# 2 Our environmental stewardship

To deliver on our strategic objective of becoming a catalyst for economic growth and environmental stewardship, we incorporate responsible business practices in everything we do. Not only do we aim to mitigate and manage our negative impact on natural resources, we also contribute to enhancing ecosystem resilience and the lives of our employees and communities.

## In this chapter

We unpack our approach and performance through the following lenses:

**We deliver environmental stewardship by...**


| Page | Striving for carbon neutrality |
|---|---|
| 29 | Transitioning into a low-carbon business |
| 35 | Prioritising climate change mitigation, adaptation and resilience |
| 41 | Driving energy efficiency |
| 44 | Protecting air quality |

| Page | Safeguarding natural resources |
|---|---|
| 48 | Restoring and protecting biodiversity |
| 53 | Integrating mine closure and rehabilitation |
| 58 | Improving water security |
| 60 | Managing waste responsibly |


**We are positioning Exxaro to win through our resilient strategy, which underpins...**

| | |
|---|---|
| Our commitments, management approach and meeting or exceeding compliance | Unpacked in this chapter |
| How we track and measure our performance | Highlighted in this chapter and measuring and monitoring our performance on page 11 |
| Our stakeholder-inclusive approach | Engagements and collaboration in achieving our goals and initiatives summarised in this chapter, with stakeholder needs and concerns unpacked from page 17 |

## Reflecting on our environmental stewardship over the years

**2007**
Signatory to the UNGC

**2009**
Committed to support and disclose through the CDP

**2011**
A- for CDP disclosure

**2012**
Cennergi JV with Tata Power

**2013**
Partnered with Eskom and other companies to develop the first grid emission factors for South Africa

**2016**
Headline sponsor of South African Pavilion at annual UN Framework Convention on Climate Change COP meeting

**2019**
Top five ESG rating

**2020**
- Published climate change position statement and alignment with TCFD recommendations
- Acquired a controlling interest in Cennergi

**2021**
- Established decarbonisation PMO
- Best sustainability reporting award winner
- Climate change reporting finalist

**2022**
Established an ESG steering committee and PMO, which integrates decarbonisation and other critical ESG factors

**2023**
Incorporated ESG objectives with key steps into our Sustainable Growth and Impact strategy

**2024**
- Planted 16 000 Spekboom trees at our operations as part of carbon offsetting
- Developed our decarbonisation roadmap and plan

# Our environmental stewardship approach at a glance

We are guided by our environmental policy in delivering on our environmental commitments, which is further driven group-wide through:

**Accountability and responsibility**

The RBR committee oversees environmental management and impact at the board level, with implementation led by the chief sustainable impact officer. This role is supported by sustainability and BU managers who execute environmental strategies across the group.

**Regulatory compliance**

We adhere to local laws and management standards, and incorporate current and forward-looking best practices.

Cennergi's environmental and social management system addresses impacts according to local standards and principles, as well as international guidelines, including the Equator Principles, the International Finance Corporation (IFC) performance standards and the World Bank.

**Beyond compliance**

We exceed compliance through our participation in voluntary benchmarks, such as the CDP disclosure projects for climate, forests and water.

We manage our environmental and social impacts by embedding performance principles into our ESG management systems, environmental policies and management practices.

## Our environmental policy incorporates:

- **Environmental management programmes** that ensure compliance with legislation, securing licences for all regulated activities
- **Integrated management standards** that guide our environmental activities
- **Incident management and reporting** through a standardised system, enabling BUs to respond promptly to incidents and minimise negative impacts. Incidents and mitigation actions are promptly reported to authorities
- **Precautionary principles**, as outlined by NEMA, to assess our environmental impacts responsibly
- **Commitment to exceed minimum regulatory requirements**, supporting human rights and upholding our environmental licence to operate
- **Performance-based incentives** within our STI scheme, aligned with the decarbonisation plan and Sustainable Growth and Impact strategy, motivating employees to meet high standards
- **Stakeholder engagement and collaboration** to address concerns, pursue shared benefits, and support environmental and socio-economic development initiatives

# Our strategic response

**Our Sustainable Growth and Impact strategy guides the evolution of our environmental policy as we progress against delivering on our ESG objectives embedded in our strategy:**

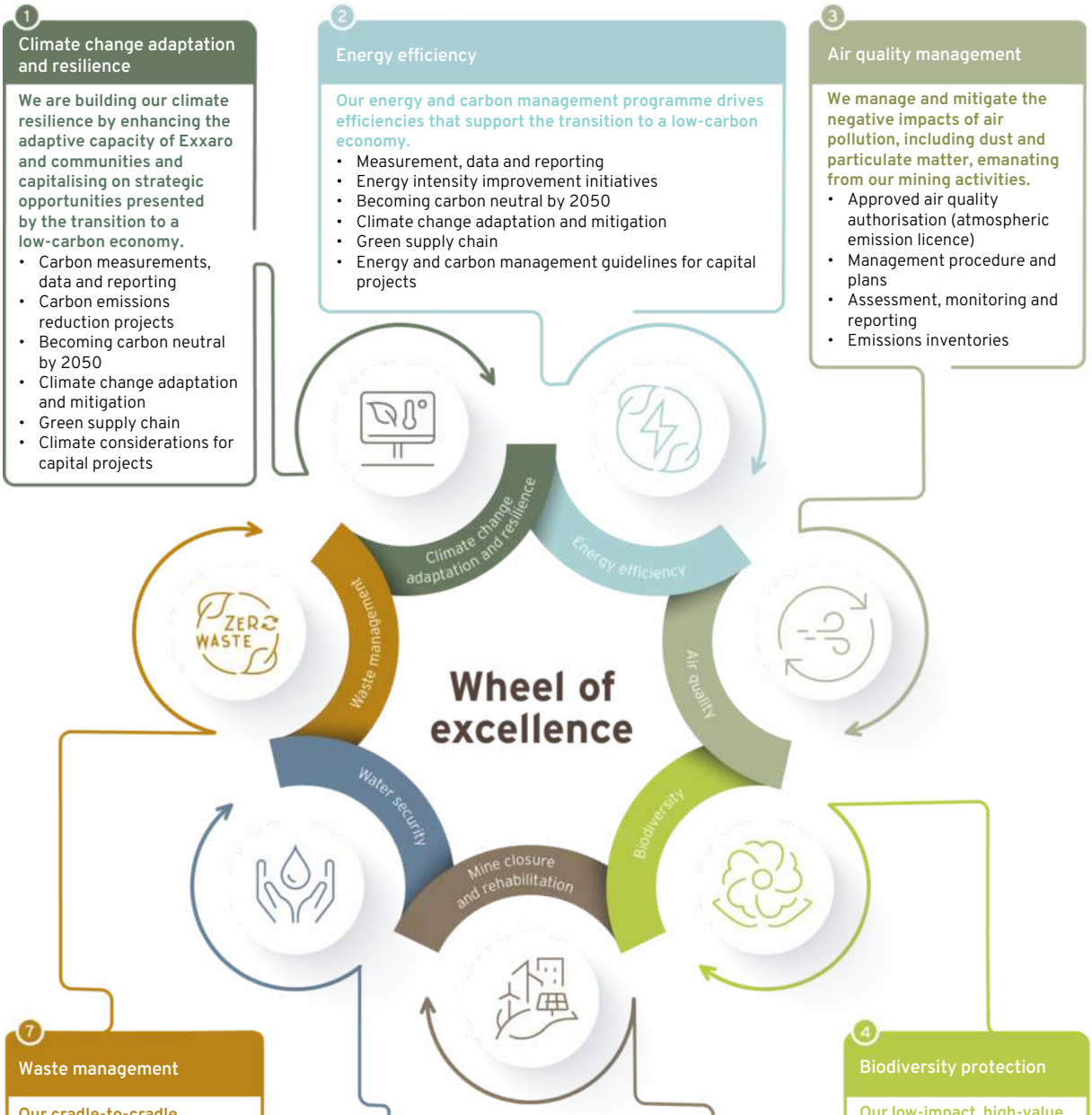
| ESG objectives | | Supporting the achievement of our Sustainable Growth and Impact strategy |
|---|---|---|
| Decarbonisation and resilience | To implement cross-cutting measures to decrease carbon emissions emanating from our operations and building on adaptation and resilience |  |
| Air quality | To reduce air pollution, including dust fallout, $PM_{10}$ and $PM_{2.5}$ | |
| Rehabilitation programme | To close and rehabilitate mines for a positive social impact legacy | |
| Biodiversity management | To protect and conserve biodiversity within our area of influence through the implementation of management plans and initiatives that promote and enhance biological diversity |  |
| Energy and water management | To set water and energy targets aligned to our national benchmarks, industry standards and site objectives, and to allow for future resilience of the business, environment and communities |  |
| Waste management | To minimise our environmental impact by promoting waste management hierarchy and transforming waste streams into opportunities for a circular economy model |  |
| Strategic partnerships | To partner with various stakeholders to enable the successful delivery and broader positive impact of our ESG objectives | |

**Further reading**

| | |
|---|---|
| How we are embedding ESG-related risks and opportunities in the business | Embedding ESG in our business (page 7) |
| Our materiality determination process and environment-related material matters | Material matters (integrated report, page 46) |

**Exxaro's wheel of excellence, detailed below, provides a consistent framework for environmental stewardship across the group, ensuring alignment in compliance, implementation, monitoring and reporting at every level. It enables the seamless integration of new assets and guides BUs in building essential competencies to achieve high environmental standards.**

Our environmental commitments are categorised into key focus areas, each underpinned by targeted strategies and policies:




### 1 Climate change adaptation and resilience

**We are building our climate resilience by enhancing the adaptive capacity of Exxaro and communities and capitalising on strategic opportunities presented by the transition to a low-carbon economy.**

- Carbon measurements, data and reporting
- Carbon emissions reduction projects
- Becoming carbon neutral by 2050
- Climate change adaptation and mitigation
- Green supply chain
- Climate considerations for capital projects

### 2 Energy efficiency

**Our energy and carbon management programme drives efficiencies that support the transition to a low-carbon economy.**

- Measurement, data and reporting
- Energy intensity improvement initiatives
- Becoming carbon neutral by 2050
- Climate change adaptation and mitigation
- Green supply chain
- Energy and carbon management guidelines for capital projects

### 3 Air quality management

**We manage and mitigate the negative impacts of air pollution, including dust and particulate matter, emanating from our mining activities.**

- Approved air quality authorisation (atmospheric emission licence)
- Management procedure and plans
- Assessment, monitoring and reporting
- Emissions inventories

### 4 Biodiversity protection

**Our low-impact, high-value approach supports ecosystem health to protect indigenous flora and fauna at our operations.**

- Approved environmental impact assessment authorisations
- Management procedure and plans
- Approved WUL
- Ecological offset management plans (includes terrestrial and aquatic/wetland ecosystems)
- Monitoring and reporting
- Ecology efficiency reports
- Land management strategy

### 5 Mine closure and rehabilitation

**Our mine plans consider land management, closure and concurrent rehabilitation with financial provision to ensure we honour our commitments.**

- Approved environmental management programme with closure objectives
- Mine closure and concurrent rehabilitation procedures
- Integrated concurrent and closure plan
- Environmental risk amendments
- Rehabilitation monitoring and KPI reporting
- Closure project management

### 6 Water security

**Our water security plan is based on efficient water consumption, reuse and recycling to protect natural resources.**

- WULs
- Management standards and procedures
- Risk assessment
- Water-saving targets and performance reporting
- Monitoring and reporting
- Technological water treatment options
- Integrated water management plans
- Audits

### 7 Waste management

**Our cradle-to-cradle approach minimises waste production through recycling and reuse within a circular economy.**

- Approved waste management licence
- Waste stream assessment
- Prevention, reuse, recycling and energy recovery
- Management procedure (including classification)
- Handling, transportation and disposal procedure
- Monitoring and reporting

## How we performed

### Key highlights

Progressed against our decarbonisation journey, and identified and implemented decarbonisation projects and opportunities for the short to medium term, which included planting **16 000 Spekboom trees** at Grootegeluk and Leeuwpan as part of nature-based solutions adopted

| | | |
|---|---|---|
| Improved disclosure through participation in the **CDP** | Planted **100 trees on rehabilitated land** at Belfast as part of adopted nature-based solutions | Planted **100 trees at Matla** to create a wind break and mitigate the impact of dust from the area |
| Achieved an **energy intensity** of 27.688GJ/kt against our 2024 target of 32.329GJ/kt | Achieved a **carbon intensity** of 4.12t$CO_2$e/kTTM against our target of 4.2t$CO_2$e/kTTM | Achieved a **water intensity** of 142L/t RoM against our target of 180L/t RoM |
| Collected **data** on air pollutants at Grootegeluk – a key result of the multi-pollutant ambient air quality monitor installed | **No environmental fines**, complaints or penalties recorded (2023: none) | CENNERGI<br>Cennergi did not record any significant environmental incidents during the year (2023: none) |

In 2024, we sharpened our focus on environmental priorities critical to our carbon neutrality goal for 2050. To drive decarbonisation, we advanced energy efficiency initiatives, implemented nature-based solutions and introduced energy and water performance metrics across all functional areas and strengthened our commitment to resource circularity.

We are also exploring strategic partnerships, adopting green technologies, and employing robust environmental management tools to further enhance sustainability.

Through our university chairs (page 39), we support research that promotes sustainable resource use, addresses climate change adaptation and mitigation, and tackles other pressing environmental challenges.

### Key challenges

**Seven**
level 1 incidents recorded
(2023: three)

The Matla WUL renewal application was declined in 2022. There were various engagements between Exxaro and DWS which concluded in Exxaro conceding to line the Matla pollution control dams. Supporting documentation (including the designs for the dams) were submitted to DWS for the finalisation of the WUL.

### Environmental incidents

Since updating our environmental incident management standard in 2021 to include level 0 incidents (those posing a potential risk but with no environmental impact), we have continued to monitor these events closely.

In 2024, Exxaro recorded 45 level 0 incidents (2023: 53), seven level 1 incidents (2023: three) and zero level 2 and 3 incidents.

Refer to the databook for details of our level 1 environmental incidents.

### Environmental complaints, penalties and fines

Environmental complaints can be raised during stakeholder engagements, by phone, letter, or in the complaints book at each mine entrance. These are managed by environmental teams with support from head office specialists, who ensure corrective actions are implemented and monitored. Exxaro is exploring an electronic system to manage environmental complaints.

In 2024, Exxaro received no new environmental complaints.

### Regulatory changes

The Climate Change Act 22 of 2024 was signed into law on 23 July 2024. This Act establishes a comprehensive framework for South Africa's climate response, including mitigation and adaptation measures. It introduces sectoral emission targets and mandates carbon budgets for major emitters, aiming to transition the nation towards a low-carbon, climate-resilient economy. As a key player in the mining sector, we are aligning our operations with these new requirements to comply with the Act.

**Future focus**

In 2025, the focus will remain on reducing emissions and energy consumption, protection of ecosystems, resource circularity, policy and regulatory developments in the ESG space. The ESG PMO will further aim to embed ESG criteria into project delivery through the integration of ESG KPIs.

# Striving for carbon neutrality

**Exxaro's commitment to carbon neutrality by 2050 is central to our vision for a sustainable future, supporting South Africa's low-carbon transition while positioning us as a leader in environmental stewardship. Achieving this goal requires an integrated approach that embeds decarbonisation across all aspects of our business.**

**By taking action in the focus areas described below, we are addressing climate change, reducing carbon intensity and building resilience in a changing world.**

| | Why this matters | Our response |
|---|---|---|
| Transitioning into a low-carbon business<br><br>Page 29 to 34 | To ensure we thrive in a low-carbon future, Exxaro is shifting from a coal base to a diversified minerals and energy business. This transition supports resilience and enhances our social impact. | We are responsibly optimising our coal operations, repositioning to capture opportunities in the just energy transition, and prioritising support for employees, communities and value chain partners throughout this journey. |
| Prioritising climate change mitigation, adaptation and resilience<br><br>Page 35 to 40 | Climate change impacts every aspect of our business, from risk management to capital allocation, making adaptation critical to our long-term value creation and sustainability. | We are responding to the climate change agenda by putting plans in place that will enable us to meet our short and long-term targets. We mitigate the impact of climate change on our business and communities through decarbonisation initiatives, building on adaptation and resilience, and implementing renewable energy self-generation projects and operational efficiency programmes – all of which are cost-effective ways of addressing socio-environmental challenges. |
| Driving energy efficiency<br><br>Page 41 to 43 | Energy efficiency is fundamental to our decarbonisation strategy, as it reduces our carbon footprint, minimises costs and strengthens our resilience against energy-related risks. | We are actively reducing emissions and energy consumption through innovative, sustainable practices, focusing on operational efficiency and exploring alternative energy sources to further support our transition to a low-carbon business. |
| Protecting air quality<br><br>Page 44 to 46 | Our operations invariably generate pollutants that impact air quality. This, in turn, affects the health of our employees, communities and the natural ecosystems surrounding our operations. | We mitigate air pollution through prevention, proactive mitigation and the application of best practices, ensuring compliance and addressing stakeholder concerns about environmental and public health. |

## Partnering for progress towards carbon neutrality

| | |
|---|---|
| **Research and educational initiatives** | To enhance our climate resilience, Exxaro works with the Council for Geoscience on carbon capture, utilisation and storage; the Agriculture Research Council on climate-smart agriculture and land use management; and the South African National Biodiversity Institute on nature-based solutions. We also conducted research into energy efficiency initiatives and developed climate change training courses in partnership with the University of Pretoria. |
| **Industry and government contributions** | Our involvement in industry forums such as the Industry Task Team on Climate Change, Minerals Council, Energy Council and Energy Intensive Users Group of Southern Africa supports the development of national climate change policies and the transition to clean energy. Additionally, Exxaro collaborates with the Coaltech Research Association to address GHG emissions. |
| **Business and community actions** | Technology partners and energy management service providers, such as ECS, Cascadia and SmartOps, enhance our energy management and energy efficiency initiatives. To reduce scope 3 emissions, we collaborate on emission reduction projects with customers and suppliers while raising air quality awareness in surrounding communities. |

