

# Johannesburg Zoo

## Sustainability and ESG Strategy Framework Workshop



| January 2026



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# Welcome

Introductions and workshop framing



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# Purpose and outcomes

**This workshop aims to:**



Build a shared understanding of sustainability and ESG in the Johannesburg Zoo context



Provide context on ESG reporting and emerging expectations



Explore potential sustainability focus areas and opportunities



Discuss priority areas and next steps to inform a sustainability roadmap

# Agenda overview

## 10:20 - 11:00 | Sustainability foundations & ESG concepts

- Defining sustainability and ESG
- Key ESG concepts and terminology
- Introduction to organisational sustainability

## 11:00 - 11:25 | Expectations shaping sustainability

- External stakeholder expectations
- South African government commitments

## 11:25 - 11:35 | Tea break

## 11:35 - 12:30: | What sustainability means for zoos

- Zoo-specific sustainability lens
- Sustainability pillars

## 12:30 - 13:00 | Materiality assessment & roadmap

- Making sustainability specific: the materiality assessment
- A high-level roadmap

## 13:00 - 13:40 | Lunch break

## 14:00 - 14:10 | Prioritisation and feasibility assessment

- Impact vs addressability
- Feasibility discussion
- Identification of quick wins

## 14:10 - 14:25 | ESG reporting

- Global sustainability frameworks
- Using frameworks in practice
- ESG reporting
- Potential reporting topics

## 14:25 - 14:35 | Tea break

## 14:35 - 14:55 | Sustainability interventions

- Examples of low/no-cost and immediate actions
- Carbon footprint deep dive

## 14:50 - 15:00 | Measuring, reporting and next steps

- Agreed next steps
- Close

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# Sustainability foundations & ESG concepts



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# Defining sustainability

Sustainability is commonly defined as:

**“Meeting the needs of the present without compromising the ability of future generations to meet their own needs.”**

– *United Nations World Commission on Environment and Development*

At its core, sustainability is about balancing environmental protection, social wellbeing and long-term economic resilience to ensure systems – natural, social and institutional – can endure over time.

For organisations, sustainability means understanding how activities, decisions and operations impact people, ecosystems and resources, and managing these impacts responsibly to support long-term value, resilience and trust.

## What is ESG?

**Environmental, Social and Governance (ESG)** is a widely used framework for translating sustainability principles into organisational practice. ESG provides a structured way to:

- Identify and manage environmental and social impacts and risks
- Understand responsibilities toward people, communities and ecosystems
- Strengthen governance, accountability and decision-making

# ESG concepts and terminology

## **Materiality:**

Materiality helps organisations focus on the ESG issues that are most relevant to their activities, stakeholders and risk profile. Rather than trying to address everything, it prioritises the issues that have the greatest potential impact on the organisation and the environment and society it interacts with.

## **Impact vs addressability:**

Some ESG issues may be highly significant but difficult to control directly, while others may be more easily influenced through operational changes or partnerships. Understanding both impact and addressability helps organisations focus effort where it can make the most meaningful difference.

## **Baselines:**

Establishing a baseline provides a clear picture of current performance across priority ESG areas, such as resource use, health and safety or governance practices. This creates a reference point against which progress can be measured over time.

## **Goals and targets:**

Goals and targets translate priorities into clear outcomes. Where possible, these are quantified and time-bound, providing direction, focus and a way to track improvement in a credible and consistent manner.

## **Reporting:**

Reporting enables organisations to communicate progress, challenges and outcomes to stakeholders. Transparent and consistent reporting helps build trust, demonstrates accountability and supports informed decision-making over time.

# What do we mean when we talk about organisational sustainability?

When we talk about organisational sustainability, we are typically referring to three interconnected pillars – **Environmental, Social and Governance (ESG)**. Together, these pillars provide a structured way of understanding an organisation's impacts, risks, responsibilities and opportunities beyond financial performance.

**E**

**Environmental (E)** focuses on how an organisation interacts with natural systems and resources, including emissions, energy and water use, waste, biodiversity and broader environmental impacts.

**S**

**Social (S)** considers how an organisation impacts people – including employees, visitors, communities and broader society – including dimensions such as health and safety, labour practices, equity and inclusion, training and development, human rights and community impacts.

**G**

**Governance (G)** relates to how decisions are made and risks are managed, including policies, ethical standards, transparency, accountability and oversight structures.

*This framing aligns with widely accepted ESG principles and provides a useful starting point for more context-specific exploration.*

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## Expectations shaping sustainability



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# External Stakeholder Expectations:



**Transparency and disclosure:** Stakeholders and investors expect businesses to be transparent about their impacts. This includes identifying their dependencies on nature, disclosing any negative impacts on ecosystems, and reporting on the measures they are taking to mitigate these risks.



