



POWERING POSSIBILITY

Exxaro Resources Limited

**Climate Change Response
strategy report 2020**

Report on alignment with the
recommendations of the Task Force on
Climate-related Financial Disclosures



**POWERING A
CLEANER WORLD**

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FEEDBACK

We encourage and welcome feedback from our stakeholders. Please send any comments or suggestions to:

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EXECUTIVE SUMMARY

In 2019 the Board of Directors approved the adoption of the TCFD recommendations as a strategic framework for guiding our Climate Change Response strategy. Our business has been in transition as early as 2010 with the establishment of Cennergi, a 50/50 joint venture with Tata Power. Today, Cennergi is wholly owned by Exxaro and operates two wind farms in the Eastern Cape that feeds 239 megawatts of renewable energy into the national grid. Our transition is intentional and anchored on the “Just Transition” principle which seeks to balance our business financial performance, South Africa’s economic development needs, ecosystem protection and societal adaptive capacity in the face of changing climate.

The TCFD recommendations provide a framework for appropriate disclosure of our material climate-related physical and transitional risks and opportunities. The recommendations promote disclosure of climate-related financial risks and opportunities that encourages more informed investment, credit and insurance underwriting decisions. Investors and financiers are thus better equipped to understand the concentrations of carbon-related assets in their portfolios and the financial sector to reduce exposure to climate-related risks.

The alignment assessment was done by an independent assessor (Trucost, an S&P global company) to ensure objectivity in the outcome. The core assessment elements of TCFD recommendations covers climate change governance, strategic response, risk management, metrics and targets.



EXECUTIVE SUMMARY continued

The systematic TCFD framework aligns our business processes and strategic decisions with our response to climate change risks and opportunities. Our TCFD assessment scope focused on the potential impact of our climate change transition and current business's physical risks and opportunities. The results from this assessment will guide our strategic response to the threats and capitalise on the opportunities. The assessment applied the IEA and IPCC scenarios to identify and analyse the potential implications of likely future changes in the elements listed in the table below.

Risk type	Assessment focus	Rationale
Transitional Risks	Policy	To understand potential policy changes that may have a positive and negative impact on our business
	Market	The shift in fossil fuel and energy markets will have implications for our business portfolio resilience and transitioning process
	Reputational	The reputational risk is increasing for organisations in the fossil fuel value chain
	Technological	The growth in disruptive technology in the energy sector has potential to displace our business in the medium to long term
	Metrics and targets	The local and global carbon price will increase our cost of doing business and make our product uncompetitive compared to other energy sector input sources
Physical Risks	Water security	Our coal business requires affordable and reliable water supply to function efficiently while climate change alters precipitation patterns with potential to increase our water security risk
	Heatwave	High temperatures and more frequent heatwaves will disrupt our business operations and increase the risk of safety and health incidents in our operations

Our Climate Change Response Strategy is integral to our Sustainable Growth and Impact strategy and objectives as we understand that these elements of our business and operating environment are deeply connected. Our strategic response is also guided by our purpose of powering better lives in Africa and beyond. We believe our greatest opportunity is to help steer South Africa towards a sustainable future through undiluted focus on low-carbon minerals and energy.

Our existing coal business portfolio will continue to remain relevant and central to our transition journey. South African government has outlined the energy transition of the country in the Integrated Resource Plan 2030. As the largest supplier of coal to Eskom we have the national responsibility to ensure that we continue to provide quality coal to Eskom during the energy transition process contained in the IRP-2030.

We also recognise the risk of stranded assets due to transitional and physical risks of climate change that may make it difficult for our business to operate. To mitigate this risk we have implemented the Early value strategy that will optimise our coal resources to focus on realising maximum value in the shortest period. Climate change does not only present our business with risks, we are leveraging the opportunities presented by the transition to low carbon world.

We are committed to meeting our target of being carbon neutral by 2050 by consistently reducing our direct emissions. We also have a responsibility to partner with our suppliers and customers in an effort to reduce our indirect emissions. Our metrics and targets will ensure we have visibility in our progress towards achieving this target and making our business climate-proof.



MESSAGE FROM OUR BOARD

It is well understood and an accepted reality of our time that climate change poses a significant risk to business and the global financial system alongside the negative impact on ecosystems and society.

Investors are increasingly asking us to manage their risk, mitigate and adapt our business exposure to climate change while harnessing the opportunities presented by the transition to low-carbon economy. In response, in June 2019, we unanimously approved the alignment of Exxaro's governance, strategy, risk management, metrics and targets with the Task Force on Climate-related Financial Disclosures (TCFD) recommendations. We made this decision after careful consideration of the ever-increasing transitional and physical risks and opportunities in the face of climate change. There is growing sentiment that a global carbon price is needed to expedite the transition to a low-carbon economy. Similarly, there is growing evidence that extreme weather events due to climate change are increasing: droughts, floods, wild fires, cyclones and heatwaves are becoming more common. Coordinated action is required to mitigate the risk of human-induced climate change impact and ensure that vulnerable societies, mainly in sub-Saharan Africa and island nations, can adapt.

The TCFD is a private sector-led initiative, supported by the Financial Stability Board, with nearly 60% of the world's 100 largest public companies reporting in line with its recommendations. It provides a consistent framework by which climate-related financial risk mitigation measures can be implemented while leveraging the opportunities to make our business portfolio resilient to climate change transitional and physical impacts. We are responsible for ensuring that our business is resilient to climate change risks while delivering value to all our stakeholders and broader society.

Our leadership moved at speed in 2020 from the inaugural publication of Exxaro's Climate Change position statement to our Climate Change Response strategy and an independent assessment of our alignment with the TCFD recommendations. The Climate Change Response strategy shows our alignment against TCFD recommendations and our efforts to build portfolio resilience in line with the company's Sustainable Growth and Impact strategy.



**J (Jeffrey)
van Rooyen**

Chairman of the board



**MDM (Mxolisi)
Mgojo**

Chief Executive Officer



**PA (Riaan)
Koppeschaar**

Finance Director



**L (Likhapha)
Mbatha**

Independent non-executive director



**VZ (Zwelibanzi)
Mntambo**

Non-executive director



**GJ (Geraldine)
Fraser-Moleketi**

Lead Independent non-executive director



**MJ (Mark)
Moffett**

Independent non-executive director



**LI (Isaac)
Mophatlane**

Independent non-executive director



**EJ (Ras)
Myburgh**

Independent non-executive director



**V (Vuyisa)
Nkonyeni**

Independent non-executive director



A (Anu) Sing

Independent non-executive director



**PCCH (Peet)
Snyders**

Independent non-executive director

■ Executive Directors

MESSAGE FROM OUR CHIEF EXECUTIVE OFFICER

Addressing the impact of climate change remains one of the world's most complex and pressing challenges. Climate change, especially in sub-Saharan countries, affects society's ability to eradicate poverty, create sustainable jobs and mitigate the physical impact. It erodes opportunities to fulfil the ambitions of the Sustainable Development Goals (SDGs). We recognise our collective responsibility to participate in the transition to a low-carbon world and greening the energy system to reduce emissions while supporting prosperous and safe communities.

We are increasingly responsive to climate change risks and opportunities as we transition towards a low-carbon world. Our journey began as early as 2010 when coal exports to Europe, a former significant thermal coal customer, began declined.

This encouraged investment of R1.5 billion in establishing Cennergi, in partnership with Tata Power, to develop two wind farms in the Eastern Cape, South Africa. Today Cennergi is wholly owned by Exxaro and the wind farms deliver 239 megawatts (MW) of reliable and clean power to the national grid. This illustrates our commitment to providing clean and reliable energy in support of the transition to a low-carbon world.


Our Climate Change Response strategy is based on the Just Transition principle which equally considers the triple bottom line parts of social, environmental and financial sustainability. The Just Transition to a low-carbon business envisages social inclusion that will make our business resilient to climate change transitional and physical risks, sustaining and creating employment opportunities, and increasing the adaptive capacity of communities relying on our operations.

