

Deforestation and sustainable development



The country's economy has been growing since 2000, but poverty continues to be a pressing issue while life expectancy remains very low. Although the Government has shown some concern regarding environmental challenges, the plans put in place lack coordination and have failed to create public awareness about soil erosion, loss of biomass, climate change and deforestation. The country has lost 6.3% of its forests in the last 20 years. High poverty levels and lack of alternative sources of livelihoods exacerbate environmental degradation resulting from the dependence of poor people on natural resources. It is time for the Government to establish more adequate policies and strengthen coordination in the environment sector.

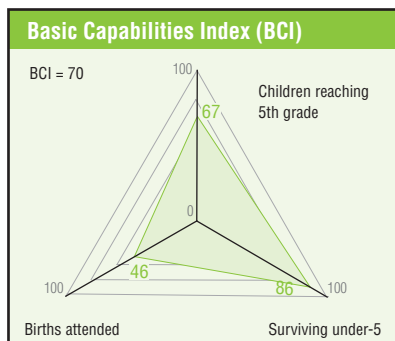
Women for Change

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From 2000 onwards Zambia experienced strong economic growth at an average rate of 5% per annum.¹ Poverty levels decreased from 68% in 2004 to 64% in 2006, but 53% of the population remained in extreme poverty, which is most common in female-headed households. The rural population is predominantly poor, with an overall poverty rate of 78%.² Levels of extreme poverty are also high in rural areas (where two thirds of the extremely poor live) and in households with the least formal education. In fact, households headed by those with no formal education have a poverty incidence of 81%, and of these 70% are extremely poor.³

Providing access to education is still a challenge for the country, particularly at higher and tertiary levels. In 2004, only 11% of the population managed to complete their senior secondary education. This problem is more acute for women and girls; in 2006 only 8.6% of females had finished senior secondary level.⁴ Moreover, although tertiary education is crucial for long-term economic development as well as strengthening democracy and achieving social cohesion, only 2% of the population had completed a Bachelor's degree or above.⁵

The attainment of good health among the population, an essential factor for social and economic prosperity, faces a number of challenges despite the Government's introduction of various measures and programmes to improve the quality of life. There is a high prevalence of infectious



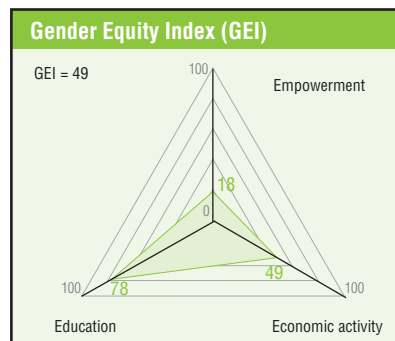
diseases, including an HIV rate of 13.5% among adults, and life expectancy at birth is 52.36 years.⁶

Sustainable development and environmental issues

The Government's goal since 2006 has been to ensure environmental sustainability by reversing environmental damage, maintaining essential biological processes and ensuring the sustainable use of natural resources. However a number of factors continue to constrain the achievement of this goal, including:

- Coordination problems.
- Lack of comprehensive policies on environmental issues.
- Limited public awareness about environmental issues.
- An inadequate legal framework and lack of implementation of the Forest Act of 1999.
- Inadequate budget allocations and investment.
- Poor maintenance of biological diversity and limited local participation.
- Inadequate mainstreaming of environmental and climate change issues into other sector policies and programmes.
- Slow implementation of the National Policy on Environment to reduce conflicts related to land use (including those between humans and animals).

