEEN ANY SUCCESSES AT ALL?

The first attempts to teach children with disabilities were made in 1905 in the Eastern Province of Zambia by missionaries. The first schools for children with visual impairments were established in 1923 and 1929, respectively. By 1950, other schools for children with hearing and physical impairments were established by missionaries. Zambia Council for the Handicapped continued with the service delivery under the then Ministry of Labour and Social Services until 1971, when the Ministry of Education took over the arduous responsibility. Upon Ministry of Education's take-over of the responsibility to educate children with disabilities, a special college and an inspectorate were established at the Ministry of Education Headquarter in Lusaka.

The college now called Zambia Institute of Special Education (ZAMISE) affiliated to the University of Zambia, runs pre-school certificate programme; certificate in special needs education; and diploma in special needs education. To date, ZAMISE has churned out over 1,000 inservice special education certificates and over 40 diplomas. About 55 foreign students from Botswana, Somalia, Burundi, Ethiopia, Kenya, Uganda, Swaziland, Nigeria and South Africa, at certificate level, have also been trained at ZAMISE.

The University of Zambia has established degree programmes in special educational needs at undergraduate and postgraduate levels. Other achievements recorded by special needs education in Zambia since 1971, include:

- introduction of special needs education component in pre-service Teacher Training Colleges;
- training of young people with disabilities to become teachers and other worthwhile professions;

- establishment of vocational training programmes in conjunction with both local and foreign non-government organisations;

Creation of :

- an inspectorate of special education needs;
 - special needs education curriculum development department at the National Curriculum Development Centre (CDC);
 - special needs education examination department at the National Examinations Council of Zambia.
 - braille printing press at the Educational Printing Services; within the Ministry of Education.

EFFECTS OF INADEQUATE POLICIES

Many declarations and statements have been made in recent years by the international community through the United Nations and its specialised agencies, as well through non-governmental organisations (NGOs), to promote the right of persons with disabilities (PWDS) and other learning needs to an appropriate education. Most of these declarations and statements were in fact endorsements and /or adoptions of policy proposals and practices already existing in some industrialised countries (nowadays referred to as countries of the North). In Zambia, similar pronouncements and declarations have been made through Educational Reform Document of 1977, Focus on Learning Document of 1992, and the current Educating. Our Future Document of 1996. European and North American countries have since the 1960s been vigorously pursuing principles of integration and normalisation developed in the Scandinavian countries.

In Zambia many criticisms can be advanced against these policies, especially at the implementation level, because special education, apart from being fully unrecognised by the state, continues to exist as a separate, parallel system, though housed in the Ministry of Education Headquarters, as camouflage. The following constraints have had a pronounced effect and have limited administration and provision of adequate services to children with disabilities. Despite stating high sounding policy statement, there has been no effort to formulate specific laws to empower children with special needs. There has been no political will to implement any of the six principles listed above. There has been a serious lack of coherent communications channels between professionals and parents of children with disabilities and the significant others within and without the children's localities. There has been a very hazy understanding of the real specific needs of individual children by administrators, teachers, parents and other service providers at different levels of service delivery and negative attitudes of everybody getting into contact with individual children with disabilities, particularly ordinary teachers, fellow pupils who have no disabilities, and other staff in integrated schools. Most of all, insufficient government funding and as already alluded to: government's lack of commitment to special needs education, has restricted the development and implementation of relevant policies in the

education of children with special education needs. One clear example can be cited here. In 1994, the Danish government, under DANIDA ref. No.104. Zambia.1/Education, had offered to support a National Special Educational Programme for 10 to 15 years, where support to the development of a comprehensive Zambia National Special Education Programme, in form of a decentralised system for children with disabilities and special learning needs, to ensure access to necessary support services and to receive education, was guaranteed. Although a comprehensive programme to implement this offer had been worked out by local and Danish experts, and the Danish Government had offered 13 million Kroner to fund the first phase (1995-1999), the Ministry of Education could not sign the pledge, which led to the programme's fall-through.

WHAT CAN BE DONE ABOUT THIS PLIGHT

Generally, implementing what has been enumerated as strategies in "Educating Our Future, 1996", providing solutions to the constraints encountered would greatly help ameliorate the situation. In a desperate quest to improve educational provision to children with special educational needs, it would be ideal to :

- translate policy pronouncements into Law to empower parents and children with disabilities concerning their rights and privileges;
- establish a department of special education within the Ministry of Education, or strengthen collaboration networking with other stakeholders within the Ministry of Education;
- establish early intervention services;
 - run workshops and seminars to sensitise the Zambian populace about disability and special needs education;
 - establish a research centre so that policy decisions made in this area of special educational needs are based on research findings, rather than individual or political whims;
 - mobilise financial and human resources locally and abroad, to support special needs education;
 - establish links with institutions within and without the region. These links should encourage networking and exchanging personnel, research findings, and good practice.