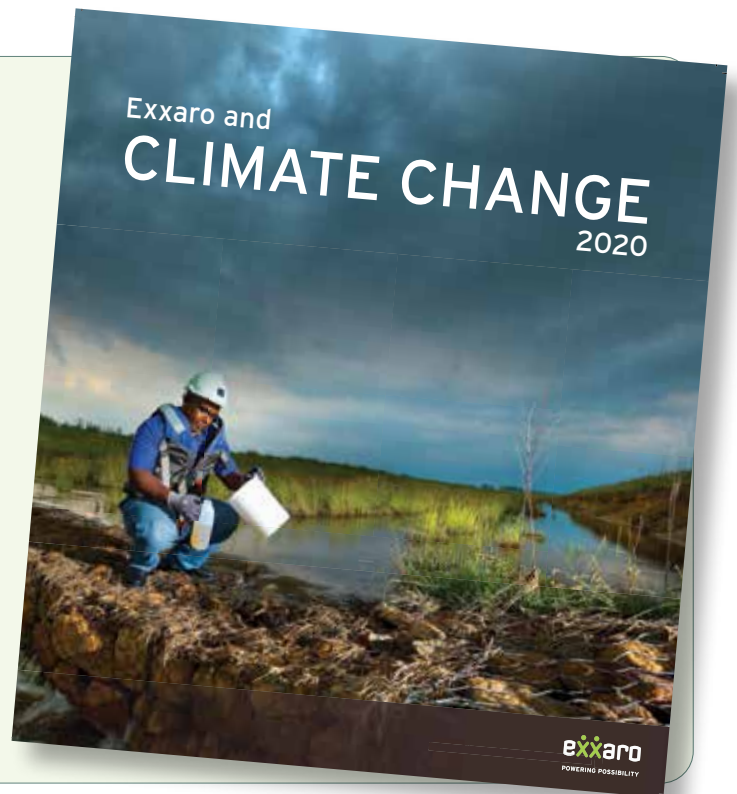


Mxolisi Mgojo

Chief executive officer

In March 2020, we made our position on climate change clear when we published our climate change position statement. We unequivocally:

- accept the science-based climate change evidence that the use of fossil fuels is the main driver of greenhouse gases (GHG) emission and concentration in the atmosphere. The increase concentration of GHG in the atmosphere is responsible for altering the global climate system towards warming
- support the implementation of the 2016 Paris Agreement by all nations
- will transition our business strategy to climate-proof our business portfolio against climate change transitional and physical risks
- communicated our intention to attain carbon neutrality by 2050 by reducing our direct GHG emissions in the short to medium term and partnering with our suppliers and partners to reduce the indirect GHG emissions
- communicated our intention to support and adopt the TCFD recommendations in our disclosure reporting 



We took a strategic decision not to seek further growth opportunities in thermal coal. In the immediate term, our revenue will be predominantly generated by the remaining coal operations as we continue to provide a reliable supply of coal to Eskom in terms of our coal supply agreement. In addition, we will continue to provide high-quality coal products to other domestic export market customers. We expect revenue contribution by our renewable energy business to grow over time as we increase our investment.

Aligning our business processes to the pillars of the TCFD recommendations (governance, strategy, risk management, metrics and targets) elevates climate-related risks and opportunities that may affect our operational and financial sustainability. Our Sustainable Growth and Impact strategy will enhance our positive impact that we create for our shareholders, employees, society and local communities. The strategy's success is determined by:

- Early value realisation from our current coal assets to reduce the risk of stranded assets and maximise value
- Building sustainable growth in the clean energy sector and exploring minerals that support a low-carbon world
- Positioning our growth objectives as a catalyst for economic development in areas where we operate

Our journey requires partnerships with government, the investment community, businesses, local communities and academia to ensure the transition to a low-carbon world creates sustainable value for all our stakeholders.

The TCFD assessment of our current portfolio was an essential step in strengthening our strategic response to climate change risks and opportunities. Our objective is to become a catalyst for economic growth while generating reliable, affordable and clean energy for society in line with the Paris Agreement goals. We are geared to increase our portfolio's resilience to the transitional and physical impact of climate change. We will be establishing a multi-stakeholder Climate Change Technical Advisory Committee to improve our mitigation and adaptation efforts, and effectively address climate change issues throughout our business processes.

We are committed to the Just Transition to a low-carbon world and to responding to the dual-energy challenge. Working with our investors and social partners, we will facilitate a Just Transition that empowers our stakeholders to respond to the potential ravages of climate change.

Mxolisi Mgojo
Chief executive officer

MESSAGE FROM OUR FINANCIAL DIRECTOR

Building a resilient portfolio for the 1.5°C world will ensure exceptional financial performance that generates sustainable value for our shareholders. Reporting in line with the TCFD recommendations is the strongest signal to our shareholders that our business considers climate-related financial risks and opportunities as material matters.



Riaan Koppeschaar

Financial director

Increasingly, investors, financial institutions, asset managers, and insurers demand that public companies disclose their climate-related financial risks and opportunities. Such disclosures will allow them to evaluate their risk exposure in investment decisions. The investment community relies on many disclosure frameworks to assess their exposure to climate-related financial risks, but in recent times, the TCFD recommendations have become mainstream.

We recognise the increasing transitional and physical climate-related financial risks and opportunities to our business. We consistently engage with our shareholders and financial partners about these risks and our response strategy. As early as 2010, we began our transition to a low-carbon portfolio by developing two wind farms through Cennergi in partnership with Tata Power.

This inaugural TCFD recommendation report builds upon our Climate Change Position Statement that was published in 2020. We are transparent in our engagement with our stakeholders on the topic of our response to climate change. We support and aligning our business processes with the TCFD recommendation

The reports show that if we do not act to mitigate the risk of climate change, our coal business operating expenditure will be exposed to carbon price risk in the range of 5% to 8% by 2050 under the high carbon price scenario. Our determination to become carbon neutral by 2050 will significantly mitigate the exposure risk. We aim to make our portfolio resilient to low-carbon worlds through our sustainable growth and impact strategy, which will align with our disciplined capital allocation framework. In the next decade, we plan to ensure that our revenue is primarily generated from low-carbon business operations while moving towards carbon neutrality by 2050.

We value active engagement with investors and financial partners by disclosing our climate change risks and opportunities, participating in local and international business climate action networks, and being a headline sponsor of the South African pavilion at the United Nations (UN) Conference of the Parties meetings. Our partnership approach to Climate Change allows us to share knowledge and seek bold, new approaches to continue our journey of building portfolio resilience.

Despite a challenging economic environment today, we continue to reduce our GHG emissions and leverage the opportunities presented by the transformation of the energy system. While we have plans to leverage opportunities presented by climate change, market dynamics and the COVID-19 pandemic, we are clear reminder that we depend on the good financial performance of our business to support our investments in low-carbon innovations.

Our portfolio of high-quality coal and renewable energy assets, prudent capital management and strong investment-grade credit rating, as well as our history of transparent climate disclosure and active engagement, have established Exxaro as a trusted and responsible provider of energy in South Africa. Our commitment to creating shareholder value, our strategy and focus on sustainability have prepared us to harness opportunities presented by the low-carbon future.

A handwritten signature in black ink, appearing to read 'Riaan Koppeschaar'.

Riaan Koppeschaar

Financial director

SETTING THE SCENE

CONTEXT FOR OUR BUSINESS IN TRANSITION

Our reason for being: to power better lives in Africa and beyond is fundamental to our business and remains relevant in the rapidly changing global minerals and energy sectors. And, as our context continues to evolve, our purpose will inform our strategic response and guide where we focus our efforts.

We have long understood the need to balance the country's socio-economic development, which relies on coal-generated power to support the transition towards a low-carbon economy in response to the negative impacts of climate change. This transition, which will change life as we know it today, is impacting energy and capital markets, business models, value chains and the overall context for conducting business. The transition to a low-carbon world is growing external risk for those who do not adapt at speed and presents considerable opportunities for those who are agile in their response. We are committed to responsibly balancing these competing needs and delivering on our purpose both now and into the future.

THE CASE FOR CHANGE

The world faces many challenges, which compels organisations to operate with the highest level of social and environmental consciousness. These challenges are captured in the 17 UN SDGs.

The South African National Development Plan 2030 (NDP 2030) aims to eliminate poverty and reduce inequality by 2030. The NDP 2030 requires a collective and integrated approach to addressing the triple challenges of high levels of poverty, inequality and unemployment. The United Nations Sustainable Development Goal Agenda 2030 (SDG 2030) similarly recognises that the need to end poverty must go hand in hand with strategies that build sustainable economic growth while tackling climate change risks and environmental degradation. Simultaneously, these efforts must also address societal challenges ranging from education, health, decent work and youth development to women empowerment and energy security. Achieving the goals of both NDP and SDGs are at risk in the face of changing climate.

Economic growth requires access to more affordable and reliable energy. This increased demand for energy cannot rely on fossil fuels. The Intergovernmental Panel on Climate Change (IPCC) has shown that the most significant contributor to global warming is increased carbon dioxide concentrations in the atmosphere, which comes from burning fossil fuels. Decarbonising energy generation by introducing renewables into the energy mix will support the 2016 Paris Agreement to limit global warming to 1.5°C by the end of the century.



Ref: SDGs - UN.org.



Ref: RSA Government 2013.

SETTING THE SCENE continued

The role of business is critical in adopting low-carbon technologies and driving innovation in product design to ensure that the objectives of the Paris Agreement are met. A growing impact investment market is accelerating change. Impact investors provide capital to address the world's most pressing challenges in sectors such as sustainable agriculture, renewable energy, conservation, microfinance, and affordable and accessible basic services, including housing, healthcare and education. To attract investors to our local economies, we need to show more than just a good return and reduced risk. We need to show the positive impact we have on society and the environment.

Shifting from an extractive to a regenerative economy presents inherent risks to the livelihoods of many, particularly in developing economies. The Just Transition framework mitigates these risks by providing a range of social interventions and the expanded renewable energy programme needed to secure jobs and the livelihoods of broader society when economies are shifting to sustainable production.

