



Biodiversity mainstreaming at Eskom

Eskom Holdings SOC Ltd (Eskom), South Africa's state-owned power utility, generates approximately 95% of the electricity used in South Africa and approximately 45% of the electricity used in Africa. It generates, transmits and distributes electricity to industrial, mining, commercial, agricultural and residential customers and redistributors.

What is the business case for biodiversity at Eskom? Why biodiversity matters to Eskom.

Eskom owns vast tracts of land for the generation, transmission and distribution of electricity and this ownership brings with it a responsibility to manage and mitigate the impact of its activities on the biodiversity of that land. This responsibility also extends to Eskom leveraging the potential ecosystem services or benefits of that land to contribute to the South African network of conservation areas where possible.

Eskom positions itself publicly as a good corporate citizen, supporting South Africa's growth and development policies. It also supports South Africa's commitment to the Convention on Biological Diversity's Strategic Plan to "achieve by 2010 a significant reduction of the current rate of biodiversity loss at global, regional and national level as a contribution to poverty alleviation and to the benefit of all life on earth".

Furthermore, Eskom has recognised the importance of proactive biodiversity management, due to a combination of factors, including government implementing more defined biodiversity legislation (e.g. National Environmental Management: Biodiversity Act), financial liabilities through biodiversity offsets, as well as projects delays and stoppage due to biodiversity impacts. .

In response to this business case Eskom have put in place a land and biodiversity policy and standard that lay out the company's high-level approach towards biodiversity management.



Figure 1. The Eskom owned Ingula Nature Reserve in the Drakensberg escarpment

What are Eskom's biodiversity impacts and dependencies?

Throughout South Africa, Eskom is responsible for providing a reliable supply of electricity to meet the ever-increasing needs of its end users. As a result, infrastructure such as power lines, power stations and substations will continually be built, refurbished, and upgraded to support increasing economic growth and development. Currently, Eskom owns and operates 27 power stations and maintains 368 331 km of power lines. Eskom recognises that through its large footprint it has a major direct and indirect impact on biodiversity. There is also a growing understanding of the organisation's dependency on ecological infrastructure or 'natural capital' such as water.

What strategy and action plan have Eskom adopted towards biodiversity?

In terms of strategy, Eskom has a Biodiversity Implementation Plan that provides the company with a documented and comprehensive approach toward integrating biodiversity considerations and legislative compliance consistently into the Eskom value chain. It ensures that effective mitigation measures are in place to minimise the impact of Eskom's activities, infrastructure, use of land and use of any other resource on biodiversity. Concurrently, the implementation plan aims to address the biodiversity constraints and challenges faced by Eskom in optimally generating, transmitting and supplying electricity.

Mainstreaming biodiversity and legal compliance in the organisation are addressed through the following key strategic objectives of the Biodiversity Implementation plan:

- Minimise the impact of Eskom's activities on ecosystems and enhance ecosystem services through responsible land management practices;
- Reduce Eskom's impact on wildlife mortalities through risk identification, research and technological influences;

- Ensure minimal biodiversity loss due to Eskom activities;
- Build biodiversity knowledge and skills throughout the organisation through training and increased communication;
- Use effective strategic partnerships to reduce and manage Eskom's impact on ecosystems to achieve measurable environmental improvements;
- Integrate biodiversity conservation philosophies into business processes by developing and implementing appropriate tools and mechanisms;
- Assess Eskom owned and leased land (properties and servitudes) to identify biodiversity risks ensuring legal compliance.

The strategic initiatives addressed in the Implementation Plan and developed to achieve the stated objectives are:

- Mitigation of the impact of Eskom infrastructure on wildlife by reducing bird electrocutions and collisions through proactive technological and organisational culture approaches;
- The management of game on Eskom owned land;
- Compliance to legal requirements with respect to alien invasive species and phased-in organisational implementation;
- Ensuring applicable biodiversity governance documentation is in place that supports key biodiversity aspects;
- Understanding the legal application, liabilities and conservation opportunities to Eskom activities and new build projects from biodiversity offsets and stewardship;
- Skills development aimed at increasing the understanding and advocacy of biodiversity issues that affect each operational activity and compliance to legislative requirements;
- Research into all biodiversity related challenges, inclusive of which will be an initial focus on solutions to the vulnerability of Eskom infrastructure to bird collisions and electrocutions;
- Partnering with relevant NGOs to achieve the objectives of the Implementation plan, including the upscaling and mainstreaming of Eskom's current partnerships with Birdlife South Africa and the Endangered Wildlife Trust.

Eskom has a Biodiversity Centre of Excellence (CoE) within its Sustainability Division to shape, service, and safeguard the organisation in terms of biodiversity management. All Eskom Business Units have dedicated environmental practitioners who together with the Biodiversity CoE are responsible for the execution of the Biodiversity Implementation Plan.



Figure 2: A power line that has been mitigated with 'bird flappers' to prevent collision

Does Eskom monitor and improve its performance?

Eskom monitors progress on the execution of its Biodiversity Implementation Plan via the following key performance areas (KPA's) and their respective indicators (KPI's).

Key Performance Area	Key Performance Indicators
Legal Compliance	Number of legal contraventions that occur in relation to biodiversity
Alien Invasive Species Implementation plan	Compilation, submission and implementation of Eskom Control Plan as per the Department of Environmental Affairs requirement
Reduction in Bird Mortalities	Red Data Bird Mortalities recorded on Eskom infrastructure through collision or electrocution
	Distribution Wildlife Interactions Score (Composite Index)
	Transmission Wildlife Interactions Score (Composite Index)
Game Management Plans for all relevant Eskom Real Estate or Generation sites	Number of game management plans drafted, implemented and monitored

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