More than anything else, roots for understanding disabilities in Zambia must be established. A practical route to give it greater substance is the development of Zambian disability history, rediscovering `roots' and cultural ground on which Zambians can stand with confidence and from which they can make an informed appraisal of foreign offers of assistance. It will of course be liable to distortions, as noted by Fatton (1992) in his discussion of the `invention' of ethnicity and cultural myths. Yet the process of rediscovering disability history is an illuminating way to engage with the issues and options of current disability services and rights development.

For the foreseeable future, the care, training and education of thousands of disabled young Zambians will continue to be in the hands of their immediate family, village health workers and teachers - who may be willing to do their best, but lack specific knowledge and skills to see much success. Information that could make them far more successful is known, and has been known for many years but it has neither been widely communicated nor followed up. Information is the modern wealth - it might be more successful, less dependency-creating, than cash transfers from foreign countries. Disability service providers clearly need enhanced information capacities - to gather, appraise, store and circulate information of many sorts, to monitor flow, to use mass media and minority media to plan information use for cumulative impact. Information is understood in the 'information society' sense, i.e. as concepts, knowledge, skills, design and feedback, is fundamental to the functioning of the modern world. Much of it is infinitely shareable without loss to the source - e.g. a skills trainer actually increases her/his own store of information when he/she imparts skills to trainees, by monitoring their feedback. Disability service providers should make significant contribution to civil society by the skilful use of modern communication methods, enabling and empowering ordinary people: mothers, fathers, grandparents, disabled people themselves, rural teachers, health workers, minor government functionaries, and members of non-disability organisations by means of information addressing in appropriate languages, the every day realities of disabilities, home care, training and education.

CONCLUSION

The mixed understanding of disability in Zambia as highlighted in this discussion, especially as it contributes to inefficient provision of education and other social services, calls for a united, co-ordinated, and pragmatic action by all stakeholders, to demystify disability perceptions, and freely share the universal perception. This is difficult to achieve, but a beginning must be made. Steps must be taken immediately to translate the policy statements embodied in the latest educational policy document "Educating Our Future, 1996" into Law, to empower and protect parents and their children with disabilities. As long as there is no Law, these members of the Zambian society will continue to live as third-class citizens. It is not fair.

UNIVERSITY EXPERIENCE AS A CHANGE AGENT IN IMPROVING MANAGERIAL CAPACITY IN ZAMBIA'S EDUCATION SYSTEM

Henry J. Msango*

INTRODUCTION

... the capacity to manage the system had deteriorated as rapid expansion went hand in hand with lack of investment in management training and lack of resources for effective educational supervision (*Educating Our Future*, Ministry of Education Report of 1996:145).

Countries, like individuals, cannot realise their full potential without knowledge and skills, otherwise known as human capital. According to Psacharopoulos, investment in education and training and other social services is among the most crucial actions needed to achieve rapid, efficient, equitable and sustainable development.

The importance of investing in human capital has become much clearer in the 1990s because of the mounting evidence on the extent to which such investment and its links with other factors in development act as an engine of change.

According to the World Bank Report of 1998 countries do not need international solutions customised to local conditions. What developing countries like Zambia, need is the ability to generate and implement local solutions enlightened by international knowledge and experience. In the 21st Century developing countries will need-

- (i) Long-term and explicit support for policy analysis, development and implementation, given that the process of policy analysis and development is a sophisticated and strategic exercise;
- (ii) Assistance with building the human and institutional capacity at central, provincial, local and school levels to manage the education system;
- (iii) Support for the development and improvement of management and learning information system;
- (iv) Assistance to be linked systematically and proactively to pathways of relevant and useful information (including the results of research and experimentation, lessons from experience, analytical tools of diagnosis and planning and learning technologies);
- (v) Support in developing multi-country collaborative schemes (as in Distance Education, textbooks and instructional materials, teacher training programs and materials, research, student achievement and university systems;
- (vi) A significant to massive flow of external assistance for both capital and recurrent expenditures.

All these needs will need appropriate human resources to take care of them. To achieve the developmental objectives more needs to be done. These may include the activation of the administration, school autonomy, cost effectiveness, democratisation, endogenous development, the dismantling of bureaucracy, deregulation, efficiency (inclusive of administrative, economic and pedagogical) equity, conflict management, quality improvement, privatisation and the empowerment of the community (Harvey and Bowin, 1996).