While the share of coal in the global energy mix is expected to decline in the longer term, it is likely to remain a significant source of affordable energy generation for the foreseeable future. This is

particularly so in South Africa as Exxaro transitions to low-carbon energy sources.

South Africa's ageing fleet of coal-fired power stations faces decommissioning over the next 20 years, providing the country with an opportunity to invest in renewable energy. In addition, the continuously decreasing costs of greener technologies creates the perfect environment to explore opportunities to transition into the low-carbon future. The South African Integrated Resource Plan 2019 (IRP 2019) indicates that the share of coal in the energy mix will remain at around 50% until 2030. However, we have to prepare our business and our communities for life beyond that.

The COVID-19 pandemic has concentrated this awareness, heightened the urgency for change, reminded us of our interdependence and highlighted the fault lines in our societies by aggravating existing inequalities. A fragile South Africa needs to be protected from the aftershock of a contracted economy. Exxaro intends to build a business that will withstand the impact of climate change while supporting our people and our natural environment.



OUR CLIMATE CHANGE GOVERNANCE

Exxaro's board ensures ESG considerations are value drivers in our purpose and vision.

OUR PERFORMANCE AGAINST TCFD GOVERNANCE RECOMMENDATIONS

Exxaro currently meets all seven of the TCFD governance recommendations. To enhance our effectiveness as we gear up for our transition, we are establishing a climate change transition advisory technical committee to coordinate our internal and external responses. Members of this committee will comprise our university chairs (at the University of the Witwatersrand, the University of Pretoria and the University of South Africa) as well as representatives of our host communities, local municipalities, and provincial and local government. This committee will advise Exxaro about integrating climate science into operational business needs to transition at speed towards our objective of carbon neutrality by 2050.

TCFD metric	Indicator identification	Indicator	Results
G.A	1078.011	Frequency of reporting climate-related risks to board and/or board committees	✓
G.A	1078.012	Board and/or board committees consider climate-related issues when reviewing and guiding strategy	✓
G.A	1078.013	Board monitors and oversees progress against goals and targets addressing climate-related issues	✓
G.A	1078.014	Description of processes informing board about climate-related issues	✓
G.B	1088	Assigned climate-related responsibilities to management-level positions or committees	✓
G.B	1088.01	Description of associated organisational structure(s)	✓
G.B	1088.03	Description of management's climate-related issues monitoring	✓

THE ROLE OF THE BOARD

The board of directors is ultimately accountable for Exxaro's governance and performance, balancing the interests of the company as a responsible corporate citizen with the legitimate interests and expectations of stakeholders. The board is also tasked with ensuring a sustainable Exxaro in a carbon-constrained environment. Board members strategically address climate change issues from a corporate governance perspective. Exxaro's board has oversight of pathways we should follow to remain sustainable in a dynamic climate policy environment and in an economy with an objective to transition to a low-carbon world.

With careful consideration of the prospects presented to Exxaro by climate change, the board re-evaluated its strategic direction in 2020. This was undertaken in robust engagement with a broad spectrum of stakeholders to develop a strategy that will support the global ambition of transitioning to a low-carbon economy while seeking to meet immediate energy needs. One of the board's strategic objectives includes developing portfolio investment and divestment scenarios (considering climate change issues) and implementation of streamlined investment and divestment processes. For Exxaro, climate change has created new markets, increased emission reduction technology demand and supply, presented new financial instruments, and renewed efforts to mitigate fossil fuels and potential financial impacts on the business. Mindful of these developments, Exxaro is reviewing its approach to leverage critical competencies while securing new low carbon-aligned streams of revenue.

OUR CLIMATE CHANGE GOVERNANCE continued

ESG MATERIAL MATTERS

Material matters guide our approach to ESG and our stakeholder engagement processes. A rigorous materiality determination process determines our focus areas and their significance (as outlined below and in our ESG report).

Our materiality determination process incorporates business sustainability considerations so that all ESG aspects are assessed through various lenses. This highlights interrelatedness and interdependencies.

Climate change presents significant risks and opportunities due to its impact on business sustainability and society. Therefore, our board and its subcommittees are mandated to address climate change, among other material ESG matters, to ensure integrated business processes.

Materiality determination process



BOARD SUBCOMMITTEES AND MANAGEMENT COMMITTEES WITH CLIMATE CHANGE MANDATE

GOVERNANCE STRUCTURE	MATERIAL MATTERS	RESPONSE
Board level (chaired by an independent non-executive director)		
Sustainability, risk and compliance committee	Physical climate change risks: <ul style="list-style-type: none"> • Water security • Resource utilisation efficiency • Employee safety and health • Biodiversity losses • Air quality impacts • Post-closure rehabilitation performance 	To oversee the group's consideration and performance in terms of all material non-financial issues including social, risk, compliance, safety, health, climate change and environmental issues
Social and ethics committee	<ul style="list-style-type: none"> • Reputational risks due to climate change • Social impact of climate change in communities located near our operations 	To fulfil the statutory duties set out in Regulation 43 to the Companies Act, oversee and report on organisational ethics, responsible corporate citizenship, sustainable development and stakeholder relationships
Remuneration and nomination committee	<ul style="list-style-type: none"> • Determining and linking employee short and long-term incentives to climate change key performance areas 	To assist the board in ensuring that the group remunerates fairly, responsibly and in a transparent manner
Audit committee	<ul style="list-style-type: none"> • Review climate change risk mitigation controls using internal and external review processes 	To fulfil the statutory functions set out in section 94 of the Companies Act and provide independent oversight of the quality and integrity of the group's financial statements
Investment review committee	<ul style="list-style-type: none"> • Ensures investment capital allocation considers climate change risks and opportunities 	To monitor and report to the board on material acquisition, merger and investment or disposal opportunities and ongoing material transactions
Executive level		
Sustainability forum	<ul style="list-style-type: none"> • Focus on operational mitigation issues related to climate change 	To ensure operation managers integrate climate change mitigation into daily activities (chaired by managing director: minerals)
Sustainability committee	<ul style="list-style-type: none"> • Track performance against climate change key performance indicators (KPIs) 	To ensure operation managers have technical support (sustainability managers) for advice on climate change risks and opportunities (chaired by executive head: sustainability)
Operational level		
Sustainability committee	<ul style="list-style-type: none"> • Track performance against climate change KPIs 	To ensure operational controls are in place to mitigate climate change risks, through the management of energy and water efficiency, waste minimisation, environmental pollution controls (chaired by mine/operational managers)

OUR STRATEGIC RESPONSE

We leverage climate change opportunities for greater good.

The International Energy Agency (IEA) points out that, if we are to meet the net-zero target by 2050, the world needs a complete transformation of energy infrastructure. This requires a worldwide undertaking of unprecedented speed and scale to cleaner sources of energy. By 2030, the annual sale of electric cars must increase from 3% to over 50%, production of low-carbon hydrogen from 450 000 tonnes to 40 million tonnes and investment in clean electricity from US\$380 billion to US\$1.6 trillion.

OUR PERFORMANCE AGAINST TCFD RECOMMENDATIONS

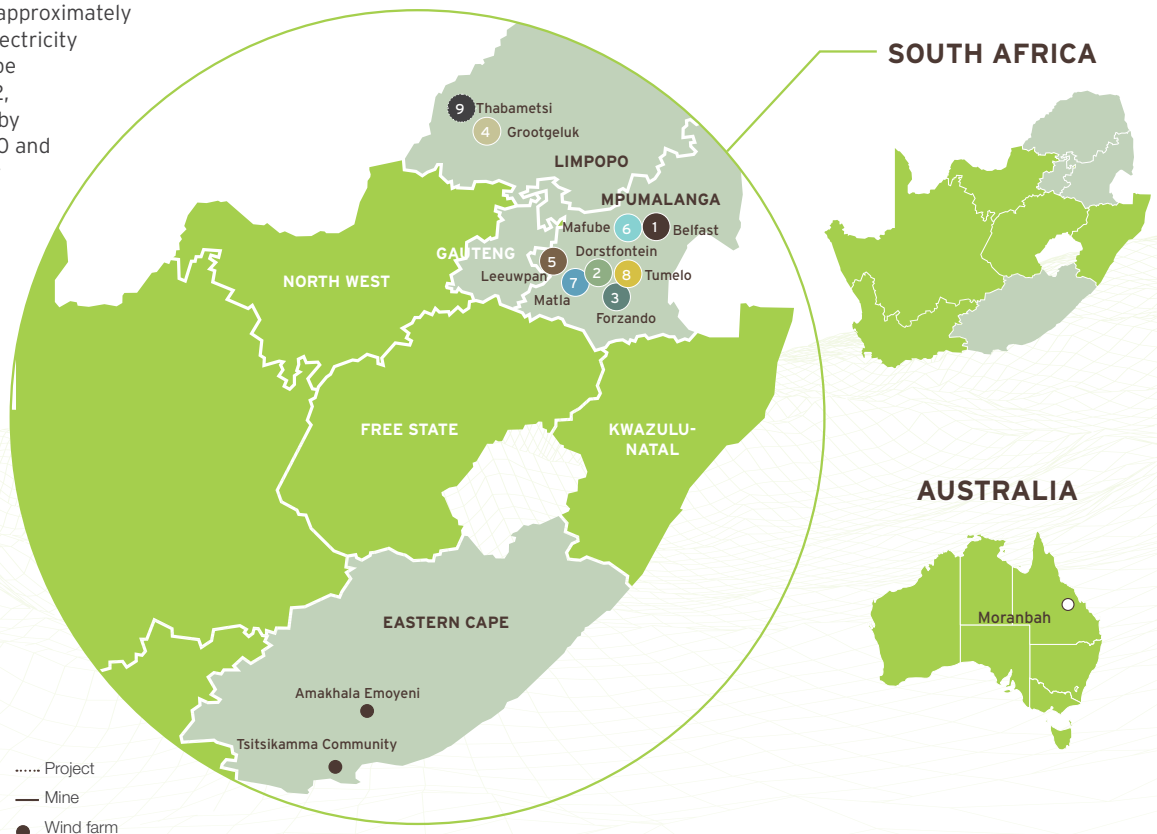
Exxaro currently meets all six of the seven TCFD strategy recommendations. Our strategy is evolving to respond to the risks and opportunities presented by the low-carbon transition. As the world grapples with the challenge of meeting ever-increasing global energy demand while decarbonising supply, we are poised to respond.

