

Bioinvasion and Global Environmental Governance: The Transnational Policy Network on Invasive Alien Species

Zambia's Action on IAS

Description⁶

The Republic of Zambia, a landlocked country in southern part of the African continent, is neighbored by the Democratic Republic of the north, Tanzania to the north-east, Malawi to the east, Mozambique, Zimbabwe, Botswana (no border), and Namibia to the south, and Angola to the west. Inhabited for thousands of years by hunter-gathers and migrating peoples, Zambia's climate is mostly tropical but modified by season (rainy) and altitude as the terrain is predominantly high plateau with some hills and mountains. Zambia is rich in certain metals, minerals and hydropower. Zambia's economy has strengthened over the past few years (2005-8), due in part to the privatization of government-owned copper mines in 2002.

Zambia gained its current name at independence in 1964 from the British. The government is a presidential democratic republic, meaning the President is both the head of government and head of state. Zambian governments have been plagued by corruption. In 2002, a newly elected president launched an anticorruption investigation to probe high-level corruption during previous administrations; in 2006-7 this task force successfully prosecuted four cases. Zambia has a population of about 11.8 million, with the median age being 17 years and life expectancy being just over 38 years.

Overview of Biodiversity

Savanna (woodland and grassland type vegetation) is the major terrestrial biome and lies between the rain forest conditions in the northwest of the country and semi-desert conditions in the southwest. Zambia also has freshwater ecosystems made up of natural and man-made lakes as well as perennial rivers and agricultural land. A country study showed that Zambia has a total of 8,017 species of organisms of which plants and fauna constitute 47% and 45% respectively. A total of 316 species of plants and animals are endemic, 174 are rare and 31 are endangered/vulnerable.

- [Convention on Biological Diversity: Country Profile](#)
- [Earth Trends Country Profile on Biodiversity and Protected Areas](#)

Legislation relating to IAS

- [National Conservation Strategy \(NCS\) for Zambia 1985](#)
- [National Environmental Action Plan - NEAP 1994](#)
- [National Biodiversity Strategy and Action Plan](#)
- [Agricultural Policy](#)
- [Fisheries Policy](#)
- [Industrial, Commercial and Trade Policy](#)
- [National Environmental Health Policy \(draft\)](#),
- [National Forestry Policy](#)

- [The Zambia Wildlife Act 1998](#)
- [Wetlands Policy](#)

Government Agencies/Programs dealing with IAS

- [The Environmental Council of Zambia](#)
 - [Invasive Alien Species Portal](#)

Major Invasive Alien Species¹

[Oreochromis aureus](#) (fish)

[Salvinia molesta](#) (aquatic plant, herb)

Native Species Exported/Introduced to Non-Native Environments¹

[Commelina benghalensis](#) (herb)

[Lagarosiphon major](#) (aquatic plant)

[Pennisetum ciliare](#) (grass)

[Pennisetum polystachion](#) (grass)

Table 1 Action to prevent, detect and management invasive alien species based on three areas: biodiversity, human health, and economic

Note: Many actions including projects, publications and programs that fit into one area may also fit the dimensions of another; where available project links and funding (in brackets) is provided.

| Area | Action |
|--------------|---|
| Biodiversity | <ul style="list-style-type: none"> • Preliminary assessments of the impact of three invasive species have been conducted: <i>Eichornia crassipes</i>, <i>Lantana camara</i>, <i>Mimosa pigra</i>, and <i>Salvinia molesta</i>.² • “National survey for invasive alien species undertaken in June 2004, which will form basis for prevention and eradication programmes.”² • Government study on <i>Mimosa pigra</i> has found that it covers around 2,900 hectares of the Kafue Flats, displacing various animal species including migratory birds.³ • Under the organization for Invasive Alien Plant Species Management in Africa, the Environmental Council of Zambia carried out the project Removing Barrier to Invasive Alien Species Management in Africa for Zambia.⁴ See case study section below. |

