

CHAPTER SIXTEEN

ENVIRONMENT

Introduction

This paper is a contribution to the preparation of the PRSP and proposes ways of mainstreaming environment issues to derive pro-poor and pro-environment programs. The development of a framework for assessing the environmental impacts of the proposed policies, programs and action from each sector would represent the best way of mainstreaming environmental considerations within the PRSP.

Situational Analysis

Poverty - Environment Relationship

The relationship between poverty and environment is characterised as a “vicious circle” or a “downward spiral”. The poor often rely on the environment for their livelihood and survival. At the same time, they are affected by the way others around them use environmental resources.

The urban poor are especially affected by poor environmental services, such as sub-standard housing, inadequate or polluted water, lack of sanitation and solid waste systems, outdoor air pollution, and indoor air pollution from low-quality cooking fuels rather than the other way round. Urban poverty therefore needs to be attacked by improving the environment, by improving people’s health and providing new and better paying jobs. In rural areas the poor are heavily dependent upon natural resources (forests, land, water, animals, etc). Attacking poverty in rural areas is then necessarily a matter of improving poor people’s ability to derive sustenance and income from more productively and sustainably managed natural resources.

The past economic reforms have not done much to break the poverty-environment vicious circle. Instead the risk of environmental damage, due to pressure on resources use, has emerged. Central planning policies during the second republic made it difficult for local people to exploit natural resources and got alienated from them. State control of prices for services such as water supply and waste disposal discouraged new investment in the sectors and led to the deterioration of plant and machinery resulting in the outbreaks of diseases such as cholera while subsidies in agro-chemicals promoted their misuse and resulted into pollution.

The change to a market economy opened up an opportunity for re-examining the country's environmental policy and strategies. Ideally, it was supposed to bring positive signals to environmental management given that the government would rely on economic and legal instruments to achieve sustainable development. It also pre-supposed greater involvement of local communities and the private sector in the management of the economy and environment. Further, privatisation of the parastatals would generate private investment to revitalise the economy and for the industries to invest in pollution control technology. In reality this has not been the case.

However, from the environmental point of view, an unfortunate side effect has been to increase incentive for use of fuel wood for heating and cooking, leading to increased deforestation. Equally, cuts in forestry service, to reduce on public expenditure, has led to unsupervised logging, forest revenue not collected and acceleration of forest degradation.

From this background, the environmental management practices have focussed largely upon the after-the-fact repair of damage at an astronomical cost and at little or no service to poverty reduction. Environmental policies directed at the symptoms of harmful growth should only be additional to those that integrate production with resource conservation and enhancement, and those that provide a wider choice of adequate livelihoods and equitable access to resources by all. The PRSP provides an opportunity for to reverse the downward spiral.

Policy Framework for Integrating Environmental Management and Poverty Reduction

The Government, through the 1994 National Environmental Action Plan (NEAP), recognised the need to adopting sustainable policies aimed at maintaining ecosystems, essential ecological processes and the biological resources of the country. The NEAP has provided an overview of Zambia's environmental problems, existing legislation and institutions and strategy options for improving environmental quality. It also provided the basis for development of a detailed Environmental Investment Plan, which supports implementation of its recommendations.

The environmental strategies provided by the NEAP were meant to complement macroeconomic measures with the aim of providing the right incentive structure for sustainable economic growth and development. Consequently, one of the reasons for the development of the NEAP was to propose changes, where needed, that would make economic policies and programs conducive and supportive to environmental management specifically and sustainable development in general.

The NEAP identified five problems as imposing the greatest social costs on the Zambian people, namely;

1. Water pollution and inadequate sanitation
2. Soil degradation
3. Air pollution in the Copperbelt towns
4. Wildlife depletion (fish and game)
5. Deforestation

The greatest costs, both environmental and social, of these problems are borne by the poor who have less capacity to adapt to environmental changes, which are basically consequences of development. Some examples of the environmental impacts development efforts are as follows;

Agriculture

Agriculture's major environmental impact occurs in production levels and varies according to agro-ecological region and the level of agricultural development. Land degradation resulting from soil erosion, vegetation clearance, landscape alteration, the introduction of toxins into the soil, overstocking of domestic animals combined with poor cultivation techniques and/or excessive cultivation ruins agricultural land, contributing to reduction of crop yields.

Water

Lack of integrated river basin management plans to rationalise the utilisation, conservation and management of water resources affect its management. On the other hand, local authorities do not

have enough capacity to provide adequate drinking water supply. Environmental issues in the water sector include;

1. Low level of water available to most urban dwellers creating health and welfare problems.
2. Water pollution from the leaching of heavy metals and other forms of industrial waste have a severe effect in the Copperbelt and Kabwe.
3. Industrial and domestic effluent
4. Loss of trees (through agriculture, charcoal burning and urban expansion) causes an increase in water run off and soil erosion.
5. Wetlands are being destroyed by siltation, sedimentation and dam construction, the causes of which are discussed above.
6. Improper use of agrochemicals leads to toxification through run off and leaching.

Forests

Increased demand of wood fuel, building materials, agricultural land and settlements together with uncontrolled forest fires are responsible for deforestation. The results of deforestation are increased soil erosion, sedimentation and siltation as well as siltation-induced flooding.

Wildlife

Problems in the wildlife sector include illegal hunting and over exploitation, land use pressure, dam development, road construction, mining and prospecting, logging activities, tsetse control, fishing activities, tourism development, bush fires, absence of management plans and institutional and manpower capacity. The creation of national parks and Game Management Areas (GMAs) has contributed to failure to resolve land use conflicts and establish acceptable zoning for wildlife management.

