# ACTION PLAN FOR IMPLEMENTING THE CONVENTION ON BIOLOGICAL DIVERSITY'S PROGRAMME OF WORK ON


# PROTECTED AREAS

## ZAMBIA

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# PROTECTED AREA INFORMATION

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**Lead Implementing Agency**:

Ministry of Lands, Natural resources and Environmental Protection

Natural Resources and Environmental Protection Department

**Multi-stakeholder Committee**:

The Ministry has not yet constituted a Multi-Stakeholder Committee to implement PoWPA. How ever, Biodiversity issues in the country are coordinated by the focal point to the CBD Convention in the Ministry of Lands, Natural resources and Environmental Protection.

# DESCRIPTION OF PROTECTED AREA SYSTEM

## National Targets and Vision

The Government of Zambia has embarked on the implementation of the Sixth National Development Plan (SNDP) which covers the period 2011 to 2015 and charts an ambitious path to transform the lives of citizens. For the environment and natural resources sector, the following is the vision and goal of the SNDP:

- **Vision :** "A productive environment and well-conserved natural resources for sustainable socio-economic development by 2030"
- **Goal :** To reduce the rate of deforestation, wildlife depletion and degradation of heritage sites, land and wetlands.

### Targets for the Protected Areas (PAs) and Biodiversity

The protected area categories supported by legal framework in Zambia, consists of National Parks, Game Management Areas (GMAs), Forests and Botanical Reserves, Bird Sanctuaries, Game Ranches, Fisheries Management Areas and National Heritage Sites.

**Table1** indicates key objectives, strategies, programmes and expected outcomes of the SNDP for the management and conservation of protected areas and biodiversity.

**Table 1: objectives, strategies, programmes and expected outcomes of the SNDP**

| OBJECTIVES | STRATEGIES | SNDP PROGRAMMES | EXPECTED OUTCOMES BY 2015 |
|---|---|---|---|

| | | | |
|---|---|---|---|
| To reduce the rate of wildlife depletion through sustainable management of wildlife and habitat in protected wildlife and forest areas: | ▲ Improve policy and legal framework including regulations;<br>▲ Enhance community and private sector participation in wildlife management in public wildlife estate as well as on community & private wildlife estates;<br>▲ Develop Management Plans, including Land Use Plans, for protected wildlife areas.<br>▲ To put in place a Reclassification and Conservation Plan for the National System of PA.<br>▲ New categories of PA providing effective biodiversity conservation created through new legislation;<br>▲ Implement the | **Protected Wildlife Area**<br>**Management** | ▲ Finalize 1998 National Forestry Policy and National Parks and Wildlife Policy of 1998 ;<br>▲ Develop a National Heritage Policy and finalize the Wetlands Policy.<br>▲ Amend Forestry Act of 1999, the Wildlife Act of 1998 and the National Heritage Conservation Act of 1989.<br>▲ To achieve a 10% coverage of key ecosystem/vegetation types in Protected Areas.<br>▲ To enhance management effectiveness in PAs.<br>▲ Reduce rate of deforestation below 250,000 ha;<br>▲ Climate Change mainstreamed in Protected Areas (Implement parts of the Climate Change Response Strategy). |

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| | relevant sections of the National Climate Change Response Strategy. | | |
| To promote sustainable forest and land management practices . | Expand options for effective forest management by enhancing community and private sector participation in forest management, including plantations through various forms of partnerships such as PPPs. | **Forestry Management** | • 10% coverage of key ecosystem/habitat/vegetation type in protected areas.<br>• Enhanced investment and financing to the forest sector.<br>• Enhanced management effectiveness.<br>• Reduce annual rate of deforestation below 250,000 ha. |
| To reverse degradation of heritage sites | Enhance community and private sector participation in heritage sites management. | **Heritage Sites Management** | Enhanced investment and financing to the heritage sector.<br>Enhanced management effectiveness. |
| To strengthen policy and legislation framework for biodiversity conservation | Review the National Biodiversity Strategy and Action Plan (NBSAP);<br>Enact legislation on Access to Genetic Resources and the Fair and Equitable Sharing of | **Development and Review of Strategies, Policies and Legislation** | ⅄ A draft revised NBSAP by 31st December, 2012.<br>⅄ Implement biodiversity and protected area projects and programmes in line with national biodiversity strategy and policies |

| | | | |
|---|---|---|---|
| | Benefits Arising from the Utilization of Genetic Resources; a<br><br>Review and Improve policy and legal framework including regulations for wildlife and forestry sectors. | | ⅄ Equitable access to genetic resources |

## PROTECTED AREA COVERAGE

Management of biodiversity in PAs is the responsibility of the state. The Zambia Wildlife Authority (ZAWA) manages the National Parks and GMAs on behalf of government.

