AngloAmerican

Climate Change Report 2023

Re-imagining mining to improve people's lives

Contents

Climate change performance*

2023 Scope 1 emissions

7.5 Mt CO_2e
2022:8.3 Mt CO_2e

2023 Scope 2 emissions

5.0 Mt CO_2e
2022: 5.0 Mt CO_2e

2023 Scope 3 emissions

95.8 Mt CO_2e
2022: 104.5Mt CO_2e

2023 GHG emissions intensity for Scopes 1 and 2

5.8 t CO_2e/t CuEq
2022: 6.1 t CO_2e/t CuEq

Scopes 1 and 2 target

30%
absolute reduction by 2030
(against a 2016 baseline)

Scopes 1 and 2 target

Carbon neutral
by 2040

Scope 3 ambition

50%
absolute reduction by 2040
(against a 2020 baseline)

*Scopes 1 and 2 emissions data has been subject to reasonable assurance, while our Scope 3 data has been subjected to limited assurance. Data presented in this Report reflects ongoing operations only.

This Report provides our stakeholders with detailed disclosure of Anglo American's comprehensive approach to climate change. It is aimed at investors, customers, suppliers, our communities, governments, non-governmental organisations (NGOs) and our employees and those who work with us. This Report also provides an update on Anglo American's progress against its climate goals as set out in the 2022 Say on Climate Resolution. In addition to reporting, we use a variety of tools to ensure that we engage with all interested stakeholder groups on climate change. In some cases, individual businesses' reports are also published and provide greater detail on their performance. These are available on the Anglo American website. The Anglo American Integrated Annual Report and Sustainability Report include additional information about the Group's management, operations, financial performance and sustainable development. The Anglo American chairman, chief executive and the Board's Sustainability Committee have reviewed and endorsed this Report.

Scope of the report

The Climate Change Report covers subsidiaries and joint operations over which the Anglo American Group has management control or acts as operator. It does not include independently managed operations, such as Collahuasi and Samancor, unless specifically stipulated. It also excludes De Beers' independently managed operations in Namibia and Botswana from our reporting scope, unless specifically stipulated in the reporting.

References to Anglo American plc in this document, references to 'Anglo American', the 'Anglo American Group', the 'Group', 'we', 'us' and 'our' are to refer to either Anglo American plc and its subsidiaries and/or those who work for them generally or where it is not necessary to refer to a particular entity, entities or persons. The use of those generic terms herein is for convenience only and is in no way indicative of how the Anglo American Group or any entity within it is structured, managed or controlled. Anglo American subsidiaries and their management, are responsible for their own day-to-day operations, including but not limited to securing and maintaining all relevant licences and permits, operational adaptation and implementation of Group policies, management, training and any applicable local grievance mechanisms. Anglo American produces Group-wide policies and procedures to ensure best uniform practices and standardisation across the Anglo American Group but is not responsible for the day-to-day implementation of such policies. Such policies and procedures constitute prescribed minimum standards only. Group operating subsidiaries are responsible for adapting those policies and procedures to reflect local conditions where appropriate and for implementation, oversight and monitoring within their specific businesses.

▶ For more information
See page 54

Our reporting suite

You can find this report and others, including the Integrated Annual Report, the Sustainability Report, our Tax and Economic Contribution Report and the Ore Reserves and Mineral Resources Report, on our corporate website.

▶ For more information, visit:
angloamerican.com/annual-reporting

Social channels

AngloAmerican
Anglo American
angloamericanplc
@angloamerican
angloamerican

Cover image
Looking out over the Punta Lomitas wind farm, which supplies our Quellaveco copper operation in Peru with 100% of its electricity.

Our business at a glance

Anglo American is a leading global mining company with a world class portfolio of mining and processing operations and undeveloped resources, providing tailored materials solutions for our customers, with around 60,000 employees working for us around the world.

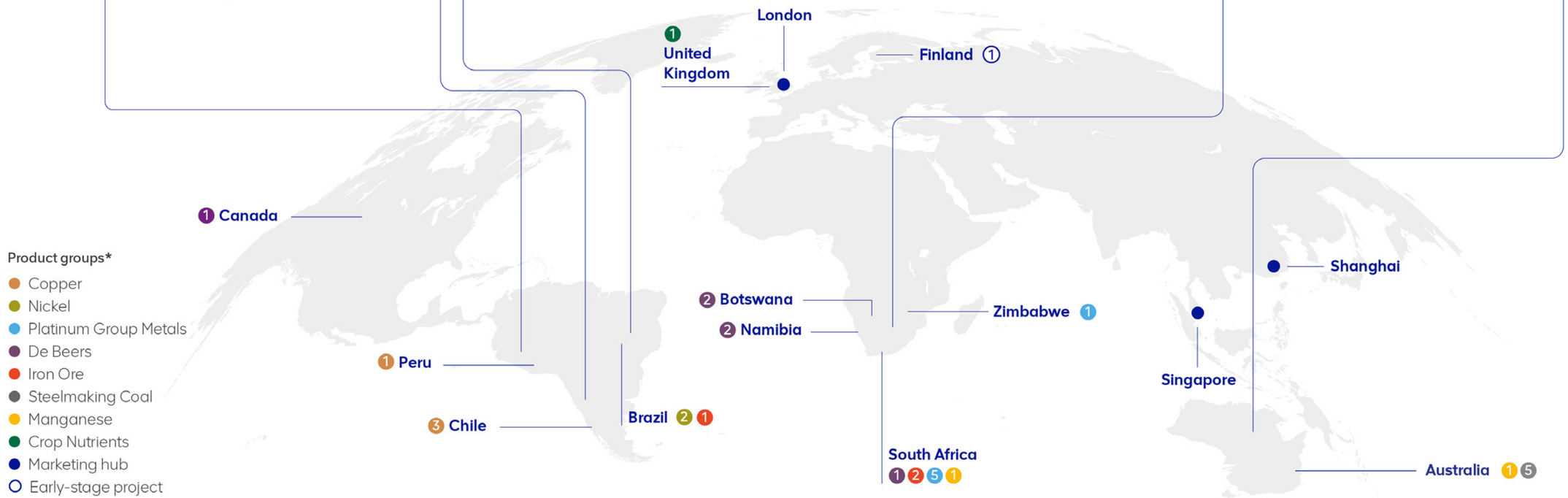
Chile
Scope 1
0.4 Mt CO_2e
Scope 2
0.0 Mt CO_2e

South Africa
Scope 1
1.2 Mt CO_2e
Scope 2
4.2 Mt CO_2e

Australia
Scope 1
4.3 Mt CO_2e
Scope 2
0.6 Mt CO_2e

Peru
Scope 1
0.2 Mt CO_2e
Scope 2
0.0 Mt CO_2e

Brazil
Scope 1
1.3 Mt CO_2e
Scope 2
0.0 Mt CO_2e



Product groups*
- Copper
- Nickel
- Platinum Group Metals
- De Beers
- Iron Ore
- Steelmaking Coal
- Manganese
- Crop Nutrients
- Marketing hub
- Early-stage project

* Number within dot denotes number of operations, shown by product.

Our business

We provide many of the essential metals and minerals that are fundamental to the transition to a low carbon economy and enabling a cleaner, greener, more sustainable world, as well as meeting the growing consumer-driven demands of the world's developed and maturing economies, from homes and electronics to food and luxuries. And we do so in a way that not only generates sustainable returns for our shareholders over the long term, but that also strives to make a real and lasting positive contribution to society as a whole.

▶ More detailed information and maps can be found in the business reviews
See pages 94–129 of our Integrated Annual Report 2023

Our overview video gives a complete introduction to what we do and our ambitions for the future
Visit youtube.com/watch?v=cYUz_h97X0A

Copper

0.6 Mt CO_2e
Scope 1 emissions

0.0 Mt CO_2e
Scope 2 emissions

4.9 Mt CO_2e
Scope 3 emissions

826 kt
Production volume

Nickel

1.1 Mt CO_2e
Scope 1 emissions

0.0 Mt CO_2e
Scope 2 emissions

0.5 Mt CO_2e
Scope 3 emissions

40 kt
Production volume

PGMs

0.6 Mt CO_2e
Scope 1 emissions

3.7 Mt CO_2e
Scope 2 emissions

2.3 Mt CO_2e
Scope 3 emissions

3,806 koz
Production volumes – PGMs 5E+Au*

* PGMs production is shown on a 5E+Au basis, i.e. platinum, palladium, rhodium, ruthenium and iridium plus gold.

Diamonds

0.2 Mt CO_2e
Scope 1 emissions

0.2 Mt CO_2e
Scope 2 emissions

3.1 Mt CO_2e
Scope 3 emissions*

31.9 Mct
Production volume (100% basis)**

* Reflects 2022 Scope 3 emissions. 2023 calculation to be completed in the second quarter of 2024 owing to limitations in data availability.

Iron Ore

0.7 Mt CO_2e
Scope 1 emissions

0.4 Mt CO_2e
Scope 2 emissions

54.2 Mt CO_2e
Scope 3 emissions

59.9 Mt
Production volume

Steelmaking Coal

4.3 Mt CO_2e
Scope 1 emissions

0.6 Mt CO_2e
Scope 2 emissions

26.9 Mt CO_2e
Scope 3 emissions

16.0 Mt
Production volume

Manganese (Samancor*)

N/A
Scope 1 emissions

N/A
Scope 2 emissions

N/A
Scope 3 emissions

3.7 Mt
Production volume – ore

* Samancor is an independently managed operation. We have a 40% shareholding in the Samancor joint venture (managed by South32, which holds 60%), with operations based in South Africa and Australia.

Crop Nutrients

0.0 Mt CO_2e
Scope 1 emissions

0.0 Mt CO_2e
Scope 2 emissions

Corporate and other

0.0 Mt CO_2e
Scope 1 emissions

0.0 Mt CO_2e
Scope 2 emissions

** With the exception of Gahcho Kué, which is on an attributable 51% basis.

Chairman's statement

Data shows that 2023 was the warmest year on record, approximately 1.48°C[1] warmer than pre-industrial averages. As predicted by the UN's Intergovernmental Panel on Climate Change, this degree of warming is causing extreme weather events to become both more regular and more extreme all around the world. Meanwhile, COP28 clearly demonstrated that actions taken thus far are not sufficient to contain the global temperature rise to the 1.5°C aspiration set out in the 2015 Paris Agreement. At the same time, given the mineral intensity of the transition to a low carbon world, mining's role as an integral part of the solution has never been clearer. This Report sets out how Anglo American continues to play its part.

Delivering on our commitments

Decarbonising our own operations is a crucial element of our contribution. Our operational (Scopes 1 and 2) emissions continue on the trajectory we previously set out – a 30% reduction by 2030, and carbon neutrality by 2040. In 2023, in spite of a 2% increase in production volumes, our total Scope 1 and 2 emissions were below 2022 levels, which appears to demonstrate an increasing and encouraging decoupling of production and emissions.

This has been possible, in part, due to the continuing shift to renewable electricity supply across our operations. Since April 2023, when our Quellaveco copper project in Peru was supplied with 100% renewable electricity, all our operations in South America moved to drawing all electricity from renewable sources. As a result, around 53% of the Group's electricity is now being drawn from renewables. This is expected to increase to roughly 60% of our global grid supply when our operations in Australia move to renewable supply in 2025. Southern Africa requires significant new infrastructure in order to provide the renewable electricity we need, and we have started construction on a number of wind and solar projects, through our partnership with EDF Renewables – Envusa Energy. The design of the Envusa Energy model means that not only will it provide us with a cost competitive and reliable source of renewable electricity, but it will also make a meaningful contribution to South Africa's just transition.

We also remain committed to delivering on our ambition to reduce our Scope 3 emissions by 50% by 2040. In 2023, we have focused on the major component of our emissions – the steel value chain – and have continued to join forces with steelmakers in Europe and Asia to research more efficient feed materials and associated technologies.

[1] Copernicus, Global Climate Highlights 2023

Portfolio

The ramping up of Quellaveco through the year has significantly increased our copper production profile, further aligning our portfolio with those metals and minerals critical to enabling a low carbon world, as well as to meeting the demands – and improving the lives – of a growing and urbanising global population. We have a number of well-sequenced growth options, including the lower carbon crop nutrients that Woodsmith will offer later in the decade, further enhancing this offering.

As the climate changes, we are continuing to focus on ensuring that our portfolio is resilient to the increasing extreme weather events that are predicted.

Governance

We welcome the interest from our shareholders, customers, suppliers, host communities and employees in our thinking about climate change and the actions we are taking, and we aim to provide regular updates on our progress. We also welcome the emergence of the International Sustainability Standards Board's Climate Standard and hope it will enable consistent, comparable, climate-related disclosures at a global level. The Board has supervision and direct oversight of the Group's strategy and risk management in relation to climate change – the Sustainability Committee of the Board reviewed and endorsed this Report on 19 February 2024.

Stuart Chambers
Chairman

"Our operational (Scopes 1 and 2) emissions continue on the trajectory we previously set out – a 30% reduction by 2030 and carbon neutrality by 2040. In 2023, in spite of a 2% increase in production volumes, our total Scope 1 and 2 emissions were below 2022 levels, which appears to demonstrate an increasing and encouraging decoupling of production and emissions."

Chief Executive's statement

The geopolitical and macro-economic turmoil of 2023 has presented businesses with multi-faceted challenges. These challenges coincided with a growing demand from stakeholders for businesses to demonstrate not only their plans to tackle climate change, but how they were going to do it. At the same time, the mining sector's prominent role in providing the metals and minerals that are fundamental to delivering a low carbon future means that it is particularly important for us to show how we are ensuring that those critical metals and minerals are themselves delivered in an environmentally and socially responsible way.

Delivering on our commitments

Whilst recognising the urgency and the importance of action, we have always been deliberate in the commitments we have made to decarbonise. We called our 30% operational emissions reduction target a 'stretch goal' when we announced it in 2018, as we knew it would be challenging to achieve. It remains challenging, but we are committed to delivering against it and continue to look for innovative, effective and profitable ways to do so. We have also always been clear that our trajectory to carbon neutrality would not be linear and that our plans to get there would likely change along the way, as technologies evolve and as we, and others, learn from experience. Nevertheless, this year's data shows a continued steady reduction in emissions, crucially beginning to demonstrate a disconnect between production volumes and emissions. Meanwhile, our target to achieve carbon neutrality by 2040 has been independently verified as being aligned with the expectations of the Paris Agreement.

We also remain committed to our ambition of halving the emissions from our value chain by 2040. As we have said consistently, Scope 3 requires a different approach: as the emissions we are aiming to abate are those of our customers and our suppliers, they are not within our direct control. Partnerships are critical to delivery in all aspects of our work on climate change, but are indispensable when it comes to Scope 3. In 2023, we were pleased to engage with other ICMM companies in helping to define a more consistent methodology for measuring Scope 3 across the mining sector and for setting targets for reductions.

We also continued to take action. We have stepped up our work with customers in the steel sector in Europe and Asia to ensure that the high-quality product we provide is aligned with the lower carbon steelmaking processes they are developing. We have continued towards the delivery of a total of 10 dual-fuelled Capesize+ vessels to our chartered shipping fleet. Following the launch of two vessels at the end of the 2022, by the close of 2023, eight of the fleet were in active service, with the last vessels due for delivery in the first quarter of 2024. These vessels are expected to deliver up to a 35% reduction in CO_2 emissions compared with conventionally fuelled ships. The Ubuntu fleet, as it is named, is a key part of delivering on our 2040 carbon neutral ambition in our controlled ocean freight.

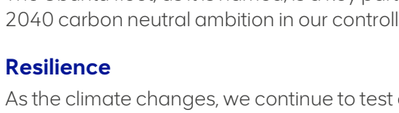
Resilience

As the climate changes, we continue to test our resilience analysis to possible changes in market dynamics, policy and regulation, as well as to the changing climate itself. This Report contains an updated analysis on strategic resilience, building on the work we published in 2021. This is the third iteration of this work and demonstrates that the combination of the expected size of the profit pools in which we operate, coupled with the high-quality and diversity of our portfolio, means Anglo American remains resilient under climate scenarios tested.

We continue to evolve our processes for assessing and improving the resilience of our operations and value chain to the impacts of a changing climate. This Report also provides an update on how we are continuing our work to address resilience to physical climate change at our operations and in Group processes.

Leadership

We made several changes to the Executive Leadership Team in 2023. Reflecting our resolute commitment to sustainability as an integral part of our strategy, Helena Nonka is now director of a combined strategy & sustainability team. This role includes executive responsibility for overseeing the company's approach to climate change and within that to co-ordinate our work to meet our commitments.



Duncan Wanblad
Chief Executive

"The mining sector's prominent role in providing the metals and minerals that are fundamental to delivering a low carbon future means that it is particularly important for us to show how we are ensuring that those critical metals and minerals are themselves delivered in an environmentally and socially responsible way."

Transition pillars

Decarbonising our operations
Scopes 1 and 2

Target

30% absolute reduction
in operational GHG emissions by 2030 against a 2016 baseline

Target

Carbon neutrality
by 2040

Levers

Pathway – Establishing a Paris-aligned decarbonisation pathway.

Energy efficiency – Deploying FutureSmart Mining™ technologies to reduce energy demand and avoid emissions.

Renewable electricity – Sourcing 100% renewable electricity for all operations, where possible.

Envusa Energy – Building a 3–5 GW Regional Renewable Energy Ecosystem in southern Africa, with EDF Renewables.

Methane – Investing in methane capture infrastructure and working on technology solutions to further reduce emissions.