In this paper we shall look at the problems of training educational managers in Zambia's education system. We shall begin by generally identifying the concepts in education, training, objectives and the need for effective management. We shall then proceed to look at what Government and donors, through the Zambia Educational Rehabilitation Project and the University of Zambia, have accomplished so far. Here we shall look at the rationale, strengths, weaknesses, achievements and suggestions. Lastly we make a few conclusions on how Government can make use of such institutions as University to build capacity among its educational managers.

THEORETICAL

The educational system in Zambia has experienced a lot of problems right from financing to poor administration. The power structure has been especially lacking in assertiveness to carry out the relevant directives of Government. In addition to this communities have viewed learning institutions as far removed from their hopes and aspirations. In other words the Education System has been too centralised hence lacking in a positive employee philosophy that stresses service, commitment, teamwork, ownership and ethical behaviour. The marginalisation of communities has led the Government to introduce policy reforms leading to decentralisation and the establishment of Education Boards at School, College and District Levels. It is believed that decentralisation will lead to major changes in power and authority structure.

One major problem which Government faces is that some of the managers of educational institutions have not had any basic training to manage these institutions. The trainers sometimes lack sufficient knowledge of subject matter to train the educational managers to manage education institutions effectively and efficiently. There has been lack of coherent training policy on educational administrator improvement and poor co-ordination and integration of training provision.

THE TRAINING ASPECT

To manage change effectively there is a need for highly trained personnel. Employee training is a key factor in improving managerial capacity and bringing about positive change. The anticipated outcomes of such management training are:-

- . An understanding of processes of change and innovation in education, especially with regard to conceptual aspects and methodological features of decentralisation, and the ability to evaluate the impact and results of such changes
- . Programme identification, prioritisation and preparation
- . Programme implementation and management
 - . Procedures to promote decentralisation and make effective use of participatory contributions
 - . Activity Based Budgeting and Financial Management
- . Resources in terms of both
 - (a) allocation and procedures for distributing resources and
 - (b) management of resources allocated in terms of mobilisation together with organisational and logical placement.

INDICATORS OF EFFECTIVE AND EFFICIENT MANAGEMENT

These can be looked at in terms of:

- . Incidences of dialogue with teachers and other members of staff in relation to policy issues
- . Evidence of community mobilisation for specific plans
 - . Evidence of creativity in dealing with and solving problems at School, District or College Level
- . Evidence of records of the following:-
 - (i) Clear mission statement
 - (ii) Staffing in the district
 - (iii) Distribution of material resources in the district
 - (iv) Educational Institutions in the District according to defined criteria
 - (v) Gender desegregated records of pupils enrolled in the district
 - (vi) Minutes of Staff Meetings and other records
 - (vii) Evidence of utilisation of education.

FOCUS ON BUILDING HUMAN CAPACITY

The idea of training personnel to build human capacity is to ensure that a number of job specific skills will be performed at prescribed quality levels by trained employees. The required skills include:-

- . management functions of organising, staffing and leading;
- . human resource development or staff training;
- . completion of confidential reports;
- . computer skills;
- . managing change;
- . research skills and the writing up of project proposals;

- . control of physical resources and assets;
- . industrial law;
 - . visionary leadership and the ability to communicate the vision to staff;
 - . decision-making;
- . organising and chairing meetings;
- . personnel management skills including record keeping and
- . staffing appraisal (Ministry of Education, 1996:146).

THE ZAMBIA EDUCATION REHABILITATION PROJECT

The Zambia Education Rehabilitation Project (SERP) was a joint Ministry of Education and the International Development Agency (IDA) Project. The Project was established in order to reverse the continued deterioration of the education system and to sustain educational revitalisation. Among the Project's objectives to increase the capacity of the education sector to manage an increasingly complex sector in a context of greatly circumscribed resources through the strengthening of educational management and planning and through improvements in the Ministry of Education capacity for policy formulation and analysis.

UNIVERSITY EXPERIENCE IN CAPACITY BUILDING IN EDUCATION

In collaboration with the Ministry of Education, the University of Zambia, School of Education, has been trying to improve the managerial capabilities of Inspectors of Schools, Heads, District Education Officers, Planners as well as Provincial Education Officers. Most of these officers have been promoted to managerial posts on the basis of their successful classroom experience - which is not sufficient, as I pointed out earlier.

The Ministry of Education through the Zambia Education Rehabilitation Project conducted applied Educational Management Training (EMT) to Head teachers, Education Officers and Inspectors of Schools. The EMT for Education Officers and Inspectors of Schools took place at the University of Zambia from 18th June 1995 onwards.

From a combined reaction of DEO's, Inspectors of Schools and Head teachers here are a few quotations.

Strengths

- 1 The course helped me to lead by example.
- 2 I now treat a child as a person, not a `boy' or a `girl'.