# Transitioning into a low-carbon business

**We are responding to climate change by transitioning Exxaro into a resilient, diversified resources company and decarbonising our operations and portfolio – positioning the business to thrive in a low-carbon future and enhance our social impact.**

| This section provides an overview of what guides, informs and drives the transition of our business, including: | | Detailed disclosure |
|---|---|---|
| Accountability and responsibility through board oversight | Our board and its committees are ultimately accountable and responsible for overseeing Exxaro's response to climate change, ensuring integrated business processes and responses. The board also oversees the executive committee's execution of Exxaro's strategy, including measures that address climate change, among other material ESG matters. | ESG governance structure beyond compliance (page 116) |
| Integrating climate change into our strategy | Our strategy to diversify through investments in our low-carbon transition minerals and grow our energy solutions business is key to addressing the impacts of climate change and reducing our scope 3 emissions. | Embedding ESG in our business (page 7) |
| Executing our decarbonisation roadmap | The roadmap and strategy will guide our emission reduction targets for scope 1 and 2 emissions. We will employ technology and integrate renewables to reduce our scope 1 and 2 emissions. Additionally, we form strategic partnerships and investigate innovative technologies to address scope 3 emissions to ensure carbon-neutral goods and services within the value chain. | Prioritising climate change mitigation, adaptation and resilience (page 35) |
| Measuring, managing and reporting on performance | We report on energy and carbon data in terms of the GHG Protocol, and participate in the CDP climate change and water programmes. | |
| Collaborating | We engage and partner with various stakeholders to raise awareness and collectively drive climate action. | Stakeholder-inclusive approach (page 16) |
| Addressing risks | Climate-related risks are incorporated into our ERM processes – a strategic initiative fully supported by the board and executive management. | Risks and opportunities (integrated report, page 28) |

## Governance oversight of climate change

The board's responsibilities and activities include:

- Ensuring Exxaro remains sustainable in a carbon-constrained environment
- Strategically ensuring climate change issues are addressed from a corporate governance perspective
- Providing oversight of pathways management should follow to remain sustainable in a dynamic climate policy environment and economy with an objective to transition to a low-carbon world
- Considering climate change when reviewing and guiding strategy, major business plans, capital allocation, risk management, annual budgets and business plans
- Setting the organisation's climate change-related performance objectives, and monitoring their implementation and performance

The board has delegated responsibilities for ongoing management of risks and opportunities to the RBR committee and oversight of the manner in which we have an impact on the planet, including climate change, to the SERC. These committees meet quarterly and review progress in mitigation, adaptation, leveraging of opportunities and community engagements. The ESG steering committee aims to enhance our effectiveness as we gear up for our transition, and coordinates our internal and external responses.

To ensure alignment with our carbon emissions reduction goals, the ESG steering committee monitors initiatives based on our ESG strategies. This helps us understand risks and opportunities so that our operations can focus on managing energy consumption, carbon emissions and other climate-related matters. The ESG steering committee is supported by the decarbonisation technical working team and the core coordination team, which track progress, escalate issues and align initiatives with Exxaro's emissions reduction roadmap.

Our board and management monitor our performance against climate change goals as part of the regular internal reporting process. Additional sessions inform our board and management of emerging trends, risks and opportunities. Climate change matters that relate to committees' terms of reference are reported as part of each committee's annual work plan.

Our board and management are committed to understanding and embracing the science behind climate change and the use of climate scenarios to understand impacts on the business.

## Integrating climate change into our strategy

In line with our purpose of powering better lives in Africa and beyond, our ambition is to provide resources (energy, commodities, capital and people) critical to ensuring a low-carbon world. We are acutely aware of the delicate balance between a rapid energy transition and a fair, equitable shift that benefits all stakeholders. Our Sustainable Growth and Impact strategy was established with this in mind, allowing us to respond to the energy and just transitions.

| | |
|---|---|
| Energy transition | • Coal and energy businesses play a key role in energy security<br>• Responsibly optimise the coal business<br>• Reposition the business to capture transition opportunities |
| Just transition | • Prioritise workers, communities and value chain partners as we transition our business in a just manner |

Climate change is one of the forces that shaped our strategy. We conducted a detailed scenario analysis that considered various parameters, assumptions and the resilience of our strategy to climate-related risks and opportunities in line with the TCFD recommendations. These included the transition to a lower-carbon economy consistent with a 2°C or lower scenario, impact of carbon pricing and increased physical climate-related risk management to ensure business resilience under these scenarios.

We published our Climate Change Response strategy and assessment on our alignment with the TCFD recommendations in our 2020 Climate Change Response strategy report. The TCFD provides a strategic framework for guiding our Climate Change Response strategy. This supports our overarching Sustainable Growth and Impact strategy through three of the five objectives (transition at speed and scale, empower people to create impact and be carbon neutral by 2050).

## Our decarbonisation approach

This plan includes key initiatives, milestones and partnerships in line with our decarbonisation strategy to address scope 1, 2 and 3 emissions. Implementation of our plan will prioritise initiatives that effectively balance emission reduction, technology adoption, technological feasibility and funding availability, ensuring a comprehensive approach to our overall emissions reduction goals.

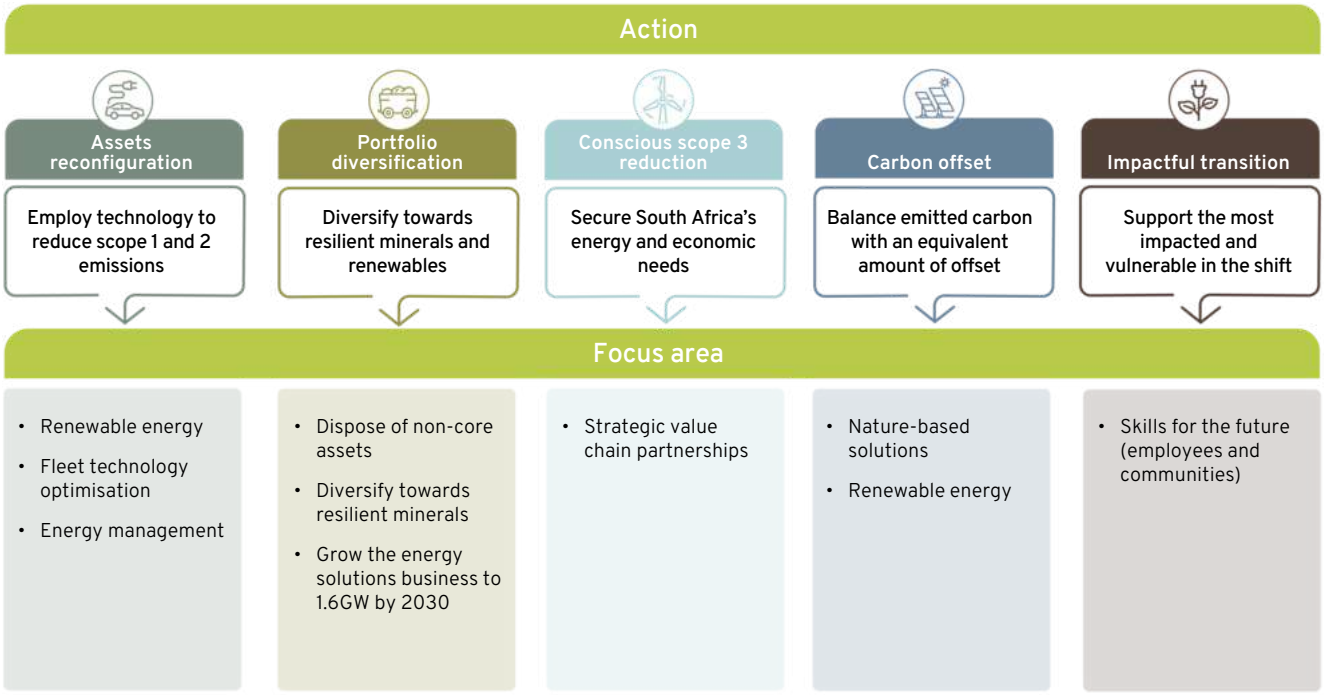
**OUR GOAL**

- To be **carbon neutral by 2050** for scope 1 and 2
- To actively investigate opportunities to reduce scope 3 emissions, as we intend to take our entire value chain along on our journey to decarbonise the portfolio

To achieve this, we will need to actively reduce our scope 1 and 2 emissions by at least 40% by 2030. This target was previously 2026 and was restated due to production changes. The commissioning of our first self-generation project (the LSP) will contribute to a 25% reduction in our scope 2 emissions and a 17% reduction in our total scope 1 and 2 emissions. The implementation of additional renewable energy projects at our Mpumalanga operations and energy efficiency projects will also contribute to the achievement of our short-term target.

## Our decarbonisation strategy

We aim to achieve carbon neutrality by 2050 through a strengthened contribution towards a low-carbon transition.




### Guiding principles

- Exxaro's decarbonisation roadmap and plan apply exclusively to our current coal operations and assume that assets will continue to be mined until resources are depleted (life of mine (LoM))
- Only Grootegeluk is targeted for scope 1 decarbonisation, given its operating model and its contribution of 58% of total group diesel emissions
- Leeuwpan will not integrate renewable energy, while only 50% of Mafube's emissions were baselined and accounted for in the transition strategy
- Subsequent acquisitions or divestments will trigger a review of the roadmap

## Optimising our vehicle fleet (scope 1 emissions)

We are reducing our diesel utilisation through a phased fleet optimisation strategy that explores hybrid technology and fleet electrification. Grootegeluk, which contributes 58% of total group diesel emissions, is the primary site for decarbonisation.

| Timeframe | Key initiatives |
|---|---|
| 2025 | • Conduct decarbonisation technology study to assess fleet optimisation solutions |
| 2026 to 2030 | • Implement engine idling reduction initiatives to improve operational efficiency<br>• Expand trolley assist systems to reduce diesel reliance<br>• Initiate electrification with pilot implementations of electric drills, electric truck proof of concept and truck battery electric vehicle conversion |
| 2031 to 2040 | • Expand the use of electric drills in mining processes<br>• Introduce electric dozers as replacements for diesel-powered models<br>• Full expansion of trolley assist systems |
| 2041 to 2050 | • Full-scale deployment of truck battery electric vehicle conversion across operations<br>• Complete fleet electrification and transition to a fully decarbonised mining fleet |

The following assumptions underpin our fleet decarbonisation approach:
- Initiatives are under investigation, with decarbonisation studies informing the final framework
- Business case potential will be confirmed through these studies
- Technology selection is based on operational data, addressing inefficiencies and aligning with industry OEM roadmaps
- Implementation will be aligned with BU rebuild or replacement strategy, technology readiness levels and governance processes

## Renewable energy integration (scope 2 emissions)

We aim to reduce our coal-fired electricity emissions by integrating solar and wind renewable energy to replace coal-fired electricity. The roadmap includes solar and wind projects, such as the LSP, and wheeled energy solutions.

**2025: Initial solar energy deployment**

LSP at Grootegeluk (68MW) constructed to replace a portion of coal-fired electricity with solar power

**2026 and 2027: Scaling of wheeled solar energy**

Wheeled solar (50MW) introduced across multiple sites, including Matla, Belfast and Mafube

**2028: Large-scale wind energy integration**

Wheeled wind project (120MW) introduced at Matla, Belfast, Mafube and Grootegeluk

## Value chain engagement (scope 3 emissions)

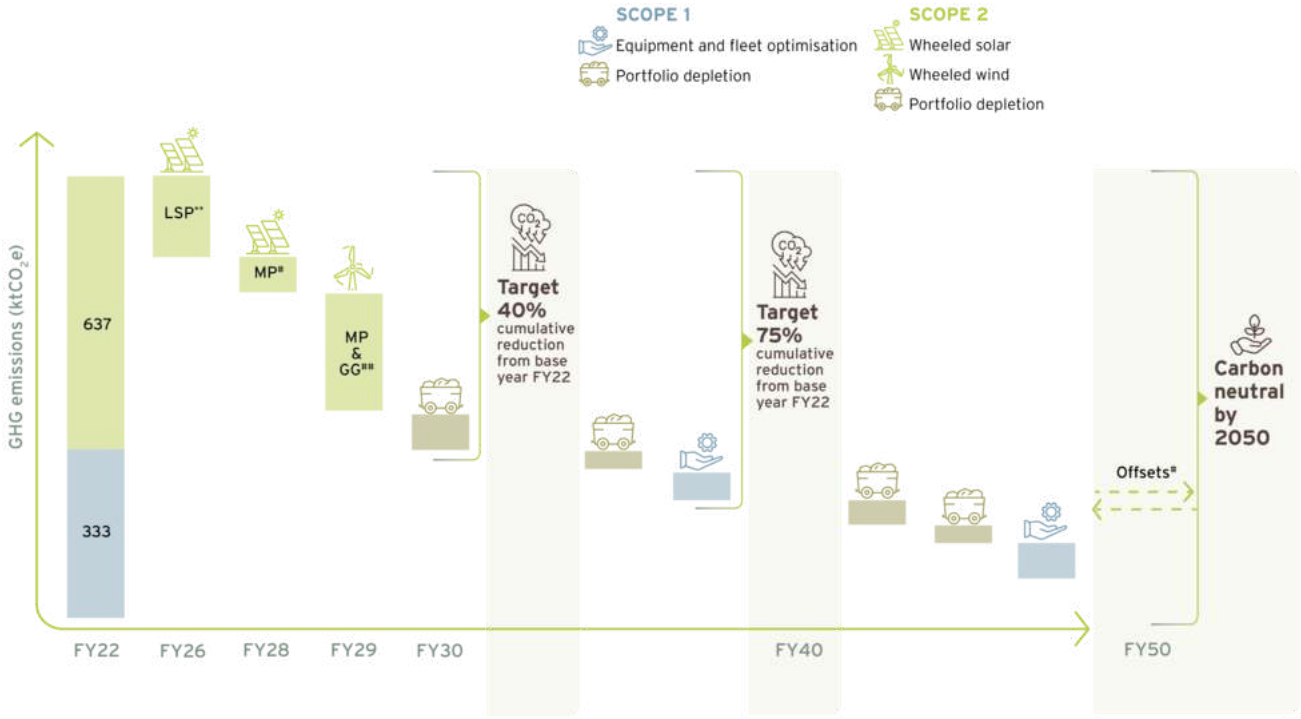
As a fossil fuel company, Exxaro's use of sold products is the largest contributor to our emissions. To address emissions in our value chain, Exxaro is exploring strategic value partnerships with end-users to foster a culture of shared responsibility. These collaborations are intended to drive industry-wide changes towards a more sustainable future. To this end, we aim to sign memoranda of understanding (MoUs) with our top five customers to collectively execute carbon-reduction initiatives and contribute to the low-carbon transition.

| Scope 3 category | Pathway | Objectives | |
|---|---|---|---|
| **Use of sold products** | **Strategic value chain partnerships** | **Carbon emissions reduction** | **Just transition** |
| Indirect GHG emissions occur when a sold product undergoes further processing or transformation by a third party before it reaches the end consumer | MoUs and collectively executing initiatives | • Reduce scope 1, 2 and 3 emissions<br>• Engage suppliers and business partners to encourage the adoption of carbon-reduction practices and transition principles | • Provide retraining and reskilling opportunities<br>• Support job creation in green sectors<br>• Inclusively and proactively engage stakeholders to transition to a low-carbon economy and mitigate potential adverse impacts |

## Our roadmap to becoming carbon neutral

Exxaro's decarbonisation roadmap, illustrated below, provides a comprehensive framework summarising the key milestones, initiatives and technologies necessary to achieve carbon neutrality in accordance with the plan and strategy. The roadmap provides a clear pathway to operational resilience in a low-carbon future.

### Decarbonising today to secure a sustainable tomorrow




* *Carbon offsets (nature-based and renewable) will be implemented to reach carbon neutrality by 2050.*
** *LSP (wheeled solar at Grootegeluk).*
\# *Wheeled solar in Mpumalanga (Belfast, Mafube and Matla).*
\#\# *Wheeled wind in Belfast, Mafube, Matla and Grootegeluk.*

## Managing climate change-related risks

Our ERM processes consider and embed climate-related risks and opportunities into our existing processes and decision making. We conducted a detailed climate change scenario analysis in 2019 and 2020 to identify these risks and determine their relative significance. These risks remain relevant to our context. Our response includes leveraging opportunities such as resource efficiency, growing our energy business, self-generation projects, investments in low-carbon transition minerals and developing adaptive capacity.

Our response to these risks is unpacked in the 2020 Climate Change Response strategy report (investor tab under integrated reports 2020) and 2020 climate change position statement (sustainability tab).

| Transition risks | |
|---|---|
| Credit and insurance risk | 1 |
| Carbon pricing risk | 2 |
| Market risk | 3 |
| Reputational risk | 4 |

| Physical risks | |
|---|---|
| Water security risk | 5 |
| Risk of heatwaves at our operations | 6 |
| Risk of drought | 7 |
| Risk of extreme rainfall days | 8 |

| Transition risks | Impact on Exxaro |
|---|---|
| **1 Credit and insurance** | |
| Financial institutions are increasingly moving away from funding companies with high climate change risk exposure and intangible carbon reduction targets. Globally, funding of coal operations is being diverted to investment that supports a low-carbon economy. Locally, most commercial and development banks have indicated they will no longer fund new coal projects. The financial institutions are increasingly evaluating the impacts of climate change scenarios on borrowers' revenues, costs and property values, and how this could affect the probability of default and loan-to-value ratios at a borrower and portfolio level. This sentiment is likely to grow in the next five to 10 years as action increases to mitigate climate change impacts. | Over the past six years, we have noted a significant increase in our insurance premiums against our assets. This scenario is likely to increase as climate action intensifies. Additionally, the major risk will be associated with an inability to cover our assets through insurance.<br><br>To manage this risk, our Sustainable Growth and Impact strategy is strongly focused on renewable generation and transition minerals that can facilitate a cleaner future. Many financiers have indicated their interest in this new business direction, mitigating some of the financial lending risk. |

## 2 Carbon pricing

The South African government is implementing policy measures to reduce its GHG emissions to meet its Paris Agreement commitments. The government implemented carbon tax in June 2019 to encourage corporate behaviour to direct investments and expenditure towards low-carbon alternatives and emission reduction.