The issue of climate change also needs to be addressed. The main local indicator of climate change is the



modification of temperature and rainfall patterns. The consistent warming trend shown by mean annual temperatures for 1961–2000, for example, has had several negative effects, including limited crop yields and increased risk of malaria transmission at higher altitudes. The latter is especially important in Zambia, where malaria accounts for 47% of all deaths annually.⁷

The impact of higher temperatures on rainfall is not easy to assess, especially since the country is affected by the periodic El Niño phenomenon, the complexity of which is beyond the scope of current climate models. Nevertheless, the Government's National Adaptation Programme of Action (NAPA) reported that drought and floods had increased in frequency, intensity and magnitude over the previous two decades.⁸

In terms of biodiversity, Zambia has 1,234 known species of amphibians, birds, mammals and reptiles according to figures from the World Conservation Monitoring Centre. Of these, 1.5% are endemic and 1.9% are threatened. The country is also home to at least 4,747 species of vascular plants, of which 4.4% are endemic.⁹

7 IRIN, "Zambia: Decreasing Cases Cause for Optimism", in *In Depth: Killer Number One – The Fight Against Malaria*, (January 2006), <www.irinnews.org/InDepthMain.aspx?InDepthId=10&ReportId=58010&Country=Yes>.

8 Ministry of Tourism, Environment and Natural Resources, *Formulation of the National Adaptation Programme of Action on Climate Change*, Government of Zambia, UNDP Zambia and Global Environment Facility, (September 2007), <www.preventionweb.net/english/policies/v.php?id=8581&cid=192>.

9 Mongabay.com, *Zambia Forest Information and Data*, (2010), <rainforests.mongabay.com/deforestation/2000/Zambia.htm>.

1 Imani Development International Ltd, *2007 Update Survey of Non Tariff Barriers to Trade: Zambia*, (Regional Trade Facilitation Programme, July 2007), 5.

2 allAfrica.com, *Zambia: Poverty Levels Go Down*, (20 November 2009), <allafrica.com/stories/200911200074.html>.

3 Ibid.

4 R. Siaciwena and F. Lubinda, *The Role of Open and Distance Learning in the Implementation of the Right to Education in Zambia*, (The International Review of Research in Open and Distance Learning, February 2008), <www.irrodl.org/index.php/irrodl/article/view/481/995>.

5 Ibid.

6 CIA, *The World Factbook: Zambia*, (May 2011), <www.cia.gov/library/publications/the-world-factbook/geos/za.html>.

The national biomass (above and below ground) is estimated at 5.6 billion tonnes, with an additional 434 million tonnes of dead wood biomass, for a total biomass estimate of 6 billion tonnes. Of this, approximately 2.8 billion tonnes of carbon is stored in forests. The forests therefore hold a considerable amount (90%) of the country's total above-ground biomass.

Deforestation and its impacts

Over the last 40 years the forests have been depleted due to population increase, economic imperatives, charcoal production, demand for new land for agriculture and uncontrolled fires. The rate of deforestation that for decades was said to be about 300,000 hectares per annum was reported in 2008 to be 800,000 hectares per annum.¹⁰ Between 1990 and 2010, Zambia lost an estimated 6.3% of its forest cover or around 3,332,000 hectares.¹¹

Commercial exploitation of indigenous woods started during the third decade of the 20th century. Increasing activities in mining and construction also contribute significantly to deforestation. The practice of slash-and-burn agriculture to feed a growing population is widespread. Logging is also increasing. The hardwood forests of the western grasslands, which had been reasonably well conserved, have in recent years come under pressure.¹²

Households and industries are major consumers of forest resources. The main commercial product from indigenous forests is charcoal for cooking – 27% of households in Zambia use it as their main source of cooking energy while 56% use firewood. Electricity is used by 16% of households for cooking and by 19.3% of households as their main source of lighting. The charcoal industry provides employment for about 50,000 people in rural and urban areas.¹³

Forests provide an important source of livelihood for rural communities. In particular, poorer households show a higher dependency (44%) on wood fuel than those who earn more. The demand for wood fuel is increasing exponentially while there are severe local shortages. Poorer households also have a greater dependence on wild plants for medicinal purposes and food. Other uses of forest products include animal grazing and provision of construction materials such as poles and thatching grass. Overall most forests fall under traditional customary management and have no formal management arrangements: 41% fall under traditional management; 36%

are recorded as not having a known management plan; and only 23% have formal management arrangements (national parks and forest reserves).