Decarbonising our value chains
Scope 3

Ambition

50% absolute reduction
in Scope 3 emissions by 2040 against a 2020 baseline

Ambition

30% absolute reduction
in emissions from controlled ocean freight by 2030 against a 2020 baseline

Carbon neutrality
in controlled ocean freight by 2040

Levers

Partnerships – Working together with customers and suppliers to accelerate the transition to lower carbon production processes.

Portfolio – Prioritising the production of high-quality products which feed into more efficient and less carbon-intensive processes. Testing the portfolio against different outcomes to maintain resilience.

Shipping – Harnessing established technologies whilst supporting innovation in newer ones, to deliver our products to our customers safely and sustainably.

Interdependencies and context

Target

Net-positive impact
on biodiversity by 2030 against a 2018 baseline

Target

50% reduction*
in fresh water withdrawals by 2030 against a 2015 baseline

*In water scarce areas

Levers

Nature – Deliver positive biodiversity outcomes in areas in which we operate, primarily by creating and fostering nature positive outcomes through improvements in the health, abundance, diversity and resilience of species and ecosystems.

Physical risk – Supporting the adaptation of our business by strengthening our response to physical climate change risks and working with our value chain and communities to improve their resilience in the face of a changing climate.

Portfolio – Focusing on predominantly future-enabling metals and minerals, fundamental to delivering a low carbon, more sustainable future.

Just Transition – Embedding Just Transition principles into our company approach.

Effective governance and engagement

Levers

Remuneration – Linking executive remuneration with achievement of decarbonisation commitments.

Oversight – The Board, through its Sustainability Committee, oversees the Group's climate change strategy, risk management and disclosures.

Advocacy – Monitoring and reviewing industry associations to ensure lobbying and advocacy are conducted in line with the goals of the Paris Agreement.

Disclosure – Alignment of climate-related disclosures with key standards and frameworks.

We are currently exploring a number of areas of the Sustainable Mining Plan that we feel may benefit from being updated to align more closely with our stakeholder expectations or deliver improved sustainability outcomes, and will update the plan when we have developed these options more fully.

2023 key highlights

Scopes 1 and 2

↓6% **decrease in total Scopes 1 and 2 emissions**
vs 2022

Envusa Energy granted an electricity trading licence in South Africa

↓19% decrease in methane emissions
vs 2022

Significant progress on a cluster totalling
520 MW
of **renewable energy projects** in South Africa*

100% renewable electricity supply
across all South American operations

Anglo American businesses with operations in South Africa **sign renewable electricity offtake agreements with Envusa Energy**

53% electricity
derived from **100% renewable energy sources** in 2023

Scope 3

↓8% **decrease in Scope 3 emissions**
vs 2022

3 new MoUs signed
with steelmakers H2 Green Steel, Meranti Green Steel and Baosteel, to collaborate on reducing emissions within the steel value chain

40% iron ore sales
to customers with **net zero by 2050** targets

Described as **'outperforming' by the Sea Cargo Charter** in its assessment of our **shipping decarbonisation pathway**

Formalised 10 MoUs
with suppliers to demonstrate action on decarbonisation

Delivery and commissioning of a further 6 vessels into the Ubuntu fleet, adding to the 2 delivered in 2022

Part of the **first ever concept** for a **maritime green corridor between South Africa and Europe**

Interdependencies and context

We remain **resilient against a range of climate scenarios**

Announced as **early adopters of the TNFD**

Finalisation and endorsement of physical risk framework and rolling out assessments across our operations

*Subsequent to the endorsement of this Climate Change Report, the three projects that form the Koruson 2 project reached financial close on 29 February 2024.

Approaching our transition

We continually strive to integrate our climate change strategy into both how we work and how we make decisions. Our strategy is informed by robust analysis and regular engagement with stakeholders.

Tackling climate change is one of the defining challenges of our time.

Mining's critical enabling role in providing the metals and minerals needed for a low carbon world is increasingly recognised. Against this backdrop, we know that understanding the implications of climate change for our business is imperative and as such, we consider climate change to be a principal risk. Being resilient as a company however, is not enough. We also recognise our responsibility to understand the impact of our business, to minimise our footprint and maximise the value we create for all our stakeholders. Doing so is right for the long term sustainability of our business and the right thing for society.

Our approach is to see the opportunity in delivering on our commitments, alongside recognising the risk of certain climate outcomes. We believe that value can be generated for commercial, societal and climate outcomes and that, through the generation of such value, our approach is more likely to succeed. We also see partnerships as vital to deliver the shared endeavour of a low carbon transition, because no one organisation can do so alone. Such partnerships allow us to share costs, risks and opportunities, creating sustainable businesses for the long term.

Our aim is to increasingly entrench our climate change strategy across the business. Informed by robust analysis and constant engagement with stakeholders, we continue to work to align our asset and product portfolio with the needs of a low carbon world; we are re-orientating our operations towards carbon neutrality – and doing so in a value-accretive way; we are pushing for decarbonisation along our value chains; and we are considering carefully the social and wider environmental interrelationships associated with our decarbonisation journey – doing what we can to support a Just Transition.

We see this as part of living our Purpose – re-imagining mining to improve people's lives.

Carbon neutrality and net zero

In 2021, we set ourselves the target of delivering carbon neutrality across our operations (Scopes 1 and 2) by 2040. We chose the term *carbon neutral* carefully, considering it against the widely used alternative *net zero*. This decision was based on our understanding of what *net zero* required from businesses, as set out by the UNFCCC[(2)] – *net zero* targets should cover all scopes of emissions, use only carbon removals to offset any residual emissions, and be aligned with climate science; ideally, with that alignment independently verified.

In setting our Scope 3 ambition to reduce emissions by 50% by 2040, we have been clear that we cannot yet see a pathway consistent with a net zero definition for our Scope 3 emissions. However, in delivering carbon neutrality for Scopes 1 and 2 by 2040, we would focus first on reducing our emissions as far and as quickly as possible. But, recognising that there is not currently a pathway to absolute zero for our Scope 1 and 2 emissions, negative emissions would be needed.

In this context, carbon neutrality for Anglo American means that by 2040, the balance of our annual Scope 1 and 2 emissions will be zero: for any tonne of CO_2e emitted, we will retire equivalent offsets (developed either through our own operations or procured in the market). This is aligned to the British Standards Institute's definition of carbon neutrality[(3)]. We have not set a specific target for the proportion of our emissions that we will need to offset in 2040. Our aim is to continue to follow the principles of the mitigation hierarchy by maximising abatement and minimising offsetting.

Since setting our current Scope 1 and 2 emissions targets in 2018, we have made considerable progress, including achieving our first 2020 emissions reduction target a year early and successfully exiting thermal coal operations through the demerger of our South African thermal coal assets and the sale of our shareholding in Cerrejón. In 2021, in our inaugural stand-alone Climate Change Report, we went further, setting a Scope 3 ambition of a 50% reduction by 2040.

Building on our 2021 and 2022 reports, this update continues to provide more detail on the progress we are making. It considers each of our decarbonisation strategy's pillars in turn, outlining the progress made in 2023.

(2) UNFCCC Champions for Climate Action, Race to Zero
(3) British Standards Institute, PAS 2060:2014

Resilience in the face of a changing climate

A future-enabling portfolio

Our portfolio of world class assets produces many of the products that support the transition to a more sustainable world, as well as catering to a growing and developing global population.

Anglo American's portfolio diversification and growth optionality continues to set us apart from more specialised players and enables us to play a varied role in powering the low carbon transition.

Our metals and minerals help unlock a cleaner future for our planet and help meet the needs of a growing population, from homes and electronics, to food and luxuries – these are future-enabling products. More details on our future-enabling portfolio can be found on page 34 of our Integrated Annual Report.

Portfolio composition – supporting solutions for a low carbon future

Copper is critical to decarbonisation, in particular to the transition of the global energy system. The transition from fossil fuel energy production to electrified and renewable alternatives relies on a reliable and significantly increased supply of copper, including the transformation of energy grids and distribution, as well as the transition to hybrid and electric vehicles. Our Copper segment made up 28% of our production and 23% of our Group revenue, with a full-year 2023 capital expenditure of $1,684 million.

Alongside copper, manganese is a critical material, enabling the growth of concentrated solar energy and the increased penetration of battery technology. Nickel-manganese-cobalt is one of the leading battery technologies. Going forward, we expect an emphasis on increasing battery energy intensity and the decreasing use of cobalt for geopolitical reasons will lead to an increasing need for manganese. Through our interest in an independently managed joint venture, Samancor, our Manganese segment made up 3% of our production and 2% of our Group revenue. Related capital expenditure is not included in the Group full-year 2023 total.

Similarly, battery-grade nickel, which is produced as a co-product of our platinum group metals (PGMs) operations in South Africa, is a critical input in lithium-ion batteries used in multiple carbon abatement technologies, including battery electric vehicles (BEVs). The transition away from carbon intensive transportation and energy generation options to lower carbon alternatives is a cornerstone of abating global warming and climate change. As a co-product of our PGMs operations, we report battery-grade nickel production and revenue within our PGMs data. Non-battery-grade nickel (ferronickel) as is mined in our Brazil operations is essential for applications in hydrogen production, nuclear power and geothermal technologies. Our Nickel segment made up 3% of our production and 2% of our Group revenue, with a full-year 2023 capital expenditure of $91 million.

PGMs – including platinum, palladium, rhodium, ruthenium, osmium and iridium – are versatile minerals that have many applications in supporting the energy transition. Catalytic converters control exhaust emissions by converting toxic gases and pollutants in exhaust gas into less-toxic pollutants. They are a critical component in lower emission internal combustion vehicles and hybrid vehicles on the path to full decarbonisation of transportation. Platinum is also an important building block as the use of hydrogen evolves. Platinum plays a role in the production of low carbon hydrogen through electrolysis and in particular is a key component of fuel cells for fuel-cell electric vehicles (FCEVs). In addition, there are several emerging new applications such as platinum-based cancer treatments and lengthening the period that food products can be stored and sold after harvest[4]. By contributing to the reduction of food waste, PGMs help address the 5–10% of global GHG emissions created by food waste along the supply chain[5], as well as improve food security. Our PGMs segment made up 23% of our production and 21% of our Group revenue, with a full-year 2023 capital expenditure of $1,108 million.

As global populations increase and nations develop, so the need for the materials that enable this development will continue to grow. In particular, steel remains critical to development and industrialisation, as well as forming the foundation for low carbon infrastructure. Anglo American's iron ore operations provide lower contaminant levels and high iron ore content (c.64–67% Fe) to steel producers seeking to minimise emissions while boosting productivity. Our Iron Ore segment made up 21% of our production and 25% of our Group revenue, with a full-year 2023 capital expenditure of $909 million.

Continued global population growth and an increase in per capita wealth means that more crops must be produced to meet growing food requirements. Historically, increased agricultural activity has led to significant environmental damage. Deforestation, soil degradation, water pollution and GHG emissions are all side-effects of unsustainable farming practices.

The development of our Woodsmith crop nutrients project will introduce a high value product to the global fertiliser industry. In contrast to conventional fertilisers, demonstrations of our polyhalite fertiliser product – known as POLY4 – continue to show the significant benefits of its multi-nutrient, low chloride characteristics on the full breadth of crops at commercial scale. These benefits are seen in improved crop yield and quality and a comparatively lower carbon production footprint, given minimal processing requirements and its natural ability to improve soil health. Our Crop Nutrients segment had a full-year 2023 capital expenditure of $641 million.

We consider these products, displayed as 'Type 1' in the table overleaf, to be critical solutions contributing to a low carbon future.

Classifications

We are aware that investors and other stakeholders, are increasingly looking for methods by which to categorise transition-supporting investments. The concept of classifying products and services by how they support a low carbon future has been a feature of our engagement with investors for several years.

Our portfolio plays to the three dominant global themes or trends of: decarbonisation; improving living standards; and food security.

These global themes contribute to many of the UN Sustainable Development Goals (SDGs):

Most current classification processes, either taxonomies or rankings, consider only the energy transition in defining whether a product or service is *transition-supporting* or *green*. This is understandable, as the energy transition is a fundamental part of the low carbon future and enables so much of the wider economy's transition. But the needs of a low carbon world go beyond the needs of the energy transition. We believe that for classification systems to provide investors, regulators and policymakers with decision-useful information, enabling investment to support the transition to a low carbon world, these broader needs should be understood and reflected.

Two examples of this challenge are fertilisers and steel. Fertiliser is critical for ensuring future food security. We expect mineral fertilisers will play a vital role in providing soil nutrients and food security as a complement to, or substituting for, chemically-derived fertilisers. More broadly, fertilisers enhance land productivity, which reduces the land required for food production. This, in turn, means that less land faces degradation and can continue to act as a carbon sink.

Steel cannot be produced without iron ore, but this is not normally considered to be *transition-supporting*. Steel is the essential building block in economic development and growth and, as such, demand for steel is underpinned by the expectation of a higher standard of living in an increasingly urbanised and growing global population. Steel is also already providing the foundation for low carbon technologies, including renewable power. While the use of recycled scrap is expected to rise, scrap cannot replace iron ore as the primary means of steel production; hence, overall demand for iron ore is expected to continue to grow. At the same time, the steel industry is itself responding to the need to decarbonise its activities. While there are a number of different technologies and approaches, including direct reduction iron (DRI), one common feature is that higher quality raw materials will facilitate these decarbonisation efforts. Accordingly, we expect to see 'green' premia being applied to high-quality products throughout the steel value chain. There is, therefore, a risk that failing to accurately acknowledge the role of high-grade iron ore in the achievement of these objectives will shift capital away from these opportunities in the mining sector, and potentially undermine critical elements of the transition.

Another challenge with existing classifications is they do not take into account the complexities of interconnecting value chains and the dependency of one metal or mineral on another. For example, lithium-ion batteries depend upon copper for energy transmission, which, in turn, depends upon steel for infrastructure foundations. Defining only one of these metals as *transition-enabling* for example, oversimplifies and risks leading to unintended consequences.

(4) www.angloamerican.com/our-stories/innovation-and-technology/how-platinum-can-help-with-the-food-waste-emergency
(5) IPCC, Special Report on Climate Change and Land, Chapter 5, Food Security, 2019

Allocating capital to achieve our targets

Portfolio

Anglo American's Purpose to re-imagine mining to improve people's lives is brought to life in the composition of our portfolio, supplying materials that enable a more sustainable, lower carbon future and the demand to improve living standards and nutrition for a growing global population. We draw on multiple sources to judge the contribution that individual assets would make to the portfolio under different climate scenarios and, amongst other things, this informs the way that we allocate capital. As a result, the mix of our portfolio is predominantly towards future-enabling metals and minerals. More than 90% of our growth capital expenditure is allocated to projects in these future-enabling products[(6)].

Ensuring the continued resilience of our portfolio to the physical impacts of a changing climate is also a key priority in our allocation of capital. Investments in maintaining this resilience are driven by our continuing climate change risk management processes and, for example, include investments related to reducing the consumption of fresh water where it is expected to become scarcer, or where there is a risk of future disruption owing to flooding. These investments are subject to the Group's robust investment evaluation criteria and to technical and financial assurance.

Carbon pricing

Our major investments take into account the potential future cost of carbon by embedding forward-looking carbon price assumptions, which are developed in conjunction with leading external providers and are differentiated by geography and time horizon, into our multi-faceted investment decision making considerations. The aim is to reflect our best estimate of the level of carbon pricing likely to prevail in the respective jurisdictions over time. We forecast carbon prices to be between $20 and $95 per tonne on a 2023 real basis across regions by 2030. This approach ensures that project returns are evaluated on a realistic basis alongside consideration of a project's impact on carbon abatement and portfolio resilience to the effects of climate change.

(6) Percentage based on company analysis of growth capex spend included in the 5-year budget period. Capex is defined as cash expenditure on property, plant and equipment including related derivatives, net of proceeds from disposal of property, plant and equipment and includes direct funding for capital expenditure from non-controlling interests. Guidance includes unapproved projects and is, therefore, subject to progress of growth project studies. We define future-enabling products are the metals and minerals for a cleaner, greener, more sustainable world and that meet the fast growing everyday demands of billions of consumers.

Accounting judgements and estimates

Climate change potentially impacts a number of the judgements and estimates made when preparing the Group's financial statements. Potential impacts arise in three principal areas: physical risk such as extreme weather events; transition risk as demand shifts between products; and the Group's climate ambitions, as the financial impact (both risks and opportunities) of climate targets is reflected in operational decisions and cost structures.

The estimation of recoverable amount for the Group's non-current assets is currently the only judgement or estimate which is materially impacted by climate change. Further information about this estimate, together with additional information in other areas which may be impacted in the medium to long term, can be found on pages 234–236 of our 2023 Integrated Annual Report.

Estimation of recoverable amounts

Physical risk

The cash flow forecasts used to determine the recoverable amount of the Group's assets reflect our current best-estimate of the impact of material physical risks. The most significant impacts generally relate to managing either an excess or scarcity of water resources and the resulting impact on production levels. Cash flow forecasts also include the costs (and benefits) of risk mitigation actions included in the Life of Asset Plan, such as water purchases and the cost of new infrastructure. These forecasts may be revised in future periods as the Group continues its programme of detailed site-specific monitoring and assessments.

Transition risk

Transition risk may impact the recoverable amount of the Group's assets as forecast commodity prices are a key input in the discounted cash flow models which are used to calculate the recoverable amount. The Group's discounted cash flow models are generally prepared on a fair value less cost of disposal basis, which requires input assumptions to be determined from the perspective of a hypothetical market participant. While the Group has confirmed the strategic and financial resilience of its portfolio under a 1.5°C scenario as part of its Task Force on Climate-Related Financial Disclosures (TCFD) reporting, this scenario is not used for financial reporting purposes as it is not representative of management's best estimate of the likely assumptions that would be used by a market participant when valuing the Group's assets.