- 3 The experience gained from EMT is enriching my performance as an administrator.
- 4 This is a course that has come too late, it is informative and useful.
- 5 It has helped me to reflect more on how I should improve my school compound.
- 6 I now share my vision for my school with my deputy, senior teachers and the staff.
- 7 ZERP or no ZERP, this is a course that should be made available to all Head teachers, their deputies and their senior teachers including those in private schools.

Weaknesses

1. inadequate or belated course-joining instructions
2. poor quality of food and hostel facilities
3. inability to provide teaching materials as promised
4. inflexible and overcrowded timetable
5. delays in processing payment to trainees and trainers
6. inadequate discussion time with trainers
7. confusion caused by "too many resource" persons as in the Research Methods Course
8. inadequately inducted trainers i.e. "not aware of what obtains in the field"
9. trainees who were fond of using threatening language e.g.
 - "you are here to be grilled"
 - "failure in the exam will lead to demotion"

SUGGESTIONS

The School of Education through the Department of Educational Administration and Policy Studies should seriously think of taking over from where the Zambia Education Rehabilitation Project stopped. The EMT courses should be more practical following the sample given here:-

Topic 1: Management and Styles of Leadership

Objectives:

By the end of the training session trainee managers should be able to:-

- (a) examine the social topography of schools;
- (b) consider how the school ethos affects school effectiveness;
- (c) explore relationships between schools and the Education Board/District Officers and;
- (d) consider possible leadership styles of Education Boards and the Head teachers.

Content areas

- (i) The school as a social system
- (ii) Work Group Norms
- (iii) Management and Leadership styles - Likert's system
- (iv) Motivation and incentives and ways to improve work motivation in school to reduce absenteeism and improve performance
- (v) The nature of staff conflict, and conflict resolution

CONCLUSION

For Zambia to develop the whole concept of management should be refocused. The effective delivery of education will increasingly depend on the quality of educational administration and management. School heads, education officers and inspectors need training in educational management and supervision. The special skills they need include data generation, analysis and interpretation, planning, resource management, monitoring and evaluation.

The Government should make appropriate training a pre-condition for appointment or promotion to managerial and supervisory positions. The University of Zambia should provide tailor-made programmes to meet the Ministry of Education's needs. More short-duration courses, workshops, seminars and other methods targeted at specific needs and approaches such as peer tutoring, self study, mentoring and informal exchange of experiences at the local level should be encouraged. In other words the University of Zambia should take a leading role in improving managerial capacity in Zambia's Education System.

THE ROLE OF FORMAL SCHOOLING IN PROMOTING DEMOCRACY IN ZAMBIA

J. H. Kalyalya *

INTRODUCTION

The objective of this paper is to discuss the role of formal schooling in facilitating the development of democracy in Zambia. It is being argued by the author that the formal school

system can play a positive role in enhancing democracy, and that it can effectively play this role if its aims, curriculum, methods of teaching, administration and organisation are transformed so as to make them responsive to the ideals of democracy. This argument is indeed shared by Taneja who argues that formal schooling cannot facilitate democracy "unless the principles of democracy are reflected in the aims of education, curriculum, methods of teaching, administration and organisation, in discipline, in the atmosphere of the school, and in the outlook of the teacher" (Taneja, 1976: 244).

The author of this paper further argues that the education for democracy being advocated by the Zambian government, as articulated in the 1996 national educational policy, can only be effectively taught in schools if it is offered through a core curriculum. The author advocates this idea because a core curriculum is intended to promote democratic ideals and practices in the daily life of an individual and that of the School Community. This can be observed from its emphasis on the basing of the school education and teaching on the current societal problems, aspirations, methods of thinking as well as attitudes, rules and survival skills for the good of an individual and his/her society.

WAYS OF PROMOTING DEMOCRACY THROUGH THE FORMAL SCHOOLING IN ZAMBIA

Democratic Educational Aims

As earlier pointed out in this paper, democracy can only be developed in Zambia if it becomes the core of the formal schooling. In the Western World with a long history of a well-established democracy, the school system has been utilised as an instrument for promoting democracy through a core curriculum. This is an inter-disciplinary course or an educational package offered to all citizens. One way of ensuring that democracy is effectively imparted is, according to the author, by making the aims of the school education democratic. Thus, its aims are to be focused on promoting democratic values, attitudes, and practices in the daily life of its recipients. The democratic educational aims are closely associated with those of the education for democracy, which include:

- (a) to make a child a social-minded human being able to manage his/her own affairs for his/her own benefit and that of others;
- (b) to help a child discover his/her potentials;
- (c) to help a child utilise his/her potentials to the full;
- (d) to equip a child with the power to make fair judgement and engage in scientific thinking;
- (e) to inculcate in a child's mind the spirit of tolerance for views and modes of life of others; and

(f) to create in a child a passion for social justice which should help him/her to have broad-mindedness and spirit of service.