The nominal tax rate is R190/t$CO_2$e and represents a 16% increase from the 2023 nominal tax rate of R159. However, government still allows specific tax-free allowances to facilitate a smooth transition to a low-carbon economy and mitigate competition among affected industries, reducing the rate to between R9.50 and R76/t$CO_2$e.

The first phase of the carbon tax (up to December 2025) is not designed to affect the electricity price but to address concerns raised by the mining sector. However, in November 2024, National Treasury released phase two of the carbon tax as a discussion paper for public comment. This phase, scheduled for implementation from 2026 to 2035, introduces significant changes to the design of the tax. The proposed changes include:

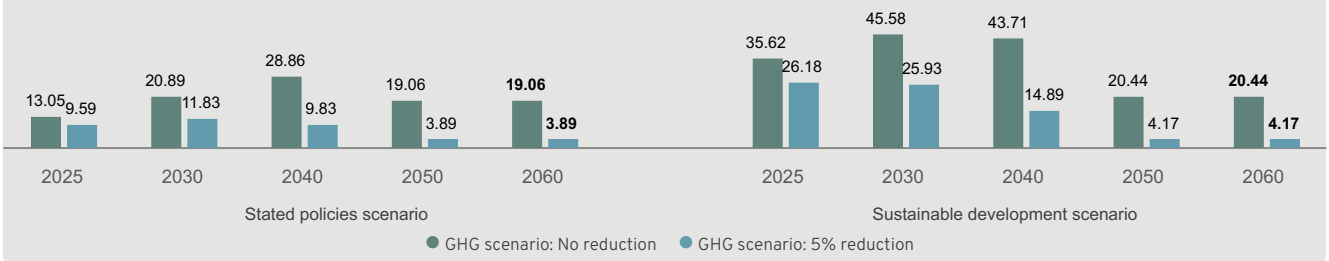
- Reduction in the basic tax-free allowance by 10% (from 60% to 50%) in 2026 and increments of 2.5% per year from 2027 to 2030
- A higher carbon tax rate of R640/t on emissions exceeding the carbon budget allocation will also be implemented from 1 January 2026

Our calculations indicate that based on the proposed phase two carbon tax changes, Exxaro's carbon tax liability for the short term (2024 to 2027) will increase, with liability figures of R3.3 million for 2024, R4 million for 2025, R7.9 million for 2026 and R9.7 million for 2027.

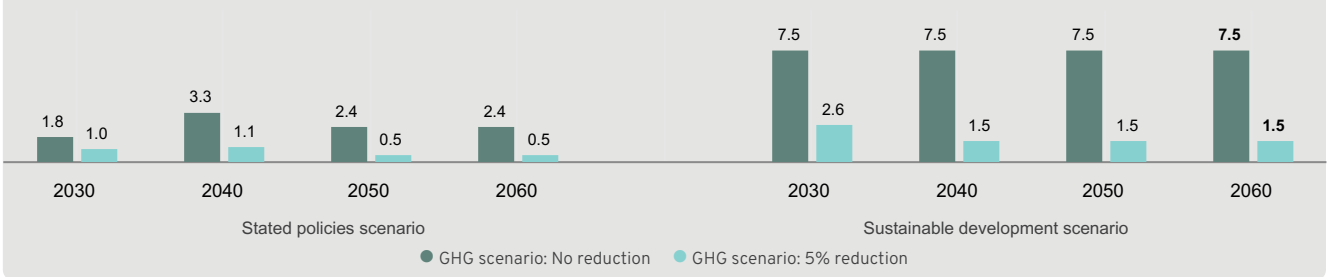
We also undertook a scenario analysis assuming that the current tax-free allowances will fall away from 2031 going forward. Our scenario analysis identified increased carbon pricing and operating costs (such as higher compliance costs) as examples of climate-related policy risk. Carbon prices associated with emissions trading schemes, carbon taxes, fuel taxes and other policies are expected to rise as government reduces GHG emissions in line with the Paris Agreement.

The speed and rate of carbon price increases are uncertain and likely to vary across countries and regions. Our scenario analysis of carbon price risk exposure below shows the expected outcome based on the stated policies and sustainable development scenarios. The impacts of carbon pricing on exports to regions such as the EU, which is planning to implement the Carbon Border Adjustment Mechanism, will depend on Exxaro's export strategy, carbon intensity of exported goods and the EU carbon price for 2026 going forward.

**Carbon pricing risk exposure** (US$m)




**Projected increase in operating expenditure due to carbon pricing risk** (% change)




## 3 Market

One of the major ways in which markets can be affected by climate change is through shifts in supply and demand for certain commodities, products and services as climate-related risks and opportunities are increasingly taken into account.

The shift in fossil fuel and energy markets will have implications for our business portfolio resilience and transitioning process. Further, we also appreciate that climate change has created new markets, increased emissions reduction technology demand and supply, presented new financial instruments, and renewed efforts to mitigate fossil fuels and potential financial impacts on the business.

## 4 Reputation

Climate change was identified as a potential source of reputational risk tied to changing stakeholder perceptions – investors, customers, communities, non-governmental organisations (NGOs) and government – of an organisation's contribution to or detraction from the transition to a lower-carbon economy.

The mining sector is exposed to the reputational risk of climate change – a threat to the credibility of its efforts to reposition itself as a more sustainable sector, and by extension to its licence to operate.

New policies such as the Climate Change Act could impact the business from many angles, ie compliance, financial, mitigation and adaptation points of view (upon the Act becoming effective). Non-compliance to the Act may also present reputational risks.

Our approach is to genuinely commit to climate action, sustainability, accountability and transparency, and implement adequate mitigation, adaptation, governance, risk and communications strategies to ensure a sustainable future for Exxaro and our stakeholders.

| Physical risks of climate change | Impact on Exxaro |
|---|---|

## 5 Water security

Climate change physical impacts, such as increasing temperatures, rising sea levels, more frequent or intense droughts, and more frequent and more damaging floods and storms, are serious challenges for our facilities, supply chains, employees, current and potential customers, and our host communities.

Exxaro's flagship mine, Grootegeluk, is situated in the Waterberg region. It relies on the Mokolo and Crocodile River (West) Augmentation Project phase 1 water supply scheme for reliable water supply. Water from the Mokolo Dam is supplied via a 46km pipeline to the Lephalale area for the town, Eskom and Exxaro. The system can supply 30 million $m^3$ of water per year.

The risk of water security has increased significantly at our Waterberg operation due to a lack of perennial water basins and high temperatures. Our Waterberg operation has a negative water balance as it relies on an external source for its operational water requirements. To address this risk we have signed the supply agreement for MCWAP 2 that will bring in additional water from the Crocodile catchment.

Climate change, coupled with anthropogenic effects (population growth, etc), will impact our daily water management practices, and we need to adapt to a new normal that will require a shift in our overall water management strategy (page 58). In 2024, we conducted a water security risk assessment to understand the likelihood of Exxaro's operations, the environment, and communities suffering physical climate change risks to their water management systems, ecosystems and livelihoods respectively.

The risk assessment recommended various operation-specific mitigation measures and changes to our water management strategy to ensure business and community resilience.

Exxaro has one active tailings facility (slimes dam 1 and 2) at Grootegeluk, managed by operators and an engineer of record. To manage the facility and limit the deposition of slimes to the slimes dam, Exxaro has operational cyclic ponds which are used for slimes management.

As part of the risk management and continuous improvement in the operation of the tailings facility, Exxaro adopted the Global Industry Standard on Tailings Management. This is part of ensuring that the operation and governance of the tailings facility aligns with SANS and international standards.

## 6 Heatwaves at our operations

Heatwaves are events where the maximum temperature at a given location exceeds the average maximum temperature of the year's warmest month by 5°C or more for at least three consecutive days. Downscaled climate models show that the Waterberg complex is predicted to experience a relatively higher number of average heatwave days than other Exxaro assets in Mpumalanga. The Waterberg operation will experience between 14 and 19 heatwave days from 2021 to 2040 (relative to 1961 to 1980). Our Mpumalanga operations are predicted to experience between eight and 13 heatwave days for the same period. This risk of heatwaves increases between 2041 and 2060 with Waterberg and Mpumalanga operations predicted to experience heatwave days of between 20 and 26, and 14 and 19 days respectively.

An increase in heatwaves could result in negative health and safety impacts for employees, create occupational health risks such as heat stroke, and restrict employees' physical functions and capabilities.

Our proposed actions will enable employees and the business to cope with heat stress and include improving our health and safety policies and emergency response plans. We plan to improve communication through instantly alerting and updating affected employees and host communities on sudden or rapidly changing weather conditions. We are also investigating the review of personal protective equipment to ensure specialised personal protective equipment for extremely high temperatures and heatwaves is available to employees. We have made recommendations for an industry-wide approach to specialised personal protective equipment for extreme weather events to enhance employees' health and safety.

## 7 Drought

According to the Council of Scientific and Industrial Research Green Book – Detailed Projections of Future Climate Change over South Africa, there is a pronounced west-east rainfall gradient over the country. Over the eastern escarpment and east coast, for the period 2021 to 2050, relative to the period 1971 to 2000, under low mitigation, rainfall is projected to increase over the central interior and the east coast. The western interior, northeastern parts and the winter rainfall region of the southwestern Cape are projected to become generally drier.

The Grootegeluk complex is in an area predicted to experience a higher level of drought severity than Exxaro's other sites – a trend that will increase over time. The increasing frequency of drought, particularly in the Waterberg, will increase our water security risks.

## 8 Extreme rainfall days

On 13 March 2014, the Waterberg region received an unprecedented high rainfall in a 24-hour period, which led to operational interruption for five days. Grootegeluk is in an area predicted to experience fewer average extreme rainfall days than Exxaro's other sites. The average number of extreme rainfall days is expected to increase across all sites towards 2060.

The flood event had a severe impact on our operations in terms of infrastructure damage, supply chain interruption, production stoppages, and employee and community safety. The frequency of extreme rainfall events is expected to increase in the Mpumalanga region.

# Prioritising climate change mitigation, adaptation and resilience

**Supporting our transition to a low-carbon business is our commitment to building our resilience and adaptability in response to the climate change agenda. Our approach is collaborative and inclusive as we believe partnering with our stakeholders is key to achieving our carbon neutrality goal in a just manner.**

## Showcasing our response in action

**As part of our decarbonisation and climate mitigation efforts, we are investigating nature-based solutions – one of the most cost-effective ways of sustainably addressing climate change impacts.**

The Spekboom, or Portulacaria afra, is an extraordinary plant known for its remarkable ability to sequester carbon. It can absorb between 4t$CO_2$ and 10t$CO_2$ per hectare per year, making it one of the most efficient plants for carbon sequestration. Its resilience to harsh environmental conditions, drought resistance, and ability to thrive in various soil types make it ideal for our mining sites.

During the year, we planted 6 000 Spekboom trees at our Grootegeluk mine, and 10 000 trees at Leeuwpan mine. We are monitoring the trees to assess their adaptability to the different environments. The aim is to scale up Spekboom carbon offset projects in the near future based on the survival and sequestration rates of the plants at our operations.

The scaling up of the projects will consider community engagement and participation, as we believe in fostering a culture of sustainability and creating employment opportunities by involving our communities in monitoring and maintaining the trees. We will potentially provide commercial opportunities such as the supply of Spekboom trees to various stakeholders.

### Our approach at a glance

Exxaro's Climate Change Response strategy and the TCFD recommendations ensure we embed climate change in our strategic thinking and decision making. Supported by analytics tools that inform this decision making, we include climate change metrics in scorecards, and climate change is embedded in our capital allocation model.

Critical enablers of our response to climate change include:

- Further developing our decarbonisation roadmap and delivering on our decarbonisation objectives, which requires an integrated approach across our business
- Building our adaptation and resilience, considering the external climate-related risks we face; the systems, processes and projects we implement; and awareness created through communication, education and training for stakeholders across our value chain
- Monitoring, measuring and reporting on our performance, enabling us to progress against targets and adjust our approach where necessary
- Supporting research and development in collaboration with stakeholders to contribute to policy formulation, innovation and knowledge sharing in South Africa

Exxaro is committed to conducting all climate lobbying in line with the goals of the Paris Agreement. Our objective is to clearly and transparently articulate Exxaro's commitment of contributing positively to climate policy development and implementation.

For a holistic view of our approach, read the supplementary information available on our website:
Databook | Climate Change Response strategy | Climate change position statement

## Prioritising climate change mitigation, adaptation and resilience continued

Our response to climate change is rooted in sustainable business practices and environmental stewardship imperatives, and is driven through:

| | |
|---|---|
| **Accountability and responsibility** | The RBR committee manages climate change risks and opportunities. The SERC ensures we align with low-carbon transition principles.<br><br>The ESG steering committee's role is to support Exxaro's ongoing commitment to environmental, health and safety, corporate social responsibility, corporate governance, sustainability, and other relevant public policy matters. |
| **Regulatory compliance** | We comply with the National Environmental Management: Air Quality Act, Carbon Tax Act, GHG Protocol, the DFFE GHG reporting regulations and pollution prevention plans regulations in executing our Climate Change Response strategy and supporting projects, and align our operations with national energy efficiency objectives.<br><br>To enable compliance with the Climate Change Act approved in July 2024 (upon operationalisation), Exxaro is working towards adapting our operations to align with stricter emissions targets and investing in sustainable practices to mitigate climate impact. The Act aims to establish a framework for reducing GHG emissions and promoting climate resilience in South Africa. Compliance with the Act may require increased transparency in reporting emissions and a shift towards cleaner technologies, which could enhance Exxaro's reputation as an environmentally responsible company, and drive innovation and efficiency at our mining operations. |
| **Beyond compliance** | We recognise that the role we play in mitigating the impacts of climate change is strengthened through how we conduct our business beyond regulatory requirements. We achieve this by:<br>• Adopting voluntary reporting frameworks, particularly TCFD, GRI, UNGC and ISSB<br>• Improving disclosure through CDP participation<br>• Hosting and participating in events and forums such as New York Climate Week, COP29, the Exxaro sustainability summit and other panel discussions related to climate change issues, including the low-carbon transition and our role as a business in prioritising skills development programmes for our employees and communities<br>• Providing funding to support research and development, and to support SMMEs through decarbonisation projects<br>• Engaging in strategic partnership discussions with key stakeholders to collaborate on scope 3 reduction projects, carbon offsetting projects and further integrating how we manage the impacts of our activities by adopting a holistic approach to air quality and climate change management |

Since our decarbonisation roadmap (page 32) was approved this year, we will review our Climate Change Response strategy and position statement in the 2025 financial year to reflect updates from the roadmap.

### Contributing to South Africa's low-carbon transition

We play our part in contributing to South Africa's low-carbon transition, responding to the global call for more ambitious nationally determined contributions. South Africa's revised nationally determined contributions for 2025 require us to do more to support the country's transition to a low-carbon economy.

Additionally, the implementation of South Africa's Carbon Tax Act, 2019 (Act 15 of 2019) has elevated GHG emissions reduction to a prominent business imperative, as the tax rate of $CO_2$ emissions could affect our financial and sustainability performance. Governed by the Carbon Tax Act, the current carbon tax rate is R190/t$CO_2$e with several tax-free allowances.

| | | |
|---|---|---|
| We have an MoU with the Agricultural Research Council, enabling the parties to develop and conclude research agreements and development projects in:<br>• Livestock production and sustainable land use management<br>• ESG and climate change in line with the UN SDGs<br>• Socio-economic development in the context of secondary agriculture and value addition<br>• Innovative partnerships for socio-economic impacts including technology and information dissemination | | We have an MoU with the Council for Geoscience, which expresses our intent to collaborate on carbon capture, utilisation and storage initiatives aimed at reducing carbon emissions in South Africa and potentially contributing to value chain/ scope 3 emissions reduction |
| We create employment and reskilling opportunities for communities living in and working at and around our operations | We provide sponsorships for South Africa's pavilion at COP every year. The conference is a platform for government, industry and other stakeholders to share and contribute towards global efforts to mitigate and adapt to the impacts of climate change | We were one of the first mining companies in South Africa to participate and disclose information on climate change mitigation, water security, governance, risks and opportunities, strategy, metrics, and targets on the CDP |

## Reducing emissions

To reduce scope 1 and 2 emissions while enabling continuous operations and building a resilient clean energy network, we implement operational efficiency programmes, carbon offsets and renewable energy self-generation projects. These initiatives contribute to the reduction of our carbon intensity by reducing diesel and electricity consumption, and rectify higher carbon intensity per tonne of product mined caused by suboptimal equipment use.

We work with our engineering teams and a service provider to identify potential group-wide projects to implement at our operations with significantly high energy usage. We are systematically reducing the emissions of our Grootegeluk vehicle fleet by addressing logistics constraints using analytics tools and implementing optimisation solutions that include:

- Mine digitalisation
- Dispatch and fleet allocation optimisation
- Truck payload management
- Shovel and truck cycle variability management
- Road condition and construction opportunities
- Out-of-cycle waste reduction

The LSP and future investments in decarbonising Exxaro's mining operations represent a systematic and responsible approach to the energy transition without introducing additional risks to South Africa's electricity generation. We also plan to implement solar photovoltaic (PV) projects at our mines in closure offices and Ferroland game lodges to reduce our scope 2 carbon footprint.