The Group has not performed a full assessment of the implications of any resilience scenario on asset valuations used for financial reporting purposes. While there is a wide range of possible transition impacts for each level of warming depending on the assumptions made, we anticipate that prices for the majority of the Group's products would be higher than existing forecasts in the short and medium term under a 1.5°C scenario, driven by growing investment in infrastructure associated with the transition to a low carbon economy, while carbon prices are also likely to be higher than existing forecasts.

Climate ambitions and targets

The recoverable amount of the Group's assets is generally assessed on a fair value less cost of disposal basis for financial reporting purposes. The valuations are therefore required to be prepared from the perspective of a hypothetical potential purchaser.

The Group generally assumes that any purchaser would be another large mining company with similar climate targets and ambitions. The Group therefore includes the cost and benefits of achieving its emissions reduction ambitions and targets once the Group has a high degree of confidence that a project is technically feasible and it is included in the Life of Asset Plan, which typically aligns with the related capital project being internally approved. This is consistent with the approach taken for other key assumptions such as forecasted operating costs and capital expenditures.

Some projects relating to the Group's climate targets and ambitions are not included in the Life of Asset Plans, generally because it is not yet possible to reliably estimate the costs and benefits, or technical feasibility has not been demonstrated. While the costs and benefits of such projects are not included in cash flow forecasts (other than study costs within the next five years), the Group includes an adjustment within the forecast for the cost of unabated future Scope 1 and 2 emissions, irrespective of whether each jurisdiction currently has a carbon tax or similar regime in place. When new emissions reduction projects are included in the Life of Asset Plan, the valuation impact of including the related project's cost is therefore offset by the removal of the cost of the emissions.

Other judgements and estimates

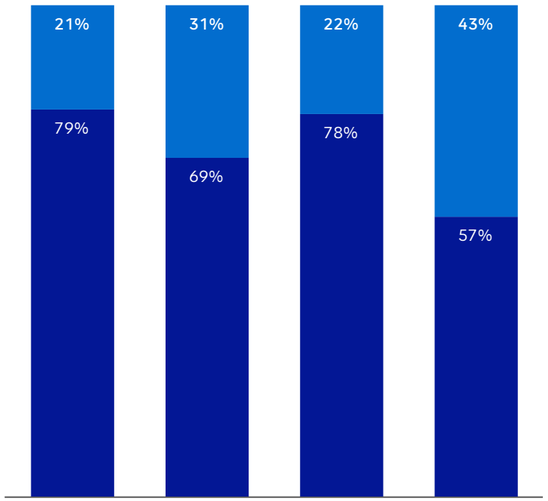
The Group has considered its other accounting judgements and estimates and concluded that climate change does not currently have a material impact. The following estimates have been identified as areas where climate change is particularly relevant and hence may have a more significant impact over the medium to long term as further information becomes available:

- Useful economic lives of non-current assets
- Net realisable value of inventory
- Measurement of rehabilitation and decommissioning provision

Further information about the estimates listed above is provided on pages 234–236 of our 2023 Integrated Annual Report.

The Group's businesses are organised into segments, full details of which can be found in our Integrated Annual Report. For consistency, this table has been prepared following this approach; i.e. by the principal metal or mineral produced. It therefore includes aggregated data relevant for the principal product and co-products (such as molybdenum within the Copper segment, battery-grade nickel within PGMs) and shipping (principally within iron ore). For the split of Group revenue by product, see page 228 of our Integrated Annual Report 2023.

Our portfolio composition:



		Type 1						Type 2	
Time	Disclosure	Copper	Nickel[1]	PGMs	Manganese	Iron Ore	Polyhalite	Steelmaking Coal	Diamonds
Full-year 2023	Production volumes[2]	826 kt	40 kt	3,806 koz	3,671 kt	59,926 kt	N/A	16,001 kt	31,865 kct
	% of Production[3]	28%	3%	23%	3%	21%		12%	9%
	Group revenue ($m)[4]	7,360	653	6,734	670	8,000		4,153	4,267
	% of Group revenue	23%	2%	21%	2%	25%		13%	13%
	Sales volumes	843 kt	40 kt	3,925 koz	3,725 kt	61,488 kt	N/A	14,940 kt	27,390 kct[5]
	Scope 1 emissions (Mt CO_2e)	0.6	1.1	0.6	N/A[7]	0.7	0.0	4.3	0.2
	Scope 2 emissions (Mt CO_2e)	0.0	0.0	3.7		0.4	0.0	0.6	0.2
	Capex ($m)[6]	1,684	91	1,108		909	641	619	623
Forward looking	Target production[8] 2024	730–790 kt	36–38 kt	3.3–3.7 koz		58–62 kt	Anticipated design capacity of 13 Mtpa by c. 2035.	15–17 kt	29–32 kct
	Target production 2025	690–750 kt	35–37 kt	3.0–3.4 koz		57–61 kt		17–19 kt	30–33 kct
	Target production 2026	760–820 kt	35–37 kt	3.0–3.4 koz		58–62 kt		18–20 kt	32–35 kct
	Capex guidance[9] ($m)	2024: c. $5.7 bn 2025: c. $5.7 bn 2026: c. $5.3 bn							
	Mine certification	Los Bronces, El Soldado and Chagres Smelter have all received Copper Mark reports. Quellaveco will be audited in 2025.	Barro Alto IRMA[10] audited, Codemin expected in 2025.	Mototolo-Der Brochen, Amandelbult, Unki[11] and Mogalakwena all IRMA audited.	N/A	Sishen, Kolomela and Minas-Rio[12] IRMA audited.	*Woodsmith will be audited once in production.*	Capcoal and Aquila audited by Towards Sustainable Mining (TSM). Moranbah, Grosvenor and Dawson to complete TSM auditing by 2025.	Gahcho Kué and Venetia audited by the Responsible Jewellery Council (RJC).

(1) Nickel represented here relates to our nickel operations in Brazil only. This product is ferronickel which is unsuitable for batteries. Battery-grade nickel data is included within the PGMs segment.
(2) Production volumes represent headline production by business segment. Further details can be found on page 324 in the Integrated Annual Report.
(3) Based on CuEq production, defined as per the Alternative Performance Measure in the Integrated Annual Report.
(4) Defined as per the Alternative Performance Measure in the Integrated Annual Report. Co-product revenue presented within the relevant reportable segment.
(5) De Beers sales volumes at 100% (including De Beers Group's JV partners' 50% proportionate share of sales to entities outside De Beers Group from the Diamond Trading Company Botswana and the Namibia Diamond Trading Company).
(6) Where mines produce multiple products, all capex has been allocated to the principal products and not allocated between any by-products as per external guidance.
(7) No data is provided for manganese volumes as Samancor is an independently managed joint venture.
(8) Anglo American provides production guidance for a three year period. Further details can be found in our investor presentations and results press releases available on the Anglo American Group website.
(9) Anglo American does not provide capex guidance by product. Guidance is provided for a three year period in total for the Group and split into the categories: baseline sustaining, lifex and growth. Guidance includes unapproved projects and is, therefore, subject to the progress of project studies and unapproved Woodsmith capex of c.$1 billion p.a. is included after 2024. Further details can be found in our investor presentations and results press releases available on the Anglo American Group website.
(10) Initiative for Responsible Mining Assurance. Barro Alto has achieved IRMA 75 rating.
(11) Our Unki PGMs mine in Zimbabwe was the first mine in the world to publicly commit to be independently audited against the IRMA Standard and the first mine in Africa to complete the review, which was verified by a third-party assessor. Unki has achieved the IRMA 75 rating. In 2022, Unki also became the first mine in the world to undergo an IRMA surveillance audit.
(12) Our Minas-Rio operation has achieved IRMA 75 rating.

Resilience to transition impacts

The nature of climate change means that climate-related risk and opportunities cannot be managed independently of wider business strategy. This chapter explains how our business is responding to the challenges and opportunities we face as industries and societies react to climatic changes, including ensuring we are strategically and operationally resilient for the future.

Assessing climate-related risks

We assess risks to support the achievement of our business objectives and consider them against our risk appetite – the nature and extent of risk Anglo American is willing to accept in relation to the pursuit of our strategic objectives. We look at risk appetite from the context of severity of the consequences should the risk materialise, likelihood of the risk materialising, any relevant internal or external factors influencing the risk and the status of management actions to mitigate or control the risk. If a risk exceeds our appetite, it will threaten the achievement of objectives and may require a change to strategy. Risks that are approaching the limit of the Group's risk appetite may require management actions to be accelerated or enhanced to ensure the risks remain within acceptable levels. For more information about the Group's general approach to risk management, please see page 46 of this Report.

The main physical climate-related risks that have the potential to affect the continued operation of our assets include the availability of water, operating temperatures and the exposure to extreme weather events. In addition, the context within which the business operates may change as the world transitions to a lower carbon economy; this could include access to finance or changes in demand for our products. As such, we consider risks that may affect the mining industry and our business across two broad areas:

- Transition impacts: The potential impact on demand for different products, given assumptions on the regulatory, technological and behavioural changes in both the transition to a low carbon economy (e.g. lower carbon power generation) and mitigating impact of GHG emissions (e.g. carbon capture and storage). Second-order impacts to adapt to climate change are not considered, such as measures to manage temperature changes or rising sea levels
- Physical impacts: The potential impact on our operations and surrounding communities from both acute extreme weather events and chronic shifts in climate patterns and the required adaptations to minimise these effects.

This section focuses on transition risks and opportunities and the following section on the physical.

Transition risk scenario selection and analysis

One way to identify transition risks and opportunities related to climate change is to consider potential scenarios for temperature pathways. There is significant uncertainty in how government policies will evolve, how the impacts of climate change will affect different global regions and how they will adapt to these changes over the period to 2050. The only way to understand business resilience therefore, is to consider a range of outcomes and assess resilience across them. We first reported a scenario analysis in 2021 and committed to revisit and revise the analysis every two years.

In selecting and building reasonable scenarios for the current revision, we drew on the Wood Mackenzie's Energy Transition Service and the Intergovernmental Panel on Climate Change (IPCC) to understand low carbon transition pathways. We use scenarios defined by external parties to ensure that we test our resilience against a fair reflection of different pathways that are credible and robust and to enable interested parties to scrutinise the assumptions that underlie those scenarios.

Transition impacts scenarios

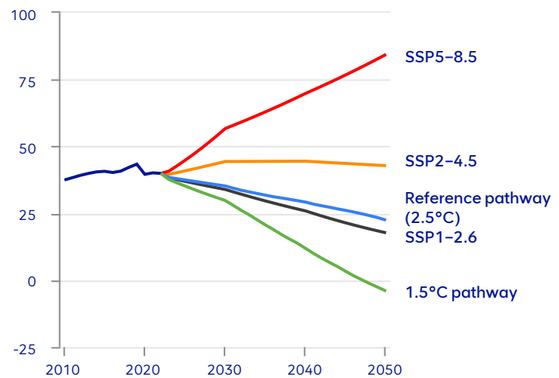
We have used the Wood Mackenzie Energy Transition Outlook (ETO) as the reference case scenario, one that is expected to result in 2.5°C warming. We contrast this with the Wood Mackenzie Accelerated Energy Transition (AET) scenario which limits an increase in global warming to 1.5°C. Our judgement is that these two scenarios cover the appropriate range of outcomes within which to assess the impacts of transition risks. The Wood Mackenzie scenarios do not, however, include agriculture, forestry and other land use (AFOLU) developments and emissions. To account for this, we have supplemented the Wood Mackenzie forecasts with various scenario outlooks vetted by the IPCC for AFOLU.

This range of scenarios is aligned with IPCC scenarios, which gives us confidence that the scenarios are plausible representations for how the climate and global industries may develop under different conditions. For example, the 1.5°C scenario we have used is aligned with the 230 scenarios vetted by the IPCC as either limiting warming to 1.5°C with no or limited overshoot (97 scenarios), or returning warming to 1.5°C after a high overshoot (133 scenarios).

The dimensions we considered to confirm alignment of the scenarios are:

- The scenario does not exceed the defined carbon budget to 2050
- The outlook reaches net zero emissions by 2050, offsetting any overshoot of the budget with negative emissions post-2050
- The scenario includes a steep mitigation of methane and nitrous oxide
- The scenario has macro-economic dimensions (e.g. GDP/population) aligned with IPCC-vetted scenarios.

Global CO_2 emissions (Gt CO_2/year), including energy, industry related and AFOLU CO_2 emissions



SSPs – SSP1–2.6, SSP2–4.5 and SSP5–8.5 are scenarios used to assess our resilience to physical climate change and are referenced in the IPCC's Sixth Assessment report on climate change. These scenarios project warming of ~1.8°C, ~2.7°C and ~4.4°C respectively, by 2100.

Assessing resilience to transition impacts

The table overleaf provides an overview of the world in 2050 in each of the two scenarios. It highlights the prevailing macro-economic conditions, as well as the evolution of key industrial and agricultural sectors. The alternative trajectories of these critical sectors underpin demand for our products, which is central to assessing transition risk. These figures do not necessarily represent our view of how these industries will develop; rather, it is a summary of the scenarios provided by Wood Mackenzie and used for the analysis.

Power generation

Low carbon power generation is essential to the decarbonisation of other industries. As transportation, heating and industry shift from fossil fuels to electric alternatives, electricity demand increases, as will the availability of decarbonised forms of electricity. Increased electricity generation will require greater transmission and distribution infrastructure. Moreover, to support the transition of the grid itself to renewables in a 1.5°C scenario, large-scale deployment of electrolysers to underpin green hydrogen production is required to provide storage and balance intermittent power generation.

In the reference case, wind and solar energy reach 50% of global power output by 2050. The remaining power supply is predominantly provided by a combination of unabated coal and gas, hydro and nuclear power. It is expected that infrastructure development will be slower than required for a rapid transition and existing assets will need to operate as efficiently as possible to meet demand. This could mean more investment in fossil fuel power generation, both gas and coal. Low carbon hydrogen and carbon, capture, utilisation and storage (CCUS) – technologies that can decarbonise or mitigate the emissions from otherwise unabated thermal power generation assets – could also benefit in this scenario.

In the 1.5°C scenario, wind and solar generation more than double compared with the reference case, while unabated coal- and gas-generated power supply decreases. Nuclear power provides a baseload power supply, with small modular reactors making this a lower cost and quicker construction option. In addition, battery storage increases in duration and is widely deployed to provide the necessary power market flexibility. As a result, 80% of power demand is met by zero-carbon supply and the remaining 20% comes from abated thermal generation.

Scenario parameters

Category	Metric	Unit	2022[1]	Reference	1.5°C
Macro-economic	GDP growth 2020-2050	% CAGR	2.7%	2.6%	2.6%
	Population Growth 2020-2050	% CAGR	1.2%	0.7%	0.7%
	Energy intensity of GDP 2020-2050[2]	% CAGR	(0.9%)	(2.1%)	(2.8%)
	Average carbon price 2050 (Emerging markets/ Developed markets)	$/t CO_2e	5/34	75/152	127/175
Energy	Total primary energy demand growth 2020-2050	% CAGR	1.2%	0.4%	(0.3%)
	Total final consumption in 2050	EJ	483	551	394
	Hydrogen final energy consumption	EJ	0	13	44
Power	Power demand growth 2020-2050[3]	% CAGR	2.7%	2.2%	3.7%
	Wind and solar share of electricity generation in 2050	%	15%	52%	63%
Transport	BEV share of passenger car sales in 2050	%	12%	64%	86%
	Passenger car sales in 2050	M units	81	124	127
Steel	Crude steel output	Mt	1875	2301	2301
	EAF share of crude steel production in 2050	%	27%	37%	73%
	DRI demand increase by 2050 compared to today	x	0	1.6	5
	Scrap consumption increase by 2050 compared to today	x	0	1.7	1.8
Agriculture	Afforestation (forestry sinks) in 2050	Ct CO_2e	0	2.4	7
	Red meat consumption (beef, lamb) in 2050 compared to today	%	0	0	(35%)
Carbon sequestration	Carbon removals capacity 2050	Bt	0	1.8	12
	Direct air capture in 2050	Gt CO_2/y	0	0.18	1.2

[1] 2022 figures or 2000–2020 growth.
[2] Total Primary Energy Demand/GDP.
[3] Electricity output.

Transport

The transport industry must rapidly switch to electric drivetrains for both passenger and commercial vehicles, coupled with a rapid shift to renewable electricity generation, to meet emissions abatement levels in 1.5°C pathway. Battery electric vehicles (BEVs) are the primary carbon abatement technology in both the reference case and the 1.5°C scenario. Hybrid vehicles play an important role in the medium term to decarbonise transportation while battery technology matures and becomes more affordable.

For passenger vehicles in the reference case, sales for internal combustion engines (ICE) peak in 2026 and BEVs become the dominant passenger vehicle drive train from 2034 due to an expected lower cost of ownership. In contrast, the 1.5°C scenario requires a drop in ICE passenger vehicles from a 2023 peak and BEVs are the majority of sales from 2030.

For commercial vehicles, ICE vehicles remain the dominant drive train in the reference case until 2050 at 48% of sales, though BEV vehicles are expected to make up 46% of commercial vehicles in the same timeframe. For trucks covering long distances, ICE vehicles remain the dominant option due to charging limitations. BEV vehicles are more critical in the 1.5°C scenario, meaning that ICE vehicles peak in 2026 and, from 2036, BEV vehicles become the dominant drivetrain. In addition, the 1.5°C scenario forecasts a sharp increase in fuel-cell electric vehicles (FCEVs) from c.2035 onwards. By 2050, in the 1.5°C scenario, FCEVs account for 14% of global light duty vehicle sales.