The forest reserves are under the responsibility of Forestry Department while Fisheries Management Areas are managed by the Department of Fisheries.

### National Parks

There are 19 National Parks which cover close to 8% of the total land area in Zambia mainly established to conserve faunal biodiversity, protecting the integrity of one or more ecosystems for present and future generations. National Parks exclude exploitation or occupation inimical to the purposes of designation of the area and to provide a foundation for spiritual, scientific, educational, recreational and visitor opportunities.

### Game Management Areas (GMAs)

There are thirty-four (34) GMAs in Zambia and they act as buffer zones to National Park and cover an additional 23% of the land area. GMAs comprise mostly communally-owned land that is used primarily for the sustainable utilization of wildlife, through hunting and/or non-consumptive tourism concessions for the benefit of local communities and the wildlife resource, but which can also be used for other land uses such as settlement, agriculture, forestry, mining etc. In addition GMAs are jointly managed by ZAWA and the Local Communities through Community Resource Boards.

### Forests – National and Local Forests

The forest reserves in Zambia cover a total land area of about 7.2 million ha and play vital roles in traditional medicine, woodfuel, food, building materials and play major roles in both carbon and hydrological cycles. The forests are key factors in watershed and soil conservation. This resource is under pressure from the effects of deforestation, encroachment and uncontrolled bush fires. Forest degradation is primarily as a result of

inappropriate policies which tend to discourage forest management and appear to favor other land-use types at the expense of the forests.

**Fisheries management areas**

These are intended to promote the management and sustainable utilisation of fish resources. The major fisheries management areas in Zambia are found in Lake Bangweulu Wetlands; Lukanga Swamps; Lakes Tanganyika; Mweru-wa-Ntipa; Mweru; Itetzhi-tehzi, Lusiwashi and Kariba as well as the Kafue, Zambezi and Luangwa Rivers.

**Private Wildlife Estate**

The Game ranches are managed by the Private Sector. These are areas set aside for the purpose of keeping and managing wildlife by individuals in the private sector and includes game ranches, crocodile and reptile farms, etc.

**Wet Lands**

Two Wetlands of global significance have been listed under the Ramsar Convention, namely the Kafue Flats (Lochnivar and Blue Lagoon National Parks) and Bangweulu Wetlands (Chikuni area). Zambia has huge areas of wetlands. Approximately 45,000km2 (6%) of Zambia's total surface area of 752,620sq km is covered with water in the form of marshes, swamps, lakes, rivers and streams.

## DESCRIPTION AND BACKGROUND

Zambia's first Protected Areas were created in the 1920's as game reserves under the Game Ordinance of 1925, prior to independence. The creation of PAs has continued over most of the century, with large areas gazetted since independence in 1964. PAs in Zambia are seen as lying on a continuum running from the High level of management on one end of the spectrum to those with Low levels or no management at all on the other.

The vast majority of protected areas especially GMAs have Intermediate levels of management effectiveness to none at all. Coupled with many other anthropogenic activities such as poaching, deforestation encroachment among others, have worsened the situation. Against this background, the Government recognizing that it cannot raise management effectiveness to optimum levels throughout the protected area system in Zambia immediately, owing to budgetary and other constraints, is among other issues, pursuing to review existing policy and legal framework to promote public/private/civil society/community partnerships as well as promoting implementation of new protected area categories. Consequently, the protected area system will benefit through improvement in investment and management effectiveness.

**Governance types - Zambia**

**Table 2. Current Government administered Protected Area System**

| Governance type | Government-managed protected areas | Co-managed protected areas | Private protected areas | Community conserved areas (CCAs) |
|---|---|---|---|---|
| **IUCN category** | | | | |
| **I. Strict nature reserve/ Wilderness area** | | | | |
| **II. National Park** | National Parks | | | |
| **III. Natural Monument** | Natural Heritage | | | |
| **IV. Habitat/species management** | Wildlife/Bird Sanctuary | | | |
| **V. Protected landscape/seascape** | | | | |
| **VI. Managed resource** | National Forests<br>Local Forests | Game Management Areas | Game Ranch (private) | Game Ranch (community) |

**Key threats**

Mans' activities have remained the major threats to ecosystems in Zambia. The threats include:

i). **Deforestation and Habitat Destruction**: The threat of deforestation in forest reserves is caused by excessive harvesting for both domestic and commercial use, as well as conversion of forest areas to agricultural land. About 249 (about 51.37%) of the total forest reserves are either encroached or depleted due to over-exploitation of wood products, settlement and cultivation.

ii). **Wildfires:** This is a serious problem in Zambia's biodiversity as it has become a common phenomenon in catchment ecosystems causing hydrological imbalance which is reflected in reduced water in rivers and streams during the dry seasons and floods during rainy season.

iii). **Land Use Conflicts:** Human encroachment, fragmentation of ecosystems, logging, mining and agriculture pose threats to ecosystems in the wildlife estate.