**Measurable goals and targets:** Investors, stakeholders, and civil society activists expect businesses to set specific, measurable, achievable, relevant, and time-bound (SMART) sustainability goals. This might include targets for zero deforestation, reducing water usage, or restoring natural habitats, uplifting communities, protecting human rights, developing employees etc.



**Integration into business strategy:** Stakeholders expect to see biodiversity considerations embedded into the core business strategy, from supply chain management and product design to risk assessment and long-term planning. They want to know how the company's business model will be resilient in a world with diminishing natural resources.



**Collaboration and partnerships:** Businesses are expected to collaborate with others to address complex sustainability challenges. This includes partnering with non-governmental organizations (NGOs), local communities, and industry peers, suppliers etc.



**Innovation and positive impact:** Stakeholders are looking for businesses that not only minimise their negative impact but also create a positive one. This could involve investing in new technologies that reduce environmental or social footprints, developing nature-positive products, creating sustainable livelihoods

## In a zoo and conservation context, expectations may include:

- Responsible animal welfare and ethical wildlife practices
- Strong health and safety standards for animals, staff and visitors
- Transparency around funding, governance and risk management
- Responsible use of water, energy and other scarce resources
- A visible role in education, conservation awareness and advocacy

# South African Government commitments to sustainability

South Africa has articulated several national commitments, policies and legal frameworks that shape sustainability expectations at an organisational level:

## **National Development Plan (NDP) 2030:**

A long-term blueprint to eliminate poverty and reduce inequality by 2030, embedding sustainable development principles into economic, social and environmental planning.

## **National Framework for Sustainable Development:**

Provides a basis for integrating sustainability into national development and decision-making systems, aligning multiple sectors toward sustainable outcomes.

## **Climate Change Act (2024):**

A new national law that formalises climate change mitigation and adaptation policy, supports just transition principles and mandates structured climate action across government spheres.

## **South Africa's Nationally Determined Contribution (NDC) under the Paris Agreement:**

Reflects the country's commitments to reduce greenhouse gas emissions and adapt to climate impacts, including actions related to biodiversity, water, health and sustainable development.

## **Alignment to SDGs:**

South Africa remains committed to achieving the Sustainable Development Goals by 2030, working across government, civil society and the private sector to address environmental, social and economic challenges.

## **Kunming-Montreal Global Biodiversity Framework (GBF)**

South Africa is a party to the UN Convention on Biological Diversity and has committed to the goals and targets set out in the Kunming-Montreal Global Biodiversity Framework. The Framework provides a global roadmap to halt and reverse biodiversity loss by 2030 and informs national biodiversity policy, planning and conservation priorities.

In a South African context, the GBF reinforces commitments related to:

- Species protection and conservation
- Ethical wildlife management and animal welfare
- Biodiversity education and public awareness
- Sustainable use of natural resources



Tea Break



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## What sustainability means for zoos



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# Strengths, gaps and risks

Zoos often start from a position of **relatively low environmental impact** and **strong social and conservation linkages**:



## Potential strengths may include:

- Established conservation and biodiversity expertise
- Strong education and public engagement role
- Existing partnerships with conservation and wildlife organisations



## Potential gaps and risks to consider:

- Animal welfare, disease and biosecurity risks
- Health and safety risks affecting staff and visitors
- Ethics of animals in captivity
- Association with illegal wildlife trade

# What may be most relevant in a zoo context

## An external view through a sector-specific lens

### High-level sustainability strategy:

*Integrating responsible, ethical and sustainable practices into the organisation's operations, decision-making and sphere of influence to create long-term value for stakeholders, society and the environment.*

Certain ESG themes tend to be particularly relevant to zoological and conservation-focused organisations:

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#### Resource conservation

- Water consumption
- Energy use
- Biodiversity impacts and benefits
- Waste generation and management
- Infrastructure and maintenance
- Procurement and suppliers
- Sourcing of resources
- Inclusivity
- Health and Safety
- Employ development
- Captive breeding

#### Resource recovery

#### Employment and Social Impacts

*Specifically in a zoo context, **sourcing** – including the origin, welfare and management of animals – is a particularly important consideration.*

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#### Sustainability advocacy

- The role of the zoo in educating and influencing visitors
- Conservation awareness and behaviour change
- Public engagement around biodiversity, ecosystems and wildlife protection
- Thought and policy leadership
- Animal welfare education
- Research

This reflects a dual role: **operational responsibility** and **educational influence** – a theme strongly echoed in sustainability-focused frameworks.