Steel production

Steel production is one of the hardest to abate industries. To support a 1.5°C pathway, the steel industry must significantly accelerate decarbonisation to reduce emissions by 93% between 2020 and 2050.

The reference case and the 1.5°C scenario both assume the same production output of steel. Therefore, all emissions reductions are reached through a shift away from the traditional method that uses a blast furnace and basic oxygen furnace (BF-BOF), with BF-BOF making up 63% of steelmaking in the reference case in 2050, reducing to 22% in the 1.5°C scenario. Instead, less carbon-intensive approaches based on feeding electric arc furnaces (EAFs) with either direct reduced iron (DRI-EAF) or recycled steel (scrap-EAF) dominate in the 1.5°C scenario, contributing to 73% of steelmaking. To enable this shift, scrap consumption increases by 40%, necessitating better collection and use of scrap. In addition, the availability of low carbon hydrogen must be in place for DRI to grow.

Agriculture

Non-CO_2 emissions originating from livestock (methane) and crop soils (nitrous oxide) are among the most complex to mitigate. Reaching a 1.5°C pathway demands extensive alterations in agricultural practices, including animal feed adjustments, enhanced land management techniques and technological advancements, as well as shifts in consumer behaviour.

Improving the efficiency of nitrogen fertilisers is crucial to reducing nitrous oxide soil emissions. This necessitates advancements such as optimising application rates to curb excessive fertilisation, adopting slower-release formulations, or incorporating specialised crop nutrient supplements.

Consumer behavioural changes are also pivotal and are anticipated to contribute approximately 30% of the reduction in emissions from AFOLU by 2050. These changes encompass a substantial reduction in food wastage and transitioning diets away from animal-based proteins. In aligning with a 1.5°C pathway, global consumption projections indicate a potential requirement for approximately 35% less red meat (beef and lamb) by 2050, compared to a reference case trajectory.

Additionally, afforestation, the process of establishing new forests in presently treeless areas, emerges as a necessary strategy to absorb the remaining CO_2 emissions on a global scale across all sectors. In the pursuit of the 1.5°C goal, forestry sinks must capture three times the volume of emissions (close to 7 Gt) by 2050, compared with a reference case scenario, underscoring the critical role these initiatives play in mitigating climate change.

Transition risks and opportunities in a 1.5°C scenario

The evolution of the industry sectors our products serve could create risks and opportunities for our portfolio. Similarly, the technological developments that underpin the transition of each sector could also present risks and opportunities for our products. For example, the speed and technology mix of the transition towards low carbon vehicles – specifically, the mix of BEVs, FCEVs and hybrid vehicles – will impact the outlook for the PGMs we produce. The table on page 17 summarises the risks and opportunities we have identified between the reference case and the 1.5°C scenario against which we have assessed our resilience.

Commodity profit pool evolution

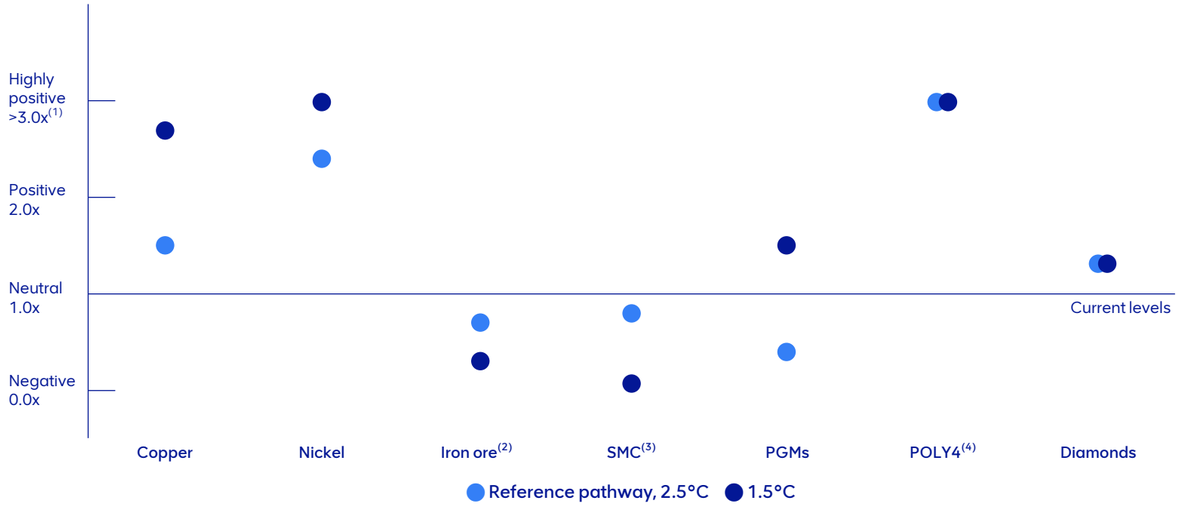
Commodity profit pools across the industry remain attractive as demand for a range of mined products grows to fuel the uptake of existing and new low carbon technologies. As a result, similar to our previous 2021 assessment, we expect that, while some of the profit pools in which Anglo American participates will be negatively impacted under a 1.5°C pathway, this is likely to be offset by our participation in increasingly attractive profit pools of metals and minerals critical to the economy-wide low carbon transition.

We expect the profit pool for base metals, including copper and nickel, to grow in both scenarios, with additional upside in the 1.5°C pathway, due to increased cross-sector demand for these products for low carbon technologies.

Polyhalite is a small profit pool today but we expect it to grow as supply increases, supported by growing crop demand. There is potential for further upside in a 1.5°C scenario, as emphasis on reducing Scope 1 and 2 GHG emissions from agriculture leads farmers to choose lower emission fertiliser solutions, of which polyhalite is advantageously positioned.

For PGMs, demand patterns will evolve as ICE vehicles make way for electric drivetrains, with an emphasis on BEVs, which suggests a smaller profit pool in the reference case. However, to reach the 1.5°C scenario, hybrid vehicles containing similar levels of PGMs to ICE vehicles play a crucial role in the medium term as BEVs mature and become more affordable. In order to decarbonise heavy-duty vehicles in the 1.5°C scenario, FCEVs will be required, suggesting a more positive outlook. There is further upside for PGMs as hydrogen becomes an energy storage solution to balance intermittent renewable power generation.

Outlook for mining commodity profit pools (Indexed 2050 vs 5yr average (2019–2023)



(1) Maximum impact shown is 3x, some products may see a greater impact (e.g. nickel and polyhalite).
(2) Global iron ore market.
(3) Seaborne steelmaking coal market.
(4) Early view on nascent market.

Iron ore demand is also expected to remain stable in the short term and slightly reduce in the long term as the use of scrap steel increases in the 1.5°C scenario. As steel production shifts to low carbon DRI-EAF, demand for higher quality iron ore pellet feed, essential for DRI-EAF steelmaking, will grow rapidly in decarbonised pathways. Given our portfolio of high grade iron ore production, we are advantageously positioned to meet this demand, contributing to our resilience under a 1.5°C pathway.

The seaborne steelmaking coal profit pool is expected to remain stable in the short term but reduce in the 1.5°C pathway, after 2030. However, it is likely that lower quality, and therefore higher-emitting coal will be most impacted, positioning our high-quality steelmaking coal as more desirable.

Diamond mining and jewellery production is not a material driver of global emissions. As such, the pathways for diamonds will not be influenced by technological emissions reduction pathways, but rather by changes in macro-economic conditions and consumer preferences. Both in the reference case and the 1.5°C pathway, macro-economic conditions toward 2050 – including GDP, inflation and FX rates – remain favourable. This macro-economic growth drives affordability, suggesting resilient demand for diamonds. Diamond buying consumer behaviour is not expected to vary significantly across either scenario. Additionally, there is considerable uncertainty regarding consumer behaviour decades from now. Based on our best knowledge, we expect little to no difference in the diamond profit pool outlook across the climate change scenarios.

Resilience to a low carbon temperature pathway

In assessing our resilience to alternative climate scenarios, we pressure test whether our strategy is robust and our financial position resilient across those climate scenarios. We consider a number of dimensions and assess risks identified against our internal risk appetite threshold. We test resilience on a first-order effect basis, meaning that we do not include any adaptive measures we may take as we see indications of industry shifts or the effects of megatrends. This assessment therefore shows a 'worst case scenario' test of our resilience because, in reality, we would be able to shift the focus, capital and effort of the business depending on the nature of the transition risk.

Through this assessment, we have concluded that our business is resilient in the 1.5°C pathway. Our profit pools remain attractive and our diversified portfolio allows us to make changes and grow as needed as the world transitions. We are committed to playing a role in supporting the transition to a low carbon economy and our portfolio contains several materials critical to the transition to a low carbon economy. Our balance sheet, free cash flows and value of the business remain robust – both at the 2050 scenario end-point and throughout the transition period.

Across the two scenarios, we assessed cash flow development through to 2050. We expect our cash flow to remain resilient under both the reference pathway and the 1.5°C pathway, while the range of cash flow change across the scenarios falls within our risk tolerance, giving us confidence in our business resilience.

Our diversified portfolio offers us great flexibility and optionality between these profit pools. We see value in having a diversified portfolio, allowing us to dynamically manage our assets to reflect the evolving strategic attractiveness and cyclical position of different commodity markets and the assets' relative competitive positions within those markets. Our strategy is to create a portfolio of options from our diversified portfolio that can be sequenced to deliver predictable free cash flow, volume growth and balance sheet resilience over the commodity cycle. We believe that a truly diversified portfolio is one that generates both volume growth and predictable cash flows to fund that growth through the cycle. This ability to create options for growth over the longer term enhances our resilience to low carbon scenarios. In addition, our growth potential and the optionality across our products allows us to shift the concentration of our portfolio in directions indicated by industry megatrends. These key levers through which we can continue to evolve our portfolio are further reasons to believe we remain resilient across climate scenarios.

Ongoing strategic and financial resilience assessment and management

Having identified several risks and opportunities across scenarios in the coming three decades, we are able to integrate monitoring of relevant signposts into our strategic process. We already consistently monitor leading indicators of the developments in low carbon transportation, power generation, steelmaking and the circularity of metals. These developments, along with other factors influencing the demand for our products, inform our internal price outlooks used in assessing capital allocation, defining production outlooks, investment in research and development of carbon abatement technologies, and portfolio composition decisions. The outlooks for our demand industries, product prices and the resultant strategic implications are included annually on the agenda for the Executive Leadership Team and the Anglo American plc Board, but, as these considerations are integrated across the business, they are consistently front of mind in all management decisions.

While we have assessed the strategic and financial resilience of our portfolio under 1.5°C and 2.5°C scenarios, it should be noted that these scenarios are not used for financial reporting purposes as no single scenario is representative of management's best estimate of the likely assumptions that would be used by a market participant when valuing the Group's assets. More information can be found on pages 234–236 of our 2023 Integrated Annual Report.

Low carbon transition risks and opportunities*

Short term = 0–5 years
Medium term = 5–15 years
Long term = 15+ years**

Commodity	Industry change	Impact	Impact timing	Description of impact
Iron ore	Increased collection and use of scrap steel	Risk	Short to long	An accelerated use of scrap steel would limit demand growth for primary iron ore
	Shift to direct reduced iron (DRI)	Opportunity	Short to long	Shift to low carbon direct reduced iron – electric arc furnace (DRI-EAF) routes will rapidly grow demand for higher quality iron ore pellet feed
	Increased steel demand	Opportunity	Medium to long	Steel is critical in the construction of power generation facilities and the grid, contributing to the growth in demand for iron ore
Steelmaking coal	Increased collection and use of scrap steel	Risk	Short to long	An accelerated use of scrap steel would limit demand growth for steelmaking coal
	Maturing of carbon capture and storage (CCS)	Opportunity	Short to long	High-quality steelmaking coal will remain a key input into steel production in the short to medium term and adoption of CCS/CCUS could support demand in the long term
	Shift to DRI	Risk	Short to long	An emphasis on decarbonising steel supply chains could move the production methods away from steel-using blast furnaces and towards other methods
	Lack of maturing of CCS	Risk	Short to long	Limited development and deployment of CCS could accelerate the shift to EAF and away from blast furnace iron
	Increased steel demand	Opportunity	Short to long	Steel is critical in the construction of power generation facilities and the grid, contributing to the demand for steelmaking coal
Copper	Growth in power demand and increase of renewables	Opportunity	Short to long	Copper is a key material used in renewable power generation and the necessary expansion of power grids
	Shift to electric vehicles	Opportunity	Short to long	Copper is a key material for enabling increased electrification across sectors including the shift from ICE vehicles to BEVs
	Lower energy intensity of development	Risk	Short to long	As energy efficiency improves, energy intensity of development decreases. This decreased energy intensity could have a negative impact on copper demand, which is a central commodity in power generation
	Reduced demand for personal vehicles	Risk	Short to long	Greater adoption of public transportation, ride sharing and other mobility levers could limit demand for personal vehicles
	Increased collection and use of scrap copper	Risk	Long	A greater than expected improvement in scrap collection could offset demand growth for primary copper
Nickel	Increased demand for batteries	Opportunity	Short to long	Nickel is widely used in lithium-ion batteries which are, in turn, used in multiple carbon abatement technologies, including BEVs and could provide a solution for energy storage in the context of intermittent power generation
	Change to low or no nickel batteries	Risk	Short to long	Uncertainty of battery chemistry outlook introduces downside demand risk if low or no nickel battery cathode chemistries become the preferred technological pathway
	Reduced demand for personal vehicles	Risk	Short to long	Greater adoption of public transportation, ride sharing and other mobility levers could limit demand for personal vehicles
	Maturing of battery recycling	Risk	Long	As secondary battery supply reaches scale, demand growth for primary nickel could slow
PGMs	Increased demand for catalytic converters	Opportunity	Short to long	With potential further tightening of air quality legislation, PGMs play a crucial role in reducing pollution from ICE vehicles, through PGM-containing catalytic converters. This is expected to be an interim step towards more comprehensive transportation decarbonisation
	Shift to hydrogen economy	Opportunity	Long	As intermittent renewable power generation accounts for an increasing share of power grids, hydrogen is a potential energy storage solution. PGMs will play a major role across the upstream, midstream and downstream segments of the hydrogen value chain. PGMs are required upstream for polymer electrolyte membrane (PEM) electrolysis; the synthesis, dehydrogenation and cracking in the midstream; and the separation, purification and compression downstream
	Growth in heavy-duty FCEVs	Opportunity	Long	As FCEVs become necessary to decarbonise heavy-duty vehicles, demand for PGMs is expected to grow
	Increased demand for hybrid vehicles	Opportunity	Short to long	Hybrid vehicles, which contain similar quantities of PGMs as ICE vehicles, are expected to play a role in the decarbonisation of vehicles, even in the longer term
	Shift to battery electric vehicles	Risk	Short to long	An accelerated shift away from ICE vehicles towards BEVs poses a downside risk for PGMs which are contained in ICE catalytic converters and in FCEVs
	Reduced demand for personal vehicles	Risk	Short to long	Greater adoption of public transportation, ride sharing and other mobility levers could limit demand for personal vehicles
Polyhalite	Decreasing crop land availability	Opportunity	Short to long	As reforestation efforts grow, available land for crop development will decrease, leading to an increase in fertiliser use to improve crop yield
	Increasing efforts to decrease emissions from farming	Opportunity	Short to medium	Polyhalite may also support efficient use of nitrogen fertilisers to reduce excess nitrous oxide soil emissions, as well as reverse the degradation of soil and the resultant carbon emissions. All else being equal, the lower carbon nature of polyhalite may justify a price premium over higher emission alternatives
Diamonds	Evolving consumer preferences	Risk / Opportunity	Neutral	Across scenarios, there is high uncertainty related to future consumer behaviours and attitudes to diamond jewellery as well as historical cyclicity in demand, although we expect carbon neutral diamond producers, such as De Beers, to benefit from evolving consumer preferences. However, these factors are not directly influenced by the differences across the scenarios. Due to this, we believe that the net impact on rough diamond demand is likely to be immaterial across scenarios

Key

Risk · Opportunity · Short to medium · Short to long · Medium to long · Long · Neutral

* This table only includes risks we consider to be of sufficient magnitude to require monitoring
**Long term time frame of 15+ years chosen to align to typical time frame for commodity supply response to major demand shifts.

Physical climate risk: adapting to a changing climate

2023 was the warmest year on record. The long term average temperature for the period 2013–2022 is estimated to be 1.14°C above the pre-industrial baseline.[7] The United Nations Environment Programme estimates the chances of constraining global temperature increases to 1.5°C at just 14%.[8] Exacerbated by the onset of El Niño earlier in the year, the extreme weather events witnessed in 2023 continue to exemplify the growing socio-economic and financial consequences for society of a changing climate.

Our framework

Our global footprint means we operate in places which are experiencing differing effects of climate change. To understand and monitor these risks and plan for any necessary short, medium, and long term adaptive measures, we have established a robust Physical Climate Change Risk and Resilience (PCCRR) framework. Our PCCRR framework combines top-down climate change projection models with bottom-up assessments of the local vulnerabilities and adaptive capacities to anticipate emerging impacts. This builds upon and standardises work undertaken previously at our sites on physical climate risk, as detailed in our 2022 Climate Change Report. Our aim is to ensure that the resilience of our operations, communities and partners today continues into the future.