Land use conflicts include forests/agriculture/human settlement, and human/wildlife. The conflicts are more prevalent in GMAs than National Parks.

**iv). Human Encroachment:** This has remained a main threat to ecosystems which is associated with cultivation, livestock grazing and deforestation.

**v). Mining and Road Construction Activities:** These have resulted in the fragmentation of ecosystems and habitats and obstruct migratory routes to breeding and feeding grounds used by wildlife and fish.

**vi). Climate Change:** Long-term change of one or more climatic elements from a previously accepted long term mean value poses a threat to biodiversity.

The issue revolves around climate variability, global warming, acidification and ozone layer depletion. Climatic hazards caused by climatic change and extreme weather events are a serious threat to biological resources in the country.

**vii). Introduced Species:** Some introduced species have become very invasive and pose threats to ecosystems and the indigenous species. For example, fish escaping from aquaculture is a potential threat to local fish species in the natural environment.

With regard to agriculture biodiversity, the biggest threat is the introduction of improved varieties of crops, some of which have completely replaced local varieties and landraces.

**viii). Pollution:** Pollution caused by wide scale application of pesticides and herbicides to protect crops and control pests, such as tsetse flies disrupt natural food chains and negatively impact biodiversity.

**ix). Biodiversity Management:** Museums, herbaria and gene-banks remained inadequate and those that exist were poorly funded and managed. This in turn poses a threat to the maintenance of plant and animal collections.

**Barriers for effective implementation**

In recent years, Zambia has taken major steps to provide a strong legal base for PA management, to reduce the role of the state, to streamline park management, to increase the rights and incentives of local communities for wildlife management and to target protected area based tourism as a key sector of economic growth and poverty reduction. However, the Baseline is characterized by a number of significant barriers to effective PA management. Some of the barriers to effective PA management include:

**1. Limited choice of protected area categories**

The limited opportunities offered by existing categories of protected areas in Zambia serves as one barrier. At present, only national parks, when properly managed, provide good assurance of biodiversity conservation.

The GMA category presents a relatively strong potential for conservation because of the substantial incentives offered to communities/ managers from the revenues generated by trophy hunting. However, the lack of any legal restrictions on conversion to smallholder agriculture, commercial farming or other land uses is a major barrier to effective biodiversity conservation over time. This could potentially be addressed through land use planning in GMA.

**2. Lack of a National Reclassification and Conservation Plan**

Addressing all barriers to effective management of Protected Areas requires addressing them in a National Reclassification and Conservation Plan. Zambia has a draft National Reclassification and Conservation Plan which still awaits adoption.

**3. Inadequate ecosystem representativeness**

The current PA system serves as a barrier to effective biodiversity conservation because the current categories of PAs do not provide adequate, representative coverage of the full range of Zambian ecosystems. If we accept the rule of thumb of 10% of total area of each ecosystem/habitat/vegetation type as being adequate coverage, then only four of Zambia's

14 vegetation types recognized by Hearn et al (2001) are adequately covered by national parks. This shows that Zambia's national parks were not designed specifically for the purpose of protecting representative biological communities.

Gap analysis and reclassification of Zambia's PA are needed to ensure effective biodiversity conservation.

**4. No policy frameworks for private/public/community partnerships**

Another barrier to biodiversity conservation is the absence of legal and policy frameworks for private/public/community partnerships for PA management. Lack of a clear policy framework for partnerships leads to partnerships being developed on an opportunistic and situational basis.

**5. Insufficient Sustainable Protected Area financing**

In the country, tourism revenues are mainly from photo safaris and from trophy hunting and therefore, major constraints to tourism development are poor access, lack of tourism infrastructure, and depleted wildlife populations.