Furthermore, the LSP and similar projects will foster sustainable development and enhance socio-economic benefits for local communities.

We also promote renewable energy as a cost-effective technology through the anaerobic biodigester programme, which was launched with the South African National Energy Development Institute and Unisa in 2019.

While it is critical to reduce our direct emissions, the largest contributor to our indirect emissions profile is our scope 3 emissions. Over 98% of our scope 3 emissions emanate from the generation of power by Eskom using Exxaro's coal. Although Exxaro will not set targets for scope 3 emissions currently, we are pursuing opportunities to monitor and manage scope 3 emissions through partnerships with our customers and suppliers (including inbound and outbound logistics); prioritising green procurement of goods and services; contributing to research and development on decarbonisation technologies; and reducing emissions related to employee travel.

Our strategy to diversify to low-carbon transition minerals and grow our energy solutions business will be key in addressing scope 3 emissions and ensuring our contribution to the low-carbon transition.

### We classify our emissions as follows:

**Scope 1**

Direct GHG emissions (measured in $tCO_2e$) from sources owned or controlled by Exxaro using diesel, petrol, gas, explosives and limestone. Production-related fugitive methane emissions are also included

**Scope 2**

GHG emissions from electricity generated by utility Eskom and purchased by Exxaro

**Scope 3**

Emissions outside our control but emanating from our products or value chain activities such as customers burning coal supplied by Exxaro

Initiatives we implement include:

**Priority** Low  High **Quick wins**

### Scope 1

- Feasibility on green energy potential at operations
- Energy and water efficiency programmes (linked to performance incentives)
- Compliance focus: pollution prevention plans for operations

### Scope 2

- Solar PV at Tshikondeni
- Solar PV at Grootegeluk
- Renewable energy consumption at all our operations

### Scope 3

We engage and partner strategically and take targeted measures with our key suppliers to partner and collaborate on value chain emissions reduction

Our approach of aligning our portfolio towards low-carbon transition minerals will be key in addressing scope 3 emissions

We support industry and government efforts to develop low-carbon technologies such as carbon capture and storage, which are critical for the removal of carbon emissions

### Carbon credits

- Community waste management/ SLP
- Land management projects
- Rehabilitation opportunities
- Nature-based offset projects

### Enablers

- Exxaro decarbonisation training and employee participation
- Decarbonisation and communication plan
- Leadership-driven process

Our emissions reduction initiatives are supported by our efforts in driving energy efficiency (page 41) and implementing cleaner energy sources at our operations.

We submit an annual pollution prevention plan report to the DFFE. The 2021 to 2025 pollution prevention plans include $CO_2$ emissions reduction projects for reducing diesel consumption and carbon emissions at our operations.

| | | Anticipated emissions reduction ($tCO_2e$) | | | | |
|---|---|---|---|---|---|---|
| Project | Implementation | 2022 | 2023 | 2024 | 2025 | Total |
| Grootegeluk in-pit crushing and conveying project | Ongoing | 6 503 | 6 250 | **6 104** | 6 050 | 30 960 |
| Road management and improvement | Ongoing | 3 827 | 3 678 | **3 592** | 3 561 | 18 222 |
| Pantograph utilisation optimisation | 2021 | 735 | 707 | **690** | 684 | 3 500 |
| Out-of-cycle time reduction | 2021 | 1 724 | 1 657 | **1 618** | 1 604 | 8 208 |
| Autonomous drilling | 2021 | 208 | 200 | **195** | 193 | 989 |
| Total | | 12 997 | 12 491 | **12 199** | 12 093 | 61 879 |

*Assumptions used to estimate anticipated GHG emission reduction: electrical and diesel conversion factors, and the project scope, are consistent.*

## Reflecting on our progress to date

### 2018

Carbon intensity baseline assessment boundary for operational BUs (excluding mines in closure)

### 2020

- Rebased carbon intensity baseline
- Established decarbonisation PMO and interconnected workstreams

### 2021

- Reduced carbon intensity by more than 8% against the 2018 baseline with focus on managing electricity and diesel consumption
- Decarbonisation baseline:
  - Scope 1: 327kt$CO_2$e
  - Scope 2: 503kt$CO_2$e
  - Total: 830kt$CO_2$e

### 2022

- Implemented STI scheme to track water and energy security and efficiency targets (related to diesel and electricity consumption)
- Delivered on targets set for first half of year (BUs on or beyond targets)

### 2023

- Re-baselined our short-term decarbonisation plan emissions to reflect 2022 as the new baseline year
- Decarbonisation baseline:
  - Scope 1: 333kt$CO_2$e
  - Scope 2: 637kt$CO_2$e
  - Total: 970kt$CO_2$e

### 2024

- Developed our medium to long-term decarbonisation roadmap
- Developed a draft climate action transition plan
- Planted 16 000 Spekboom trees

### 2030

- We aim to actively reduce scope 1 and 2 emissions by at least 40% through energy efficiency projects self-generation and consumption of renewable energy at our operations
- We collaborate with our value chain partners to reduce scope 3 emissions and contribute to implementation of renewable energy projects by our value chain partners

### 2050

- Goal: carbon neutral for scope 1 and 2 emissions
- Our objective is to also contribute to carbon-neutral value chains

## Monitoring, measuring and reporting on our performance

### Internal performance measures

- Monitoring performance using monthly energy and carbon data reporting
- Monitoring and reporting on scope 1, 2 and 3 emissions annually using the operating control accounting approach
- Tracking carbon and energy reductions using the STI scheme at group and BU levels to inform employee and executive reward performance
- Continuously investigating data solutions for real-time feedback, which we believe will allow us to respond quickly to emerging issues and opportunities to reduce our emissions

### External performance measures

- Participating in the CDP climate change programme (since 2008) – our CDP climate change inputs provide information on our energy consumption and intensity, carbon emissions measurement and cost performance at BU and group levels. This information is audited and assured externally every year
- Participating in the CDP water programme (since 2010), and supplier engagement since 2019 – the CDP water and supplier engagement programmes help us ensure that we align water security and supply chain risks to climate change impacts
- Participating in the CDP forestation programme in 2023 – our CDP forests inputs provide information on how we manage our forest-related dependencies, and risks and opportunities

In 2024, we participated in the revised CDP programme which has an integrated questionnaire for climate change, water security and biodiversity management.

We are reviewing our scope 3 calculation methodologies to ensure continuous improvement and data credibility. In 2025, we will also develop and publish a methodology report which indicates how we approach emissions quantification and disclosures.

To ensure comparability, Exxaro measures, manages and reports energy and carbon data in terms of the GHG Protocol's Corporate Accounting and Reporting Standard. Our scope 1, 2 and 3 emissions are monitored and reported annually.

GHG emissions recorded over the past three financial years are on page 40.

## Adaptation and resilience

To enable our business to thrive in a low-carbon future, we are strengthening our ability to adapt to climate change and building our resilience against it. We are developing our climate change adaptation and resilience plan for the organisation. This plan will bolster our existing approach, which includes:

### Adopting nature-based solutions

We have engaged with the South African National Biodiversity Institute on guidance for the use of nature-based solutions to offset emissions at all our operations. We adopt nature-based solutions that enable biodiversity protection and restoration, positively contribute to our broader social impact, and include benefits such as carbon offsetting and credits. Our afforestation and reforestation projects as well as rehabilitation projects enable carbon absorption and sequestration, and are a cost-effective way of addressing climate change, the biodiversity crises and land degradation. The project at our Hlobane mine in closure also provides work opportunities for local people and entrepreneurs in the forestry industry.

To measure carbon sequestration results from our Hlobane afforestation and reforestation initiative, we are investigating an evidence-based approach to quantifying, measuring and managing results. We have also initiated discussions with several stakeholders such as the South African National Biodiversity Institute to ensure we leverage all opportunities presented in using nature-based solutions.

Our increasing efforts to reduce our scope 1 and 2 emissions, and improve energy efficiency (page 37) align with our decarbonisation plan, now and into the future.

### Responding to risks and opportunities

Growing external risks present significant opportunities for us to evolve and transition, thereby securing a future for Exxaro, our communities and future generations.

The risks identified during the detailed climate change scenario analysis conducted in 2019 and 2020 (page 32) continue to inform our response and mitigation efforts.

### Using data analysis

Exxaro aims to use climate-related data to predict the impacts of extreme weather events on our operations, communities and social impact programmes. We have engaged with a service provider to consult on climate predictions for specific operations and value chain partners. These predictions will enable us to determine or better understand how the impacts of extreme weather events on our value chain in turn impact our business, suppliers, customers and communities.

### Creating awareness

Exxaro has several awareness, training and education initiatives that cover topics such as carbon pricing, carbon tax, adaptation, carbon budgets, and climate mitigation from a global, national and business perspective. These initiatives not only deepen our knowledge as an organisation, but also stimulate behaviour change in pursuit of climate change adaptation and resilience at our operations and in communities.

Exxaro has been facilitating climate change masterclasses for the past three years as part of employee awareness, education and behaviour change. Classes are held throughout the year.

## Supporting research and development

We are investing extensively in developing knowledge of climate change, renewable energy and sustainability. We prioritise innovation, research and development, and collaboration on sustainability issues with value chain stakeholders. In previous years, we also funded three university chairs to build on climate knowledge and to advance efforts towards climate mitigation and adaptation.

| Stakeholder | Initiative | Benefits |
|---|---|---|
| **Wits Global Change Institute** | Enhancing climate change adaptation and resilience for industry and government | • Adaptation pathways for a changing world<br>• Aligning global climate change adaptation and mitigation with the SDGs<br>• Minimising the impact of extractive industries<br>• Maximising post-extractive landscapes for sustainable communities |
| **Unisa Business and Climate Change** | Publications on the coal mining sector's response to climate change and a decision-making framework for corporate climate change response | • Innovation<br>• Advocacy-oriented community engagement<br>• Climate governance<br>• SDG domestication<br>• Climate change mitigation and adaptation<br>• Green buildings |
| **University of Pretoria Energy, Water and Food** | Two toolkits on motor resizing and multi-drive conveyor belt design and simulation to save energy as well as technical reports on energy efficiency in South Africa | • Energy efficiency improvements to Exxaro's operations<br>• High-quality related services for our business |
| **Industry Task Team on Climate Change** | Working with government and other businesses to address South Africa's international climate change obligations | • Supporting the low-carbon transition, carbon price merits, collaboration and the just transition |
| **National Business Initiative membership** | Contributing to thought leadership on climate change issues | • Just transition and the role of business in ensuring the transition to a low-carbon economy<br>• Preparation for COP meetings<br>• Alignment with the SDGs |
| **Minerals Council of South Africa** | Discussions with government on climate change management | • Implications of environmental policy, carbon tax, air quality, waste and water management |
| **Energy Council of South Africa** | Contribute towards advancement of energy policy and implementation pathways | • Ensure that Exxaro remains informed about policy shifts |
| **Business Unity South Africa (BUSA) and Business Leadership South Africa** | Engaging on issues affecting the country and securing energy supply | • Macro-economic and high-level issues at national and international levels |
| **Government, NGOs, communities and industry** | Engaging on air quality management in priority areas | • Multi-stakeholder reference groups and implementation task teams for the Highveld and Waterberg-Bojanala priority areas |

## How we performed

**Total carbon intensity**
4.12[RA]
(2023: 4.4tCO$_2$e/kTTM)

**Scope 1 emissions***
1.49[RA]
(2023: 1.4tCO$_2$e/kTTM)

**Scope 2 emissions***
2.63[RA]
(2023: 2.96tCO$_2$e/kTTM)

Resulting in a 6.36% decrease in carbon intensity compared to 2023 due to energy efficiency measures at our operations

**Supporting research and development in climate change**
R64.5 million
invested to date
(2023: R63 million)

**Carbon tax liability**
R3.3 million
for production-related emissions, ie fugitive methane emissions associated with the coal seams
(2023: R2.8 million)

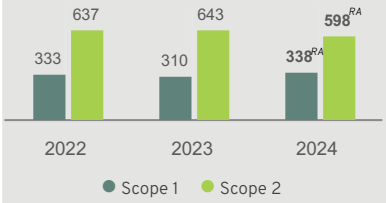
**CDP scores**
B for climate
B for water security

* *Only the operating mines' carbon emissions were taken into account for the intensity calculations. This excludes the ConneXXion, Hlobane, FerroAlloys, etc.*
[RA] *Reasonable assurance provided.*

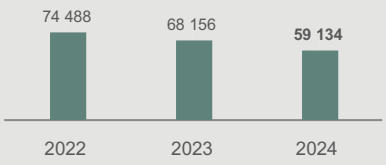
For more information on our CDP performance, please refer to www.cdp.net and the databook.

### Absolute emissions for all operations

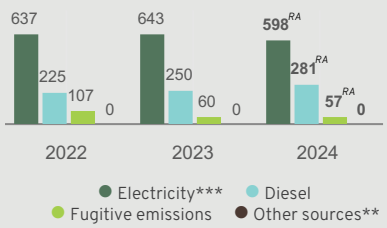
**Scope 1 and 2 GHG emissions (ktCO$_2$e)**




**Scope 3 GHG emissions (ktCO$_2$e)***




**Carbon emission by source (ktCO$_2$e)**




[RA] *Reasonable assurance provided.*
* *Scope 3 emissions for domestic sales.*
** *Source proportion.*
*** *Restated: the previously reported amount of 634ktCO$_2$e included operational mines only. This year's figure includes all operations.*

Refer to the databook for more detail on our scope 1, 2 and 3 GHG emissions.

### Improving our performance

| | |
|---|---|
| **tCO$_2$ saving** | In 2024, 12 474tCO$_2$e saving was realised for scope 1 emissions, which is linked to five energy efficiency projects implemented at Grootegeluk as part of our pollution prevention plans. |
| **Renewable energy self-generation** | The LSP at Grootegeluk, designed to reduce our emissions by 161ktCO$_2$e, is undergoing construction. Although the project experienced some delays in 2024, construction activities are ramping up and include piling, installation of mounting structures and installation of solar PV modules.<br>Commercial operations are expected to commence mid-2025. |
| **Employee carbon footprint calculator** | In 2023, we launched a pilot for a carbon footprint calculator mobile app designed to help employees track, calculate and assess their emissions profiles. While the pilot demonstrated potential, employee uptake was lower than expected. This was primarily due to concerns related to the protection of personal information, in line with the requirements of the Protection of Personal Information Act, 2013 (Act 4 of 2013). As a result, the tool's effectiveness in gathering the necessary data was limited. Despite these challenges, we remain committed to exploring future opportunities for implementing a similar tool that aligns with privacy regulations and our sustainability goals, enabling employees to track and reduce their carbon emissions in a secure and impactful way. |
| **Community awareness and education** | For the past three years, Exxaro has run awareness and education campaigns for community members about climate change issues. Topics include the negative impact of pollutants on the environment and their health. Campaigns align with the goals of our Social Impact strategy, and going forward, will include an increased focus on embedding knowledge and assisting communities with access to renewable energy. |

**Future focus**

We recognise that it takes time, and a systematic, integrated and stakeholder-inclusive approach, to implement projects that will address the impact of climate change in a just and sustainable manner. Our focus for 2025 includes finalising our adaptation and resilience plans, and updating our various policies and Climate Change Response strategy – bolstering our readiness to achieve our long-term carbon neutrality target while current projects contribute to achieving our short-term targets.

# Driving energy efficiency

**Energy efficiency enables us to reduce operational costs, lower our emissions and support our goal of carbon neutrality. We aim to enhance energy efficiency across our operations by optimising plant performance, investing in energy-efficient technologies, and implementing monitoring systems to track and reduce our consumption.**

## Showcasing data-driven energy optimisation in action

**Exxaro is pioneering a pilot project at Grootegeluk mine, focused on optimising diesel consumption for the mine's mobile mining fleet using FuelActive's innovative fuel pick-up technology. This six-month proof-of-concept study aims to improve fuel efficiency, reduce diesel use and achieve significant reductions in scope 1 GHG emissions, aligning with Exxaro's decarbonisation objectives and commitment to operational sustainability.**

The project leverages FuelActive's patented fuel pick-up system to minimise the intake of contaminants such as water and particulates, delivering cleaner fuel to engines. By integrating seamlessly with existing fuel systems, the technology ensures consistent engine performance, reduces fuel wastage and extends engine life. Operators benefit from real-time data insights to optimise performance, while Grootegeluk's mechanics are receiving training to support long-term adoption and benefits.

Fuel efficiency will be closely monitored by installing advanced sensors and software on selected haul trucks. These tools collect detailed engine performance data and provide predictive analytics to guide fuel-saving decisions. The FuelActive pilot is scheduled for completion in the first quarter of 2025.