Physical impacts scenarios

In order to understand the range of risks our operations may face as a result of climate change, we consider three different scenarios, which are aligned with the IPCC Shared Socioeconomic Pathways (SSP) SSP1–2.6, SSP2–4.5 and SSP5–8.5. The shared socio-economic pathways tie the world's socio-political trajectories to radiative forcing and then to climate change. Current global policies and actions put us on a best-estimate of around 2.5–2.9°C warming by 2100[9], most closely represented by the SSP2 scenario. We therefore use this scenario to guide all our long term planning in low to medium impact applications. Following the precautionary principle, we use the worst case scenario of SSP5 (~4.4°C) to plan for resilience in high risk applications such as tailings dams.

We model SSP1 (~1.8°C) as a best-case scenario, although we believe that this appears to be a low likelihood pathway. As a result, we do not use this scenario in our present planning.

Climate science

Underpinning our process are robust, science-based climate analytics. Utilising multiple blended global climate models, dynamically downscaled to our operating sites, we obtain future climate change projections across a broad set of climate variables for our chosen future scenarios.

Aligning the model's outputs with the on-the-ground reality, we also assess historical weather data for each site, in addition to any extreme weather events that may have already occurred. In regions where previous predictive climate change assessments have been undertaken, we compare the results with our own model outputs. To further increase accuracy, where comprehensive site-based weather data sets already exist, we establish these as the baseline from which we project the percentage change over both the life of that facility and for 20 years beyond (or at maximum until 2100) to include closure. We also seek to identify the particular vulnerabilities and adaptive capacities of the region and site, in order to complete a holistic local context assessment.

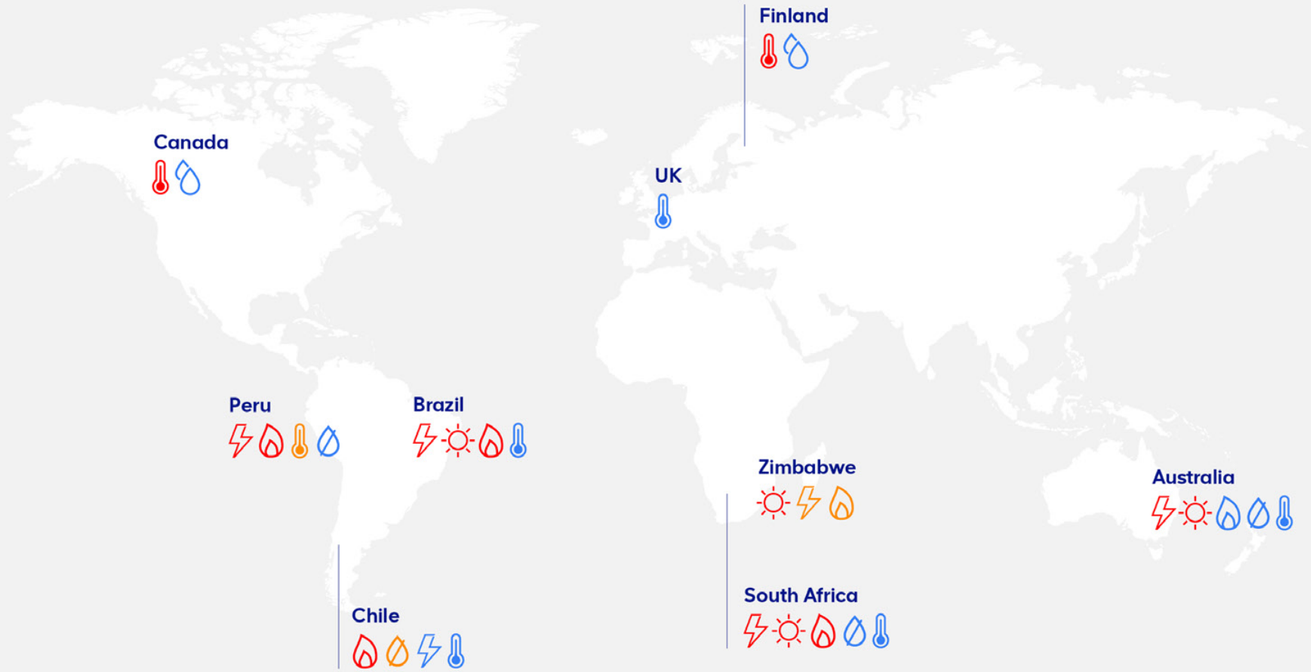
(7) Forster, P. M. et al, Indicators of Global Climate Change 2022: annual update of large-scale indicators of the state of the climate system and human influence, Earth Syst. Sci. Data, 15, 2295–2327, https://essd.copernicus.org/articles/15/2295/2023/, 2023.
(8) United Nations Environment Programme (2023). Emissions Gap Report 2023: Broken Record – Temperatures hit new highs, yet world fails to cut emissions (again).
(9) Ibid.

Shared Socioeconomic Pathways (SSPs) in the IPCC Sixth Assessment Report

SSP	Scenario	Estimated warming (2041–2060)	Estimated warming (2081–2100)	Very likely range (2081–2100)
SSP1-2.6	'Taking the green road' The world moves towards a more sustainable path, where low material growth and low resource and energy intensity is achieved. Inequality is reduced. Low GHG emissions: CO_2 emissions cut to net zero around 2075	1.7°C	1.8°C	1.3–2.4°C
SSP2-4.5	'Middle of the road' Social, economic and technological trends follow historical patterns and development and income growth proceeds unevenly. Slow progress in meeting sustainable development goals. Intensity of resource and energy use declines. Intermediate GHG emissions: CO_2 emissions around current levels until 2050, then falling but not reaching net zero by 2100	2.0°C	2.7°C	2.1–3.5°C
SSP5-8.5	'Fossil fuelled development' Innovation and technological progress, with development based on intensified exploitation of fossil fuels. Very high GHG emissions: CO_2 emissions triple by 2075	2.4°C	4.4°C	3.3–5.7°C

Identified potential hazards in 2050: managed operations and key greenfield projects

The following is based on a top-down hazard assessment, conducted in 2023, using climate hazard metric projections for the SSP5–8.5 scenario in the year 2050. We use this scenario to inform phase one of our PCCRR process, to ensure we capture all potential risks, i.e. the potential impacts resulting from a particular hazard. These risks are further studied in phase two against the SSP2–4.5. scenario to ascertain risk significance. We have full, detailed hazard assessments for each of our assets across all three SSP temperature scenarios detailed above, in five-year increments from 2020 until the year 2100. The below is a simplification of this data for reporting purposes.



Change in hazard

- >15% Extreme change
- 10% – 15% Significant change
- 5% – 10% Material change

Physical hazard

- Extreme weather events
- Extreme heat (days over 35°C)
- Wildfires
- Water stress/drought
- Change in average annual precipitation
- Rise in average annual temperature

Key physical climate change risks across our operations

Through the PCCRR assessments conducted to date, we have identified a range of risks that are relevant across many of our sites. Most of the risks arising are already impacting our operations today and we recognise that over the next decades, their likelihood and consequence will be exacerbated by climate change. Through the site level PCCRR work, we are improving controls and implementing adaptation actions to address these risks and continue to strive for resilience in the context of a changing climate.

Change in average annual precipitation

- Change in availability of water
- Ecological impacts

Water stress/drought

- Disruption from lack of access to water for operations
- Impact on ecosystems and agriculture
- Reduced community access to water
- Compromised viability of vegetation on rehabilitation
- Challenges managing dust impacts

Extreme weather events

- Operational disruption from heavy winds, lightning, heavy rains
- Inadequate design parameters on key infrastructure (tailings, dams, water treatment etc)
- Rehabilitation stability impacted through intense rains
- Delays at ports due to impacts on docking and loading and offloading operations

Extreme heat (days over 35°C)

- Increased heat exposure leading to reduction in workforce efficiency and increase in fatigue
- Exceeding equipment design criteria leading to breakdowns and downtime
- Increase in energy consumption for ventilation and cooling
- Impact on railways (rail buckling)

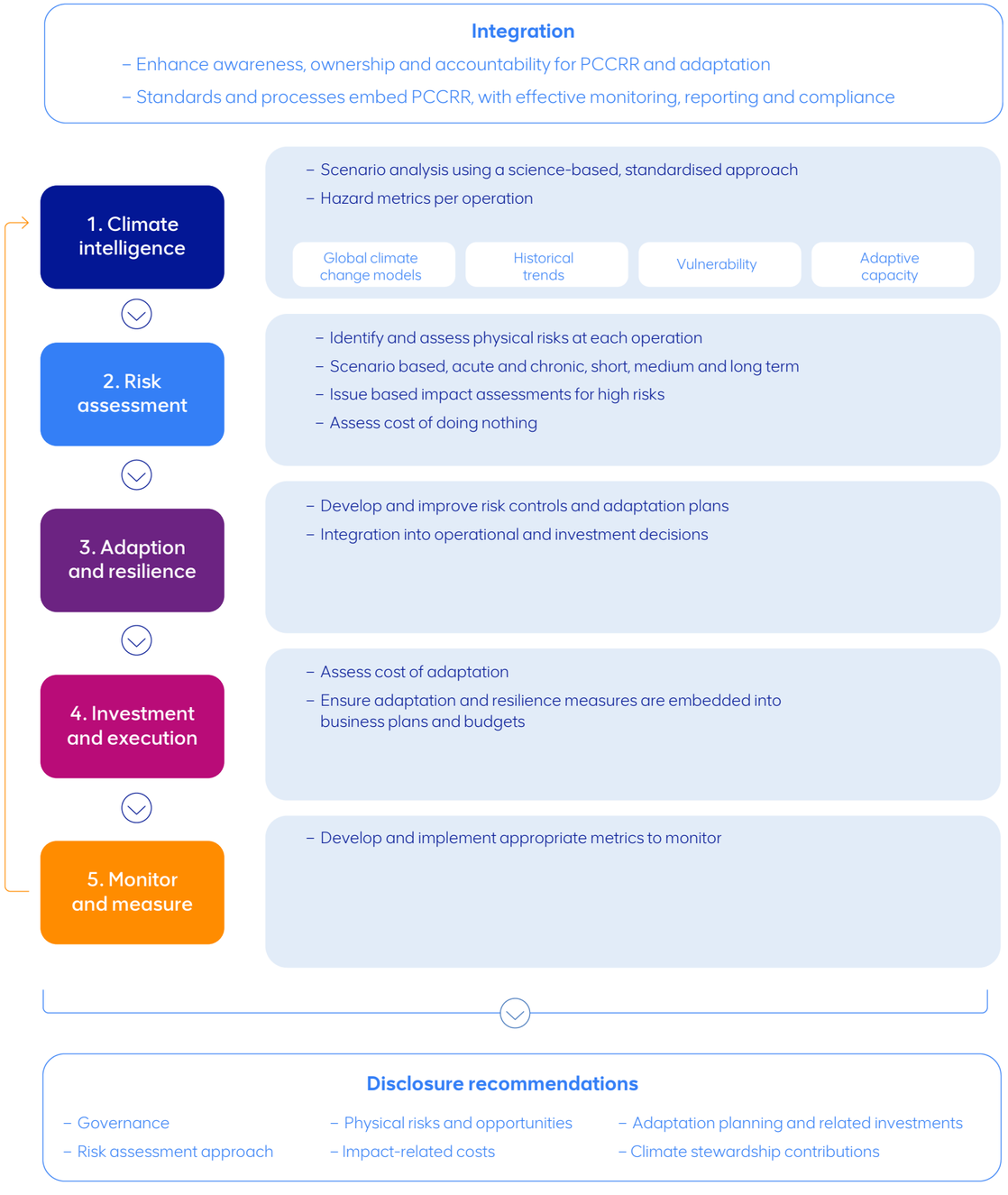
Rise in average annual temperature

- Impact on ecosystems, ecological shifts
- Potential spread of pests/ diseases to wider ranges

Wildfires

- Safety and health risks
- Impact on biodiversity and communities

Physical climate change risk and resilience



Implementing our framework

To facilitate the implementation of our framework, we have split it into two phases. Phase one is a high-level risk screening using the SSP5–8.5 scenario, to ensure that we identify and prioritise all plausible risks. The most significant risks identified proceed through to phase two of the framework, involving a secondary assessment to aid understanding and quantification against SSP2–4.5.

Risks emerging from both phases are built into our sites' baseline risk assessments or alternatively, into the business risk register and Group risk register, depending on where the accountability for addressing the risk resides. Reviews are then undertaken through the existing risk management processes at the relevant site or business.

Operational resilience

During 2023, our focus has been on embedding adaptation and climate resilience into our operations and processes. By doing so, we are deepening our understanding of the impacts of climate change across our entire value chain, helping us identify how best to prepare to be more operationally resilient in response to a changing climate. We rolled out our updated PCCRR risk screening process at our Sishen iron ore operation in South Africa and also began implementing the framework at our nickel and iron ore operations in Brazil. Our intention is that all sites will complete phase one of the updated process by the end of 2024 and phase two of the framework by the end of 2025.

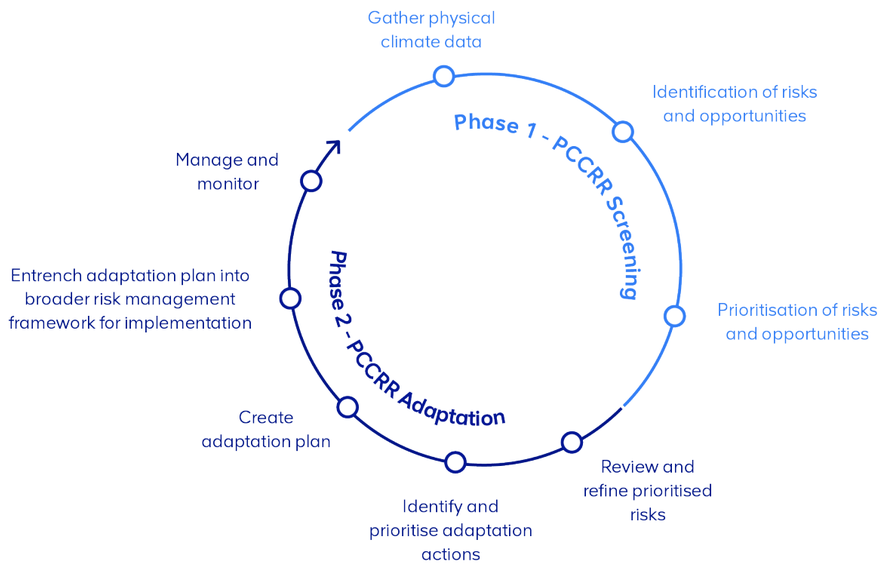
In 2023, we also strengthened the Group's requirements on including physical climate change risk and adaptation measures into the design of all new proposed projects through the capital investment decision-making process.

Our Los Bronces Integrated Project exemplifies planning for future climatic changes during the design stage. The RCP8.5 scenario[10] used in the Environmental Impact Assessment to assess climate risks provided the basis for project planning and permitting. The predictions indicate that, while average annual precipitation will decrease on average by c.10% by 2050, precipitation at altitude may occur increasingly as rain, leading to heightened landslide risk and melting glaciers for this operation. These climate projections and resulting hazards are therefore being considered in designing the mine infrastructure, service facilities and underground mine access to ensure safety and operational climate resilience.

[10] RCP8.5 refers to a concentration of carbon that delivers global warming at an average of 8.5 watts per square metre across the planet. It is a high emissions scenario that delivers a temperature increase of about 4.3°C by 2100, relative to pre-industrial temperatures.

Takashi Furukawa, managing director at the time of Mitsui Resources, our steelmaking coal joint venture partner in Australia, plants a tree as part of a rehabilitation project centred around re-introducing native flora species to land around Dawson mine in Queensland.

Site level PCCRR process and resource requirements



Water and tailings risks

Most of our operations are in water scarce regions – such as Chile and Peru; southern Africa; and Australia. Yet operations in these regions can also experience extreme precipitation events – both our steelmaking coal operations in Australia and Kumba's iron ore sites in South Africa have been exposed to serious flooding in recent years, impacting production.

Our initial work to determine physical climate change risks at our sites confirmed that water is the greatest risk factor at most of our operations; there is likely to be either too much or too little. In recognition, we established the need for quantified assessments of the impacts of climate change on water balances and flood risk at each site, to allow for a tailored approach to climate change-related water management across all operations. In 2023, we initiated an update of asset water balances and flood risk models with climate change projections, starting with sites that have Very High and Extreme Consequence Classification Ratings, as defined by the Global Industry Standard on Tailings Management (GISTM) – 12 facilities across eight of our operations. The findings have been incorporated into our design basis and are part of all current and future water management assessments. Further information on our GISTM approach and our results can be found on page 68 of our 2023 Sustainability Report.

Logistics

Part of our PCCRR process includes working with our logistics partners to assess the vulnerabilities of our logistics routes, which are in some cases already facing climate-related impacts. For example, the rail line from our Sishen mine to the Saldanha port, critical to our Kumba iron ore operations in South Africa, is a bottleneck that continues to cause disruptions. Analysis of our internal data on the current causes indicates that over the period 2020–2022, 21% of the disruptions on the Sishen-Saldanha rail were weather related. The projected increase in extreme weather across South Africa will further increase the pressure on this railway, potentially increasing the rate of wash-aways, derailments and traffic stoppages due to extreme temperatures and excessive rainfall. Engagement with Transnet, the entity managing the railway, has therefore been initiated to explore the climate resilience of the railway.

Ports are another potential vulnerability along our logistics chain. To date, we have included the main ports we ship through into our physical climate change hazard assessment model, providing us with projections for these facilities until the year 2100. Since most of the ports are independently managed, we are engaging with port operators to understand how well they have prepared to address future climate risks.