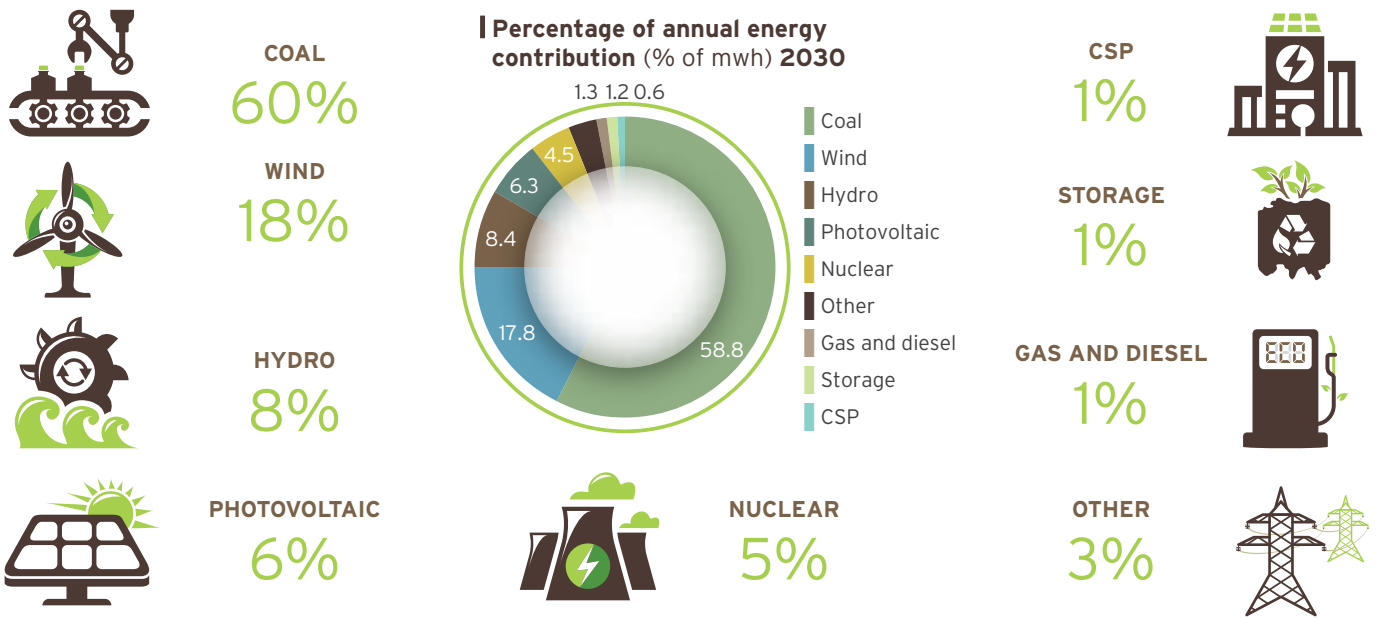
TCFD metric	Indicator identification	Indicator	Results
S.A	1089	Assessment of potential climate-related impacts on business	✓
S.A	1089.01	Description of the organisation's relevant short, medium and long-term horizons	✓
S.A	1089.02	Description of specific climate-related issues potentially arising in each time horizon	✓
S.B	1090	Disclosure of the potential impacts of climate-related risks and opportunities	✓
S.B	1104.31	Description of the potential impacts of climate-related risks and opportunities on the organisation's strategies	✓
S.B	1104.1	Climate-related scenario analysis	✓
S.C	1104.3	Disclosure of the resilience of the organisation's strategies to climate-related risks and opportunities	x

OUR RESILIENCE IN 1.5°C TO 2°C SCENARIOS

Our revenue is generated mainly from coal sales to domestic and international energy markets. Exxaro is the largest coal supplier to Eskom and the fourth largest South African exporter of thermal coal.

The South Africa's latest Integrated Resource Plan 2019 (IRP 2019) expects approximately 5 400MW of coal-fired electricity generation by Eskom to be decommissioned by 2022, increasing to 10 500MW by 2030, 25 765MW by 2040 and 35 000MW by 2050. Any new coal power capacity (beyond the recently procured 900MW) must use clean coal technology due to international restrictions on financing coal-fired power plants. As the largest supplier of coal to Eskom we will continue to support and maintain the supply of coal in line with the government approved IRP 2019.





We expect coal demand and use to continue to come under pressure globally and domestically due to climate change concerns and the energy transition. We have developed three climate change scenarios using Intergovernmental Panel on Climate Change (IPCC) and Internal Energy Agency (IEA) data to guide our strategic response strategy:

- In a contained "safe" world (1.5°C scenario), the contribution of fossil fuel (coal) in the energy mix is negligible with constraints in financing new and existing operations, global climate action is decisive and the Paris Agreement objectives are met
- In a partly contained "risky" world (2°C scenario), the Paris Agreement objectives are partly achieved and there is a medium-term role for fossil fuels (coal) in the global economy

- In a "slipping out of control" world (3°C+ scenario), the Paris Agreement has collapsed and coal continues to be the main base for power generation while finance for new projects is strong and readily available

Our Climate Change Response strategy acknowledges that the current path, based on the Paris Agreement's submitted Nationally Determined Contributions (NDCs), will result in a 2.9°C world by the end of the century. To ensure that we have a resilient portfolio, our long-term response planning is based on the 1.5°C world. .

	High decarbonisation path	Current path	Low decarbonisation path
Global factors	Average global warming by 2100: 1.5°C Contained and "safe"	Average global warming by 2100: 2°C Partly contained and "risky"	Average global warming by 2100: 3°C "Slipping out of control"
Role of fossil fuels	Very small	Small	Main base
Low-carbon technology development	Strong	Medium	Weak
Financing for fossil fuel-based developments	None	Weak	Medium
Climate policy	Very stringent	Stringent	Weak
Paris Agreement	Objective achieved	Objective almost achieved	Some countries withdraw
Alignment with global scenarios	IPCC global warming 1.5°C report and IEA net zero	IEA sustainable development	IEA stated policies

OUR STRATEGIC RESPONSE continued

OUR SUSTAINABLE GROWTH AND IMPACT STRATEGY

Our new Sustainable Growth and Impact strategy integrates business sustainability, growth and impact because we understand that these elements of our business and operating environment are deeply connected. We cannot grow sustainably without deliberately creating a positive impact in the environment and communities we serve.

Guided by our purpose of powering better lives in Africa and beyond, our Sustainable Growth and Impact strategy has been developed with broad consultation, and is informed by latest industry research.