Fisheries

Over-fishing is the major threat to sustainable fisheries production in Zambia. It is caused by both overgrowing number of fisherpersons that is exerting intolerable fishing pressure and the use of bad fishing methods, like use of destructive fishing gear, fish poisoning and dynamites.

Tourism

Unregulated tourism infrastructure such as lodges and accessible roads in national parks and GMAs have led to degradation of the wildlife resource. The collection of objects for tourist purposes from areas where they were originally found results in both cultural and environmental degradation.

Mining

Mining has great effects on the environment. Water pollution arises from run-off water from mining dumps, seepages from tailings dams and discharge of untreated wastewater. Little attention is also paid to the problem of land dereliction caused by small-scale mining including air pollution is mainly caused by sulphur dioxide from roasting and smelting operations and the burning of

sulphur containing fuels. Dust pollution is another main problem experienced due to mining. Quarrying activities are usually associated with dust and noise pollution.

Industries

More manufacturing industries implies more generation of industrial waste like gases, wastewater and solid waste. Manufacturing industries also cause noise and water pollution.

Energy

The main problems experienced in the energy sector include the negative effects dam construction; wood and fossil fuel have on the environment. Unsustainable charcoal production and use has also led to deforestation in Zambia. Alternative sources of energy are limited at the moment in Zambia.

Interventions

After assessing the environmental impacts of sector development strategies, the NEAP recommends a number of specific strategic interventions. For the sake of compatibility with known strategies for pro-poor policies, the NEAP recommendations are retrofitted in the following six widely applied strategies for poverty reduction;

1. Protecting the current asset base of the poor;
2. Expanding the asset base of the poor;
3. Co-managing and co-investing resources with the poor;
4. Promoting infrastructure and technology development;
5. Prioritising poor areas and compensating the poor; and,
6. Reforming markets and planning.

Programmes on the Poverty/Environment Nexus

A number of programs have been drawn from the above pro-poor/pro-environment principles in their formulation and implementation. These include;

1. The Environmental Support Program (ESP) whose main objective is to reduce poverty through economic growth, protection of the environment and natural resources, and to mainstream environment and natural resources management in Zambia's national development process at all levels of governance. Within the NEAP's long term perspective, one objective is to help the Government to initiate a capacity building effort to finance projects and programs which have been generated by, or are in line with the NEAP priorities and recommendations.
2. The Administration and Management Design (ADMAD) Program for Wildlife Management in Game Management Areas (GMAs) that seek to build capacity for community-based natural resources management by, among other things, decentralised decision making and wildlife revenue sharing;
3. The Zambia Forestry Action Programme (ZFAP) a national initiative to assess Zambia's forestry resources and the nation's capability to manage them. The process involves extensive consultations and active participation of major stakeholders

4. The Provincial Forestry Action Program (PFAP) being implemented in four provinces namely, Central, Copperbelt, Luapula and Southern Provinces. This project is focusing on promoting community participation for sustainable forestry management and building capacities for forestry planning at provincial and district levels.
5. The Industrial Pollution Prevention Program (IPPP) arising from the Regulations and standards set under the Environmental Protection and Pollution Control Act, and is aimed at ensuring pollution prevention and attaining sustainable development. This program aims at developing capacity for Environmental Council of Zambia (ECZ) to enforce regulations through a stringent monitoring and licensing of industrial operations in Zambia and also has a component of Cleaner Production under the Zambia Chambers of Commerce and Industry (ZACCI).
6. The ECZ has also been given the mandate to negotiate, on behalf of Government, Environmental Management Plans (EMPs) for each mine as per terms of the sale agreements, within the privatisation process. These EMPs will define the commitments of owners regarding adherence to environmental regulations according to Zambian law. Monitoring adherence to these regulations will become a major task of ECZ once the EMPs are concluded.
7. To ensure sustainable utilisation of natural resources, the ECZ with the assistance of the Dutch Government has established a program aimed at assuring sustainable use of Wildlife resources based on real existing population of Wildlife. This program will be extended to other natural resources such as the forestry (timber exploitation).
8. The Soil Conservation and Agro-forestry Extension (SCAFE) Program is combating soil degradation and undertaking integrated (agriculture and forestry) extension efforts with communities in four (4) provinces of Zambia.
9. The Zambia Social Investment Fund (ZAMSIF) is supporting communities to rehabilitate infrastructure through implementation of micro-projects by provision of matching grants. The expansion of the Fund has included environmental projects apart from ensuring that all projects supported by the fund undergo environmental assessment.
10. The Community-Based Natural Resources Management (CBNRM) Program provides for the involvement of local communities in the management of their natural resources such as forests, wildlife, fisheries, water and arable land. The program emphasizes an integrated management approach of natural resources, with the involvement of all gender groups and children.

Mainstreaming Environment/Poverty Nexus in PRSP

As a way forward, the paper has the following actions as means of integrating environmental concerns within the PRSP;

1. Review the policy framework for integrating environmental management and poverty reduction within the 'on-going' process of preparing a National Environmental Policy. This would provide an update of the NEAP, with special emphasis on poverty reduction strategies rather than be enveloped within the broad issue of sustainable development.
2. Review on-going programs in environmental management with a view of strengthening the addressing of the environment/poverty nexus.
3. Expand, possibly to national level, pilot programs that have proved successful in improving the environment whilst at the same time improving sustainable livelihood of the poor
4. Develop complementary pro-poor/pro-environment programs within the existing and future policy framework

5. Develop a framework for assessing the environmental impacts of sector specific poverty reduction strategic policies, programs and action plans. Whilst maintaining the integrity of the current Environmental Impact Assessment (EIA) regulations, a simple and user-friendly (thematic group-friendly) framework could be adopted to ensure facilitate the integration of environmental consideration at the early stage of the work of the thematic groups.