Although both men and women play critical roles in managing natural resources in Zambia, women's relationship with the environment is critical to their daily lives as they are responsible for the provision of domestic water and fuel as well as for cooking. Women play major roles in forest resource management as gatherers and users of various forest products including grass for thatching. The high poverty levels and lack of alternative livelihoods sources, especially in rural areas, exacerbate environmental degradation resulting from poor people's dependence on natural resources for survival.

Forest destruction is leading to soil erosion, loss of bio-diversity and biomass, dwindling water supplies, reduced agricultural productivity and environmental degradation. There are also widespread negative impacts on food security, energy supply and social welfare. Customary lands are increasingly degraded and deforested because they are under the most pressure for alternative land uses. The use of charcoal and wood fuel is not only harmful for the environment but also bad for people's health.¹⁴

The country cannot afford to continue losing forests at the current rate. Forests are important for carbon restoration, which helps to mitigate climate change.

Key policies and programmes

The Ministry of Environment and Natural Resources was created in 1991 as the primary institution for environmental management. Successive efforts to deal with the challenges in the sector have included adoption of the National Conservation Strategy, the National Policy on Environment (2007), the National Environmental Action Plan, the Zambia National Biodiversity and Action Plan, the Forestry Policy of 1998, the Zambia Forestry Action Plan and the Forest Act of 1999.

To deal with ozone layer depletion, the Government enacted Statutory Instrument No. 27 of 2001, and the country signed and ratified the United Nations Convention to Combat Desertification (UNCCD) and subsequently prepared a national plan of action in 2002.

Zambia also implemented its Fifth National Development Plan (FNDP) from 2006 to 2010, the key policy objectives of which included the promotion

of sustainable forest management by encouraging private sector and civil society participation in forest resource management. A number of activities were introduced to deal with forestry matters during this period, but in the final analysis it was difficult to monitor progress because of a lack of data and information. The deforestation rate, the only indicator available, showed that FNDP objectives in that area were not achieved in full. In fact, it is clear that the pace of forest depletion has accelerated.

Furthermore, there are inadequate macroeconomic policy incentives or disincentives to promote sustainable management of environmental resources and discourage unsustainable consumption patterns.

Conclusions and recommendations

Development cannot be sustained in a deteriorating environment, and the environment cannot be protected when economic growth does not take into account the cost of environmental destruction. The high poverty levels, limited access to basic rights such as education and health, and continued degradation of the forests mean that sustainable development is under threat in Zambia despite high economic growth.

The Zambia Social Watch Coalition therefore recommends the following:

- To ensure sustainable forest management, and mitigation of or adaptation to climate change, Zambia must recognize the importance of land tenure and ownership, especially with respect to customary lands, which account for nearly two thirds of forest land.
- Government must accelerate the pace of adopting the revised draft forest policy and the subsequent revision of the Forest Act of 1999.
- In revising existing policies, laws or programmes or developing new ones, gender mainstreaming must be strengthened to ensure both women and men are not adversely affected and they both benefit equally.
- Coordination in the environment sector should be strengthened and environmental issues mainstreamed in all sectors.
- Government and other key stakeholders in the field must embark on massive public education campaigns on the environment. ■

10 European Commission, *Governance Profile – Zambia*, (2008), <www.programming.eu/wcm/dmdocuments/gover_08_zambi_fi_en.pdf>.

11 Mongabay.com, op. cit.

12 Ibid.

13 World Bank, *Delivering Modern Energy Services for Urban Africa – Status, Trends and Opportunities for Commercially Sustainable Interventions*, (2003), <info.worldbank.org/etools/bspan/presentationView.asp?EID=239&PID=501>.

14 Civil Society for Poverty Reduction (CSPR), *The Path Away from Poverty: An Easy Look at Zambia's Poverty Reduction Strategy Paper 2002–2004*, <www.sarpn.org.za/documents/d0000280/index.php>.