**Potential benefits include:**

| | |
|---|---|
| Saving fuel, translating to R6.85 million in savings across the 12 pilot units | Reducing annual carbon emissions by 7 717t$CO_2$, delivering both financial and environmental benefits |

## Our energy management approach at a glance

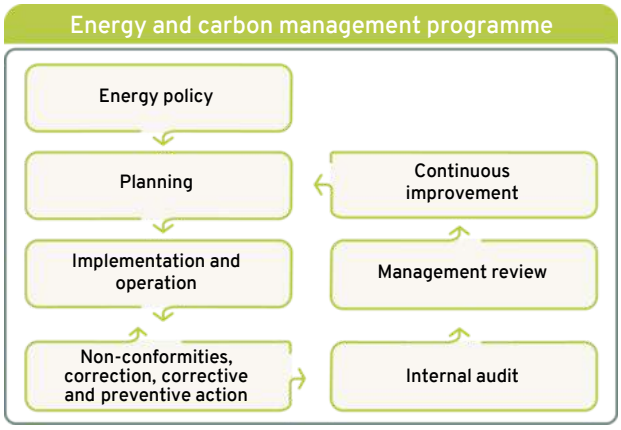
Our energy and carbon management programme is central to advancing Exxaro's carbon neutrality goals. The programme enables us to reduce our direct emissions and energy consumption and embed decarbonisation practices across our operations. Group-wide execution of this programme is driven through:

| | |
|---|---|
| **Accountability and responsibility** | BU managers are accountable for achieving energy management objectives, supported by the group manager engineering, general manager technical support and optimisation and chief coal operations officer. Group engineering in the technical support and optimisation department is primarily responsible for our energy management strategy and governance. |
| **Regulatory compliance** | We adhere to all relevant regulations and management standards, and align our operations with national energy efficiency objectives. |
| **Beyond compliance** | Through the Energy Intensive Users Group, Exxaro participated in a voluntary benchmarking exercise initiated by the DMRE to review and update the post-2015 National Energy Efficiency Strategy (NEES) for the period up to 2030.<br><br>To deliver positive social impact through our ESD programme, we appointed a local SMME and Exxaro ESD programme beneficiary to develop a group energy intensity performance dashboard. |

The programme is supported by:

- Monitoring, measuring and reporting performance using targets and the productivity and energy management services (PEMS)
- Creating awareness through education and training to encourage energy-saving behaviour across the business
- Interdepartmental collaborating and using technology to lower diesel and electricity consumption

Continuous improvement in energy efficiency requires an adaptive approach that embraces evolving regulations and technologies. Exxaro has shifted to a data-centric, technology-driven energy management model, leveraging predictive analytics and machine learning to enable proactive adjustments and accountability across BUs.




### Monitoring, measuring and reporting

Each operation has energy intensity targets linked to the group STI scheme, established through current state and opportunity scoping reviews. These reviews inform site-specific interventions to reduce energy consumption and GHG emissions while improving intensity (GJ per total tonnes handled).

Intensity performance is tracked monthly against a baseline calculated using prior year energy consumption and production data, representing each mine's steady-state operation. KPIs include diesel and electrical energy intensity, ensuring that each BU meets targets that align with our carbon reduction goals.

We regularly benchmark our reporting against other mining houses and international standards to maintain alignment with best practices.

### Awareness, education and training

Energy management is a collaborative effort that integrates decarbonisation across BUs and the value chain. To support this, we invest significantly in specialised training programmes, including the certified energy manager and carbon audit professional programmes, to build employee expertise in energy management and efficiency. Our people and performance, business improvement and information management teams drive a culture of emissions reduction and accountability through continuous awareness, training and engagement. Engineering teams lead energy-saving initiatives, fostering behaviour change aligned with energy management systems. Monthly forums at each BU reinforce progress and performance, motivating employees to actively contribute to our goals.

### Reducing consumption

Internal collaboration between the technology, engineering and innovation departments strengthens our efforts in reducing electrical energy intensity. These efforts include operational energy efficiency projects and renewable energy self-generation that aim to reduce consumption.

To reduce our diesel consumption, we implement initiatives such as fuel additives and payload management.

Read page 37 for information on reducing emissions.

### Innovation and technology

Exxaro's energy management technology enables precise monitoring and verification of energy performance across BUs. Our independent technical service provider facilitates the process through which we quantify energy savings for SARS section 12L tax rebates and conducts regular performance reviews at Grootegeluk, Matla, Belfast, Leeuwpan and FerroAlloys sites, ensuring alignment with our energy and GHG targets.

We use innovative technology to enable real-time monitoring and support operational energy efficiency projects in achieving energy intensity targets.

## Enabling effective monitoring and verification using technology

**We use the PEMS dashboard** to track and address operational efficiencies daily, targeting a 5% reduction in fuel consumption and carbon emissions at each site over a five-year period from 2021.

**We use the smart energy and carbon transition profiler (SmartEPS)** to further enhance long-term planning by projecting energy and GHG impacts of interventions up to 2050.

**Cascadia Scientific's proprietary machine learning tools** enable efficient, accurate fuel usage reporting, improving asset productivity and supporting our broader decarbonisation objectives.

## How we performed

| Electricity and diesel consumption | 2024 | Year-on-year change (%) | 2023 | Year-on-year change (%) | 2022 |
|---|---|---|---|---|---|
| Electricity (MWh) | **598 461** | 1.27 | 590 931 | 0.14 | 590 078 |
| RoM (kt) | **225 522** | 18.5 | 190 311 | 8.64 | 175 176 |
| Electrical energy intensity (MWh/kt) | **2.86** | (8.04) | 3.11 | (7.72) | 3.37 |
| Diesel (kl) | **103 797** | 24.12 | 83 629 | 0.48 | 83 226 |
| Diesel energy intensity (l/t) | **0.467** | 6.38 | 0.439 | (7.58) | 0.475 |

Refer to the databook for more details on our electricity, diesel, RoM and intensities.

Our primary energy sources remained split between electricity, which accounted for 37% (2023: 41%), and diesel at 63% (2023: 59%). Overall energy consumption rose by 5% to 5 485 137GJ (2023: 5 219 390GJ).

Electrical energy intensity decreased by 8.04% (2023: 7.72% decrease), while diesel energy intensity increased by 6.38% (2023: 10.04% decrease). The group's energy intensity performance of 27.688GJ/kt outperformed our 2024 target of 32.329GJ/kt.

The Mpumalanga BUs, including Belfast, Matla and Leeuwpan, met their STI energy intensity targets in 2024. Grootegeluk mine achieved an energy intensity performance of 40.646GJ/kt compared to its target of 39.473GJ/kt.

### Improving our performance

We made notable progress in optimising plant throughput and energy efficiency, which translated to significant improvement in the energy intensity trends across the BUs.

In addition, significant improvements to the PEMS enabled real-time monitoring and data-driven insights. Data collected from various metering points informs diesel inventory management, haul truck performance, plant equipment operations and overall equipment effectiveness. To further enhance visibility and measurement granularity, we are installing smart meters across BU plant and mining areas where practical.

### Projects implemented

| | |
|---|---|
| **Energy analytics** | An analytical tool was developed at Grootegeluk to link plant production throughput with electrical energy per module, allowing for enhanced monitoring and management of energy intensity across the plant. Additionally, advanced process control was introduced in the modules to further optimise energy efficiency. |
| **FuelActive pilot** | Following successful results from FuelActive units installed on three haul trucks at Mafube, a new pilot programme was initiated at Grootegeluk with 12 haul trucks. This pilot aims to achieve a fuel consumption improvement of 3% to 5% and reduce maintenance costs. |

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| | |
|---|---|
| **LSP construction** | We completed bush clearing and construction has ramped up, including the installation of mounting structures and solar PV modules. |

**Future focus**

Our primary focus in 2025 will be:
- Standardising the energy management framework and processes across the group
- Enhancing data management systems to improve data collection and analysis
- Implementing energy efficiency projects through a centralised platform, leveraging predictive analytics to assess impacts on decarbonisation and energy intensity targets
- Benchmarking, engaging and collaborating with industry stakeholders
- Exploring the feasibility of ISO 50001 certification for 2025/2026

# Protecting air quality

**Pollutants such as dust and particulate matter (PM) emanate from opencast mining activities that unavoidably generate dust, posing health and safety risks and negatively impacting the environment and our host communities. To address this, we aim to progressively reduce air quality emissions (dust fallout, $PM_{10}$ and $PM_{2.5}$) within our operating boundary.**

## Showcasing dust mitigation improvement in action

**We conducted detailed measurement and monitoring of our operations' fugitive dust emissions to ensure we comprehensively comply to the revised draft Dust Control Regulations.**

We have since developed detailed dust management plans for all our operations in anticipation of the revised Dust Control Regulations and for the reduction of air quality impacts associated with our operations.

Mitigation measures include:

- Implementing innovative fugitive dust control techniques, such as stabilising haul road surfaces
- Optimising water usage during wet suppression activities
- Scheduling dust-intensive tasks with consideration for weather factors such as wind speed and direction
- Using technology to ensure accurate measurement and monitoring of dust and air pollutants
- Collaborating on regional dust mitigation and general air quality management

## Showcasing dust suppression partnerships for local economic development in action

**Lubocon Dust Suppression Project JV Proprietary Limited, a joint venture between Siluno Group and Lubocon Civils, has expanded its capabilities to deliver effective dust suppression and road maintenance services through Exxaro's ESD programme.**

In 2021, Lubocon was awarded a five-year contract to provide dust suppression services at Grootegeluk mine and the Rustenburg depot. Initially leasing equipment, the company sought to own its assets and approached the Exxaro ESD programme, securing zero-interest loan funding of R20.2 million. This support, combined with the contract, enabled the creation of 58 jobs and boosted local procurement, with Lubocon sourcing plant hire and accommodation services from local businesses.

Building on its success, we awarded a three-year contract to Lubocon at Leeuwpan mine, creating an additional 30 jobs. The parent companies have committed to establishing Lubocon as a permanent, transformed player in the dust suppression industry, positioning the business for long-term growth and environmental impact.

Exxaro continues to drive solutions that integrate sustainable environmental practices with economic empowerment opportunities.

## Our air quality management approach at a glance

Our risk-based air quality management plans and systems support sustainable pollution reduction measures for current and future operations. Implementation of these plans is driven through:

**Accountability and responsibility**

The chief sustainable impact officer approves air quality policies, procedures and mechanisms. Mine managers allocate capital, oversee projects and monitor impacts. BU specialists are responsible for compiling site-specific dust management plans.

**Regulatory compliance**

Our prevention and mitigation measures comply with relevant environmental legislation, particularly the National Environmental Management: Air Quality Act, 2004 (Act 39 of 2004) and associated regulations. We meet the conditions of our atmospheric emission licences and submit quantitative data to the National Atmospheric Emissions Inventory System.

**Beyond compliance**

Our approach integrates safety, health and environmental objectives, including:

- Working with all stakeholders on air quality management
- Participating in air quality public policy development
- Contributing to community awareness campaigns
- Collaborating with dust suppression service providers to explore and implement more effective technologies through pilot projects

We also aim to comply with dust fallout and air quality standards at levels below regulated limits.

To successfully implement sustainable air pollution reduction measures, we aim to conduct:

- Quarterly air quality awareness and education campaigns
- Continuous dust fallout monitoring at all operations
- Continuous $PM_{10}$ monitoring at all operations
- Meteorological monitoring at all operations to provide surface data on temperature, wind direction and wind speed, which are essential for dispersion modelling, baseline characterisation, ambient monitoring design, dust fallout tracking and reporting

Our proactive approach to air quality management includes compliance to the Air Quality Act and monitoring changes to the National Dust Control Regulations to ensure BUs understand and adhere to fallout measurement, mitigation and reporting requirements, including protocols for exceedances or non-conformances. We regularly evaluate and enhance our management plans, expanding our monitoring network to maintain 100% coverage at all operations and improving data granularity.

We partner with research institutions to further advance air quality standards by refining emission quantification methods, especially for discard dumps. We also engage with the Coaltech Research Association, the National Association for Clean Air and government agencies in joint initiatives aimed at reducing pollution and carbon emissions in these critical areas.

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Cennergi's windfarms are exempt from monitoring, measuring and reporting as they do not create dust and air pollution. However, water trucks are used for dust suppression during biannual road maintenance works.

## Prevention and mitigation

To ensure effective dust management, we incorporate best practice control measures based on safety and health considerations, environmental impact, regulatory requirements and compatibility with current processes and future developments. Our mitigation measures to minimise any impact on the environment or communities include:

- Applying chemical and wet dust suppression on unpaved roads and open ground, with additives for enhanced effectiveness
- Limiting drop heights during offloading
- Controlling vehicle speeds using proximity detection systems and speed limiters
- Vegetating topsoil stockpiles and overburden material
- Optimising blast design with wind conditions in mind
- Planting trees as windbreaks, as implemented at Belfast

Given the proximity of some operations to residential areas or sensitive receptors, we prioritise dust suppression on unpaved roads, which are a significant source of dust. During winter, we intensify dust control measures to address the potential for increased emissions due to high winds. We are also exploring environmentally friendly suppression technologies to reduce our reliance on chemicals.

## Monitoring, measuring and reporting

Our dust monitoring networks are essential for regulatory compliance, which permits up to two exceedances per site annually for residential and non-residential areas (excluding consecutive months). These networks did not require any changes in 2024 due to previous efforts of ensuring they are comprehensive and representative.

In highly industrialised regions like Mpumalanga, ambient monitoring reveals exceedances in pollutants such as PM, sulphur dioxide ($SO_2$), and nitrogen oxides (NOx) from multiple sources including vehicles.

As such, Exxaro actively supports air quality improvements in the Highveld and Waterberg-Bojanala priority areas to reduce cumulative environmental and community health impacts.

The DFFE tracks cumulative data for these regions, which we review regularly to assess our contributions and refine mitigation strategies in collaboration with stakeholders.

We report quantitative data to the National Atmospheric Emissions Inventory System.

**Enabling effective monitoring using technology**

We invest in advanced digital solutions for real-time emissions monitoring. A key example of this is the multi-pollutant ambient monitoring station at Grootegeluk. This station measures a wide range of emissions, including $PM_{10}$, $PM_{2.5}$ and $SO_2$, providing critical data to support air quality management in the Waterberg-Bojanala priority area. By tracking pollutant levels in real time, we can adjust operations to minimise health and environmental impacts.

## Awareness and education

For the past three years, we have run communication campaigns on air pollution and GHG emissions in our communities to raise awareness about the environmental impacts associated with mining activities. These campaigns empower our communities to change their behaviour and mindsets – highlighting the health impacts of using domestic fuels and assisting communities with access to renewable energy.

To ensure our campaigns remain relevant and determine how we can assist communities in reducing the impact of mining activities, we have quarterly feedback sessions on air quality data collected and mitigations implemented.

## How we performed

| | Maximum allowance | Limits | Highest recorded 2024 | 2023 | 2022 |
|---|---|---|---|---|---|
| Non-residential dust fallout exceedances | Two exceedances per BU per year (not occurring in sequential months) | 1 200 | **1 at Matla, 2 at Belfast** | 1 at Matla | 0 |
| Residential dust fallout exceedances | Two exceedances per BU per year (not occurring in sequential months) | 600 | **0** | 2 at Matla | 2 at Matla |

We diligently monitored dust fallout across all Exxaro operations in alignment with the National Dust Control Regulations in 2024. Our comprehensive monitoring programme ensured that we maintained dust levels well within the prescribed limits of 1 200mg/m²/day for industrial areas and 600mg/m²/day for residential areas. Each BU submitted data to the National Emissions Inventory System.

Reduced rainfall at Belfast from May to October 2024 led to increased dust on haul roads. In response, we intensified dust suppression efforts, deploying additional water bowsers to reduce dust fallout.

## Improving our performance

We are proactively preparing for the revised National Dust Control Regulations, currently open for public comment, by creating site-specific dust management plans. These plans include updating monitoring networks to ensure effective dust fall measurement. All the operating BUs have completed dust management plans in line with the draft regulations.

Additionally, we are aligning with the draft second-generation Highveld Priority Area Air Quality Management Plan and draft regulations for the Waterberg-Bojanala Priority Area, which set enhanced standards for compliance with the National Ambient Air Quality Standards. The proposals introduce expanded monitoring requirements, stricter compliance measures and measurable reduction targets for identified industries, including mining. Exxaro fully supports this approach, and Grootegeluk has submitted interventions to the Waterberg Integrated Task Team to support regional air quality improvements.