Table 2 Action on IAS in cooperation with other countries

| Bilateral agreement/ Organization | Countries/ Member | Action |
|---|---------------------------|--|
| Invasive Alien Plant Species Management | Implementing agency: CABI | Project Title: Removing Barriers to Invasive Plant Management in Africa |

| | | |
|---|---|--|
| <p>in Africa</p> | <p>Ethiopia, Ghana, Uganda, Zambia.</p> | <p>Prevention and mitigation of the effects of IAS is particularly challenging in Africa, impeding sustainable development as well as threatening biodiversity. This project aims to reduce and possibly remove barriers to the management of IAS through effective implementation of CBD Article 8(h) in 4 pilot countries (Ethiopia, Ghana, Uganda, Zambia) over four years, using a multisectoral ecosystem approach. In each country an enabling policy environment will be promoted through the establishment of appropriate institutional arrangements to ensure that IAS strategies are mainstreamed; stakeholder awareness of IAS issues will be raised and access to necessary information provided; prevention and control programmes will be established, including ecosystem management at pilot sites where IAS threaten biodiversity; capacity for sustainable IAS management will be built. Lessons learned will be disseminated for replication in other countries in Africa. Click to view the detailed Project Document</p> <p>See case study below for details on Zambia.</p> |
| <p>Fisheries Co-management on Lake Kariba (project by The Joint Fisheries Technical Committee (JFTC) and Joint Fisheries Management Committee (JFMC))⁷</p> | <p>Zambia and Zimbabwe</p> | <p>The riparian countries of Lake Kariba reported to the Committee about the results of a technical consultation on the Development and Management of Fisheries on Lake Kariba. The Committee noted that around Lake Kariba, Management was constrained by: inadequate funding for research and management, inadequate human resources, poor monitoring, control and surveillance, inadequate institutional capacity, absence of credit assistance to fishers, inadequate extension and fishery information delivery services, and weak linkages between fishery researchers, managers and stakeholders.</p> <p>The Committee noted the need for FAO to continue to provide technical assistance for the management and development of Lake Kariba. The Committee recommended that the riparian countries should continue to support the following activities for the benefit of Lake Kariba.</p> <ul style="list-style-type: none"> • Support the operationalization of the Joint |

| | | |
|--|---------------------|---|
| | | <p>Fisheries Technical Committee (JFTC) and Joint Fisheries Management Committee (JFMC);</p> <ul style="list-style-type: none"> • Strengthen the unified Data Collection and Storage System; • Strengthen Routine monitoring; • Enhance institutional research capacity; • Develop relevant research programmes to address outstanding management issues; • Disseminate results for public utilization.⁷ |
| Intergovernmental Committee for the Control of the Water Hyacinth on Lake Kariba | Zambia and Zimbabwe | <p>Herbicide control measures using 2-4 D. The herbicide was used with various precautions to reduce its harmful effects “to negligible level” including:</p> <ol style="list-style-type: none"> a. Maintaining its purity from the dioxin contaminant 2,4, 5T b. Applying the herbicide away from sensitive waters c. Sampling and testing of water before, during, and after the spraying to assess the herbicidal effects on the environment d. Informing the public of the dates, and areas on which shall be sprayed in cooperation with two local councils. <ul style="list-style-type: none"> - Public awareness campaigns. - Regular testing of water quality and aquatic species. - Introduction of the weevil <i>Neochetina eichhorniae</i> as an instrument of biological control.⁵ |

Case Study

Removing barriers to invasive alien species management in Africa project⁴

[Invasive Alien Plant Species Management in Africa](#)
and [The Environmental Council of Zambia](#)

[Phase 1: Project Development Fund \(PDF-A\)](#)

Zambia like many of its neighbours has not been spared from invasion of Alien Species. During phase one of this project known as the PDF A project, a national consultative meetings was held to try to establish barriers limiting the effectiveness of managing the IAS. A number of invasive

plant species that pose the greatest threat and required immediate attention were identified and prioritised. Eleven aquatic and thirteen terrestrial species were initially listed. Then a priority list of five invasive alien plant species was identified. Of the five, three are aquatic while two are terrestrial. The aquatic species are *Eichhornia crassipes*, *Salvinia molesta* and *Mimosa pigra* (sometimes considered semi-aquatic). The terrestrial ones are *Lantana camara* and *Striga hermonthica*.