Democratic School Curriculum

Another way of making sure that democracy takes root in the school community and ultimately in the wider society is by evolving a democratic curriculum. This kind of school curriculum is intended to:

- (a) cater for individual aptitudes and abilities of the learners;
- (b) conform to the local conditions and environmental demands;
- (c) stimulate thought and creative abilities of the learners;
- (d) provide variety and flexibility in learning so as to cater for the interests and talents of the individual learners; and
- (e) cater for every activity of value to the learners.

Democratic Methods of Teaching

Provision of education for democracy through the school system can, according to the author, be effectively achieved by offering training to teachers on the use of democratic methods of teaching. This idea is being advocated by the author because he feels that a democratic school curriculum can only be effectively implemented if teachers are well vested in democratic methods of teaching, which provide the following advantages to the learners:

- (a) they provide opportunities for pupils' initiative, critical thinking and independent judgement;
- (b) they expose the learners to real-life problem - solving situations, which demand that they sift evidence at their disposal, and be able to make wise choices and well informed conclusions.

Democratic Classroom Atmosphere and Discipline

The author further argues that democracy can also be developed through the school system by creating a democratic classroom climate. In a democratic classroom pupils are granted freedom to interact with each other and with their teachers, they are also charged with responsibilities to carry out on behalf of the others, they are given freedom to actively participate in all the classroom activities, but have to adhere to the democratically agreed rules and regulations to avoid anarchy. Pupils' positive behaviours are re-inforced by the use of praises, approval and rewards, and deviant behaviours are discouraged by means of democratic sanctions such as disapproval, verbal reprimand and punishment. But punishment is administered in such a way

that it does not alienate the wrong doer. Punishment is not used as a punitive but a corrective measure. It is intended to reform and not to create animosity in the wrong doer.

Democratic Teacher

The author also argues that it is just not enough to provide orientation to teachers on the use of democratic methods of teaching, but that there is need to train teachers to become democrats themselves. A democratic teacher is generally known to be a person who is humble, friendly, helpful, and positive but not dominant, and avoids boasting and has respect for and interest in his/her pupils. These qualities help him/her to become an effective teacher in a democratised school climate.

Democratic School Administration

The school administration, in the author's view, plays a central role in making democracy work or fail. This being the case, therefore, it is being argued by the author that it would be futile to expect democracy to be effectively taught under an undemocratic school administration. This then makes it imperative, according to the author, to evolve a democratic school administration by training school administrators in democratic skills and practices. A democratic administration is an essential component in teaching of democratic living through the school system. A democratic school administration is generally known to be characterised by a life of give - and - take. The working relationship between the administrators and teachers is cordial, delegation of duties is a common feature, and both the administrators and teachers feel that they are working towards a common goal. Pupils are given chance to have a say on the rules and regulations that affect them and are given freedom to engage in ventures which are intended to improve their school and its surroundings.

PROBLEMS INVOLVED IN DEMOCRATIC TEACHING

The author alludes to the fact that the provision of education for democracy through the school system has a number of bottlenecks, some of which are; the unwillingness of the school administrators to delegate responsibilities to their subordinate staff, the unwillingness of the teachers to share power with their pupils, and the unwillingness of the teachers and pupils to accept and utilise the freedom provided under a democratic school system.

CONCLUSION

The author concludes by arguing that despite the obstacles that Zambia may face in the provision of the education for democracy through the school system, she has vast potential of achieving her much sought democratic change. It is the view of the author that once the aspects of the formal schooling which are highlighted in this paper are fully addressed, Zambia should be able to develop a truly democratic society.

ON GENDER RELATIONS AND HIV/AIDS IN KAPULANGA, MONGU: SOME SOCIAL POLICY AND COMMUNITY IMPLICATIONS

Anne L. Sikwibele*

INTRODUCTION

This paper is based on a study in Kapulanga, Mongu, in Western Province of Zambia. It is part of a large comparative study analysing gender relations in the fight against HIV/AIDS in Zambia and Tanzania completed in 1997. Although the Zambian study took place in two other areas namely: Kanyama in Lusaka, and Chitanda in Mansa, Luapula Province, the focus of this paper is on Kapulanga.