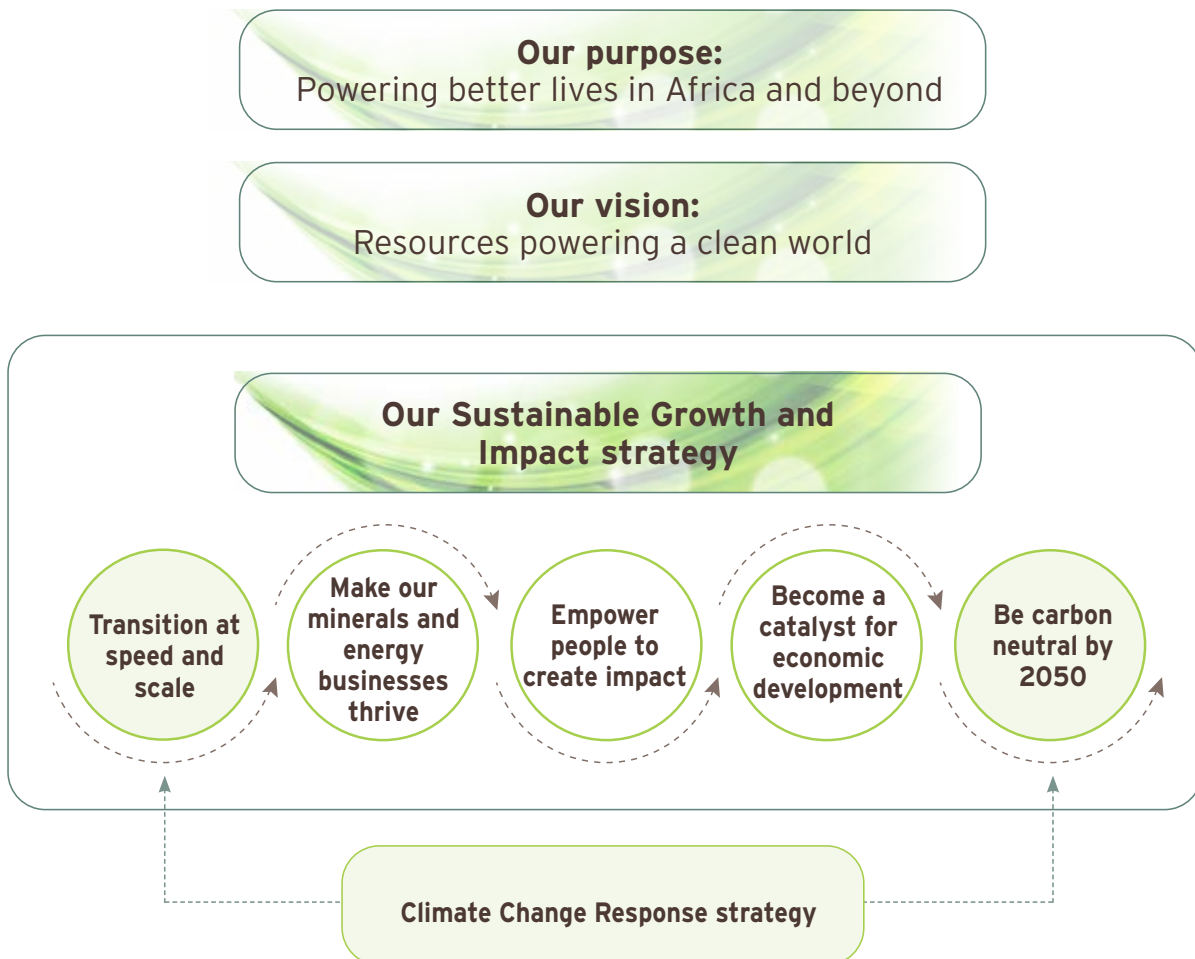
Going forward, our business portfolio will shift to more sustainable businesses, with a focus on renewable energy and a continued review of minerals contributing to a low-carbon world. This scope will establish the base for our new multi-core business. This

multi-core business will be built on the platform of skills and technology that is driving our coal business.

Coal will remain a valuable source of energy in the foreseeable future. Our Early Value Coal strategy has adapted and responded to support our overarching Sustainable Growth and Impact strategy by optimising our coal reserves, minimising stranded high value reserves and moving operations lower in the cost curve, such that we land coal competitively across all markets. The performance of our coal business this financial year has demonstrated the benefits of this Early Value strategy, whilst continuing to meet the requirements of our long-term supply contracts and delivering value for our stakeholders.

Our Climate Change Response strategy supports our overarching Sustainable Growth and Impact strategy specifically through two of our objectives:

- Transition at speed and scale
- Be carbon neutral by 2030.




HOW WE MANAGE CLIMATE-RELATED RISKS

Exxaro's mature risk management culture is central in our response to transitional and physical climate change risk. Consumers and activists scrutinise our activities, demanding greater visibility and transparency of our carbon footprint and emissions reduction strategies. Shareholder activists are driving us to reshape our portfolios.

Due to pressure from investors and environmental lobbyists, there is limited capacity for fossil fuel companies in the insurance market, which will be even more challenging for us in the 2021 renewal period and beyond. We may need to recapitalise our insurance captive company if full cover is not secured from the market for Exxaro's insurance programme. An independent assessment of our alignment with TCFD risk management shows that we meet six of the seven risk indicators. However, we have placed greater emphasis on mitigating carbon price and water security risks.

TCFD metric	Indicator identification	Indicator	Results
RM.A	1092	Defined processes for identifying climate-related risks (including potential size and scope)	✓
RM.B	1092.03	Description of processes for managing climate-related transitional risks (policy, legal, technology, market and reputation)	✓
RM.B	1092.04	Description of processes for managing climate-related physical risks (acute and/or chronic)	✓
RM.B	1092.05	Description of processes for managing climate-related opportunities (resource efficiency, energy sources, products, services, markets and resilience)	✗
RM.B	1105.02	Defined processes for managing climate-related risk	✓
RM.B	1093	Processes for identifying, assessing and managing climate-related risks integrated into overall enterprise risk management framework	✓
RM.B	1104.21	Climate-related risks and opportunities integrated into current decision making and strategy formulation	✓

Our risk management process is a strategic enabler embedded in all our processes, functions and systems. Risk management, together with crisis management, is a board objective ingrained in Exxaro's corporate culture. Exxaro's risk management is mature and performed at management level with a different scope and context in mind. Our board and respective management levels consider business risks when setting strategies and monitoring controls at strategic, tactical and operational levels.

 We derive our risk scores from consideration of the likelihood and impact of eventuality. We rank our risks according to residual core risks - from highest to lowest. Climate change remains a long-term concern for the organisation as it has transitional and physical risks implications. In addition, climate change risks share interdependencies with other risks throughout our business value chain. Refer to Exxaro's 2020 integrated report on our website for more information.

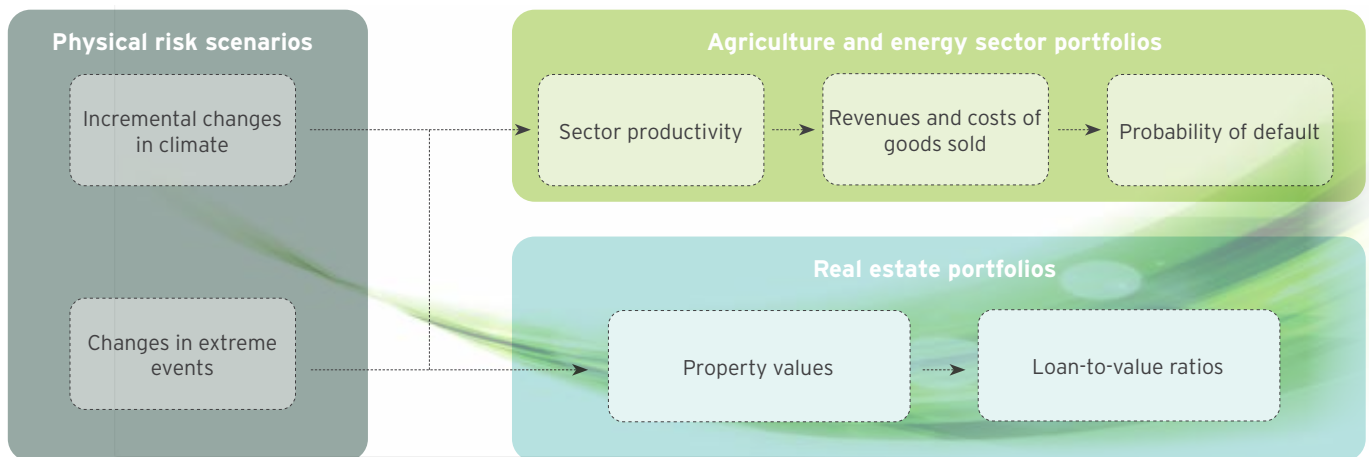
HOW WE MANAGE CLIMATE-RELATED RISKS continued

CREDIT AND INSURANCE RISK

“For financial institutions and other market actors, effectively managing and responding to climate change always means two things: understanding and responding to the intensifying physical impacts of unavoidable climate change; and mitigating the risks and seizing the opportunities from the decarbonisation of the economy. We are proud of our collaboration with these 16 leading banks and Acclimatise in the development of methods and tools that will help the global financial industry respond to climate change in a holistic manner, spanning both the physical and transition dimensions of the challenge.”

(Quotation by ERIC USHER Head UNEP Finance Initiative)

Financial institutions are increasingly moving away from funding companies with high climate change risk exposure. Our coal assets generate 95% of our revenue, which is likely to constrain our ability to raise funds if we do not transition our business. Globally, funding of coal-related operations is drying up and, locally, some of our major commercial banks have indicated that 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 (PD) and Loan-to-Value (LTV) ratios at a borrower and portfolio level. This sentiment is likely to grow in the next five to 10 years as action to mitigate climate change impacts increases. Over the past five years we have noted a significant increase in our insurance premiums against our assets. This scenario is likely to increase as climate action intensify.