Phase 2: Project development Fund (PDF-B)

Phase two of the project (PDF - B) endeavored to highlight the existing baseline conditions in Zambia and past initiatives made by various stakeholders to try and contend the problem of IAS. Based on this information and experiences elsewhere, recommendations for the best options in the control and management of the five priority species identified during PDF A project were suggested. The study revealed that the issue of IAS affects many sectors that include agriculture, water, and transport just to mention a few. As such past efforts to try and tackle the problem of IAS were made by various stakeholders that include institutions such as Environmental Council of Zambia (ECZ), ZESCO Ltd, Nakambala Sugar Estates, Zambia Wildlife Authority (ZAWA), Fisheries Department, Railway Systems of Zambia and National Heritage Conservation Commission (NHCC).

Phase 3: Full Project Phase

The last phase or full project phase - November 2005 to November 2009 has been designed to implement the findings of the PDF – B phase. The project aims to reduce and possibly remove barriers to the management of IAS through effective implementation of CBD Article 8(h) in 4 pilot countries (Ethiopia, Ghana, Uganda, and Zambia) using a multisectoral ecosystem approach. In each country an enabling policy environment will be promoted through the establishment of appropriate institutional arrangements to ensure that IAS strategies are mainstreamed; prevention and control programmes will be established, including ecosystem management at pilot sites where IAS threaten biodiversity, capacity for sustainable IAS management will be built. Lessons learned will be disseminated for replication in other sectors.

The organization has various components for its project in Zambia, and is currently undergoing the phase that encompasses the following:⁴

1. National plans and policies for prevention and control of IAS
2. Public awareness and information management
3. Capacity building and dissemination of lessons
4. Management and co-ordination of IAS control

The challenges to barriers to IAS management in Zambia, as identified in the project, are:

1. Need to strengthen the institutional framework by assigning co-ordinatory roles in the control and management of invasive alien species.
2. Inadequate cooperation among research and implementing institutions and collaboration among the relevant institutions charged with the responsibility of control, management and eradication of invasive alien species.
3. Lack of strategies to involve local communities and local authorities to enhance their capacity to investigate, report and response systems for invasive alien species at community level.

4. Prioritise and treat invasive alien species as a priority and as an environmental problem in the draft National Environmental Policy.
5. Lack of a national invasive alien species strategy and a comprehensive programme to combat the threats of invasive alien species.
6. Fragmented existing legislation relevant to invasive alien species and to increase the scientific content of legislation.
7. Incorporation of IAS issues in biodiversity conservation and restoration in most sector legislation and develop terminology that should exclude alien species from protection under biodiversity and conservation statutes. Legislation should also make provision for early detection, surveillance, risk assessment, industrial guidelines and appropriate eradication, control and mitigation measures.
8. Domestication of International instruments to which Zambia is party into the legal framework and the Constitution to allow the direct application of international instruments ratified by Zambia.
9. Creation and promotion of IAS information to the Public to enable them understand the risks posed by invasive alien species and the importance of maintaining biosafety.
10. Incorporation of Invasive species into the school and university curricula.
11. National alien species information and data collecting centres and an information sharing mechanism to form the base for management decision-making and to strengthen fundamental studies.
12. Scanty Information on invasive alien species compiled and information managed by using databases.
13. Lack of pertinent risk assessment system, establishment of a species introduction permits system and the unrevised organism list.
14. Lack of a National Early Detection System (NEDS) and an Early Warning System (EWS) at National, Provincial and District levels.

References

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