Section of the sump water-management plant and water-retaining facilities at Sishen, which are vital components of the mine's stormwater infrastructure and rainfall-readiness plans.

Adaptive water management at Kumba

Despite being in a water-scarce area, Kumba Iron Ore's operations are water positive, requiring active dewatering to maintain safe and effective mining operations. As such, any significant increase in rainfall could lead to production delays, land erosion on and off site, as well as flooding and wash-outs along rail lines and port loading facilities.

Kumba's Sishen operation in South Africa, prone to extreme rainfall events, is in the process of implementing a comprehensive adaptive water management plan, including investing substantial capital in stormwater infrastructure.

Sishen has invested (approximately $40 million) in its stormwater infrastructure and has also developed a Rainfall Readiness Plan, focusing on limiting production impacts arising from flooding. A key constraint is not having sufficient storage on site to capture and contain all stormwater, so we are investigating the feasibility of using a decommissioned pit as a water storage facility, which would enable Sishen to be a zero water discharge site and unlock other beneficial use opportunities for the water captured on site.

Community resilience

The impacts of climate change will also affect the lives and livelihoods of host communities around our operations. Our responsibility is to support our operations with the tools to understand how climate change could affect vulnerabilities in host communities, exacerbate or create new impacts and present opportunities for us to proactively support those closest to our operations to adapt.

Underpinned by the principles of value protection (to do no harm), value creation (to build proactive resilience) and to support transformative change (to maximise opportunities for adaptation), our approach seeks to build resilient thriving communities.

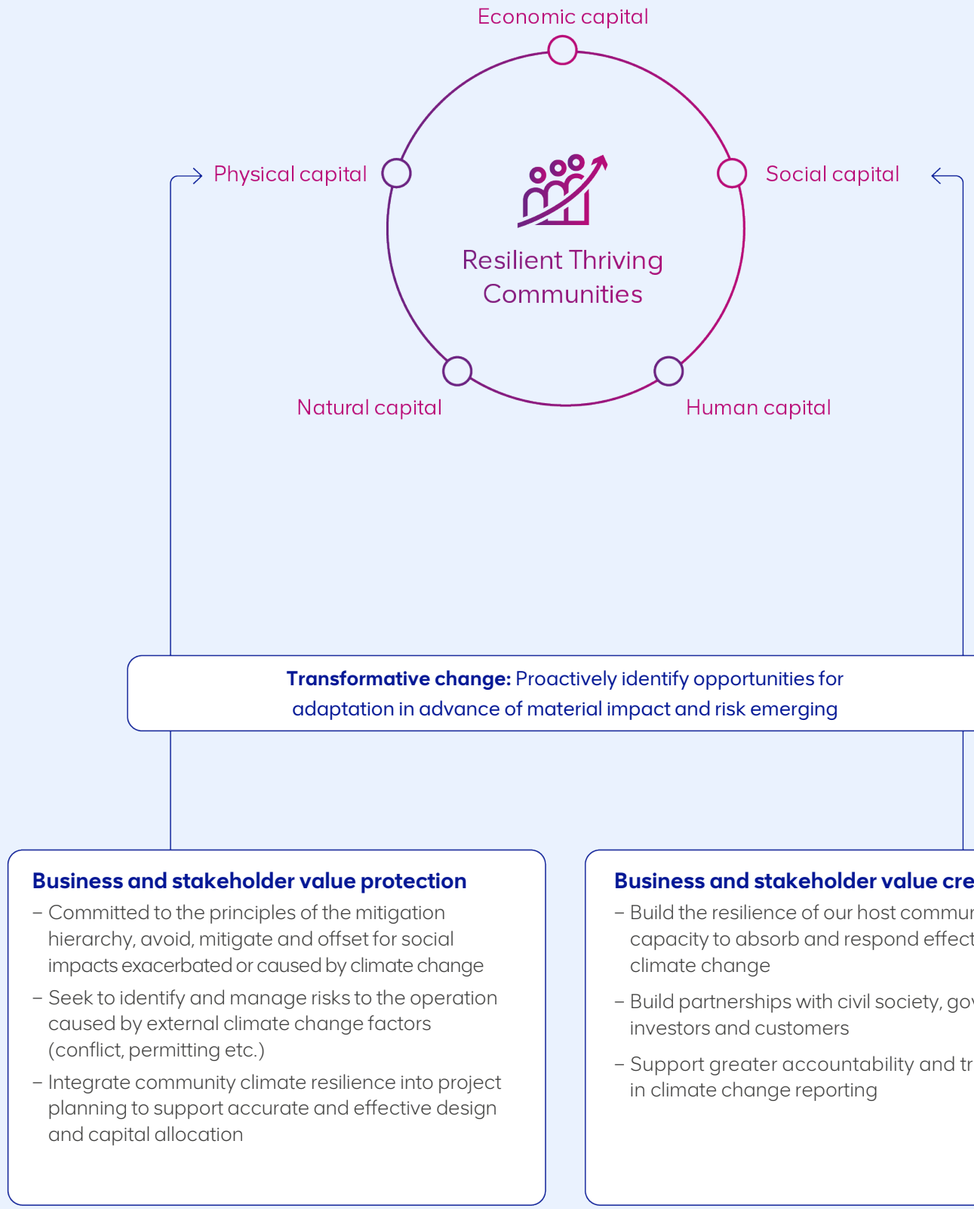
Driven through our existing Social Performance management system – the Social Way – we are integrating climate-related social and community impacts into individual site management approaches. The inclusion of a community climate vulnerability risk assessment considers how host communities can build climate resilience and adaptation measures and how Anglo American and its partners can support their development and implementation. This includes refining our approaches to social and human rights risk and impact identification and analysis[11], livelihood-based vulnerability assessments using a sustainable-livelihoods model and building informed consultation through stakeholder engagement[12].

This community climate resilience work will form a key part of the wider PCCRR framework, seeking to support host community capacity to identify, absorb and respond effectively to a changing environment to ensure their continued health and well-being. As a result, our operations will be empowered to not only manage the physical climate-related risks to our operations, but the impacts to our wider stakeholders, too. We welcome the thought leadership role on this issue taken up by the World Bank Group through its Climate Smart Mining Initiative, of which we are a sponsor. Its work can provide useful guidance for the whole sector on this issue.

[11] www.socialway.angloamerican.com/en/toolkit/engagement-and-analysis/social-and-human-rights-impact-and-risk-analysis-shira-1/introduction/about-this-section

[12] www.socialway.angloamerican.com/en/toolkit/engagement-and-analysis/stakeholder-engagement/guidance/do/task-6-engage-with-stakeholder

Community climate resilience



Supporting climate research

Climate science is a rapidly developing field. Research into the contribution of climate change to extreme weather events has especially advanced in recent years. Adaptation research is also gaining attention as the reality of climate change is felt more keenly. We see such progressive research as being critical to our understanding of climate change adaptation in areas that affect our long term sustainability and are collaborating with experts to identify key areas of focus.

Our mine rehabilitation efforts are designed for the long term. Evolving our approach to incorporate the effects of a changing climate is therefore critical to ensure our plans remain fit for purpose. One area where we are incorporating climate change variables is our landform evolution modelling, used to determine the long term stability of final landforms under a changing climate. During 2023, we ran two pilot revised landform models for our Sishen iron ore operation in South Africa and Moranbah steelmaking coal operation in Australia. Both sites are located in semi-arid areas with low precipitation levels. For each site, we were able to incorporate relevant changing precipitation scenarios, using projected monthly averages and testing various rain intensities, as well as ground cover percentages. The results suggest that, at both sites, erosion would reduce against the baseline, except in an SSP5 scenario, when Moranbah would see an exceedance of acceptable rates of erosion. These initial results increase confidence that, at these sites, climate change may not exacerbate erosion and reduce landform stability in the long term, but nevertheless will remain under review. In 2024, we anticipate continuing to test this modelling in operating regions with higher rainfall to understand how such areas would be affected.

As noted in our 2022 Climate Change Report, we are also supporting further research into the potential impact of exposure to increasing temperatures on plant species we currently use for rehabilitation through a Cooperative Research Centre for Transformations in Mining Economies coalition (CRC-TiME). This three-year research project, led by the Commonwealth Scientific and Industrial Research Organisation (CSIRO), now in its the second year, seeks to provide evidence for the effectiveness of climate-adapted seed-sourcing strategies, including 'predictive provenancing' (using seed from an area expected to reflect the future climate of the planting site) and 'climate-adjusted provenancing', which studies mixing locally sourced seed with seed collected along a climate gradient in the expected direction of climate change.

The project incorporates learnings from a parallel BHP-Curtin University project which includes an assessment of the social acceptability, working with regulators and Indigenous groups, of choosing an alternative seed-sourcing strategy.

Financial impacts

Through our PCCRR process, we are also working to identify and record both the costs of adaptation to climate change for Anglo American and the cost of not employing mitigation or adaptation strategies and accepting the impacts. Correctly assessing the financial impact on operations from climate-related disruptions is complex and we continue to refine our methodology in line with evolving good practice.

Further information about how the Group currently considers the impact of climate change on accounting estimates and judgements is provided in note 7 of the Consolidated financial statements in the 2023 Integrated Annual Report.

Developed in conjunction with local communities, the Rural Water Programme allows users to manage their water needs through an easy-to-understand, data-driven platform.

Chile's Rural Water Programme

Rainfall in Chile has decreased significantly as a result of climate change, resulting in an increase in periods of drought and water shortages. The challenge of accessing water during these periods is heightened in rural areas not only facing low water availability, but often, a precarious and/or inefficient operational management system. This has a direct impact on the provision of water to our host communities.

Addressing this challenge, we sought to collaborate with communities, local authorities, and a local software start-up, WeTechs, to create a Rural Water Programme in 2018. Central to the initiative was designing and implementing a unique methodology and technological system to optimise the administration of water resources, improving distribution and retention and reducing water losses. The system includes automation of the entire system, managing wells and reservoirs, data centralisation, analysis, along with the implementation of remote-control rooms and monitoring from mobile devices. Together, this allows users to proactively manage the water of their communities through a platform that collects information on the status of wells, reservoirs and elevator systems in real time. We helped train operators and leaders of the Rural Sanitation Services, responsible for managing rural water access, to strengthen their independence and capacity to manage their systems.

To date, the programme has been implemented in 83 rural drinking water systems across four provinces. Five years on from implementation, the results include:

- More than 134, 000 people in rural communities supported in accessing water services
- 30% increase in water availability for communities
- Reduction of 350 hours per year of water cut-off and shortages
- 51% reduction in the average number of times the reservoirs ran empty
- 23% decrease in unit energy consumption
- 17% increase in water coverage, supporting greater resilience and preparedness to meet demand.

Nature

Protecting our natural environment is a material issue for us and we recognise the interlinkages between climate change, water systems and nature. Climate change is a major driver of biodiversity loss, damaging ecosystems and leading to loss of species, with additional negative consequences for human well-being. As custodians of the land and ecosystems around our operations, and in many cases beyond, we seek to improve the footprint of our operations and direct our efforts towards delivering positive and lasting environmental outcomes for host communities.

The interdependency between nature and climate

Science demonstrates that the earth's natural systems play a vital role in regulating the climate. In absorbing carbon emissions, these systems have protected us from the worst impacts of climate change and can continue to do so, as long as society safeguards and restores thriving ecosystems and continues to reduce emissions. Up to 54% of the man-made GHGs emitted over the past decade have been absorbed by soils, plants and water bodies[13]. Almost all scientific models and net zero scenarios assume significant (10–11 Gt CO_2e) absorption of carbon dioxide by the natural world per year through carbon sinks, such as forests, wetlands and peatlands. We cannot therefore stay within the temperature threshold of 1.5°C above pre-industrial levels without a significant contribution from nature.

In 2022, 188 countries signed the Kunming-Montreal Global Biodiversity Framework, which sets out goals and targets to halt and reverse nature loss by 2030 and to restore global ecosystems by 2050. This, together with the United Nation's decade on ecosystem restoration (2021–2030), calls on governments, business and all of society to take transformative and integrated action on climate change and biodiversity loss at global and national scales.

At Anglo American, we are working on an integrated carbon and biodiversity strategy that focuses on long term resilient nature-based solutions delivering multiple societal benefits. This work includes the identification of priority areas for restoration and reforestation using native floral species as well as connectivity to faunal species hotspots to achieve co-benefits for both climate and biodiversity.

Net-positive impact

Our Sustainable Mining Plan upholds our commitment to being stewards of the natural environment in which we operate. In 2018, we communicated our goal to deliver net-positive impact (NPI) on biodiversity across our managed operations by 2030 against a 2018 baseline.

NPI is our commitment to demonstrating that, starting from our 2018 baseline, any losses of significant biodiversity features identified as a result of our direct operational activities must be outweighed by biodiversity gains that we achieve within the same location. We continue to review, assess and monitor our pathways to delivering on this commitment.

For more information on our approach to nature, biodiversity and mine restoration, please see pages 65–67 in our 2023 Sustainability Report.

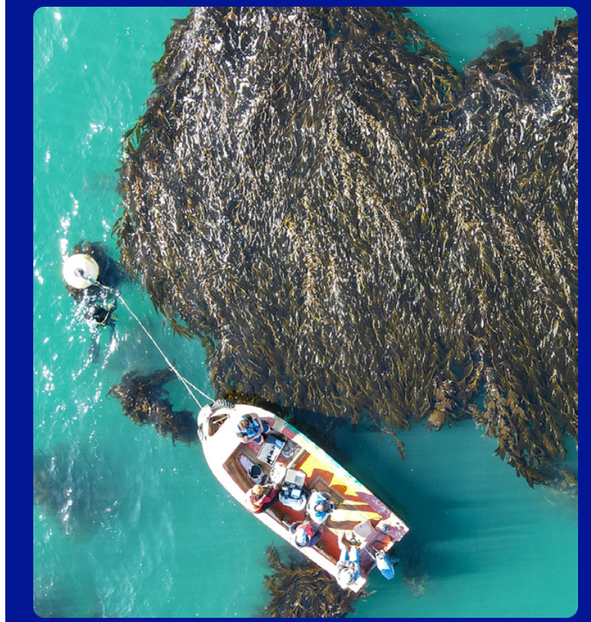
Strategy and approach

Our approach to the environment is a blend of helping nature by protecting and restoring it, while simultaneously investing in innovative technology and nature-based solutions to mitigate impacts, drawing on circular economy practices, drive sustainable value chains and create an enabling policy environment to address challenges and unlock opportunities.

We are particularly proud to have led the way in the use of Environmental DNA (eDNA) biomonitoring technology, which can identify hundreds of species across different taxonomic groups from a single sample, while being quicker and safer to undertake in the field. This has been implemented at over 18 of our operations worldwide and forms part of the technology-led approach to our Biodiversity Management Programmes.

In prioritising the environment throughout the lifespan of our operations, we look at the entire ecosystem to understand the interconnected relationships of people, nature, climate, air, water, land and the economy. As an ICMM member, we are also committed to contributing to a nature positive future and contributed to the development and launch of its recent Nature Position Statement[14].

[13] WWF, Our Climate's Secret Ally: Uncovering the Story of Nature in the IPCC's Sixth Assessment Report, 2022.
[14] ICMM, Nature: Position Statement, 2024.



Underwater kelp forests help to sustain a wealth of biodiversity and marine species and are vital to society through supporting fisheries, nutrient cycling and carbon and nitrogen removal.

Investing in a nature-based solution to mitigate climate change

To meet the needs of a growing and more environmentally aware global population, countries and businesses alike are seeking innovative ways to harness the power of nature to address hard-to-abate emissions and sequester carbon.

Kelp – an abundant, and relatively untapped, renewable natural resource

Research has shown that kelp can sequester carbon significantly faster than terrestrial woodland. Marine forests act as an extremely efficient carbon sink, with the potential to permanently lock away vast amounts of CO_2 in the ocean, as well as supporting a healthy marine environment and boosting biodiversity. As part of our climate action strategy, our De Beers business is supporting Kelp Blue, an innovative start-up focused on growing and managing large scale kelp forests. As a first step, De Beers has invested $2 million in a pilot project off the coast of Namibia, in the Atlantic ocean.

As part of its work with Kelp Blue, De Beers is supporting the development of a scientific methodology to measure the amount of carbon that is being sequestered. This will accelerate research and understanding of kelp's decarbonising potential, and assist the development of this pioneering nature-based solution. Kelp forests also boost healthy marine ecosystems by providing food and shelter for many species and assist them to survive growing ocean acidification. The forests can be sustainably and repeatedly harvested for at least seven years, with the harvested kelp being used in agricultural fertilisers, as well as in a wide range of everyday household products.

Benefiting the environment – and the local community

Another priority of De Beers' sustainability framework is to partner with host communities to nurture talent, support economic diversification and deliver enduring benefits. Kelp Blue provides an opportunity to support the green economy and build skills for the future. The investment in Kelp Blue will not only lead to a significant increase in the amount of CO_2 sequestered from the atmosphere, it will also bring potential benefits, in terms of job creation and upskilling opportunities, to Namibia.

At the location of Kumba Iron Ore's Kapstevel South pit in South Africa's Northern Cape province, rare Grey Camel thorn trees have been relocated to an area at the entrance to the nearby Kolomela mine.

Nature-related risks in Anglo American supply chains

The TNFD has adopted an open innovation approach and, as part of this, invited organisations to pilot the framework through the course of 2022/23 and to feedback on its relevance, usability and effectiveness.