## Projects implemented

| | |
|---|---|
| **Multi-pollutant monitor** | The multi-pollutant monitoring station at Grootegeluk has been fully operational for over two years, backed by a service level agreement that ensures timely maintenance, calibration, and data accuracy. The station has recorded PM spikes, attributed to ash dust. This monitored data supports regional efforts in the Waterberg-Bojanala priority area to track and manage air quality impacts on community health and the environment. |
| **Dust suppression services** | Exxaro has appointed Dust-A-Side, a leading provider of dust suppression services, to effectively manage and reduce fugitive dust emissions through innovative technologies at Belfast and Grootegeluk. These services include high-pressure mist spray systems, proprietary chemical applications, and dedicated maintenance teams to ensure optimal road conditions and minimal dust generation. At Grootegeluk, Dust-A-Side applied chemical dust suppression across all primary and secondary roads, significantly reducing dust levels and water usage. |

**Future focus**

Our primary focus in 2025 will be:

- Implementing continuous dust fallout monitoring across all operations to ensure compliance with dust limits and maintain levels below regulatory standards
- Establishing $PM_{10}$ monitoring to assess particulate levels and support targeted mitigation
- Installing weather stations at each site for essential meteorological data, aiding dispersion modelling, baseline assessments and dust reporting
- Conducting air quality awareness campaigns and training for employees and local communities to reinforce dust management practices and reduce environmental impacts

# Safeguarding natural resources

**To minimise, mitigate and manage the negative impact our operations have on the environment, we prioritise the responsible use, conservation and rehabilitation of the natural resources on which we rely. The focus areas described below not only align with our vision for a thriving, low-carbon future, but also enable us to create enduring value for our stakeholders.**

| | Why this matters | Our response |
|---|---|---|
| Restoring and protecting biodiversity<br>Page 48 to 52 | Mining activities have an impact on the environment by causing biodiversity loss, destroying natural ecosystems and affecting the people who rely on them for survival. | We protect the natural environment by implementing biodiversity management plans that set standards for monitoring and reporting, aiming to create a low-impact legacy for current and future generations. Biodiversity is also a critical enabler of building resilience in the face of climate change. |
| Integrating mine closure and rehabilitation<br>Page 53 to 57 | Responsible closure and rehabilitation are essential to leave a positive environmental legacy and uplift communities long after mining operations have ceased. | We conduct integrated closure planning and concurrent rehabilitation, ensuring compliance with legislation and sustainable practices while providing alternative land use options for communities and employees. |
| Improving water security<br>Page 58 and 59 | Access to quality water is essential for our operations and communities. This is because we operate in South Africa where public infrastructure is declining and water remains scarce. Effective water management protects our licence to operate, addresses climate variability and watershed risks, supports biodiversity efforts and reduces competition for scarce resources. | We manage water-related risks, minimise impacts on the environment and communities, and operate efficiently to support long-term resource resilience and responsible water use. |
| Managing waste responsibly<br>Page 60 and 61 | Waste generated by our mining activities could negatively impact the environment and communities if not managed and mitigated responsibly. Responsible waste management reduces environmental degradation and contributes to sustainable development. | We prioritise prevention, minimisation, reuse and recycling of waste, ensuring safe disposal only as a last resort to create lasting benefits for the environment and surrounding communities. |

## Partnering for natural resource conservation

| | |
|---|---|
| **Research and educational institutions** | Through partnerships with universities and research institutes as well as initiatives like Coaltech, we advance sustainable mine water management, land use planning and rehabilitation strategies that enhance water security and responsible mine closure practices. |
| **Industry and government departments** | Exxaro engages with government bodies (eg DFFE, DMRE, DWS and provincial departments) and industry groups like the Minerals Council South Africa and BUSA, to ensure regulatory compliance, influence public policy on waste and mine closure, and tackle air and water quality issues facing the mining sector. |
| **Communities** | We work closely with local communities to co-create solutions that address the environmental and social impact of our operations. These engagements aim to strengthen local economies, foster skills development and create opportunities for sustainable waste-to-product conversions. Exxaro also works with community groups to ensure restored land benefits biodiversity and agriculture. |
| **NGO and environmental organisation alliances** | Partnerships with conservation groups, including the Endangered Wildlife Trust (EWT) and Peace Parks Foundation, allow Exxaro to leverage external expertise for our biodiversity and water protection programmes. These partnerships support ongoing monitoring, conservation initiatives and the preservation of local ecosystems impacted by mining. |

# Restoring and protecting biodiversity

**Healthy ecosystems are essential for resilience against climate change, supporting the natural resources that sustain our operations and communities. Exxaro is committed to safeguarding biodiversity through targeted initiatives, including relocating species, rehabilitating wetlands, managing invasive plants and implementing conservation programmes that protect the native flora and fauna across our operations.**

*Manketti team and Cheetah Outreach field employees with a satellite collared cheetah*

## Showcasing conservation in action

**The survival of free-roaming cheetahs in South Africa is increasingly threatened by habitat loss, human-wildlife conflict and dwindling prey availability. In response, Exxaro's Manketti game reserve partnered with the Cheetah Outreach Trust and EWT to conduct a groundbreaking three-year census of the country's remaining free-roaming cheetah populations. This initiative aims to deepen our understanding of cheetah behaviour, habitat use and co-existence strategies that support the long-term conservation of these apex predators.**

The project employs a multifaceted approach to gather critical data, beginning with an online questionnaire distributed to local landowners to gain insights into cheetah sightings and potential hotspots for monitoring. To track cheetah movement and activity, we deploy state-of-the-art cameras at strategic scent-marking sites in the expansive farmland surrounding Manketti. These cameras allow for non-invasive monitoring, capturing cheetah activity patterns and identifying individual animals.

Cheetahs captured as part of the project are fitted with satellite-linked collars (as seen in the picture above), allowing for real-time tracking across vast landscapes. This advanced tracking technology offers precise data on cheetah movement patterns, territory sizes and interactions between prey and human-influenced landscapes. Alongside tracking efforts, the team conducts detailed analysis of cheetah scat samples to understand their prey preferences and food sources, providing valuable insights into the ecological needs of these cheetahs.

Gathering a comprehensive dataset on free-roaming cheetah populations and their environmental needs will inform conservation strategies to promote the co-existence of cheetahs and human communities, fostering a balanced and richly biodiverse ecosystem in South Africa.

## Our biodiversity management approach at a glance

Exxaro's biodiversity management plans guide our efforts in the protection and conservation of biodiversity-rich ecosystems within mining right areas and support sustainable land use. Our biodiversity approach is implemented through:

**Accountability and responsibility**

Biodiversity management plans and stakeholder engagement are overseen by a team at our operations and head office, including executives and mine management, and sustainability and environmental specialists. A senior biodiversity specialist leads biodiversity prevention and mitigation measures, policies and processes.

**Regulatory compliance**

We comply with the National Environmental Management: Biodiversity Act, 2004 (Act 10 of 2004) and the requirements of mining and environmental permits.

**Beyond compliance**

We enhance our positive impacts on biodiversity by:
- Forming strategic partnerships with conservation organisations and local communities for species relocation, habitat restoration and invasive plant management
- Participating in academic and industry research to enhance conservation efforts and drive innovation
- Conducting biannual monitoring of wetland health, terrestrial vegetation and fauna at our Belfast operation
- Undertaking biannual monitoring of the African grass owl (Tyto capensis) within the Matla mining right area
- Exploring the adoption of the TNFD recommendations for enhanced biodiversity reporting
- Contributing R5 million annually to rhino conservation since 2020

Our holistic approach to biodiversity management combines:
- Protection initiatives, including species relocation, invasive plant management and wetland and pan research
- Baseline assessments, monitoring, measuring and reporting through environmental and social impact assessments, biomonitoring and incident reporting
- Nature-based solutions such as our Spekboom carbon offset projects (page 35) that support climate resilience and biodiversity restoration
- Social impact goals that contribute to local livelihoods through job creation and training opportunities

With the growing focus on biodiversity loss and South Africa being a signatory to the Convention on Biological Diversity, Exxaro is updating existing biodiversity management standards and plans to align with the Kunming-Montreal Global Biodiversity Framework, national biodiversity plans and our operational needs.

To identify and manage nature-related risks, we are conducting a baseline TNFD assessment, addressing gaps and building on the prior work we did to implement TCFD recommendations. The ESG committee has received the proposed TNFD reporting plan, with the LEAP approach set for implementation in early 2025.

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Cennergi manages biodiversity through an environmental management programme. This approach aligns with the Equator Principles and the IFC's Performance Standard 6 (IFC PS6) guidelines on biodiversity conservation and sustainable management of living natural resources. Cennergi's biodiversity monitoring and mitigation plan aims to achieve no net loss of biodiversity.

Since 2016, two full-time local SMMEs have successfully managed Cennergi's invasive alien plant control programme.

## Monitoring, measuring and reporting

Each operation has a detailed biodiversity plan aligned with the group biodiversity management standard. Plans include procedures that guide how inspections, audits and biomonitoring programmes should be conducted. Biodiversity KPIs are tracked for each BU and align with safety, health and environment management systems for impact mitigation and progress monitoring.

Biomonitoring, including river health assessments, ensure our mining activities do not negatively impact nearby ecosystems. We send samples of certain parameters to independent labs for analysis, which informs management actions for improving wetland biodiversity. These actions are tracked to ensure improved compliance and ecosystems health.

To support these efforts, Exxaro engages external service providers to conduct regular biomonitoring across key sites, including Grootegeluk, Belfast, Matla, Leeuwpan, Tshikondeni and Thabametsi. Monitoring is aimed at evaluating the physical and chemical characteristics of the impacted ecosystem through assessing aquatic, terrestrial, soil and wetland health in line with WUL requirements. Monitoring takes place during wet and dry seasons to capture seasonal variations and determine optimal project execution timeframes.

Exxaro also engages with service providers to monitor river systems connected to the KwaZulu-Natal mines in closure (Hlobane and Durnacol) to assess potential long-term impacts on aquatic biota from these sites.

## Awareness, education and training

We equip community members with the knowledge and skills to contribute to invasive alien plant eradication, providing training through an external service provider.

Exxaro appoints local community contractors for the eradication of invasive alien plants. We provide contractors with training, equipment and start-up capital to support local community development.

## Biodiversity protection initiatives

### Invasive alien plant eradication

Exxaro's invasive plant management and eradication programme aims to restore ecological balance by monitoring, controlling and eradicating invasive alien species that threaten native vegetation and disrupt water availability. The initiative is aimed at supporting healthier, more resilient ecosystems that will ultimately promote biological diversity within our operational and rehabilitated land.

All BUs have invasive species management plans and have completed initial physical removal of invasive alien plants.

| | Stage 1<br>Development of invader species management plan | Stage 2<br>Physical implementation (removal of invader species) | Stage 3<br>Maintenance (eradication of invaders on site) |
|---|---|---|---|
| **Mpumalanga** | | | |
| Belfast | ✓ | ✓ | → |
| Leeuwpan | ✓ | ✓ | → |
| Matla | ✓ | ✓ | → |
| **Limpopo** | | | |
| Grootegeluk | ✓ | ● | ● |
| Tshikondeni | ✓ | ● | ● |

✓ Completed ● To start in 2025 → Ongoing

We aim to:
- Minimise our impact on biodiversity loss
- Prevent and mitigate negative impacts on sensitive environments within our area of influence
- Prevent ecological impacts such as extensive alien invasive plant growth, soil erosion, habitat fragmentation and habitat loss
- Protect sensitive ecosystems and species within our area of influence, through the implementation of rehabilitation interventions and conservation management programmes
- Explore opportunities that contribute to the protection and enhancement of biodiversity

### Protecting vulnerable species

Our mining right areas overlap sensitive environment that is home to threatened and protected species listed on the International Union for Conservation of Nature Red List. We take steps to protect these species and hold the necessary permits for any removal and relocation of vulnerable plants or animals.

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Amakhala Emoyeni is classified as situated within a natural habitat under IFC Performance Standard 6 (IFC PS6), requiring compliance with the no net loss biodiversity target.

### Wetland rehabilitation and pan research

Exxaro monitors and manages wetland systems located within its mining right area, focusing on habitat restoration and species diversity. These efforts improve water retention, support local biodiversity and provide sustainable water resources critical for surrounding communities and ecosystems. Ongoing wetland initiatives include:

| | | |
|---|---|---|
| Waterberg (Limpopo) | Grootegeluk proof-of-concept pan project | Our efforts to recreate seasonal pans at Grootegeluk continue to deliver promising results. Seasonal pans, which naturally form in low-lying areas and fill with water during the rainy season, are vital for supporting local biodiversity. To preserve these ecosystems, we created six pans using clay and biological material from natural pans located in front of the pit area, which would otherwise have been lost to mining. The pans were constructed by sealing the base with clay from the original pans and introducing a biological layer containing invertebrate eggs to seed biodiversity.<br><br>A five-year monitoring programme, initiated in January 2022, evaluates the potential for these recreated pans to be integrated into future rehabilitation or offsetting initiatives. Monitoring results have been encouraging, with biodiversity levels in the recreated pans stabilising and aligning with those of the source pans.<br><br>In 2024, we expanded our efforts to monitor the natural seasonal pans remaining in the landscape, ensuring that mining activities have minimal impact on these critical ecosystems. |
| Mpumalanga | Belfast wetland rehabilitation project | Following a review of phase 1 interventions, we updated our rehabilitation strategy for phase 2 of the project, targeting smaller wetland systems along the mine's boundaries to extend the restored area. We appointed a specialist consultant to oversee the implementation of new interventions. The specialist will be required to produce a wetland management and maintenance plan that will document the measures to be taken by Exxaro to ensure that rehabilitation interventions remain functional and intact in the post-rehabilitation landscape. |
| | Leeuwpan wetland interventions | To prevent net loss of functional wetland areas around Leeuwpan mine, we developed a wetland offset strategy in 2019 to compensate for any residual operational impacts. In 2024, the strategy was updated to include revised rehabilitation recommendations for the affected wetlands, with the updated interventions scheduled for implementation in 2025. |

## Conservation programmes

Our conservation programmes protect threatened species in and around our mining right areas, focusing on initiatives that meet the biodiversity needs of various BUs. Ongoing projects include:

Waterberg (Limpopo) / Mpumalanga

### Grootegeluk

#### Manketti game reserve conservation

A 22 000ha game reserve surrounds Exxaro's Grootegeluk mine, creating a unique conservation buffer that balances mining activities with environmental stewardship. This reserve generates income through sustainable practices, including commercial hunting, game trading and guest stays at Manketti Lodge, which offers game viewing and birding opportunities. A dedicated monitoring programme supports the conservation of the rare Manketti tree (South Africa's only known location for this species) alongside other protected flora like leadwood, marula and camelthorn. Manketti is home to diverse wildlife, including buffalo, sable antelope and tsessebe and supports cheetah conservation. The reserve also provides habitat for over 200 bird species, including three vulture species nurtured at an on-site vulture feeding station.

### Matla

#### African grass owl protection

We are working with the EWT and Digby Wells to protect the African grass owl, a vulnerable species whose habitat is impacted by mining activities. Through biannual monitoring surveys conducted during wet and dry seasons, we assessed the population and nesting success of these owls within the Matla mining rights area. Our April wet-season survey confirmed the presence of an actively nesting pair, indicating that the area provides suitable habitat for breeding. However, the September dry-season survey showed a decrease in roosting owls and suitable habitat due to factors such as fire and farming activities. By preserving open grassland areas and carefully managing habitat conditions, we support the continued occupancy and breeding success of the African grass owl, which plays a critical role in controlling local vlei rat populations.

### Belfast

#### Dullstroom Bird of Prey Centre

Exxaro partners with the Dullstroom Bird of Prey Centre to rehabilitate and gradually release birds of prey into a protected conservation area. This collaboration provides a controlled environment where birds acclimate to the wild in a semi-natural habitat before achieving full independence. Constructed by a local SMME, the release area offers safety and access to food, ideal for a gradual transition. The initiative also supports the release of grass owls and bats, contributing to natural pest control in surrounding agricultural areas.

Eastern Cape

CENNERGI

#### Bird and bat fatality mitigation

Bat curtailment involves adjusting turbine operations, particularly by reducing or halting activity during low wind speeds, to lower the risk of bat collisions with wind turbines. At the Amakhala Emoyeni windfarm, Cennergi's bat curtailment programme employs this technique to protect local bat and bird populations. Through regular monitoring by local carcass search teams and compliance with South African bird and bat wind energy guidelines, Cennergi ensures responsible windfarm operations. Semi-annual monitoring reports are shared with stakeholders, including BirdLife Africa and the EWT, demonstrating our commitment to biodiversity alongside renewable energy generation.

#### Cape vulture management

We collaborate with the EWT on the Eastern Cape vulture safe zone initiative at Amakhala Emoyeni, aiming to reduce Cape vulture fatalities near wind energy facilities. This programme establishes a protected habitat zone where threats to vultures are mitigated, creating the first vulture-safe area within a windfarm landscape. Cennergi's on-site food management programme further supports these efforts by removing livestock and wildlife carcasses to lower the risk of collisions with turbines.

Our Cape vulture offset programme leverages the EWT's innovative detection system (called the eye in the sky programme), which uses GPS tracking to monitor vultures' movements. Alerts are triggered by unusual behaviour, such as immobility, enabling rapid responses to poisoning incidents. This system prevents further fatalities, rehabilitates poisoned birds and contributes to the conservation of Cape vultures.

Cennergi has committed over R800 000 to this programme over two years, funding GPS tracking, personnel and wildlife poisoning response measures, including mobile ambulances equipped for rehabilitation. Based on current data, this initiative is projected to avert the loss of approximately seven Cape vultures annually, meeting the project's offset requirement of six vultures per year.

#### The Greater Kromme Stewardship initiative

Launched by Tsitsikamma, Jeffrey's Bay, Oyster Bay and Gibson Bay windfarms in partnership with the Kromme Enviro-Trust, this initiative addresses the ecological impacts of wind energy in these regions. This programme fosters biodiversity stewardship by encouraging landowners to legally protect valuable ecosystems on private land, whether across entire properties or only ecologically sensitive areas. Since its establishment seven years ago, the initiative has facilitated the declaration of seven new nature reserves (2023: four), with five more nearing completion (2023: two). The initiative has been widely recognised for securing more priority land for conservation in the Kouga region than any other independent conservation body in the last 50 years.

## How we performed

We did not record any biodiversity-related grievances in 2024 (2023: none). We experienced minor challenges arising from seasonal variations, which may have impacted biodiversity assessments and optimal timeframes for the execution of some projects.

The data in the table alongside shows that we actively maintain sites cleared of invasive plants. We finalised the appointment of a local community service provider in 2024 to eradicate invasive alien plants at Grootegeluk and Tshikondeni, with eradication scheduled for early 2025.

| Land cleared of invader plants (ha) | 2024 | 2023 | 2022 |
|---|---|---|---|
| **Mpumalanga** | | | |
| Belfast | **52** | 29 | 19 |
| Leeuwpan | **94** | 77 | 86 |
| Matla | **32** | 102 | 0 |
| **Limpopo** | | | |
| Grootegeluk | **0** | 0 | 0 |
| Tshikondeni | **0** | 1 430 | 132 |
| **Total** | **178** | 1 638 | 236 |

### Protecting vulnerable bird and bat species

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Amakhala Emoyeni is classified according to IFC Performance Standard 6 (IFC PS6) (IFC 2012) as situated within a natural habitat. Since operations began in 2016, 41 priority bird species fatalities (due to wind turbines) have been recorded.

| Species | Regional classification | Global classification | Wind turbine fatalities | Overhead line fatalities | Total fatalities |
|---|---|---|---|---|---|
| Cape vulture | Endangered | Vulnerable | 13 | 2 | 15 |
| Blue crane | Near threatened | Vulnerable | 7 | 1 | 8 |
| Denham's bustard | Near threatened | Near threatened | 1 | 2 | 2 |
| Secretarybird | Endangered | Vulnerable | 2 | 0 | 2 |
| Black harrier | Endangered | Vulnerable | 1 | 0 | 1 |
| Tawny eagle | Endangered | Vulnerable | 1 | 0 | 1 |
| Burchell's courser | Vulnerable | Least concern | 2 | 0 | 2 |
| Martial eagle | Endangered | Vulnerable | 2 | 0 | 2 |
| Amur falcon* | Least concern | Least concern | 13 | 0 | 13 |

** The Amur falcon is classified as a priority species due to its gregarious, flocking behaviour and the potential for fatality events involving multiple birds.*

Cape vulture fatalities have exceeded the annual average threshold in the project's first eight years of operation. To address these impacts, Cennergi collaborates with the EWT and the IFC to improve existing mitigation measures by implementing the Cape vulture offset programme.