HIV/AIDS infection is said to be one of the major death problems in Zambia affecting a substantial proportion of the economically active population between 19-49 years and threatening to cripple the economy. The study examined various questions and effects of HIV/AIDS on the Kapulanga community, paying special attention to differences between men and women as well as considerations based on age. In examining gender relations, the study wished to explore the extent to which the infection with HIV/AIDS had led to conflict and misunderstandings within households based on gender, and age (generation) specific differences. It has also investigated existing and potential community initiatives and strategies that can be used to change community attitudes and behaviours towards the spread of HIV/AIDS.

OBJECTIVES OF THE RESEARCH

The objectives of the research were:

- . to investigate gender relations as aspects of the struggle against HIV/AIDS in Zambia, taking account of the central fact that in Africa, HIV/AIDS has been spread primarily through heterosexual relations.
- . to work with women and youths to try and establish community groups to act as social support systems for them in the fight against HIV/AIDS.
- . to implement methodological approaches which not only facilitate data collection, but also allow for the initiation of work with women, men and youth in the campaign against HIV/AIDS.
- . to disseminate findings and contribute to strategic knowledge about HIV/AIDS prevention.

METHODOLOGY

3.1 The research utilised both qualitative and quantitative methodologies during the different phases of the study. The specific methods used include; in-depth interviews,

observations, discussions with various respondents, a survey on a small scale, focus group discussions and collaborative action research.

3.2 Phase one involved collection and analysis of state of the art data from key opinion leaders on the status of HIV/AIDS in the research area and activities carried out by individuals, groups and organisations in relation to HIV/AIDS. Phase two was devoted to carrying out specific baseline survey in the research site in order to establish people's reactions and knowledge about HIV/AIDS, and how they evaluated the extent and impact of the problem on themselves and the community. The survey questionnaire was completed in a face-to-face-interview situation, covering 100 respondents comprising 50 men and 50 women, whose criteria for selection included age, sex and socio-economic status. Phase three consisted of focus group discussions with ten (10) groups, aimed at getting more information about their knowledge, attitudes and practices, as well as views related to the origins, nature, treatment, possible strategies for protection and the management of HIV/AIDS issues in the community. The focus group discussions were based on age and sex, with five (5) consisting of females, four (4) for males and one (1) mixed on both age and sex. Phase four (4) was directed towards consolidating the various activities, establishing collaborative action with groups and organisations in the community. This phase saw the transition towards action research and activism through community activities targeting women's, men's' and, youth groups and finding the best ways of incorporating HIV/AIDS education in their activities as well as ensuring the sustainability of the groups.

3.3 Three social class groupings were used which were high, middle and low, although earlier wealth ranking categories used in Western Province comprised four groupings which are: the rich, the strivers, the poor and the destitute. Our groupings combined the poor and destitutes as 'low' social class.

3.4 Types of Data - Specifically, the research sought to collect data on issues like: perceptions of HIV/AIDS as a problem; mode of transmission and symptoms; knowledge about and willingness to use condoms; questions about who decides on the use of condoms and how the community deals with teaching young people to use condoms; views and perceptions about who is at risk from HIV/AIDS and who should be blamed; beliefs about sexuality; questions related to strategies for prevention from HIV/AIDS, gender relations and related issues as they relate to the HIV/AIDS pandemic.

THE SETTING OF THE RESEARCH - KAPULANGA, MONGU

4.1 Mongu is a peri-urban area and the Provincial Headquarters of Western Province with over 157,014 people with about 6,000 in Kapulanga. The Kapulanga settlement started in 1962 as an area of in and out migration and grew with the incidence of traders, retirees and Angolan refugees, and hence most residents are of low socio-economic status reflected in the poor housing infrastructure, lack of economic and social services, like electricity, police services, schools, clinics, few economic activities consisting of selling beer, trading and small scale businesses, no sanitation or garbage disposal facilities and a general poor standard of living aggravated by the Structural Adjustment Programme

(SAP). The policy of cost-sharing brought about by SAP, has effectively led to the withdrawal of children from schools and prevented a high proportion from receiving health care and related services, and led to increased deaths from hunger disease and malnutrition.

4.2 Due to a high prevalence of poverty, there are so many problems in Kapulanga.

Some of the problems experienced by the Kapulanga community include the following:

. Health and Related Problems in Kapulanga

- . high unemployment and poverty;
- . high illiteracy rates;
- . high incidence and prevalence of malnutrition due to inadequate dietary intake;
- . lack of community development programmes;
- . lack of personal and community security due to lack of police services;
- . lack of health facilities and health education programmes;
- . very poor housing infrastructures;
- . inadequate or no proper sanitation and garbage disposal;
- . poor maternal health status;
- . high levels of morbidity and mortality from malaria, diarrhoea, respiratory tract infections, eye diseases and skin infections;
- . insufficient household food security;
- . increasing number of HIV/AIDS patients and deaths.