# Sustainability pillars

## Environmental, Social and Governance considerations for zoos



### ENVIRONMENT

Playing a role in the transition to a lower-carbon, more resource-efficient economy through responsible operational practices and informed engagement across the organisation's value chain.

#### Decarbonisation

*Assess and, where possible minimise your carbon footprint.*

#### Resource conservation

*Closely manage consumption of priority resources, including water and electricity*

*Baseline biodiversity impacts and where appropriate implement mitigation measures - assess opportunities to support and improve biodiversity*

#### Resource recovery

*Expanding operational waste recycling and diversions interventions.*



### SOCIAL

Enabling a diverse, inclusive and supportive workplace while contributing positively to broader society.

#### Diversity, equity and inclusion

*Foster a dynamic, diverse and inclusive organisation.*

#### Employee development and wellbeing

*Develop and invest in talent*

#### Social investment and community engagement

*Contribute positively to local communities through meaningful engagement and targeted social investment.*

#### Responsible business conduct

*Exemplify ethical labour practices and respect for human rights across the organisation and its sphere of engagement.*

#### Health and safety risk management

*Identify, manage and mitigate health and safety risks affecting animals, staff, visitors and contractors.*



### GOVERNANCE

Undertaking business activities ethically, transparently and with accountability.

#### Corporate values and ethics

*Uphold ethical standards, including animal welfare, supplier engagement and integrity in all operations.*

#### Financial transparency and governance

*Ensure transparent financial management, responsible fund allocation and strong oversight mechanisms.*

#### Environmental and biosecurity risk oversight

*Proactively manage environmental, biosecurity and pathogen-related risks.*

#### Crisis preparedness and incident response

*Maintain effective crisis management frameworks to respond to incidents, emergencies and operational disruptions.*

#### Ethical wildlife considerations

*Establish and uphold clear ethical standards for wildlife sourcing, conservation practices and responsible animal stewardship*

### Sustainability advocacy

*Advocate for the adoption of environmentally and socially responsible practices within your sphere of influence*

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## Materiality assessment & roadmap



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# Making sustainability specific: materiality assessment

## From broad principles to what matters most

While ESG provides a broad and useful framework, not all topics are equally relevant to every organisation. To make sustainability meaningful and actionable, organisations typically undertake a **materiality assessment**.

A materiality assessment helps identify **which issues are most relevant** based on:

- The nature of the organisation's activities
- The expectations and concerns of stakeholders
- Regulatory and legal requirements
- The scale of potential environmental, social or governance impacts

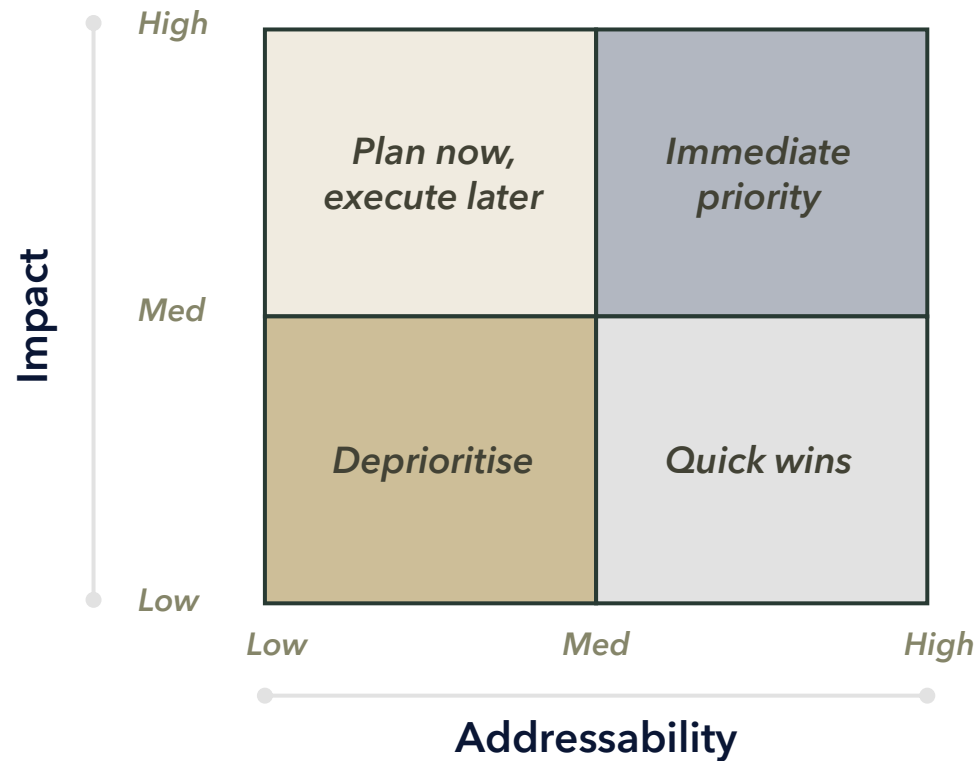
### This typically involves:

- Considering perspectives of internal stakeholders (e.g. leadership, staff)
- Considering external stakeholders (e.g. visitors, communities, regulators, partners)
- Assessing where the organisation has the greatest impact, dependency or influence

*The outcome is a prioritised set of ESG topics that form the foundation for strategy, goal setting and reporting.*

# Prioritisation

## Materiality Matrix Template



**Impact**

Rating of high, medium or low with consideration of:

- Impact on **environment and society**
- Impact on **business** (*importance to reputation; financial importance; operational impact*)
- Level of **civil society** concern
- Importance to **internal stakeholders**
- Level of **regulatory relevance**

**Addressability**

Rating of high, medium or low with consideration of:

- Level of **direct control** and influence
- **Financial investment** requirements
- **Capability** requirements
- **Time** required
- Extent of initiatives **already in progress**

# Examples of sustainable interventions

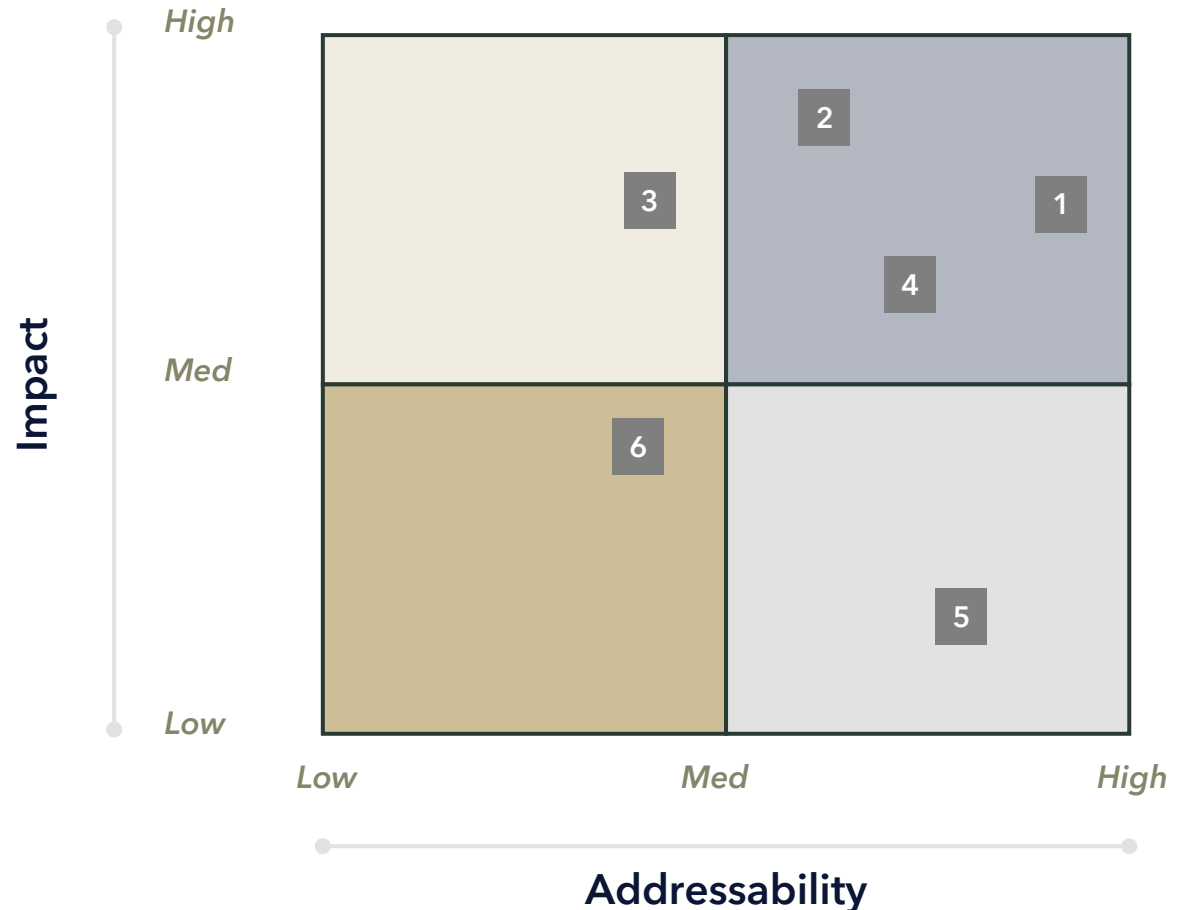
## Mapping potential interventions using the Materiality Matrix

These examples would typically be prioritised based on impact, feasibility and resources.