Ref: UNEP Finance Initiative - Acclimatise - 2018.



CARBON PRICING RISK

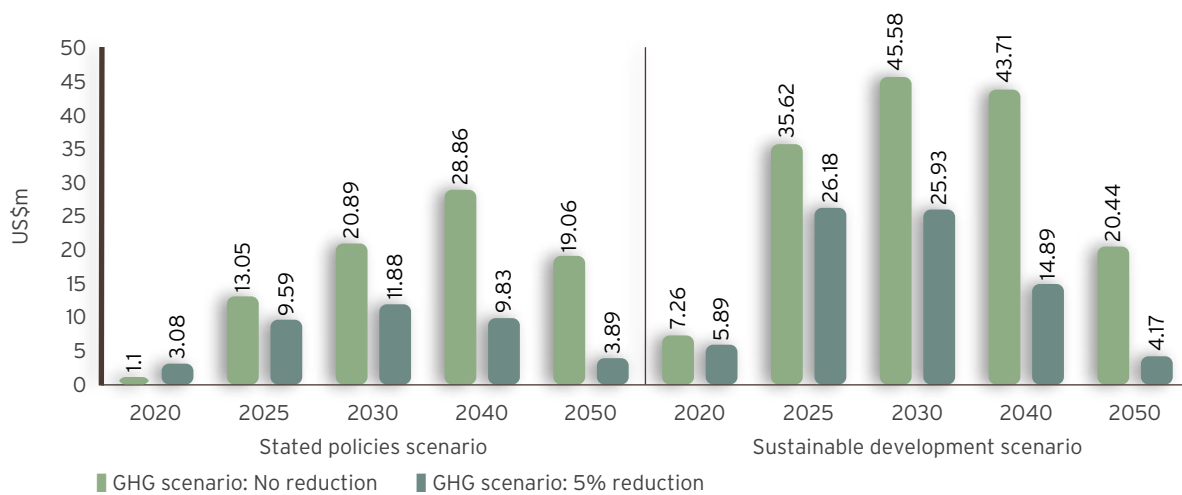
The South African government is implementing measures to reduce its GHG emissions to meet its Paris Agreement commitments. To this end, government promulgated carbon tax in June 2019 to direct corporate investments towards low-carbon alternatives, and away from high-carbon fuel inputs and production processes.

The nominal tax rate is R120 per tonne of carbon dioxide equivalent (tCO₂e). However, government 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 R6 and R48 per tCO₂e. The carbon tax is based on fossil fuel inputs (such as coal, oil and gas use), and applies to entities with a total minimum installed thermal capacity of 10MW.

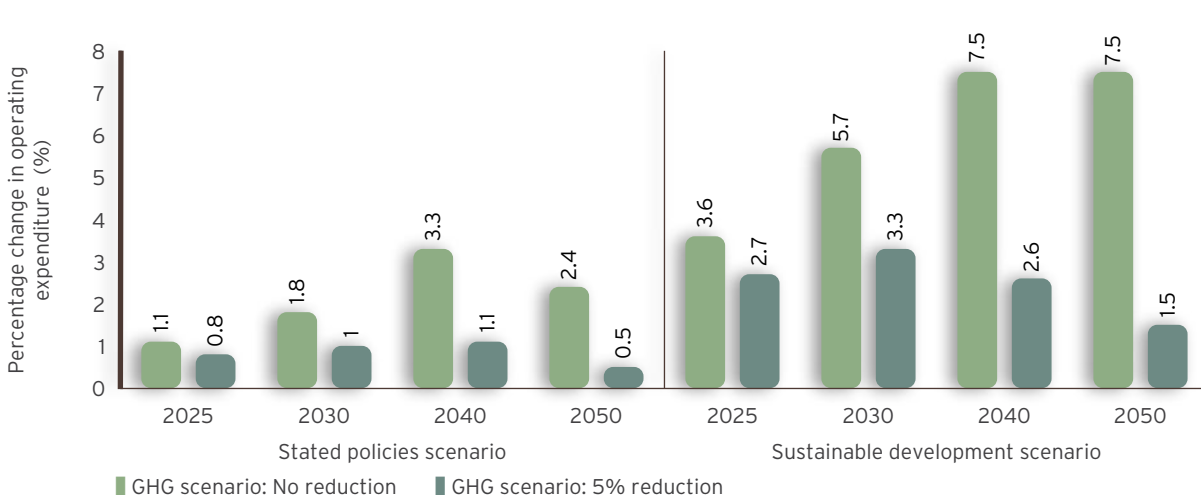
The first phase of a carbon tax (up to 2022) is not designed to affect the electricity price but to address concerns raised by the mining sector. After the first three years of implementation, National Treasury intends to review the impact of the carbon tax, its rates and tax-free threshold levels. Our scenario analysis predicts an increase, in line with an international trend, in the South African carbon price post-2022 review process. We expect the South African government to increase efforts to meet its Paris Agreement commitments to transition the South African economy.

Our TCFD analysis has also 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.

Carbon pricing risk exposure



Projected increase in operating expenditure due to carbon pricing risk



HOW WE MANAGE CLIMATE-RELATED RISKS continued

WATER SECURITY RISK

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

Water security is the backbone of Exxaro's water strategy developed in 2017. The fundamental principle of our water management approach is sustainable use of water resources and to become a net positive water contributor to the natural system. The risk of water security increases significantly at our Waterberg operation due to lack of perennial water basins. Our Waterberg operation currently has a negative water balance as they rely on an external source for their operational water requirements.

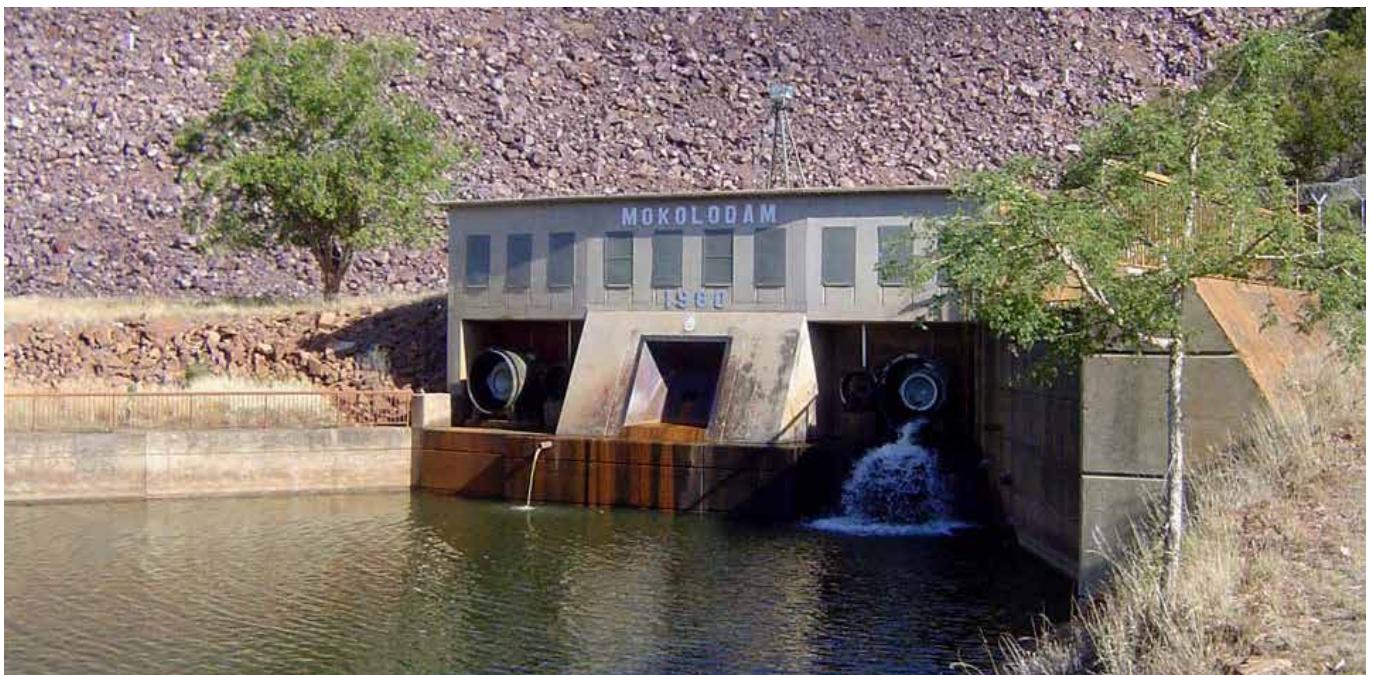
Exxaro's Grootegeluk operation is situated in the Waterberg region. It relies on the Mokolo Crocodile West Augmentation Project Phase 1 (MCWAP 1) water supply scheme for reliable water supply. Water from the Mokolo Dam is supplied via a 46km pipeline to the Lephalale area for the town, Eskom and Exxaro. The system can supply 30 million cubic metres of water per year.