RESEARCH RESULTS

The findings are from a variety of sources, instruments, and activities used including data from interviews, focus group discussions, observations, surveys and others.

Perceptions of HIV/AIDS as a Problem Symptoms and Prevalence. All the respondents admitted that they were aware of HIV/AIDS and had personal knowledge of someone infected. The current figures based on prevalence levels at ante-natal clinics indicate a high prevalence of over 23%. A high proportion of respondents consider themselves at risk with the young girls being

more vulnerable to infection from the elder men due to the "sugar-daddy syndrome." A high proportion also know that the disease is got through heterosexual transmission, blood transfusion, sharing razor blades, needles, syringes and mother to child (peri-natal) transmission. The elderly people however believe it can be contracted by having sex with a woman who had an abortion and has not been cleansed ("sishako" local lozi term). Respondents identified the symptoms of HIV/AIDS as including: chest problems, persistent coughs, (specially those associated with TB), persistent diarrhoea, weight loss, malaria, high fever, vomiting, change in skin and hair colour and texture, falling hair, sores on the body, swellings of body, heart burns, painful legs and feet and back aches. It was not however easy to agree on the prevalence levels among respondents, as it was stated that even doctors do not disclose such information to patients or relatives. Besides, many did not want to know their HIV/AIDS status fearing that it would lead to depression, bitterness and deliberate spread to others and accelerated death.

AIDS Epidemic and Gender Relations

Who is at risk and responsible for the spread of HIV/AIDS? Our data consistently pointed to the young girls and poor women as the ones most at risk and responsible for the spread due to their vulnerable situation. The rich men, especially sugar daddies use their riches to have sexual favours with young girls and poor women who do it for the money. It was further established that the community had strong patriarchal structures with strong traditional beliefs about sexual roles of men and women, where women remain subordinate to men and cannot do anything without permission. It was generally agreed too, that women have no power to say "NO" to men, and more so when it comes to sex. It has to be noted here that the young girls and poor women emphasised that the central issue forcing them into undesired sexual relations was "poverty" and general personal insecurity. All other groups however, are at risk of contracting HIV/AIDS from their partners. Traditional practices which encourage dry sex put the women at risk of infection. A high proportion believed that they cannot do without sex and hence strategies that focus on abstinence from sex cannot work. The strategy of one partner is similarly not practical where men believe they can have relations with as many women as they wish, resulting in high infidelity. This leaves the use of condoms as an alternative, yet in a poor community, the buying and use of condoms is not a priority and hence prospects become slim.

HIV/AIDS Prevention, Availability and Use of Condoms

The question of prevention poses a major challenge given the unwillingness towards behaviour change. The use of condoms is sidelined, as it is associated with prostitutes and infidelity. Besides, due to poverty, the questions of availability, breakage during use and general effectiveness emerge and need to be dealt with. Some of the major problems related to condom use include reluctance by certain Christian groups (e.g. Catholics), to use them, breakage in action due to lack of knowledge about proper use, poor quality and storage of condoms, inadequate or lack of access to condoms due to the cost and lack of disposal facilities which threatens the health of children who blow used condoms as balloons. Another overriding constraint is that it is the men who decide on the use of condoms and women are sternly disciplined if they suggest it.

Gender Relations in the Struggle Against HIV/AIDS.

A high proportion of respondents confirmed that men have more power, authority and leverage and rights than women. It is generally accepted that a man can beat up his wife for a number of reasons and that a wife/woman needs her husbands/partner's permission to undertake a variety of activities like going to meetings or visiting friends or buying household items. While parents are expected to teach their children morals, there is still evidence of strong double standards where patriarchal traditions reinforce obedience, submissiveness and sexual compliance among women who may be threatened with divorce and who have no alternative to an unhappy marriage, while emphasising superiority and conjugal rights for men which permit infidelity and hence their refusal to use condoms. Both men and women blame each other for the spread of HIV/AIDS and a sense of mistrust and insecurity was evident from both sides and increased gender conflict was reported both at the household and community levels. While middle aged men and women believe that HIV/AIDS is externally imposed by foreigners "mazwahule", the traditional healers and herbalists believe that they can cure or reverse the symptoms. Some elderly people and healers (men and women) argue that there is nothing new about HIV/AIDS as the same symptoms existed before and were curable, claiming that the medications could be administered even by "remote control" or by "DHL", making it fast, efficient and effective. In spite of the suspicions and insecurity, both men and women were not ready to abstain from sex. Similarly, change of attitudes and sexual behaviour were not entertained. Hence in spite of the concerns and fears, there is resistance to abstain or use barriers.