**6. Inadequate Business planning tools**

These are rarely applied to PA management and proper business planning has only been applied to PA management in Zambia in a rudimentary fashion. The lack of economic and financial tools for measuring and comparing the efficiency of different forms of PA management, for quantifying costs and benefits and of using these estimates to develop PA business plans is another barrier to enhancing PA management effectiveness for biodiversity conservation.

**7. Monitoring and Evaluation**

M&E systems are another barrier to effective biodiversity conservation. Methodologies for monitoring wildlife populations are relatively well-developed, but very little has been done on techniques to monitor ecosystem health.

**Table3: Status of key actions of the Programme of Work on Protected Areas**

| Status of key actions of the Programme of Work on Protected Areas | Status |
|---|---|
| • Progress on assessing gaps in the protected area network (1.1) | **2** |
| • Progress in assessing protected area integration (1.2) | **1** |

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|---|---|
| • Progress in establishing transboundary protected areas and regional networks (1.3) | **3** |
| • Progress in developing site-level management plans (1.4) | **2** |
| • Progress in assessing threats and opportunities for restoration (1.5) | **3** |
| • Progress in assessing equitable sharing of benefits (2.1)<br>• Progress in assessing protected area governance (2.1) | **3** |
| • Progress in assessing the participation of indigenous and local communities in key protected area decisions (2.2) | **3** |
| • Progress in assessing the policy environment for establishing and managing protected areas (3.1)<br>• Progress in assessing the values of protected areas (3.1) | **3** |
| • Progress in assessing protected area capacity needs (3.2) | **3** |
| • Progress in assessing the appropriate technology needs (3.3) | **2** |
| • Progress in assessing protected area sustainable finance needs (3.4) | **3** |
| • Progress in conducting public awareness campaigns (3.5) | **3** |
| • Progress in developing best practices and minimum standards (4.1) | **2** |
| • Progress in assessing management effectiveness (4.2) | **4** |
| • Progress in establishing an effective PA monitoring system (4.3) | **3** |
| • Progress in developing a research program for protected areas (4.4) | **2** |
| • Progress in assessing opportunities for marine protection | **Nil** |
| • Progress in incorporating climate change aspects into | **2** |

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| protected areas | |

Status: 0 = no work, 1 = just started, 2 = partially complete, 3 = nearly complete, 4 = complete

# PRIORITY ACTIONS FOR FULLY IMPLEMENTING THE PROGRAMME OF WORK ON PROTECTED AREAS

Priority Actions for implementing the PoWPA include;

- Improving the policy and legal framework for effective PA management;
- Enhancing community and private sector participation in PA management;
- Develop management plans for most of the PAs;
- Finalise and implement the Reclassification and Conservation Plan for the whole Protected Area system;
- Finalise reviewing the National Biodiversity Strategy and Action Plan to incorporate emerging issues,
- Implementing the Climate Change Response Strategy to mainstream climate change in sectors including PAs.

## Timeline for completion of key actions

All the key actions are to be finalized by 2015 (end of the SNDP).

## ACTION PLANS FOR COMPLETING PRIORITY ACTIONS OF THE PROGRAMME OF WORK ON PROTECTED AREAS

### Action 1: *(*Improving the policy and legal framework for effective PA management)

Inadequate representativeness of protected areas for key ecosystems in Zambia and accompanying threats to biodiversity has led to the Government charting the way forward for reviewing policy and legal framework for biodiversity and PA conservation. The process also aims to enhance community and private sector participation, expanding and creation of new categories of protected areas, enhancing management effectiveness, achieving 10% coverage of key ecosystems and improving the financial viability of protected areas.

| Key steps | Timeline | Responsible parties | Indicative budget |
|---|---|---|---|
| Finalize 1998 National Forestry | by 31st December **2013** | Ministry of Lands, Natural resources and | 6 billion Zambian Kwacha (USD1.2 m) |

| | | | |
|---|---|---|---|
| Policy and National Parks and Wildlife Policy of 1998 ;<br>• Develop a National Heritage Policy and finalize the Wetlands Policy;<br>• Amend Forestry Act of 1999, the Wildlife Act of 1998 and the National Heritage Conservation Act of 1989. | by 31st December 2013<br><br>by 31st December 2013 | Environmental Protection.<br><br>Ministry of Justice.<br><br>Cabinet Office<br><br>Ministry of Foreign Affairs and Tourism. | |

**Action 2: *(*Finalize and implement the Reclassification and Conservation Plan for the whole Protected Area system)**

The Reclassification and Conservation Plan for the National System of PA in Zambia is currently in draft form awaiting adoption. Under the Plan, priority sites for reclassification (new PA categories) have been identified as needed to achieve 10% coverage of each ecosystem/vegetation type to ensure conservation of globally important ecosystem biodiversity.