### Sustainable **environmental** interventions:

1. Behavioural changes (e.g. switching off lights)
2. Installing water and energy meters
3. Improving waste separation and diversion
4. Composting organic waste
5. Exploring alternative energy sources
6. Infrastructure upgrades





**Lunch Break**



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## Prioritisation and feasibility assessment



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# ESG reporting

Measuring, reporting and demonstrating progress



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# Relevant guidelines and frameworks

## Guidelines and standards to draw from

A number of international and frameworks provide useful guidance for organisations in conservation, tourism and public-facing environmental spaces. These frameworks, **along with the South African Government’s commitments to sustainability**, help to clarify what to prioritise, what to measure, and how to communicate performance and impact in ways that stakeholders recognise and value.

### Global sustainability and ESG frameworks:

#### GRI (Global Reporting Initiative)

Provides a widely accepted set of standards for reporting environmental, social and governance information – helping organisations disclose impacts in a credible and comparable way.

#### CDP (Climate, Forestry and Water)

Supports disclosures on climate change, water security and deforestation.

*Zoo example: CDP-style water reporting could help the zoo understand and communicate water efficiency and watershed impacts.*

#### IFRS Sustainability Standards

Emerging global reporting standards aimed at consistent disclosure of sustainability-related risks and opportunities that may affect organisational resilience.

#### TNFD (Taskforce on Nature-related Financial Disclosures)

Guidance on identifying and reporting nature-related risks, dependencies and impacts.

*Zoo example: Can help frame disclosures related to biodiversity impact, wildlife stewardship and ecosystem dependencies.*

#### IFC Performance Standards (PS1-PS4)

Focus on environmental and social risk management – including labour, community health and safety, biodiversity and resource efficiency.

#### UNDP SDGs (Sustainable Development Goals)

A global set of 17 goals addressing environmental, social and economic development priorities to be achieved by 2030. Countries – including South Africa – align plans and reporting toward SDG outcomes.

#### THE SUSTAINABLE DEVELOPMENT GOALS



# Relevant guidelines and frameworks & ESG reporting

## Using frameworks in practice

These frameworks do not dictate a single way to report. Instead, they provide guidance on:

- **What to report** – key topics (e.g. climate, water, biodiversity, health & safety, governance) that are commonly material
- **How to report** – principles for credible, transparent disclosure (e.g. comparability, consistency, accuracy)
- **How to align with global expectations** – linking organisational data and narratives to broader commitments such as the Paris Agreement, SDGs or TNFD

┆ *Zoo example: A sustainability report may draw on GRI disclosures for water use and biodiversity, use TNFD to frame nature-related risks, and reference South Africa's Climate Change Act to contextualise local climate commitments.*

### What is ESG/sustainability reporting?

Sustainability reporting provides a structured way to communicate an organisation's environmental, social and governance priorities, actions and progress over time.

- Stakeholders – including funders, partners, regulators, visitors and broader civil society – increasingly want to understand:
- What matters most to the organisation
- How progress against goals is being tracked
- What impacts are being achieved, and where challenges remain

Beyond accountability, sustainability reporting creates an opportunity to:

- Demonstrate responsibility, transparency and thoughtful stewardship
- Build trust and credibility with stakeholders
- Strengthen brand and organisational reputation
- Support better decision-making and long-term resilience

Reporting is typically informed by these recognised frameworks.

# ESG Reporting

## Turning insight into action

### STEP 1 Identifying priority issues

*Based on impact, stakeholder expectations, regulatory relevance and addressability.*

- *What matters most to stakeholders?*
- *What resource represents the greatest risk or dependency?*

### STEP 2 Establishing a baseline

*Using relevant indicators to understand current performance.*

*For example, measuring operational water consumption*

### STEP 3 Identifying management interventions

*Considering feasibility, resources, capability and initiatives already underway.*

### STEP 4 Setting Goals

*Preferably quantified, time-bound and aligned to priority focus areas.*

### STEP 5 Disclosing progress and refining approach

*In a manner that is transparent, accurate and consistent.*

*The enables accountability and continuous improvement.*

*This process often reveals additional opportunities that were not initially visible.*

# ESG Reporting

## Potential reporting topics

When reporting on ESG performance, organisations typically disclose information aligned to their priority focus areas and material topics. The examples below are illustrative and demonstrate how environmental, social and governance topics may be translated into reporting themes.