Several planned developments in the Waterberg region will add to water stress including desulphurisation of Eskom emissions,

development of petrochemical and other industries, exploitation of gas, and accelerated population growth with associated urban development. Demand for water in the Waterberg will increase over the next 50 years, which overlaps with life of mine and power stations. Due to limited availability of water in the area, the Department of Human Settlements, Water and Sanitation in partnership with Exxaro and Eskom, is embarking on MCWAP 2 with completion planned for 2026. Another MCWAP allocation of 75 million cubic metres of water per year is envisaged.

MCWAP is also an important project as part of the Strategic Integration Project-1 (SIP-1) of government's National Infrastructure Plan of 2012. SIP-1 aims to unlock the economic potential of the northern mineral belt (Waterberg area). While South Africa's water resources are limited, they support a growing economy with a large majority of South Africans living in poverty and inequality. Therefore the provision of reliable water resources is important to unlock opportunities and social transformation.

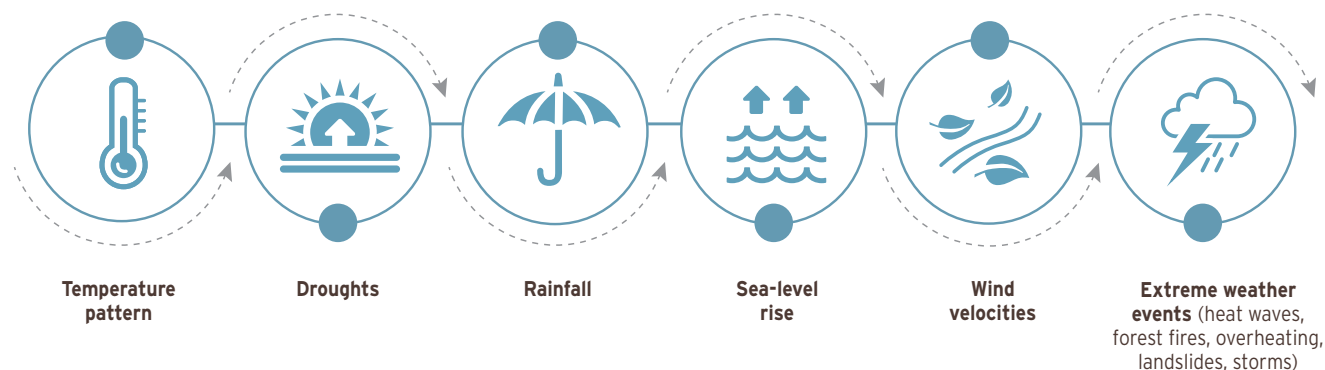
Augmentation of water infrastructure is not a solution without adequate water conservation planning by Exxaro and the mining industry in the region. Climate change is likely to affect the region's rainfall patterns and limit total available water in the basin. Therefore our operations have developed water conservation plans that holistically assess the impact of available water in the face of climate change. Our mitigation plans include water treatment plants and optimisation of water storage infrastructure.



HOW WE MANAGE PHYSICAL CLIMATE RISKS

Southern Africa is a climate change hotspot with warming projected to be substantially greater than the scenario expected in most other parts of the world.

The TCFD recommendations identify physical risks resulting from climate change that companies and financial institutions should consider in their strategies, risk management and reporting. The recommended approach is to clearly distinguish between an increasing accumulation and intensity of acute extreme weather events (heatwaves, storms and floods) and longer-term chronic changes in mean values and ranges of fluctuation of various climate variables (temperature, precipitation and sea levels). Unmitigated, Exxaro is exposed to multiple physical risks that threaten our operational stability and financial performance as outlined below.



The increase in temperature comes with vast changes in other climate factors such as drought and the likelihood of severe storms. Exxaro commissioned the University of the Witwatersrand's Global Change Institute (GCI) to develop high-resolution downscale climate models to assess our potential physical risks under the IPCC RCP8.5 scenario. It assumes the future climate that most closely corresponds to the worst case scenario. Under this scenario, the physical risk of climate change will limit our operations' capacity for continuous production. The frequency of severe climatic weather conditions will become more pronounced and we expect the operational cost to increase as we respond to these physical risks. Our strategic focus is to ensure that we reduce the impact of physical risks on our business.

Category	Potential impact
Supply chain	<ul style="list-style-type: none"> Change in quantity and price of input resources required
Logistics	<ul style="list-style-type: none"> Faults and interruptions in the movement of goods and product
Operational operation	<ul style="list-style-type: none"> Interruptions and productivity losses Damage to plant and equipment
Markets	<ul style="list-style-type: none"> Changes in demand for products and services
Balance sheet	<ul style="list-style-type: none"> Value adjustment on property, plant, equipment and intangible assets Impact on investments Difficult capital procurement Higher financing costs
Income statement	<ul style="list-style-type: none"> Decreased sales due to declining unit numbers and prices Increased operating expenses

Annual production figures of our Exxaro coal operations for the 2019 and 2020 reporting periods. This production profile will be at risk if we fail to mitigate the physical risk.

		2020	2019
Operations	Product	(Mt)	(Mt)
Grootegeluk	Thermal coal	26.55	25.68
Grootegeluk	Metallurgical coal	2.22	2.07
Matla	Thermal coal	6.15	5.99
Exxaro Coal Central (ECC)	Thermal coal	3.69	4.24
Leeuwpán	Thermal coal	3.72	4.4
Belfast	Thermal coal	2.85	1.03
Mafube	Thermal coal	1.82	1.87

HOW WE MANAGE PHYSICAL CLIMATE RISKS continued

RISK OF HEATWAVES AT OUR OPERATIONS

Heatwaves are defined as 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.

RISK OF DROUGHT

The GCI model downscaling shows that northeastern South Africa is projected to be generally drier from 2021 to 2040 (relative to the baseline period from 1961 to 1980). The model predicts that the western parts of southern Africa will experience increased rainfall over the same period. An increase in extreme rainfall events is projected to occur over the western interior and eastwards over the eastern escarpment areas as well as southern Mozambique. The average drought index per year for each time period on a scale of 0 to 10 with 10 the highest level of drought severity, according to the Keetch-Byram Drought Index. 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 risks of water security.

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

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.

ADAPTATION

The delays in acting against rising GHG emission has resulted in changes in the climatic system that already present business and communities with adaptation challenge. The physical risks of climate change present an urgent need for our business and communities to adapt to the impacts of climate change.

Given the potential negative impacts presented by the physical risks associated with climate change on our operations and supply chains, we will focus on investments in adaptation in and around our business operations. These investments will help build adaptive capacities of communities adjacent to our mining operations.

Our approach to adaptation is based on value protection by ensuring the resilience of our infrastructure, employees and local communities to maintain business continuity.

AIR QUALITY

Climate change is likely to make it more difficult for our operations to maintain good air quality that protects human health and the environment. Our adaptation strategy is to proactively reduce air pollutants resulting from our operations and work with local communities to create awareness of the dangers of poor air quality.

WATER

The changing climate will present significant challenges for water security in our operations and communities. This may impact the clean drinking water and wastewater infrastructure, water quality, and aquatic environments. Our adaptation strategies focus on the following elements:

- Support the construction of new infrastructure
- Participate in multi stakeholder forums to increase system efficiency
- Integrate modelling of climate risk in our water planning and infrastructure design
- Plan for Climate Change
- Repair and retrofit facilities to enhance water efficiency

ECOSYSTEM PROTECTION

Ecosystem protection is central in our adaptation approach to climate change. Given that mining is extractive in nature, we will ensure that we follow best practice when it comes to ecosystem protection. Our adaptation approach focuses on the following aspects:

- Maintain and restore wetlands
- Preserve land and partner with emerging farmers to promote climate smart agriculture development
- Preserve habitat by integrating protected natural habitat in our operations

SUPPLY CHAIN PROTECTION

Climate change may present risks to the supply chains infrastructure that our business relies on to acquire and move goods. Ports, for example, are at risk of flooding, from rising sea levels. Rising temperatures are expected to cause asphalt to wear and deteriorate faster, as well as buckle rail lines. This will increase infrastructure cost as rebuilding busy transportation routes is expected to cost governments significant amounts of money. Thus, our adaptation strategies for the supply chain protection will focus on the following:

- Partnering with our supply chain partners to create early warning systems and long-term climate resilience plans based on climate risk models
- Encouraging reduction of GHG emissions from our suppliers through the use of green procurement strategies

OUR CLIMATE CHANGE METRICS AND TARGETS

We have set a range of commitments and targets to address energy, water and climate-related issues. Our 2050 carbon-neutrality aspiration is in line with our Sustainable Growth and Impact strategy, and the SDGs, which empower local communities to adapt to climate change with resilience.

OUR METRICS AND TARGETS

We disclose resource efficiency and financial metrics related to risks and opportunities, investment in renewable energy through Cennergi, and energy and water-related metrics and targets. Internally, we account for the nominal South African carbon price of R120 per tCO₂e in our future operational and investment decisions. We incentivise employees (from executive to coalface level) by including financial rewards in our ESG targets that incorporate climate change aspects. Based on an independent assessment of our alignment with the TCFD recommendations, we meet nine of the nine TCFD metrics and recommendations.