| Key steps | Timeline | Responsible parties | Indicative budget |
|---|---|---|---|
| To implement the plan. | (2013-2015) and thereafter, review it if necessary. | Ministry of Lands, Natural resources and Environmental Protection<br><br>Ministry of Foreign Affairs and Tourism. | 10 billion Zambian Kwacha (USD2M) |

**Action 3: (Finalize reviewing the National Biodiversity Strategy and Action Plan to incorporate emerging issues)**

In response to the threats to biodiversity, Government in 1999 developed the National Biodiversity Strategy and Action Plan (NBSAP). The NBSAP is a policy framework that promotes the conservation, management and sustainable use of Zambia's biological resources and the equitable sharing of benefits from these resources by all sectors of the population. However the NBSAP requires review to incorporate new emerging issues such as climate change.

| Key steps | Timeline | Responsible parties | Indicative budget |
|---|---|---|---|
| Hold consultative and review meetings<br><br>Facilitate the adoption of the NBSAP under review<br><br>Create awareness for the reviewed NBSAP<br><br>Implement the reviewed NBSAP | By 31st December, 2012<br><br>By 31st December, 2013<br><br>By December, 2013<br><br>On-going from 2013 (pending another review) | Ministry of Lands, Natural resources and Environmental Protection | 5 billion Zambian Kwacha (USD1M) |

**Action 4: (Implement the Climate Change Response Strategy - NCCRS)**

The NCCRS has been formulated by Government and awaits adoption. Its purpose is to coordinate climate change in the country, build climate change capacity in institutions, create massive awareness on climate change and to chart the way forward for climate change mainstreaming in sectors including biodiversity and protected areas. At the moment, climate change is a threat to Protected Areas as indicated in the National Adaptation Plan for Zambia and its expected that once the NCCRS is implemented, protected area management will incorporate climate change matters.

| Key steps | Timeline | Responsible parties | Indicative budget |
|---|---|---|---|
| Facilitate adoption of the NCCRS and begin | by 31st December **2013** | Ministry of Lands, Natural resources and | 10 billion Zambian kwacha (USD2M) |

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|---|---|---|---|
| implementation. | | Environmental Protection<br><br>Ministry of Agriculture<br><br>Ministry of Energy<br><br>Ministry of Justice.<br><br>Cabinet Office | |

## KEY ASSESSMENT RESULTS

### Ecological gap assessment

Significant progress on Ecological Gap Assessment has been done. The general picture out of these studies is that the current PA system serves as a barrier to effective biodiversity conservation because the categories of PA (national parks and GMAs) that provide the most effective means of biodiversity conservation, do not provide adequate, representative coverage of the full range of Zambian ecosystems. Studies have shown that only four of Zambia's 14 vegetation types recognized by Hearn et al (2001) are adequately covered by national parks.

### Management effectiveness assessment

This activity was fully undertaken in 2007 on all the 19 National Parks and 35 GMAs. The tool that was used to measure management effectiveness was the World Bank/WWF Management Effectiveness Tracking Tool (METT). Protected areas in Zambia are seen as lying on a continuum running from the High level of management on one end of the spectrum to those with Low levels or no management at all on the other. At present the NPs in Zambia run the full gamut of this spectrum. The vast majority of GMAs have Intermediate levels of management effectiveness to none at all. Therefore, a lot needs to be done to enhance management effectiveness for the PA system.

## Sustainable finance assessment

A study was undertaken by Development Services Initiative (DSI) in 2004 using significant amount of primary data collection and collation Capacity needs assessment on the protected area system and tourism. The final analysis was that Zambia's wildlife resource if well managed, it has the potential to generate economic activity of approximately USD one billion annually.

## Policy environment assessment

The current legal and policy framework (Heritage Policy, the Wetlands Policy, Forestry Act of 1999, the Wildlife Act of 1998 and the National Heritage Conservation Act of 1989) do not fully support the participation of private sector and communities in PA conservation and management. Government is in the process of reviewing and or enacting these policies and laws.

## Protected area valuation assessment

A study on the financial viability of protected areas had been done in Zambia.

## Climate change resilience and adaptation assessment

The study on PA management effectiveness done in 2007 on all the 19 National Parks and 35 GMAs had a component on threats to these PAs. One such threat identified in the study was climate change. Climate change has also been identified to be a threat to the natural resources sector and wildlife in the National Adaptation Plan of Action for Zambia.