### Environmental reporting topics may include:

- Energy consumption
- Water consumption
- Waste generation and diversion
- Carbon footprint and emissions
- Environmental and operational risk mapping
- Biodiversity impacts or footprints



### Social reporting topics may include:

- Health and safety performance (staff, visitors and contractors)
- Training, development and skills-building initiatives
- Gender representation across levels of the organisation
- Racial representation and transformation
- Community engagement and broader social impact



### Governance reporting topics may include:

- Policies and processes covering financial auditing and oversight
- Policy positions on animal welfare and ethics
- Sourcing of products, wildlife, rehabilitation standards etc.
- Key organisational risks and mitigation measures, such as:
  - Water shortages and resilience planning
  - Aging infrastructure and maintenance strategies
  - Pathogens and biosecurity risks
  - Misallocation of spend and financial controls



Tea Break



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# Sustainability interventions

What sustainability can look like in practice



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# Illustrative sustainable interventions

## Examples of low/no-cost, immediate sustainability interventions



### ENVIRONMENT

- 💰 **Conduct a waste audit:** Assess opportunities to reduce waste sent to landfill, improve separation at source and lower disposal costs.
  - 💰 **Develop a water baseline:** Review water bills and establish a 12-month baseline of water consumption; conduct an audit to identify leaks and inefficient or wasteful usage.
  - 💰 **Develop an energy baseline:** Assess monthly electricity consumption to establish a baseline and identify priority areas for efficiency improvements.
- Initiate sustainability messaging for visitors\*:** Introduce simple, educational messaging on issues such as deforestation and impacts on sensitive species, including practical actions visitors can take (e.g. choosing products made with sustainable palm oil or coffee).
- 💰 **Calculate an in-house carbon footprint:** Develop a baseline carbon footprint for the Zoo to better understand key emission sources and opportunities for reduction.
- Pest management review:** Review existing pest management practices to ensure they are effective, appropriate and aligned with environmental and animal welfare considerations.
- Explore renewable energy alternatives:** Identify potential opportunities to introduce or expand renewable energy solutions, informed by energy consumption data and operational feasibility.

\* See example on next slide



### SOCIAL

- Assess or develop diversity and equity plans and policies**
- Review staff development opportunities:** Assess current training, skills development and wellbeing initiatives and identify potential gaps.
- Assess potential human rights impacts of wildlife sourcing:** Consider ethical and human rights considerations linked to wildlife sourcing, rehabilitation and conservation practices.
- Explore education, research and outreach opportunities:** Identify opportunities to strengthen education, research partnerships and community outreach aligned to the Zoo's conservation role.



### GOVERNANCE

- Review policies and identify gaps:** Assess existing governance policies and identify areas requiring development or updating.
- 💰 **Strengthen risk management processes:** Establish a risk management committee or begin assessing key social, environmental and operational risks relevant to the Zoo.
- Agree and monitor performance against material ESG indicators:** Identify priority ESG indicators and begin monitoring performance to support decision-making and future reporting.

Key:

💰 Cost-saving potential



Example of sustainability messaging for visitors:

Simple, on-site education that explains environmental threats to species and highlights practical actions visitors can take, such as choosing more sustainably sourced products.



# Focus area deep dive: Carbon Footprint

## Scope 1, 2 and 3

Emission sources are classified under Scope 1 (direct), Scope 2 (indirect) and selected Scope 3 (indirect, value chain) categories.