Feedback indicated that simple, accessible guidance on how to understand and respond to nature-related risks and opportunities is needed for disclosure recommendations. In response, the TNFD developed an integrated assessment approach for nature-related risk and opportunity management. This is called the LEAP (Locate, Evaluate, Assess, Prepare) approach.

Supported by environmental NGO, Fauna & Flora, we piloted LEAP to assess nature-related risks, impacts and dependencies at our Kumba Iron Ore operations and some of the associated key supply chains.

The pilot approach identified fuel, energy and mining tyres as key supply chains important to the business of Kumba and/or representing potential nature-related risks.

As a result of this work, Kumba's procurement and risk teams are increasingly aware of the potential for productivity and price fluctuations and supply constraints, as well as reputational risks and very high risk of deterioration of global ecosystems through cumulative and climate change effects in these supply chains. Engagement with the TNFD framework enabled these teams to gain an understanding of how these trends are linked to changes in the state of nature, global warming and biodiversity loss.

Piloting with Fauna & Flora provided an opportunity for in-depth exploration and understanding of the TNFD framework and how it can be implemented in the context of business activities. Through the work, we were able to share a number of key recommendations for others implementing the TNFD at each LEAP phase. Internally, we plan to use lessons learnt from the pilot to change procurement and supplier engagement processes and feed into decision making at all levels across our business.

Our Sustainable Mining Plan focuses on a mindset of causing zero harm to the environment and delivering NPI for biodiversity and at the same time, a lasting positive legacy for society. We also look beyond what we can achieve alone, collaborating globally with a diverse range of partners to develop and implement sophisticated solutions that support our goals. For example, in 2021 we signed a three-year agreement with the International Union for Conservation of Nature (IUCN) to explore how nature-based solutions can help achieve positive biodiversity outcomes and support our carbon neutrality goals through mitigation, while delivering additional benefits for conservation and other stakeholders.

We believe that delivering positive outcomes for the environment in turn delivers positive outcomes for people and our business. This is consistent not only with our Purpose and our Sustainable Mining Plan, but also with the UN SDGs and Kunming-Montreal Global Biodiversity Framework.

Evolving nature-related disclosures

Accounting for biodiversity impacts and dependencies is a fast-evolving space and has been incorporated into draft recent mandatory disclosure standards from the EU's Corporate Sustainability Reporting Directive (CSRD) to the International Sustainability Standards Board (ISSB), as well as voluntary disclosures, such as the Taskforce on Nature-related Financial Disclosures (TNFD) and Global Reporting Initiative (GRI) for biodiversity 304.

Global disclosure, reporting and target setting mechanisms are now calling for businesses to evaluate ecosystem integrity and/or assessments of the state of nature across their operational footprint. Aligning with these disclosure requirements and metrics will support how we communicate our performance, business resilience in relation to nature and the site-specific and business NPI trajectory across our portfolio and regions in which we operate. With accurate biodiversity accounting, we can start to quantify actions to avoid, reduce and restore natural habitat and identify opportunities to deliver positive biodiversity outcomes.

Taskforce on Nature-related Financial Disclosures

We have been actively involved in the development of the TNFD, a global risk and disclosure framework, supported by the G20, aimed at diverting investment from nature-destructive activities towards nature-positive activities. The TNFD outlines a process for nature-based dependency, impact, risk and opportunity assessment and disclosure associated with direct operations and value chains.

Launched in September 2023, the final TNFD recommendations and additional guidance provide organisations with the necessary tools to start with the identification, assessment, management and disclosure of their material nature-related issues. The recommendations are consistent with global policy goals and international sustainability reporting standards, are science based and designed to allow organisations across jurisdictions to get started now, and increase their disclosure ambition over time.

Anglo American currently has the only representative from the mining and metals sector on the 40-strong Taskforce and we used the opportunity to increase the relevance of the framework to the wider mining and extractives sector, most notably through facilitating the ICMM's involvement in developing sector guidance, thereby catalysing a wider positive impact on nature from our industry.

Engagement with the development of the TNFD recommendations has provided us with a greater understanding of risks affecting our business and the effect of our supply chains on nature. Our own work on baselining – describing the existing state of biodiversity pre-impact – began prior to our NPI commitment in 2018 and allows us to measure the state of change as a result of our activities. We have committed to report against the TNFD in 2025 as an early adopter.

Anglo American, together with piloting partners and the ICMM, has developed additional guidance for the mining and metals sector, intended to support internal nature-related risk and opportunity assessments within mining and metals companies.

Delivering on our strategy and commitments

Decarbonising our operations

Decarbonising our operations (Scopes 1 and 2)

We continue to make progress towards our commitment to become carbon neutral[15] across our operations by 2040, delivering against the pathway we set out in 2021. Being open about our expectation that our trajectory to carbon neutrality would not be linear, we continue to revise our pathway year on year as technologies evolve and our confidence levels grow.

▶ For the assurance statement relating to Scopes 1 and 2 emissions
See pages 102–103 of the Sustainability Report 2023

Scopes 1 and 2 abatement

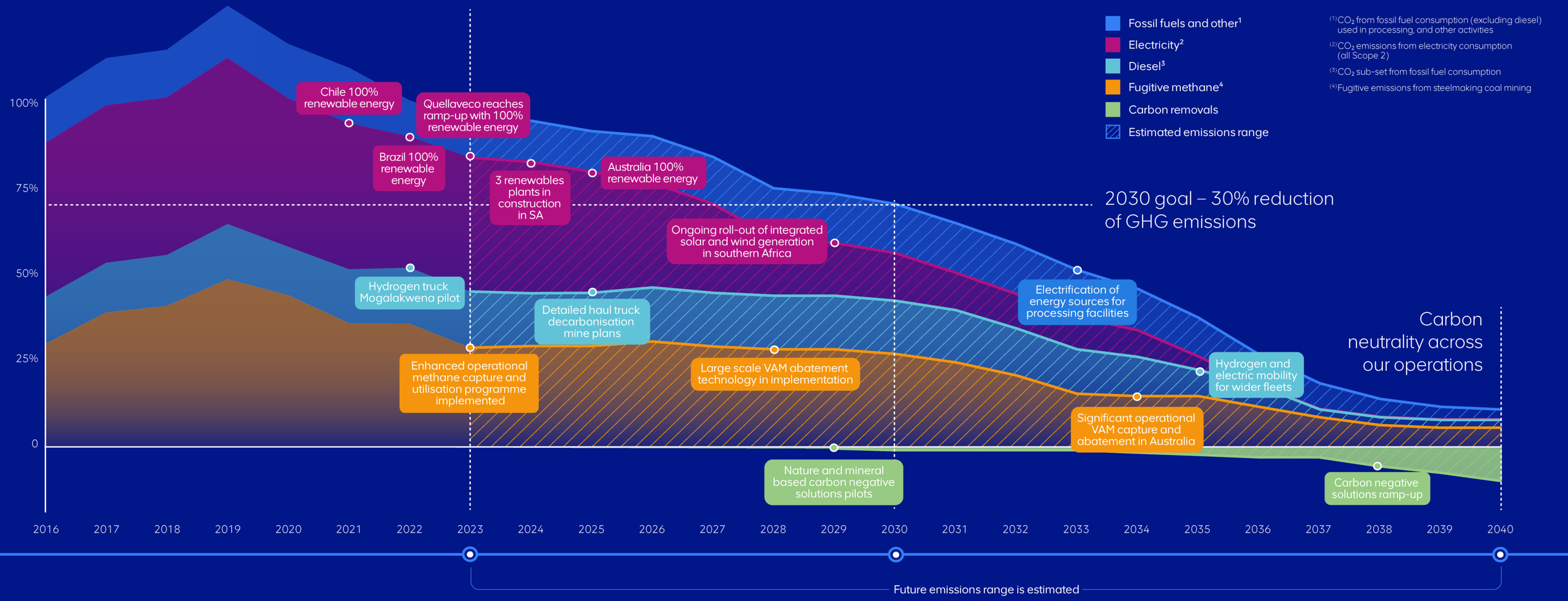
In 2023, our total Scope 1 and 2 emissions[16] decreased by 6% compared with 2022 to 12.5 Mt CO_2e (2023: 7.5 Mt CO_2e and 5.0 Mt CO_2e respectively, 2022: 5.0 Mt CO_2e and 5.0 Mt CO_2e respectively). This equates to a 7% reduction compared with the 2016 baseline on which our 2030 target is set.

The emissions intensity of our production (Scopes 1 and 2) reduced by 4% compared with 2022 (2023: 5.8 t CO_2e/t CuEq and 6.1 t CO_2e/t CuEq).

Compared with 2019, when our emissions peaked, we have delivered a 26% reduction in our total Scope 1 and 2 emissions (2019: 16.8 Mt CO_2e) and a19% reduction in our emissions intensity (2019: 7.2 t CO_2e/t CuEq).

Improvements in the management of methane in our steelmaking coal business has made the largest contribution to this reduction in emissions. Completing the roll-out of renewable energy in South America in 2023 was also a significant milestone. Nevertheless, the associated Scope 2 emissions reductions were offset by an increase in electricity consumption in South Africa, as a result of restarting a number of processing plants initially shut down in 2022.

(15) Carbon neutrality is a condition in which during a specified period there has been no net increase in the global emission of greenhouse gases (GHGs) to the atmosphere as a result of the GHG emissions associated with the subject during the same period.
(16) Scope 1 and 2 emission calculations are aligned to the Green House Gas (GHG) Protocol's methodology.



Progress to 2030

Scope 1

Methane

Methane emitted from our Australian steelmaking coal operations makes up the largest component of the Group's Scope 1 emissions. In 2023, we reduced our methane emissions by 19% to 3.8 Mt CO_2e (2022: 4.7 Mt CO_2e).

We have two predominant categories of methane emissions: rich gas, which we capture and use for power generation and ventilation air methane (VAM). As we mine deeper, we are producing more gas, including both rich gas and VAM.

The reduction seen in 2023 has been achieved primarily through improved operational practices aiming to eliminate venting of rich gas by leveraging improved infrastructure. This has also allowed us to increase further the beneficial use of gas with third parties. Our aim is to eliminate methane venting from our operations, while safe to do so.

We have invested significantly, c.$100 million per annum, in methane pre-drainage infrastructure at our underground steelmaking coal operations. In 2023, across these operations, we abated approximately 60% of methane emissions, including 5.3 Mt CO_2e emissions through the capture and delivery of methane to gas-fired power stations with our partner and third-party operator, EDL. These power stations have an electricity generation capacity of 145 MW – enough to power more than 100,000 homes in Queensland each year. Through our pre-drainage gas activities, we also supply a significant amount (2023: 12.5 PJ) of methane to the domestic gas network, which supplies local industrial customers and other North Queensland-based industrial customers via the North Queensland Pipeline.

The remaining 40% of methane emissions are principally in the form of lower concentration VAM. The lower concentrations make it more difficult to capture and use safely than rich gas. Through concept studies, we are increasing our levels of confidence of how we can manage these emissions in an economic, safe and technologically viable way. A front-running technology is the use of regenerative thermal oxidation (RTO), which has now progressed to the pre-feasibility stage. RTO is an air pollution control process that destroys hazardous air pollutants, volatile organic compounds and odorous emissions created through industrial processes. A key feature of the process is regenerative heat recovery, which makes the system extremely fuel efficient.

We are also partnering with Low Emission Technology Australia to study other possible solutions for VAM abatement as well as actively participating in several industry methane management forums and collaborated with the UN Environmental Programme's International Methane Emissions Observatory measurement trials through 2023.

We estimate that fully deploying safe existing technologies could allow us to increase the amount of the emissions associated with methane we abate. We recognise, therefore, that there is more work to do to implement existing technologies and to tackle any remaining emissions before 2040.

Energy efficiency

Our electrification programme and the transition away from fossil fuels will contribute to the energy efficiency of our operations. The technologies we deploy through our FutureSmart Mining™ programme and our continued focus on improving operational and production efficiencies are reducing energy demand and costs and helping us avoid GHG emissions. These technologies, underpinned by our energy and CO_2 management (ECO2MAN) programme, are pivotal to ensuring continuous energy management and optimisation at our sites.

In 2023, our energy consumption increased by 7% to 89.0 m GJ (2022: 83.3 m GJ). This increase was driven mainly by the ramp-up of our Quellaveco operation towards full production, anticipated as part of our updated trajectory, which was supplied by 100% renewable energy sources.

Scope 2

Powered by renewables

In 2023, we sourced 53% of our electricity supply from renewable sources. We are committed to working towards decarbonising the balance of our electricity supply via the use of power purchase agreements and self-developed generation at site.

With our Quellaveco operation in Peru reaching 100% renewable energy through its supply partnership with Engie in April 2023, all our South American operations (Brazil, Chile and Peru) are now powered by 100% renewable electricity. Building on this progress, as announced last year, we have secured 100% renewable supply to meet all our electricity needs in Australia from 2025. Partnering with the Queensland government-owned provider of electricity and energy solutions, Stanwell Corporation, we will effectively remove all Scope 2 emissions from our steelmaking coal business. This new agreement brings significant environmental benefits and is net present value (NPV) positive compared with our current energy mix, while underwriting a large investment in 650 MW renewable energy generation for Queensland, materially impacting emissions in the region.

This means that from 2025, we expect to be drawing approximately 60% of our global electricity requirements from renewable sources, transforming our Scope 2 emissions profile.

The vast majority of the remainder of our Scope 2 emissions come from South Africa. While there is abundant potential for renewable energy in South Africa, there is currently insufficient infrastructure to support renewable energy generation. Given South Africa's context and coal dependency – the grid is largely based on coal-fired supply – our approach has necessarily been different to that employed elsewhere. Our focus is to support the country's decarbonisation journey as well as our own.

Long term energy stability in South Africa is vital for the country's development pathway. The development of a collectively held and viable pathway to addressing grid capacity constraints is a key issue in this regard – a challenge shared by many countries as they transition to renewable electricity generation. Through our partnerships within the private sector and our continued involvement in the Government-convened National Energy Crisis Committee (NECOM), we are committed to helping steer all parties towards an impactful solution.

In the short term, the South African mining industry has already started playing its part to answer the call for clean energy with a pipeline of 7.5 GW of sustainable energy projects.

Partnering to create a regional renewable energy ecosystem in South Africa

In October 2022, we announced the creation of a jointly owned company with EDF Renewables, Envusa Energy, to deliver a regional renewable energy ecosystem (RREE) across southern Africa of approximately 3–5 GW. The ecosystem is designed to meet 100% of our operational electricity requirements in South Africa, with excess electricity aimed to be supplied to the grid to add capacity.

Envusa Energy has made significant progress in the delivery of its mature pipeline of more than 600 MW of solar and wind power to our operations. Financial close on the three projects that form the Koruson 2 project on the border of the Northern and Eastern Cape provinces in South Africa is expected in the first quarter of 2024.* Once operational, Koruson 2 aims to supply 520 MW of renewable power (240 MW of solar and two 140 MW wind projects) to our operations, displacing 12% of our global Scope 2 emissions, approximately 1.5 Mt CO_2e.

Anglo American's businesses with operations in South Africa (Anglo American Platinum, Kumba Iron Ore, and De Beers) have committed to 20-year electricity offtake agreements with Envusa Energy. These agreements will see Anglo American Platinum receiving 461 MW of supply, Kumba's Kolomela mine 11 MW, and De Beers' Venetia mine 48 MW. All projects are to reach commercial operation during 2026.

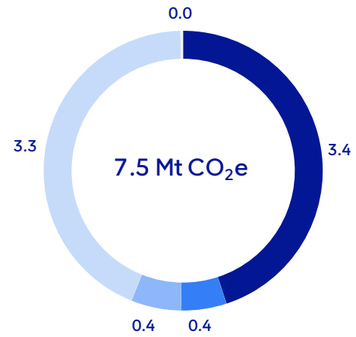
On-site solar projects at both our Sishen (65 MW) and Unki (35 MW) operations are also progressing, targeting the end of 2024/early 2025 to commence construction, with a mature pipeline of additional projects following shortly thereafter.

In 2023 Envusa Energy was also granted a licence to trade electricity in South Africa.

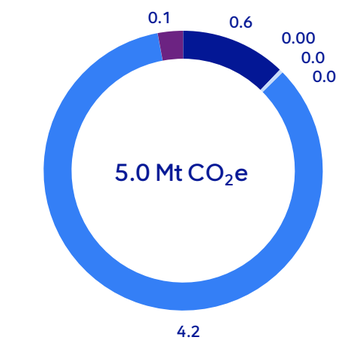
* Subsequent to the endorsement of this Climate Change Report, the three projects that form the Koruson 2 project reached financial close on 29 February 2024.

Anglo American GHG emissions 2023

Scope 1 (Mt CO_2e)



Scope 2 (Mt CO_2e)



The delivery of renewable electricity into the South African grid represents a great decarbonisation opportunity for all our operations and plays a further role in relieving energy pressures within the country. Furthermore, we expect the development of the RREE to catalyse economic activity in South Africa's renewable energy sector, supporting the country's broader Just Energy Transition.

Progress to 2040

Diesel and fossil fuel transition

Transitioning from diesel consumption is a notable challenge; we have therefore, prepared a technology development roadmap, including hydrogen, battery and other forms of diesel fuel alternatives. Working in conjunction with First Mode, as announced in 2022, we are developing multiple pathways to deliver operational decarbonisation, comparing technologies across different time horizons. We remain technology agnostic in our drive to evolve and transform our operations. We are also looking at options to transition mining underground in various operating regions and are developing electrified, lower impact equipment and mining methods to help deliver sustainable and profitable operations.