During 2024, six Cape vultures and one blue crane wind turbine fatalities were recorded, along with one Denham's bustard fatality. No secretarybird fatalities were recorded (2023: one). The bat fatality threshold was not exceeded for the monitoring period and, as a result, no bat curtailment was conducted during the year.

#### TCWF

No Red List bird species mortalities were recorded in 2024 (2023: none). However, four priority bird species fatalities occurred. We are collaborating with an Avifauna specialist to conduct flight and collision risk modelling to determine which turbines should be prioritised for mitigation measures.

One fruit bat fatality was recorded, triggering the need for mitigation under the South African Bat Fatality Threshold Guidelines. To address this, Cennergi appointed an external service provider to conduct a 12-month live bat monitoring programme aimed at assessing mitigation needs and proposing additional measures if required. We also engaged an international bat specialist to establish biologically meaningful fatality thresholds for fruit bats at the neighbouring Jeffrey's Bay windfarm.

### Improving our performance

As part of our sustainability efforts, 16 000 Spekboom trees were planted at Grootegeluk mine and Leeuwpan mine on rehabilitated land in 2024. These pilot projects are helping to control and eradicate invasive alien species that previously encroached on these sites, while preventing soil erosion due to the Spekboom's soil-binding properties. Likewise, an indigenous forest planted at Matla's new Mine 1 shaft area enhances local biodiversity while serving as a wind break that improves air quality.

At Tshikondeni, natural indigenous vegetation has regrown post-closure. We are assessing soil and plant conditions in the area to identify further opportunities for growth enhancement.

Future focus

Our primary focus in 2025 will be:
- Implementing wetland offsets at Matla, Leeuwpan, Belfast and Grootegeluk mines
- Launching a biodiversity initiative to enhance understanding of sensitive environments and support endangered species protection
- Developing a biodiversity management strategy and updating existing standards to align with the Global Biodiversity Framework, national plans and Exxaro's operational needs
- Adopting and implementing the LEAP approach for TNFD reporting
- Providing training and development for employees in the protection and management of biodiversity

# Integrating mine closure and rehabilitation

**We take a holistic, integrated approach to mine closure and rehabilitation*, balancing environmental stewardship, social wellbeing and financial sustainability. Our commitment to environmental rehabilitation also creates opportunities to support our employees and communities through sustainable land use alternatives.**

## Showcasing our response in action

**Exxaro is advancing the rehabilitation of Durnacol discard dump 7, a legacy site from historical mining activities at Durnacol. As part of our commitment to responsible environmental stewardship, this project is restoring the site through comprehensive rehabilitation efforts that improve land stability, enhance water management and support long-term ecological recovery.**

Dump 7 comprises a combination of burned and partially burned discard, along with coal slurry co-disposed over time. The rehabilitation strategy includes final profiling of the dump, the construction of contour benches and the covering of intra-bench slopes and plateau areas with stabilising materials. Additionally, stormwater management infrastructure, including down chutes and concrete energy dissipation structures, is being installed to control runoff and minimise erosion. By integrating advanced rehabilitation techniques and strategic land management, we aim to restore the integrity of the Durnacol site while contributing to sustainable land use practices in the region.

The project was initiated in October 2022, with a contractor appointed to execute the rehabilitation in 2023. To date, 75% of the work has been completed, including the covering of 19.2ha of the dump's top surface and the partial installation of stormwater chutes using repurposed concrete railway sleepers. The project continues to progress according to plan, with complete rehabilitation scheduled for September 2025.

### Social impacts

#### Employment opportunities

The project has created jobs for 25 general workers, with a focus on employing youth from the Durnacol area.

#### Skills development

A civil technician is completing service training as part of her higher qualifications, gaining hands-on experience in rehabilitation work.

#### SME sub-contracting

A local SME was appointed to construct stone pitching and stormwater down chutes, supporting small business development in the region.

** Mine rehabilitation restores the post-mined landscape to the intended post-mining land use.*

## Our mine closure and rehabilitation management approach at a glance

Our mine closure and rehabilitation plans integrate land management with ongoing operational planning, aiming to minimise closure costs and optimise sustainable post-mining land use. Execution of this approach is driven through:

| | |
|---|---|
| **Accountability and responsibility** | Our sustainability managers, supported by the rehabilitation team and on-site environmental specialists, led by the chief sustainable impact officer, oversee the implementation of our policy and practices. BUs are accountable for concurrent rehabilitation and have site-specific rehabilitation procedures to follow. |
| **Regulatory compliance** | We manage our environmental liabilities and land rehabilitation in compliance with all relevant legislation, including section 24P of the NEMA. Financial provisions for rehabilitation costs and effective mine closure are calculated in terms of Government Notice R1147 (GNR1147) regulations. Our reporting aligns with MPRDA requirements. |
| **Beyond compliance** | Exxaro applies international rehabilitation standards, including Coaltech protocols, and innovative environmental solutions. Through collaborations with partners such as the Impact Catalyst, we work to create sustainable post-mining economies in host communities and aim to transfer 90% of rehabilitated land to emerging farmers by 2026. |

Our comprehensive approach to land management, mine closure and concurrent rehabilitation is outlined on the following page. This approach focuses on supporting sustainable outcomes through:

- Assessing impacts on employees, communities, the environment, government and infrastructure
- Proactively managing environmental effects to limit residual liabilities, particularly in areas such as water quality, water retention and soil health, which could influence Exxaro's financial resilience
- Executing concurrent rehabilitation in alignment with operational timelines
- Protecting rehabilitated areas from water ingress
- Establishing financial provisions for all operational and closure sites, with annual assessments by our sustainability and finance teams in partnership with independent specialists
- Updating and approving liabilities through structured internal governance processes

### Closure and rehabilitation strategic objectives

| |
|---|
| Integrating concurrent rehabilitation and mine closure into daily operations at all BUs |
| Aligning with standards that promote sustainable post-mining land uses, including vegetation suitable for carbon sequestration |
| Setting specific, measurable targets for concurrent and continuous rehabilitation |
| Embedding accountability within operational management KPIs |
| Lowering the environmental financial liability associated with mine closure |

**Annual environmental liabilities are approved through internal governance processes and updated as follows:**

| | |
|---|---|
| **Identify impacts and rehabilitation areas** | • Add identified impacts<br>• Remove rehabilitated areas |
| **Adjust tariffs and escalation** | • Current tariffs and producer price index escalation |
| **Separation of immediate and LoM cost** | • Apply definition and optimisation option |
| **Calculate and prioritise concurrent liability** | • Prioritise rehabilitation according to environmental risk assessment<br>• Calculate volumes to be moved during concurrent rehabilitation |
| **Schedule concurrent rehabilitation** | • Schedule rehabilitation according to mine plan schedule |
| **Budget** | • Budget the first year per month and the next four years per annum in five-year slices |
| **Report** | • Report monthly physical movement against budget |

Exxaro developed a new mine closure and rehabilitation strategy this year, underpinned by our updated policy and management standard changes. The strategy, policy and management standard changes progressing through board approval for early 2025, align with our Sustainable Growth and Impact strategy. The new strategy outlines specific roles, responsibilities and metrics for tracking rehabilitation progress across all BUs. A key focus of the updated strategy is on final land use outcomes, enhancing social impact after closure, and integrating environmental and social sustainability into land rehabilitation efforts.

### Integrating social impact

Our approach is closely aligned with Exxaro's Social Impact strategy, integrating principles that support employee and community resilience both during and after mine closure.

Key areas of focus include equipping employees with portable skills for alternative employment, establishing effective communication plans and delivering specialised training for managing closure plans.

We prioritise safety, health and job creation in impacted communities, ensuring ongoing socio-economic activities and identifying stakeholder needs to guide our closure practices. Our commitment extends to preparing host communities with skills for commercial and infrastructure use post-closure, while maintaining alignment with SLP commitments to improve quality of life.

Through active engagement with communities, government bodies and NGOs, we strive to ensure a responsible and liability-free closure that meets community expectations and supports a sustainable transition.

## Integrated stages of mining and mine closure planning

We aim to incorporate land and liability management into daily mine planning to reduce final closure costs and enhance post-closure land use for each operation.


### 1 Monitoring, measuring and reporting

- Leverage advanced systems and tools to oversee environmental liabilities and rehabilitation efforts
- Operations provide updates on concurrent rehabilitation KPIs through monthly management reports

Regular environmental management programme performance assessments guide amendments to rehabilitation plans and closure objectives.

### 2 Social impact

We remain committed to transferring 90% of rehabilitated post-mining land to emerging farmers in local communities by 2026.

To manage Exxaro-owned land effectively and efficiently while supporting current and future operations, biodiversity offsets and social impact initiatives, we categorise land parcels as follows:

#### Long-term agricultural leases

Through our **minerals succession programme (MSP)** we empower farmers by providing access to funding, mechanisation, inputs and training under a three-year contract with an external service provider.

#### Available land for emerging farmers and communities

- **Mpumalanga**
  - Strathrae: 5 447ha (seven farmers on 4 495ha for crop and cattle farming)
  - Sheepmore: 740ha (two farmers on 740ha for cattle farming)
- **KwaZulu-Natal**
  - Durnacol: 190ha (110ha leased to one female farmer for cultivation)
- **Limpopo**
  - Lephalale: 296ha (112ha leased to three entities for intensive vegetable farming)

Land is diversified for agricultural use, including dryland maize, soya bean cultivation and livestock farming). Internal and external audits evaluate farm transfer success.

#### Donations

- Donate land where either a right is established or social impact can be achieved (such as local municipality projects)
- Transfer land under claims to government for redistribution
- Support resettlement and local government projects in areas where our operations impact communities
- Help uplift communities (such as Phumulani agri-village in Belfast) through livelihood restoration programmes

#### Current and future operations

Areas designated for operations are actively managed to protect against land grabs and ensure our sustainability.

#### Biodiversity and conservation

- Preserve harmony between operations and natural surroundings, such as at Manketti game reserve
- Maintain biodiversity management plans (including alien invasive control) and sensitive ecosystem enhancement to uphold environmental licences to operate
- Control invasive alien plant growth to improve water quality, surface water runoff and indigenous vegetation health, increasing biodiversity and productive land availability

### 3 Employee engagement and development

- Provide employees with portable skills, such as vegetable farming to support their transition into alternative employment and economic opportunities
- Deliver training programmes that enable employees to implement and manage mine closure plans effectively
- Implement a communication plan for employees

### 4 Infrastructure

- Assess power lines, water pipes, buildings and dams and retain infrastructure that supports sustainable final land use
- Integrate retained assets into the final closure environmental management plan and transfer them to an appropriate entity for ongoing management

### 5 Assets

Redundant but serviceable assets, such as vehicles and furniture, are retained if they can support social impact programmes and transferred to appropriate entities for implementation

## 6 Financial

We conduct annual reviews of our mine closure and rehabilitation obligations, with plans and closure objectives updated based on environmental management programme performance assessments. Cost estimates for concurrent and final closure rehabilitation activities are evaluated and adjusted. External auditors carry out biannual site visits, document reviews, and environmental liability audits, identifying potential rehabilitation alternatives to reduce long-term closure liabilities.

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An external consultant reviews Cennergi's financial provisions for facility closure and rehabilitation every three years. Cennergi reviews and adjusts cost estimates for concurrent and final closure rehabilitation programmes as needed.

Exxaro's Environmental Rehabilitation Fund, along with bank and insurance guarantees, supports new developments and addresses financial provision shortfalls. The fund's assets are managed in terms of asset and liability modelling, ensuring alignment with site-specific risks, returns, and liabilities. The fund's goal is to maximise investment growth relative to liability costs. Trustees are supported by an external specialist who provides technical expertise to assess and recommend suitable investment structures. Current implementation includes:

- Two income building blocks benchmarked against cash rates and investing in government treasury bills, banks and corporate paper
- Three growth building blocks targeting inflation-linked returns and investment in insurance and bank-guaranteed products
- Equity-driven portfolios without explicit investment guarantees, where capital risk is controlled by managing volatility through portfolio adjustments

## 7 Community safety, health and job creation

Programmes such as the MSP are in place to address health and safety issues, as well as employment opportunities for communities.

## 8 Mining plan

Each BU maintains five-year conceptual concurrent rehabilitation plans, schedules and associated budgets to:

- Establish measurable targets
- Prevent backlogs that could increase rehabilitation liabilities
- Enable managers to implement strategies without cash flow constraints
- Integrate concurrent rehabilitation in operational tracking

## 9 Safety and risk control

Health and safety standards at mines undergoing closure are as rigorous as those at operational mines. Exxaro applies consistent health and safety policies across all its operations, including those in closure. Security risks remain a significant challenge during the closure process, requiring continuous safeguarding of infrastructure and assets to ensure safety and compliance.

## 10 Interested and affected parties

- Ensure socio-economic activities can continue after mine closure
- Identify the needs and expectations of stakeholders and socio-economic impacts
- Assist host communities in acquiring skills for commercial activities and infrastructure use after mine closure
- Create opportunities to enhance quality of life for affected communities
- Align closure with community expectations to honour SLP commitments
- Develop and implement plans for engagement with communities, government and NGOs, among others
- Assist mine owners and operators achieve liability-free closure within a reasonable timeframe

## 11 Environmental stewardship

Exxaro's disturbed footprint, which encompasses buildings, roads, and mining areas, is rehabilitated in accordance with the environmental management programme and aligned with the final land use plan, including provisions for ongoing maintenance and monitoring.

### Exxaro's rehabilitation milestones since 2002

**2002**

**Hlobane:** Sealing of cracks on the mountain was completed, and the Hlobane waterfall is flowing during every rainfall event

**2015**

- **Matla:** Crack sealing on subsidence areas was completed within two years, and local farmers were given access to the area for crop production. The water treatment plant has been operating successfully since 2016

**2016**

- **Eerstelingfontein/Inyanda:** Concurrent rehabilitation completed within one year after completion of mining activities

**2020**

- **Belfast:** Rehabilitation of the wetland system adjacent to mine was completed

**2021**

- **Grootegeluk:** Proof-of-concept study in the mining right area was completed and six seasonal pans were created
- **Tshikondeni:** All rehabilitation completed within five years, with maintenance on discard remaining

**2023**

- Design and plans for Durnacol dumps 1, 2 and 3 in progress
- Tshikondeni dump maintenance continues

**2024**

- Initiated rehabilitation at Durnacol's dump 7
- Implemented a water treatment plant at Durnacol
- Commenced with phase 2 of the Belfast wetland rehabilitation system
- Completed 477ha of rehabilitation at Matla for agricultural use

## How we performed

| | 2024 | 2023 | 2022 |
|---|---|---|---|
| Land rehabilitated (ha) | **2 609** | 2 132 | 2 000 |
| Land disturbed (ha) | **10 794** | 11 028 | 9 624 |
| Operational guarantees (Rm) | **3 552** | 3 552 | 3 606 |
| Unscheduled closure costs (Rm) | **8 773** | 9 327 | 8 427 |
| Returns on Exxaro and Matla rehabilitation trust funds including fair value adjustments (Rm) | **240** | 244 | 19 |
| Active closure sites* | **4** | 4 | 4 |

** Tshikondeni, Durnacol, Hlobane and Strathrae.*

Refer to the databook for historic data related to the table above.