### Calculated Emissions:

#### Scope 1:

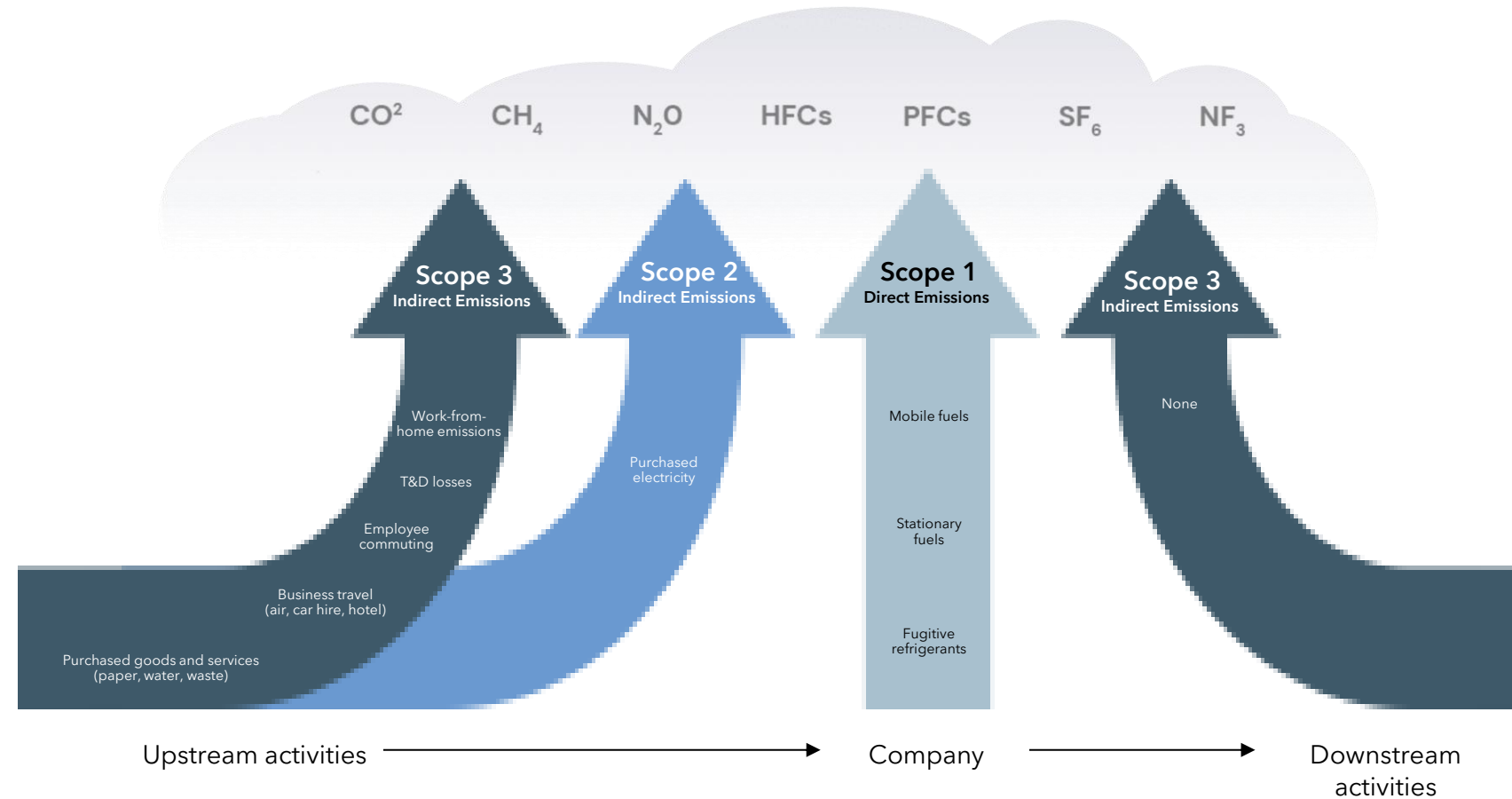
- Mobile fuels
- Stationary fuels

#### Scope 2:

- Purchased electricity

#### Scope 3:

- Purchased goods and services (paper, water, waste)
- Business travel (air, car hire)



# Key themes being monitored:

## CLIMATE



### What we are tracking:

- Greenhouse gas emissions for Scope 1, Scope 2 and, where feasible, Scope 3

### Some strategies for improvement:

- Set annual emissions reduction targets that are aligned with science-based objectives
- Transition to renewable energy sources at our properties where feasible

## WATER



### What we are tracking:

- Water consumption
- Water-related incidents - leaks, closures, flooding etc.

### Some strategies for improvement:

- Set annual water reduction targets based on baseline data
- Implement best practice irrigation methods

## BIODIVERSITY



### What we are tracking:

- Ecosystem condition for EWT's head office in Midrand and the Medike Nature Reserve
- Floral and faunal species on the properties

### Some strategies for improvement:

- Reduce use of chemical pesticides and fertilizers
- Manage alien invasive plant species on EWT properties

# EWT's carbon footprint so far:

Emission Category	Source of Emissions	Emissions (t CO <sub>2</sub> e)
<p><b>Scope 1</b></p> <p>Emissions from direct EWT operations</p>	<ul style="list-style-type: none"> <li>Stationary combustion (LPG)</li> <li>Mobile combustion from EWT vehicles</li> </ul>	<p><b>5</b></p> <p><b>253</b></p>
<p><b>Scope 2</b></p> <p>Emissions from purchased energy</p>	<ul style="list-style-type: none"> <li>Electricity purchased from Eskom</li> </ul>	<p><b>68</b></p>
<p><b>Scope 3</b></p> <p>Indirect emissions occurring within the value chain, outside of the EWT's direct control but as a result of our activities</p>	<ul style="list-style-type: none"> <li>Employee commuting for work</li> <li>Employee commuting to work*</li> <li>International flights</li> <li>Domestic flights*</li> <li>Waste*</li> <li>Purchased goods and services</li> </ul>	<p><b>20</b></p> <p>TBD</p> <p><b>135</b></p> <p>TBD</p> <p>TBD</p> <p>TBD</p>

\* Determining some aspects of our carbon footprint has been challenging due to limited data availability. We are exploring ways to better monitor emissions from employee commuting and the waste generated on our properties. We have also implemented more detailed reporting on Docuware, which will enable us to calculate emissions from domestic flights in the future.