TCFD metric	Indicator identification	Indicator	Results
MT.A	1082.011	Disclosure of quantitative GHG emissions metrics used to measure and manage related risks and opportunities	✓
MT.A	1082.012	Disclosure of quantitative metrics (other than GHG emissions) used to measure and manage climate-related risks and opportunities	✓
MT.A	1082.013	Disclosure of quantitative information about the financial implication of metrics used to measure and manage climate-related risks and opportunities	✓
MT.A	1082.013	Quantitative disclosures related to climate-related opportunities such as revenue from products and services designed for a low-carbon economy	✓
MT.A	1086	Performance metrics incorporated into remuneration policies	✓
MT.A	1087	Defined internal price of carbon factored into business decision making	✓
MT.A	1082.013	Disclosure of industry-specific GHG efficiency ratio	✓
MT.A	1082.013	GHG targets in place	✓
MT.B	1082.012	Climate change non-GHG targets in place covering water, energy, land use, and waste management were relevant and appropriate	✓

Attaining our carbon neutrality by 2050 drives our efforts to reduce our emissions and develop partnerships to promote offset programmes. In the next decade, we will leverage opportunities presented by:

- Purchasing renewable energy power for our coal business to reduce our scope 2 emissions
- Using cleaner sources of fuel as a diesel replacement for our mobile equipment
- Integrating electric vehicles in our fleet as proven technology becomes available for mining vehicles

SETTING SCIENCE-BASED TARGETS

Our support for the implementation of the Paris Agreement requires from us to evaluate how we determine GHG reduction targets. We will be aligning our targets to meet the science requirements in support of the Paris Agreement. To ensure we are effective and continuously improving our performance we will use both absolute or intensity targets that are then verified by the Science-Based Targets Initiative (SBTi).

The SBTi provides a verification process that ensures companies who have submitted emissions targets are meeting the standards set forth by the Paris Agreement. Our long outstanding disclosure with CDP, will provide us with the vehicle to ensure that our climate change GHG targets align to the SBTi recommendations. We believe that setting a science-based target will propel our innovations and support our transition to a low-carbon, sustainable economy.

OUR CLIMATE CHANGE METRICS AND TARGETS continued

REDUCING OUR GHG EMISSIONS

As our portfolio changes over time through mergers, acquisition and disposal processes, our absolute GHG emissions will vary, influenced by the emission profile of the business transaction changes. We are aware of this impact and part of our mergers, acquisition and disposal processes requires a detailed due diligence to be undertaken on climate change impacts which includes a GHG emission profile. By incorporating this aspect to our due diligence we are able to plan ahead to ensure that we can mitigate the negative risks in our GHG profile.

Our absolute GHG emissions vary over time due to changes in our portfolio with mergers and acquisitions. As our coal business has grown through acquisitions over the past five years, our scope 1 and 2 absolute emissions have increased. Our efforts to reduce our GHG intensity has resulted in a declining trend since 2013. The trend of our GHG intensity shows that regardless of our mergers and acquisitions process we continue to drive both energy and water intensity down through focused GHG reduction strategies.

Our ESG metrics

Metrics	Description
Energy intensity	Tracks operations energy use per tonne of product produced
GHG intensity	Tracks operations CO ₂ e per tonne of product produced
CDP performance	Tracks performance on our CDP disclosure annually
ESG performance	Tracks performance on our total ESG performance annually against our peers

WATER MANAGEMENT METRICS AND TARGETS

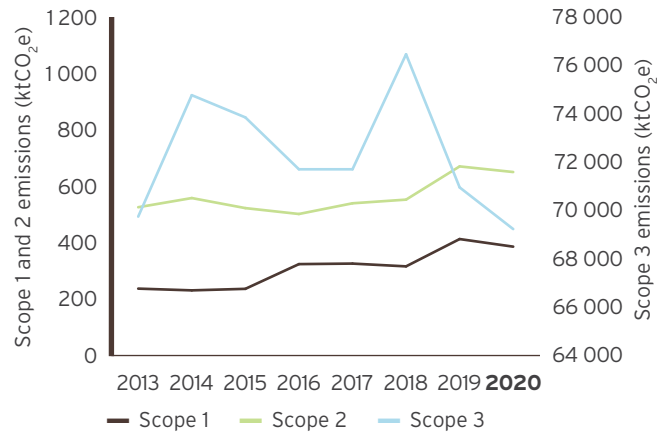
As our business depends on reliable water supply, access to water resources is a critical strategic board focus area. Our operations are generally located in areas where water is limited with restricted access for local communities, including farmers. This causes conflict between our operations and local communities when securing quality sustainable water supply.

We require water for production that meets our customers' requirements. Water use drivers in our operations include:

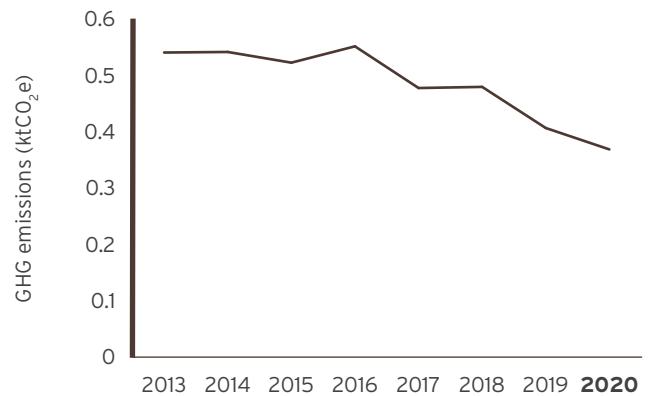
- Dust suppression
- Losses due to evaporation
- Losses in product sold
- Losses in waste disposal
- Potable water consumption
- Underground seepage losses

We work within multi-stakeholder forums to promote coordinated development and management of water resources. The aim is to maximise equitable access to the resource without compromising the sustainability of ecosystems.

Exxaro historical absolute GHG emissions performance



Exxaro historical GHG emissions intensity

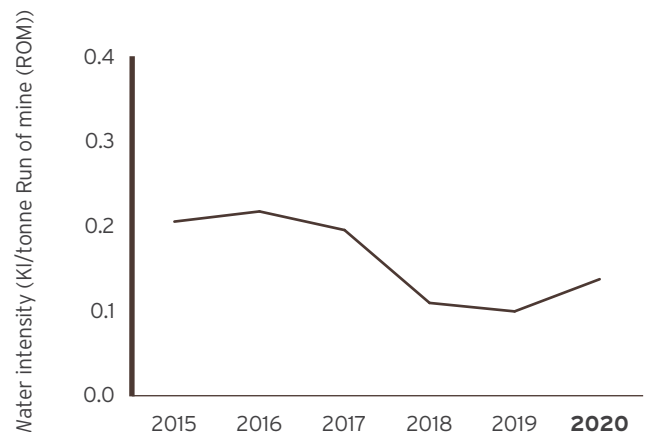


Scope 1 emissions are defined as emissions from the activities of an organisation or another under its control. They include fugitive emissions from the coal seam, fuel combustion on site from gas boilers, fleet vehicles and air-conditioning leaks, among others. Our objective is to progressively reduce scope 1 emissions by replacing fossil fuels with greener options available in the market.

Scope 2 emissions are defined as emissions from electricity purchased and used by the organisation. These emissions are created during the production of energy and eventually used by the organisation. Our objective for the existing coal business is to purchase renewable energy from suppliers and reduce our reliance on coal-powered electricity.

Scope 3 emissions are defined as emissions due to activities of the organisation from sources that are not owned or controlled. This is usually the greatest share of the carbon footprint, covering emissions associated with business travel, procurement, waste and water.

Exxaro water intensity





LOOKING AHEAD

The in-depth TCFD assessment that we have conducted was an essential step on our journey to transitioning our business portfolio to a low carbon world. We have aligned our governance, strategy, risk management, metrics and targets to the TCFD recommendations and are currently leveraging the opportunities through our Sustainable Growth and Impact strategy.

The TCFD assessment has revealed that:

- Current climate-related risks are low in the short to medium term, but we expect that they will increase significantly in the long term
- Our Sustainable Growth and Impact strategy is well-positioned to take advantage of climate-related opportunities in the energy sector
- We have already begun aligning our strategy to support the mitigation of climate-related risks and harness future opportunities
- We have identified additional metrics and targets to reduce our GHG emissions and build portfolio resilience that will provide a positive impact on all our stakeholders

This TCFD initial assessment has given us much insight into the nature of the transition within plausible climate change scenarios. Partnership with multi-stakeholder groups will further provide the organisation with opportunities to extend its impact on climate change mitigation and adaptation. The Exxaro Climate Change Technical Advisory committee will be instrumental in supporting the ongoing monitoring of company-wide climate-related risks and guide the organisation on leveraging climate-related opportunities to grow our revenue. TCFD disclosures will continue to evolve, and we are committed to ongoing monitoring, analysis and quantification of material climate-related risks and opportunities.





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