Rehabilitated land increased by 477.27ha due to Matla rehabilitated areas being signed off and handed to external farmers for utilisation. Although this led to an overall decrease in land disturbed compared to 2023, new areas opened for mining in 2024 increased land disturbed by 243.75ha.

| | |
|---|---|
| **Active sites** | Concurrent rehabilitation continued at all active sites, with substantial investment allocated to backfilling mined-out areas. While exceeding the initial budget, this proactive approach allowed for more extensive rehabilitation. However, challenges such as equipment limitations, regulatory delays and extreme weather conditions impacted the timely completion of backfilling activities. To optimise future backfilling processes and reduce environmental impact, we aim to improve planning, resource allocation and stakeholder collaboration.<br><br>Government indefinitely postponed the expected NEMA financial provisioning for mine closure regulations in February 2024. This delay creates legislative uncertainty in financial provisions for environmental rehabilitation. In the interim, Exxaro follows GNR1147 for liability calculations.<br><br>We completed the rehabilitation of 477ha of land at Matla mine, which was transferred to local farmers for agricultural use. The land is used for cattle and crop farming and supports local economic activity.<br><br>The design phase for a new Grootegeluk dump is underway and expected to be finalised in 2025. We have actively engaged with government authorities to finalise the rehabilitation designs for Grootegeluk dumps 4 and 5. Productive discussions with the DWS confirmed the requirements for the new designs. Exxaro appointed specialists to lead the design process, ensuring that our rehabilitation plans meet regulatory standards and follow environmental best practices. |
| **Inactive sites** | Exxaro progressed on rehabilitation projects at Fripp, Zwartkops and Hoornbosch. At Fripp, headgear was dismantled, and the shaft sealed, with further physical rehabilitation scheduled for 2025 following plan approval. The Zwartkops site was secured, with a comprehensive rehabilitation plan under development for completion in 2025. |
| **Closed mines** | Rehabilitation at Tshikondeni mine progressed well, with 80% of planned work completed by year end and finalisation set for May 2025. The discard dump showed early signs of natural vegetation regrowth, prompting a detailed assessment of soil and vegetation to guide further enhancements.<br><br>At Durnacol, the design for dump 3 was approved, preparing the site for rehabilitation activities to begin in 2025. Exxaro appointed a service provider to implement a water treatment solution to treat the decant from the closed mine at Durnacol, with the plant operating since November 2024. This initiative aims to address the long-lasting issue of acid mine drainage and contributes to the protection of local ecosystems and water resources.<br><br>Work is also progressing at Hlobane, where the design phase is set to complete in the first half of 2025. A water treatment solution is under review by the DWS as part of our integrated WUL application, and we appointed a specialist to explore alternative options for optimal environmental performance. |

**Future focus**

Our primary focus in 2025 will be:
- Aligning rehabilitation schedules with mine schedules and tracking performance monthly
- Updating closure liabilities monthly to address financial sensitivities
- Implementing the water treatment solution at Durnacol
- Finalising rehabilitation designs for Grootegeluk and Hlobane dumps

# Improving water security

**Water security is a critical component of our operational and environmental approach, given South Africa's water scarcity and the effects of climate change, particularly rising temperatures and rainfall variability. Through proactive risk identification and planning, we support communities, protect the environment from watershed risks and stabilise critical ecosystems.**

## Our water management approach at a glance

Our water management policy is supported by our group water strategy, which aims for excellent compliance with policies, standards and processes, stakeholder partnerships and technologies for operational water efficiency. Implementation of our approach is driven by:

| | |
|---|---|
| **Accountability and responsibility** | Sustainable impact managers, supported by the corporate water team and on-site environmental specialists, led by the chief sustainability officer: sustainable impact, oversee policy implementation and practice at operations.<br>The facility site manager supported by the head: corporate and social responsibility oversee policy implementation and practice at wind energy facilities. |
| **Regulatory compliance** | Our water management measures comply with relevant environmental legislation, particularly the NWA, the MPRDA, NEMA regulations and the National Water Resource Strategy. We comply with the conditions of our WULs and maintain the required records for compliance audits. |
| **Beyond compliance** | We align with voluntary water reporting standards and are working towards full alignment with the Global Industry Standard on Tailings Management. Through collaborative research with Coaltech and local universities, we support sustainable mine water management and mine closure practices. |

We manage water-related risks and minimise environmental impacts through a comprehensive approach that includes water conservation, contamination prevention and advanced treatment processes. Our practices include:

- Reducing, reusing and recycling water in line with the National Water Resource Strategy
- Protecting groundwater by installing barriers at dirty water facilities
- Enhancing water quality through reverse osmosis and sewage treatment at Matla and Belfast, where treated water is discharged safely
- Integrating climate analytics, including ENSO and South African Weather Services outlooks into our decision making

Our policy guides our integrated water and waste management plan for the current and future operations – from planning to construction, operation, decommissioning, closure and rehabilitation. We implement this policy through our water management standard, which covers mining and industrial water use, water authorisations and site-specific water management plans including:

- Water-related risk assessments
- Water conservation and demand management
- Stormwater controls
- Security of supply
- Water monitoring
- Water balance simulations

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Cennergi's windfarms use licensed boreholes and rainwater.

## Monitoring, measuring and reporting

We monitor and report water performance in line with the CDP water programme. A centralised database supports disclosure by consolidating data, while our water accounting methodology measures volumes and quality against efficiency and intensity targets, water use permits and internal benchmarks.

Water consumption and intensity targets are integrated into our group-wide STI scheme, aligning with our Climate Change Response and Sustainable Growth and Impact strategies.

Exxaro embraced the internal water pricing strategy as a planning tool by setting a shadow price, where a price is used during discussions and evaluations of water-related business decisions. The shadow pricing is based on the minimum cost of producing water from alternative sources such as reverse osmosis. This shadow price is further adjusted by evaluating current and future water risks using the Aqueduct Water Risk Atlas for the regions under consideration to identify the true cost of water for a location. The Aqueduct Water Risk score is a combined score comprising physical, chemical and regulatory risks.

## Tailings storage facilities and dams

Our tailings management system guides BUs on the operation, monitoring and decommissioning of tailings dams using a comprehensive, risk-based approach aligned with internationally recognised standards.

Under South African dam safety legislation, dams with a wall height over 5m and a capacity above 50 000m$^3$ are deemed a safety risk and are classified by risk level: Category I, II, or III, with Category III indicating the highest hazard potential.

Our dams contain either clean or polluted water. The table below lists dams with safety risk classifications as defined by the DWS.

| | Category I | Category II |
|---|---|---|
| **Matla** | – | Brine ponds |
| **Grootegeluk** | – | Cyclic ponds |
| **Leeuwpan** | – | Witklip Dam |
| **Durnacol** | Durnacol Dam No 4 | Durnacol Dam No 7<br>Langley Dam No 2<br>Langley Dam No 3 |
| **Tshikondeni** | Unwa Dam | – |

## How we performed

| Consumption (ML) | 2024 | 2023 | 2022 |
|---|---|---|---|
| **Total water withdrawal** | **10 342** | 8 744 | 11 486 |
| Surface water | **7 776** | 5 834 | 8 602 |
| Groundwater | **1 149** | 1 487 | 1 408 |
| Third-party water | **1 417** | 1 423 | 1 476 |
| **Total water discharged** | **(1 033)** | (1 314) | (1 068) |
| Surface water | **(1 033)** | **(1 314)** | (1 068) |
| **Total water consumption** | **9 309** | 7 430 | 10 419 |

Total water consumption (water withdrawals less water discharged) increased by 25%. The deterioration was mainly attributed to lower recycling at our Grootegeluk operation due to flooding of the pit and other infrastructure.

| Recycling ratio (%) | Target | 2024 | 2023 | 2022 |
|---|---|---|---|---|
| Grootegeluk | | **51** | 57 | 47 |
| Matla | | **46** | 51 | 50 |
| Leeuwpan (estimated) | | **30** | 30 | 30 |
| Belfast | | **40** | 62 | 38 |
| **Total group** | 38 | **50** | 56 | 47 |

Our water recycling target of 38% overall water recycling ratio (defined as the total water recycled divided by total water used including recycled water) is substantially higher than the coal industry average of 6%, as outlined in the national water use efficiency benchmarks of the DWS. In 2024, we realised a lower performance from 2023 by 11% with an overall recycling ratio of 50% as we normalised the Belfast excess water by June with no further treatment in the second half of the year.

| | | Water intensity (L/t) | | | Water consumption ($m^3$) | | |
|---|---|---|---|---|---|---|---|
| | Target (L/t) | 2024 | 2023 | 2022 | 2024 | 2023 | 2022 |
| **Mpumalanga** | | | | | | | |
| Belfast | 210 | **143** | 54 | 232 | **560 024** | 170 324 | 612 115 |
| Leeuwpan | 55 | **36** | 29 | 40 | **138 221** | 140 051 | 148 466 |
| Matla | 260 | **169** | 206 | 200 | **991 015** | 1 235 167 | 1 231 293 |
| **Limpopo** | | | | | | | |
| Grootegeluk | 170 | **146** | 104 | 148 | **7 524 410** | 5 802 577 | 8 344 744 |
| Tshikondeni | 79 176kL | **n/a** | n/a | n/a | **83 736** | 71 295 | 74 532 |
| **Gauteng** | | | | | | | |
| FerroAlloys | 21 000kL | **n/a** | n/a | n/a | **10 567** | 9 841 | 7 205 |
| **KwaZulu-Natal** | | | | | | | |
| Hlobane | 432kL | **n/a** | n/a | n/a | **291** | 408 | 410 |
| **Total group** | 180 | **142**[RA] | 105 | 150 | **9 308 265** | 7 429 662 | 10 418 765 |

[RA] *Reasonable assurance provided.*

Our water intensity deteriorated by 35% to 142L/t RoM due to factors mentioned above. Our water intensity targets align with industry norms and site-specific conditions. The 180L/t RoM target is well below the coal industry average of 380L/t RoM. This supports our strategy to reduce water intake and support the DWS's objectives to increase water conservation and reclamation. We will further lower our target to 175L/t for 2025.

We finalised our water security study that outlines suitable mitigation measures to ensure resilience against the impacts of climate change and other anthropogenic effects. The study evaluated site-specific impacts on the availability of water, flooding, droughts, veld fires, heatwaves and deteriorating water quality of natural water systems at each BU. The proposed mitigation measures will be unpacked in 2025 to earmark potential projects that could enhance our business resilience, support communities, protect the environment, safeguard our employees and infrastructure, and promote technological advancement through innovative solutions.

## Projects implemented

**Belfast water treatment plant**

Belfast implemented a reverse osmosis water treatment plant to alleviate hydraulic load in the mine reticulation system by removing excess water, treating it and returning it to the watershed. Drier conditions in the second half of 2024 allowed Belfast to switch off the plant for maintenance and upgrade. This resulted in a lower return of water to the catchment, as an offset, that impacted the operation's performance from 2023. Overall, the operation's performance has markedly improved from 2022 and we could subsequently lower its target in 2024 by 16%.

**Grootegeluk recycling project**

The recycling project at Grootegeluk that consists of a desilting plant, upgraded channels and the already refurbished Oliphantskop Dam has progressed well and will enable enhanced water recycling at the beneficiation plants to prevent process water losses to the pit.

**Future focus**

Our primary focus in 2025 will be:
- Further enhance the recycling of process water to lower the import of fresh water
- Investigate projects that will enhance resilience against climate change
- Update our water balances to inform our integrated water management plans

# Managing waste responsibly

**Exxaro generates various waste streams, including mining waste, general and hazardous waste. To manage these waste streams, we adopt a cradle-to-cradle approach, prioritising the prevention, reuse and recycling of waste while ensuring safe disposal as a last resort. By transforming waste streams into opportunities within a circular economy model, we reduce our environmental impact and create lasting benefits for host communities.**

## Our waste management approach at a glance

Our waste management practices are guided by our environment policy and focus on responsible waste handling that mitigates environmental risks, optimises resource use and creates opportunities for local economic upliftment. Our waste management practices are enabled by:

| | |
|---|---|
| **Accountability and responsibility** | Our sustainability managers, supported by on-site environmental specialists, under the leadership of the chief sustainable impact officer, oversee the implementation of our policy and practices at operations. A newly appointed senior specialist: waste management oversees compliance with waste licences, policy reviews and the implementation of group-wide recycling strategies.<br><br>BUs are responsible for managing and separating general and hazardous waste at source, with authorised third-party waste management service providers appointed to handle recycling, collection and safe disposal. |
| **Regulatory compliance** | We comply with the National Environmental Management: Waste Act, 2008 (Act 59 of 2008) and supporting legislation to ensure waste prevention, minimisation, reuse and recycling are prioritised. We adhere to the Industry Waste Tyre Management Plan to manage waste tyre collection, develop processing capacity and implement monitoring systems to track progress. |
| **Beyond compliance** | We use advanced technologies to optimise waste recycling and reuse, as well as innovative solutions that promote sustainable waste management and local economic development. We integrate recycling effort into SLPs to empower local communities through training and skills development. |

Key elements of our approach include:

- Minimising waste by using outputs from one process as inputs for another, supporting cradle-to-cradle principles, zero-waste operations and circular economy concepts
- Applying Exxaro's standards for general, hazardous and non-hazardous waste to ensure safe and compliant waste handling
- Prioritising avoidance, reduction, reuse and recycling to minimise the need for disposal
- Adhering to the proximity principle (treating and disposing of waste near its source), duty of care principle (ethical responsibility for waste management) and the precautionary principle (proactively mitigating environmental risks)
- Monitoring, measuring and reporting waste data to track progress and drive continuous improvement
- Embedding waste management practices into employee induction and ongoing training programmes across BUs

CENNERGI

Cennergi's operation and maintenance contractors are responsible for waste management at both wind energy facilities. The facility site manager supported by the head: corporate and social responsibility oversee policy implementation and practice at the wind energy and solar facilities.

The draft Waste Act Amendment Bill 2024 proposes to amend the definition of waste and is likely to have far-reaching regulatory consequences for mining and other industries. Exxaro is participating in the consultation process through the Chemicals and Waste Management branch of the Minerals Council of South Africa to ensure that our waste management policies and procedures remain relevant and effective.

### General waste

Exxaro's general waste streams include:

- Recyclable domestic waste (plastics, polymers, cardboard, metal cans and paper)
- Non-hazardous recyclable industrial waste (rubber products such as waste tyres and conveyor belts, scrap metal and industrial products)
- Inert, non-recyclable waste (rubble and demolition waste separated at source) collected, recycled or taken to safe disposal sites by authorised waste management service providers

BUs benefit from recycling initiatives, including rebates from selling scrap metal and conveyor belts. Our target is to divert 80% to 85% of recyclable waste from landfill sites by 2025.

### Hazardous waste

Hazardous waste streams (such as contaminated soil, used personal protective equipment and medical waste) are separated from general waste. Authorised waste service providers handle hazardous waste, including used oil, hydrocarbons and sewage, ensuring disposal at licensed waste facilities. Medical waste generated at Matla and Grootegeluk clinics is managed by healthcare professionals, ensuring environmental, health and safety compliance.

CENNERGI

Waste generated at Cennergi's facilities includes general waste, oil rags and used oil. Cennergi implements waste separation at source to increase recycling, where possible, and minimise waste sent to landfill.

### Monitoring, measuring and reporting

All BUs report monthly on waste volumes generated, recycled and sent to licensed waste facilities (as required by waste management legislation, management procedures and efficiency reporting). We also collate data on our waste tyre stockpiles at BUs in support of the national drive to reliably quantify waste tyre data.

Sites producing more than 20kg/day of hazardous waste are registered on the South African Waste Information System.

We track our performance using KPIs aligned with the JSE/FTSE and ESG indices, which include:
- Environmental fines and penalties incurred
- Hazardous waste sent to landfill
- Hazardous waste generation (disclosed over three years in tonnes)
- Recyclable waste generated
- Policy commitments to address waste impacts and improve efficiency
- Collaboration with others to reduce pollution and resource use, including partnerships on shared waste streams (eg waste tyres)

To drive continuous improvement and align with best practices, we are working towards additional disclosures, including:

| KPI | Target |
|---|---|
| Time-specific, quantified and unquantified targets to reduce or avoid waste | December 2025 |
| Three-year data for non-recycled and recycled waste (in tonnes) | December 2025 |
| Progress against previously set waste reduction targets | December 2028 |

Exxaro is also exploring environment, health and safety and ESG software solutions to integrate the management, monitoring and reporting of sustainability KPIs, including waste.

## Research and innovation

We collaborate with the Minerals Council of South Africa, the Waste Management Bureau and the Council for Scientific and Industrial Research to advance sustainable waste tyre management. This includes quantifying waste tyre stockpiles and exploring technologies such as energy recovery (tyre-derived fuel), pyrolysis, material recycling (crumbing) and reuse.

We contributed to the development of integrated waste management solutions in collaboration with the Lephalale local municipality and Impact Catalyst. These solutions promote sustainable waste management, support local economic development, create jobs and facilitate business participation. The key solutions we are exploring include:
- Professionalising waste pickers and providing market access through BanQu technology
- Beneficiating coal fly ash for use in construction and other industries
- Developing a material recovery facility, including garbage trucks and skip bins
- Raising awareness and educating communities on waste management

## How we performed


There was a general increase in hazardous waste generation at most of our mines:
- The 41% increase at Belfast mine was due to growing production volumes and the expedited rate of mining
- The 17% increase at Matla mine was due to the cleaning campaign of the silt traps
- The 22% increase at Leeuwpan mine was due to mixing of hazardous and non-hazardous waste

Despite this increase, there was an overall decrease in group hazardous waste generation in 2024, attributable to the 25% reduction in hazardous waste generated at Grootegeluk.

The reduction is due to minimising the coal residue from the dump trucks' beds ending up in the silt trap of the wash bay.

The overall volumes of general waste generation across our operations decreased by 9% to 969t (2023: 1 027t).

The general recyclable waste diverted from landfill is 72%, that is 2 457t recycled, out of 3 426t of total general waste (2023: 73%, 2 745t of 3 772t).

CENNERGI

Cennergi did not report any waste grievances, fines or penalties during the year.

## Projects implemented

**Belfast recycling project**

Applying Exxaro's waste hierarchy principles, the company sells Belfast's recyclable waste to local recyclers who, in turn, can reduce their financial and environmental costs by using fewer resources (raw materials, water and energy) in manufacturing products from recyclable waste bought from previously unemployed citizens.

We contracted a black youth-owned company that employs community members to sort and collect recyclable waste.

The project faced significant disruptions due to contractor non-conformance that led to delays in recycling activities. Contractor onboarding documents were finalised in October and recycling activities resumed in November 2024.
To prevent this in future, we are strengthening due diligence when engaging local partners, developing contingency plans to address potential disruptions and maintaining regular communication to monitor progress and ensure compliance.

**Reverse osmosis technology**

Belfast and Matla mines treat dirty water from pits and underground workings through a modular water treatment plant that produces drinking quality water in compliance with their WUL limits.

The Exxaro corporate office embarked on a waste separation and recycling drive to divert recyclable waste from landfill sites. Waste (eg sludge organic waste, glass, paper, plastic, non-ferrous metal cans) generated is securely stored in and separated at the designated temporary waste storage facility. The waste is removed by an authorised service provider and transported to a recycling facility in Pretoria West. Each load is tracked by the appointed waste service provider, ensuring contribution to waste reduction and prevention of environmental pollution. Following this successful implementation of our waste stream separation measures, the corporate office was able to divert 65% of recyclable waste from landfill.

**Future focus**

Our primary focus in 2025 will be:
- Diversifying Belfast mine's recycling scope by exploring opportunities to recycle additional materials beyond plastics, tin and paper to include recycling hazardous waste
- Implementing targeted education and awareness programmes at all operations, including integrating recycling awareness into employee induction programmes and internal communication channels, and collaborating with local schools, community groups and other stakeholders
- Conducting the identification and classification of waste streams across the group, and providing possible implementable initiatives to reduce, reuse and recycle various waste streams, thereby contributing to the principle of a circular economy