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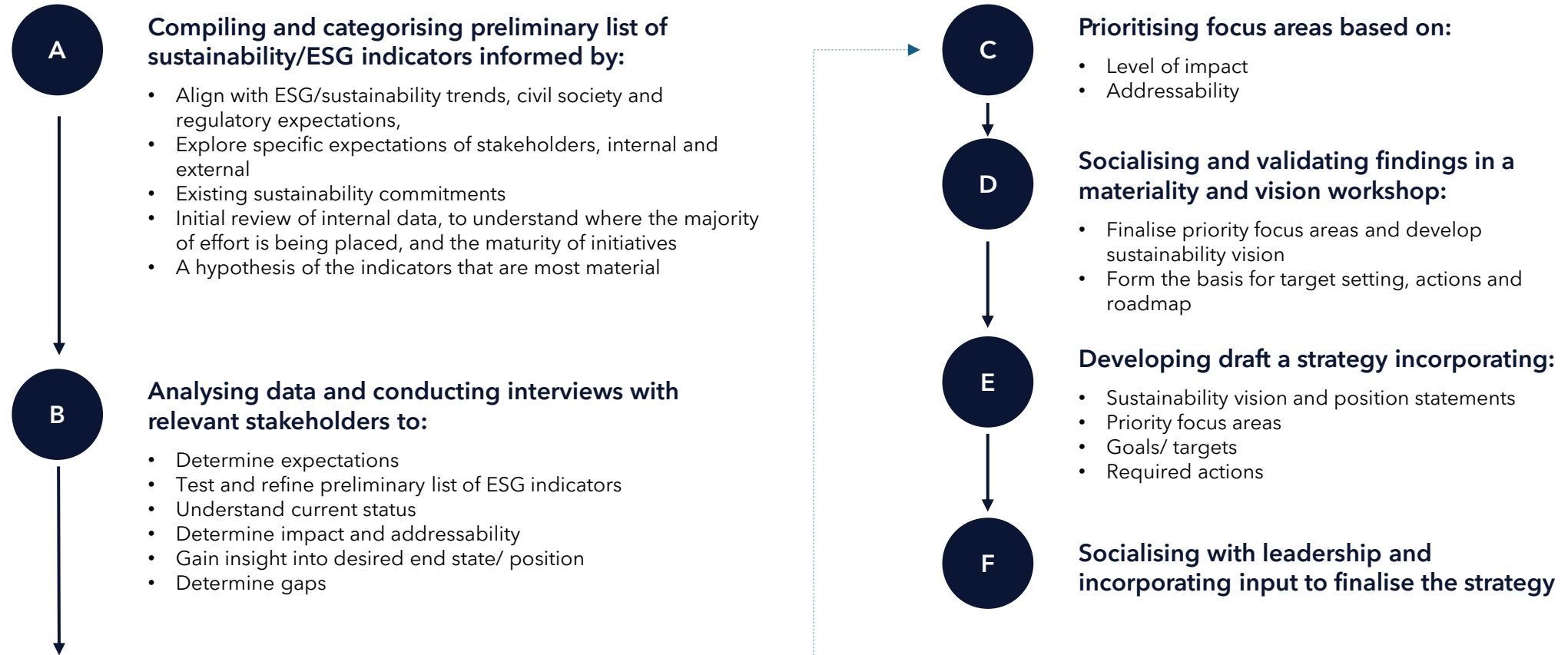
In closing



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# A high-level roadmap approach

## Sustainability strategy development



# Possible next steps:



## Internal engagement

- Review this framework in context
- Identify applicable guidelines
- Conduct a materiality assessment
- Map existing initiatives



## Goal setting

- Prioritise focus areas
- Set goals
- Allocate responsibilities
- Define timelines

A sustainability strategy is not a one-size-fits-all solution, but a structured way of understanding impact, managing risk and strengthening long-term resilience.

**Kish Chetty, Endangered Wildlife Trust,  
Executive: Head of Sustainability**  
[kishc@ewt.org](mailto:kishc@ewt.org)

**Alexander Haw: Director, Regenisense,**  
[alex@regenisense.com](mailto:alex@regenisense.com)



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