SOME SOCIO POLICY IMPLICATIONS

- . Findings from our research point to the need for some co-ordinated social policy programmes, especially in education and health, to effectively fight the HIV/AIDS pandemic.
- . Community based health education programmes need to be developed to educate the community. For example, the young unsuspecting girls need education about their knowledge, attitudes and practices. These could take place in bars, markets and other recreational centres.
- . It is clear that the number of orphans is rising in families which are unable to cope, which is indicative of the need to implement some support programmes for both orphans and widows.
- . There is urgent need to target the much younger school age population who are not yet affected, while targeting the other groups at risk and collaborating with NGOs, churches, groups etc.
- . A large proportion of the female headed households affected by AIDS is poor and unable to take care of their family needs, forcing their girl children out of school to contribute to economic activities that enhance family income. This calls for clear policies and programmes to assist the affected children.
- . The high illiteracy and poverty among rural women implies the need to devise functional literacy and skills training programmes that combine with health education.

- . Women's lack of power and dependence on men in economic and sexual relations as reinforced by patriarchal structures emerged as a constraint requiring alternatives backed by laws and activities which are supported by men. There is need to increase women's power and leverage to decide when, how and with whom to have sex.
- . There is need for co-ordinated sensitisation campaigns and AIDS prevention activities working through established groups, and targeting men, in the strategies as their participation is crucial in implementing preventive measures.
- . Communities need social counsellors to help the infected, care providers etc.
- . The activities of Anti - AIDS clubs need to extend to non formal situations in communities to teach basic facts about HIV/AIDS, proper condom use, disposal, importance of abstinence and monogamous sex partners.
- . Extended use of the media using local languages could help reach out to some rural areas.
- . There is need to strengthen collaborative action among interested line ministries, NGOs and donors.

CONCLUSION

Discussions about sex, sexuality, infection and infertility are usually not done openly in the research site due to traditional beliefs that these are personal, sacred or taboo, more so with intergeneration groups. The fact that the research managed to break the culture of silence on gender relations and sex is a success needing follow-up. The need to encourage community based action and strategies also emerged, while realising that this may be constrained by the general unwillingness by people to engage in non-economic activities. The question of "power" pointed more to the need to empower women in many ways and need to teach them negotiating and decision making skills to decide who their sexual partners will be, when, and how to go about it. The negative aspects of patriarchal traditions need to be exposed while encouraging changes in gender relations.

APPENDIX I

LIST OF PERSONS INVITED TO OSSREA NATIONAL WORKSHOP

1. *Mr. Gear M. Kajoba*, Department of Geography (Chairman and Liaison Officer)
2. *Dr. John Chileshe*, Dean of School of Humanities and Guest of Honour

3. *Dr. Jotham C. Momba*, Department of Political and Administrative Studies (OSSREA Secretary)
4. *Dr. Annie Sikwibele*, School of Education (OSSREA Treasurer)
5. *Dr. Henry Sichingabula*, Department of Geography
6. *Mrs. W. Nchito*, Department of Geography
7. *Mr. Henry Msango*, School of Education
8. *Dr. Ireen Maimbolwa- Sinyangwe*, Department of Gender Studies
9. *Mr. N. Mundia*, School of Education
10. *Dr. Fred Mtesa*, Department of Development Studies
11. *Dr. Darlington Kalabula*, School of Education
12. *Mr. Joy Kalyalya*, School of education.
13. *Mr. Kasapo*, School of Education
14. *Dr. Chitalu Lumbwe*, Institute for Economic and Social Research
15. *Mr. Nyambe Sumbwa*, School of Education
16. *Prof. Augustus Adeyinka*, School of Education
17. *Mrs Esther N. Mulaisho*, P. O. Box 30977, Lusaka
18. *Ms. M. M. Mabeta*, Dept. of Business Studies, Evelyn Hone College
19. *Mr. Masheka Kakuwa*, School of Education
20. *Mr. Francis Chigunta*, Department of Development Studies
21. *Mr. Excellent Hachileka*, Department of Geography
22. *Mr. Augustine B.C. Katotobwe*, Department of Political and Admin. Studies.
23. *Dr. Laurence Mukuka*, Department of Development Studies

APPENDIX II

LIST OF SUMMARIES OF THE PAPERS PRESENTED

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2. Dr. Henry M. Sichingabula: *Prediction of Agricultural Production Using Census Data.* P.11
3. Mr. Augustine B. C. Katotobwe: *The Privatisation of the Mines in Zambia.* p.17
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5. Mr. Francis Chigunta: *Gendering Environment Policy in Zambia.* P. 31
6. Dr. Darlington M. Kalabula: *Perceptions of Disability in Zambia: Implications for Educational Policies and Other Service Delivery.* P. 34
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