Alongside diesel displacement, our decarbonisation pathway to 2040 also includes continuing the work on methane abatement at our steelmaking coal operations and tackling the remaining processing emissions. For example, we are currently investigating the transition from fossil fuel-based to electrical heating sources in certain processes.

Residual emissions abatement

Our approach to emissions reduction has always been guided by the mitigation hierarchy: Avoid – Reduce – Substitute – Sequester – Inset – Offset. In anticipation of the fact that we do not yet see a pathway to absolute zero for our Scope 1 and 2 emissions, we are working to address our harder-to-abate residual emissions in line with this hierarchy, while permanent solutions are sought.

Prioritising carbon mitigation projects within our business and value chains, we recognise the need for any insetting projects we undertake to be transparent, independently verifiable and have real-world carbon impact. We are especially focused on identifying carbon removal and avoidance opportunities within host communities and regions in which we operate, leveraging our natural assets and capabilities and, where possible, maximising broader Sustainable Mining Plan (SMP) related co-benefits. By taking direct control of a project pipeline, we can safeguard quality, ensure that projects are aligned with our SMP and NPI objectives and take direct action without abdicating responsibility. This strategy is integrated with our land management strategy and the concept of the living mine, looking at various business models and land uses over time.

We are currently exploring a diverse number of prospective projects, including developing technology in the mineral carbonation and nature-based removals categories which show promise in business cases, livelihoods development and carbon reduction.

In 2023, we progressed with two key pilot projects in Brazil:

Floresta de Carbono

Alongside our Minas-Rio iron ore operation in the state of Minas Gerais, we are developing a mixed forestry project to restore a critically endangered rainforest ecosystem that will generate significant biodiversity benefits. Currently, less than 10% of this rainforest ecosystem remains intact, the balance being on land that has been degraded by agricultural practices.

Project concept and feasibility studies began in 2023 and will continue into 2024. As part of this exercise, we have also completed a pilot reforestation project, restoring 250 hectares of the nearby Mata Atlântica (Atlantic Forest), a recognised global hotspot for biodiversity protection. As part of this project, we are also exploring a commercial and community agroforestry project that will develop the farming of crops, such as coffee and jackfruit, among rows of native trees, as well as sustainable timber production, all of which are eligible for generation of carbon credits. Taken together, these projects draws on our experience of reforestation in Brazil, built for compliance purposes and our experience of long term socio-economic development, as set out in the Social Way. We expect this multi-faceted approach to provide additional employment and economic development in the region through this sustainable agricultural model.

We are in the process of registering our pilot as a carbon project with Gold Standard and our intention is to scale this project to deliver carbon compensation for a significant proportion of our residual emissions across several operations in South America. Not only will this project support the climate and biodiversity goals of Minas Gerais state and Brazil, it will help deliver the Global Biodiversity Framework's aim to protect 30% of the world's ecosystems by 2030, delivering positive biodiversity outcomes and social impact.

Enhanced weathering

Smelter slag from our ferronickel operations at Barro Alto and Codemin in Goiás state, Brazil, has proved to be safe to apply to soils and is an excellent material for enhanced weathering – a process that breaks down rocks containing magnesium or calcium and, in the process, drawing down CO_2 from the atmosphere.

In Brazil, where we are developing a mixed forestry project to restore a critically endangered rainforest ecosystem, we have completed a pilot reforestation project, restoring 250 hectares of Mata Atlântica (Atlantic Forest) shown here against a neighbouring farm.

In 2022, we began a multi-year scientific trial to demonstrate that we could measure the CO_2 drawdown of our slag-based material when applied to soils. Following encouraging results, we are planning significantly expanded carbon and agricultural trials to confirm our results scale when applied to a number of soil and crop types around our operations. Ideally located, surrounded by Brazilian agriculture, our existing stockpiles of material have the potential to sequester >15 Mt of CO_2 (with a further 1 Mt CO_2 potential being added annually), while remineralising soils and delivering significant agronomic benefit to crops. To truly scale this opportunity, we are in the process of developing the appropriate agricultural and carbon partnerships to deliver lower carbon agricultural products that will sequester carbon when applied to soils. This circular approach to our largest waste stream in our Nickel business will allow us to deliver carbon removal at scale, while delivering a positive impact on agriculture and soils and economic activity and employment beyond the mine gate.

Alongside these and various other projects in development, we continue to monitor the maturing international market for voluntary carbon offsets, utilising our experience of trading carbon in compliance markets such as Australia and the European Union.

Target ambition and alignment with 1.5°C

Current scientific evidence shows that, broadly, the world needs to achieve net zero CO_2 emissions by 2050 to limit average global warming this century to well below 2°C and preferably to 1.5°C, compared with pre-industrial revolution levels. This is enshrined as one of the goals of the 2015 Paris Agreement.

There is no agreed way to assess whether emission reduction targets are aligned to pathways constraining global temperature increase to 1.5°C and no consensus definition of what this or 'alignment with Paris' means. The Science Based Target Initiative (SBTi) is widely cited as a means of providing some assurance of the level of ambition. However, the SBTi has yet to develop a methodology to assess the diversified mining sector and currently excludes target verification for any company deriving more than 5% revenue from fossil fuel assets – drawing no distinction between fossil fuel produced for steel production as opposed to energy. As a consequence, it is not yet possible for us to secure SBTi verification for the level of ambition of the Anglo American Group targets, although De Beers received SBTi verification for its targets, a sub-set of the wider Group targets, in 2023. Nevertheless, we considered it important to assess whether our Scopes 1 and 2 targets were aligned with the ambition assumed in the Paris Agreement.

When our 30% emissions reduction target was set in 2018 against a 2016 baseline, the Group forecast that emissions would increase from 2016 owing to production growth outpacing emissions reductions. Therefore, the Group's target reduction of 30% by 2030 against a 2016 baseline was equivalent to a c.44% reduction in absolute terms against the Group's reported 2019 emissions. This is therefore in alignment with the IPCC's 2022 report *Mitigation of Climate Change*[17] and the Global Stocktake technical report published ahead of COP28, which suggest:

> "Limiting global warming to 1.5 °C (>50% probability) with limited or no overshoot implies a reduction of around 43% in global GHG emissions below the 2019 level by 2030."

With this as the context, to assess our level of ambition we undertook an internal review and then sought third-party verification of our work from the Carbon Trust. This review compared the emissions reductions we were targeting between 2020 and 2030 with the multiple 1.5°C pathways defined by the IPCC.

The outcomes of this work can be summarised as follows:

- A consultant-supported exercise was performed in 2021 by Anglo American to assess the Group's emissions profile and targets against a set of 37 publicly accessible global pathways collated by the IPCC that limit the global temperature increase to 1.5°C and that reach net zero emissions before, or at, 2050. Against those scenarios, the 2030 target was more ambitious than 19 of the pathways. While these results are not definitive, they indicate that the Group Scope 1 and Scope 2 2030 target is within the range of those IPCC 1.5°C global pathways.
- In early 2022, Anglo American instructed Carbon Trust to conduct an independent gap assessment, comparing the Group's GHG targets and planned decarbonisation trajectory against selected credible pathways and accepted net zero definitions.
- A comparison against the SBTi Absolute Contraction (intensity pathway) approach indicated that the Group's target was in range in terms of trajectory and cumulative emissions from 2020, though an increase to a 34% reduction in the target relative to 2016 would precisely match the SBTi 1.5°C curve.
- An applied Transition Pathway Initiative (TPI) intensity analysis using the Group's forward projections, estimating both forward production and decarbonisation pathways, indicated that the Group intensity performance was in line with a 1.5°C TPI intensity pathway until 2040, including as at 2030.
- A comparison to the International Energy Agency (IEA) Net Zero Emission (NZE) 1.5°C aligned emissions reduction pathways demonstrated that the Group's general trajectory compares favourably in terms of targets in the longer term (2040); however, the medium term (2030) target would be 8% outside the NZE 1.5°C pathway at that juncture.

This work gave us confidence that, recognising that with forecasts of any type there is a margin of error, our 2030 Scope 1 and Scope 2 target and trajectory can be demonstrated to be aligned with a well-below 2°C scenario, and broadly in the range of what is widely understood as a 1.5°C world.

Allocating capital to achieve our targets

Our commitment to achieving carbon neutrality across our operations is embedded in company strategy and our medium term plan, including the allocation of capital. Given the work undertaken with the Carbon Trust described, we also believe, therefore, that capital deployed to meet those targets is aligned with a contribution to achieving the goals of the Paris Agreement.

We believe that decarbonising our operations can, in addition to generating emissions reductions, also generate financial returns for the business. We aim, therefore, to ensure that our programme of investments to drive action towards our 2040 carbon neutrality commitment is NPV-positive.

However, there are some cases where it is difficult to distinguish between capital deployed to continually improve our business and that which is deployed to achieve carbon neutrality. For example, our investments in technological innovations such as digitalisation, bulk ore sorting and coarse particle recovery, result in a wide range of benefits, including, but not limited to, reducing the emissions of our operations through efficiencies which, in turn, also improves the profitability of our business.

Our approach to decarbonising electricity supply

An example of how we take a tailored approach to capital allocation for our decarbonisation goals is the sourcing of electricity. In jurisdictions where there is a plentiful supply of renewable power, we have negotiated power purchase agreements with suppliers. As noted, this means that from 2023, all of our South American operations were sourcing all of their electricity from renewable power and, by 2025, our Australia operations will follow. In general, sourcing power from renewable sources in these jurisdictions, including, where necessary, exiting legacy conventional power purchase agreements, has not only helped us reduce emissions but has also positively affected operating costs, given the increasingly competitive cost of renewable energy and volatility of fossil-based energy supply.

For South Africa, we have noted that the approach is necessarily different; while there is an abundance of potential for renewable energy, there is currently insufficient renewables infrastructure. As a result, we have taken the decision to develop, with partners, infrastructure to harness the supply of renewable energy.

Our investment into Envusa Energy, to create a RREE is expected to generate positive financial returns for Anglo American and its partners while significantly increasing the use of renewable energy in South Africa.

The investment will be syndicated, with additional empowerment partners providing equity financing for the ecosystem and debt financing that is typical for high-quality energy infrastructure projects. This syndicated structure will help manage both our risk and total capital deployed while enabling a significant reduction in our Scope 2 emissions and contributing to the transformation of South Africa's energy profile.

The work is progressing well and we have reached financial close on two of the three Koruson 2 projects. Financial close of the third project is expected in the first quarter of 2024. We have provided for community participation and managed to secure project financing debt that is consistent with high-quality renewable energy projects.

[17] Climate Change 2022: Mitigation of Climate Change. Contribution of Working Group III to the Sixth Assessment Report of the Intergovernmental Panel on Climate Change.

Decarbonising our value chain

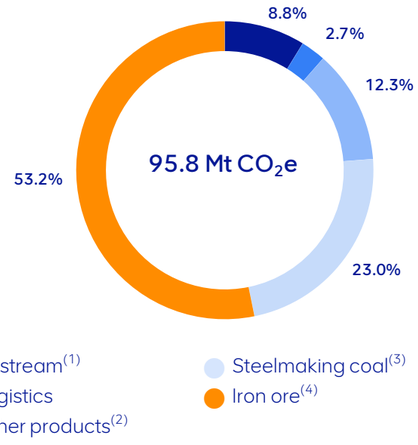
Decarbonising our value chain (Scope 3)

Anglo American remains committed to working across value chains to reduce emissions. We have set an ambition to reduce our Scope 3 emissions by 50% by 2040, on an absolute basis, against a 2020 baseline. Each year we improve our understanding of how decarbonisation can be achieved across our value chains and the role we can play in supporting this.

Engagement and partnering with our customers and largest suppliers continues to be the focus of our Scope 3 emissions reduction strategy. We are committed to developing lower carbon solutions for our products and driving demand for lower carbon metals and minerals.

In previous years, the reporting period of our Scope 3 emissions was misaligned with reporting periods for our Scope 1 and 2 emissions. This was primarily as a result of the relative limitations of Scope 3 reporting and difficulty in obtaining high quality, timely third-party data. As a result, in our 2022 Climate Change Report we presented our 2021 Scope 3 emissions only.

2023 Scope 3 emissions



(1) Includes purchased goods and services, capital goods, fuel and energy related activities, and upstream transport and distribution.
(2) Includes copper, exploration, manganese, nickel, PGMs, polyhalite, thermal coal and traded product.
(3) Includes use of sold product associated with steelmaking coal assets.
(4) Includes processing of sold product associated with iron ore assets.

Over the course of 2023, we continued to work on our process for calculating Scope 3 emissions and improving the data and emissions factors utilised in our methodology, which is aligned with the GHG Protocol. As a result, in 2023, we are able to publish both our 2022 and 2023 Scope 3 emissions.

In 2023, our Scope 3 emissions reduced by 8% compared with 2022 (2023: 95.8 Mt CO_2e; 2022: 104.5 Mt CO_2e; 2021: 98.5 Mt CO_2e). This equates to a reduction of 17%, compared with our 2020 baseline. No changes were made to our Scope 3 methodology when calculating our emissions for 2022 and 2023.

▶ For more information
visit angloamerican.com/scope-3-methodology

Breaking down our Scope 3 emissions

We continue to make progress in reducing emissions from our primary source of Scope 3. The processing of our iron ore remains the largest contributor to our emissions profile, with category 10 emissions from steelmaking accounting for 50.9 Mt CO_2e, or 47% of total emissions, in 2023 (2022: 47.8 Mt CO_2e and 54% of total emissions; 2021: 47.2 Mt CO_2e and 52% of total). The emissions intensity of our iron ore has fallen by 5%[18] in 2023 versus the 2020 baseline.

Year-on-year changes in sales volumes to different processing routes drive some level of volatility in our category 10 emissions. However, these are trending downwards overall.

We also continue to focus on product quality and customer selection, working with our customers to ensure that our high-quality iron ore is effectively utilised in efficient steelmaking.

50% of our category 10 emissions from iron ore in 2023 arose in China, which has pledged to be carbon neutral by 2060; meanwhile, 31% are der from Europe, Japan and South Korea, which have pledged to be net zero by 2050.

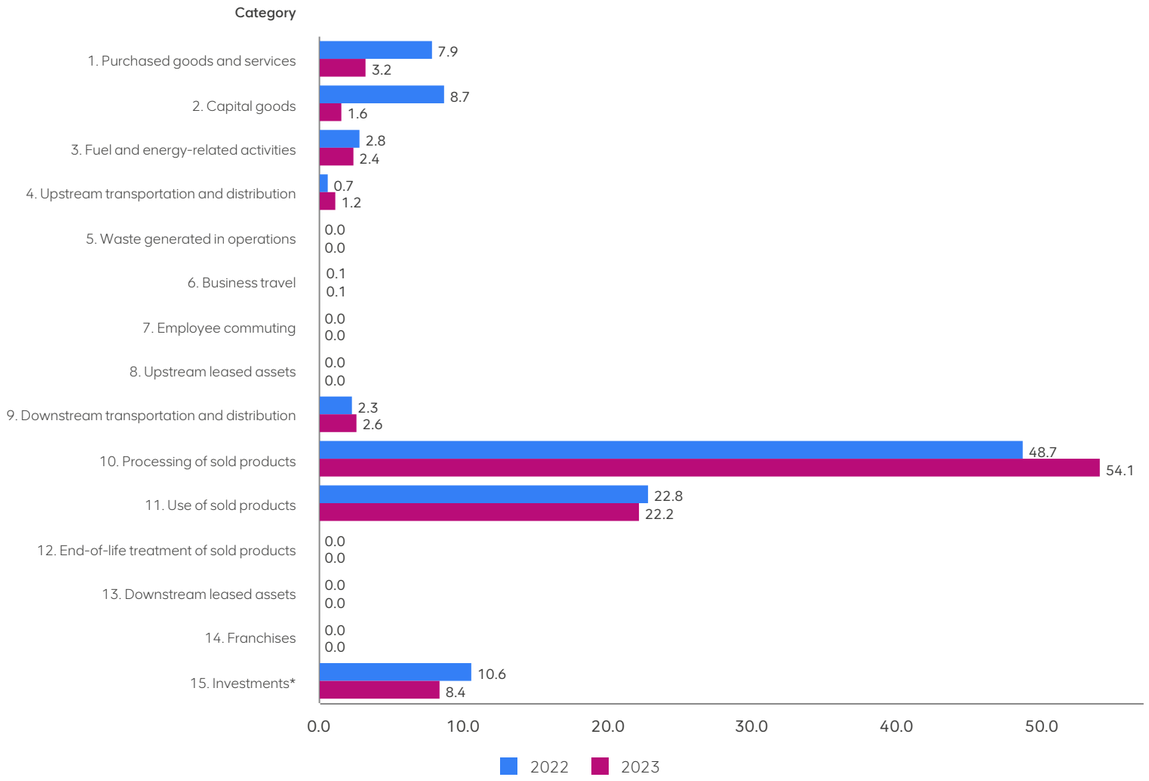
In 2023, 40% of iron ore sales by volume were to customers with externally verified net zero targets by 2050. We continued to engage with our customers this year, with c.23% of iron ore sales now covered by decarbonisation Memoranda of Understanding (MoUs).

Categories 1 and 2 have historically accounted for c.15% of our total Scope 3 emissions and a spend-based approach is used to calculate emissions for these categories. In 2023, we chose to improve the quality and accuracy of the emissions factors used for category 1 and 2 spend, shifting to the use of an Environmentally-Extended Input-Output (EEIO) database provided by a third party. As a result, we saw a significant drop in our emissions under categories 1 and 2 as we shifted away from global industry averages to more granular data which also accounted for regional differences. As we continue to mature our methodology and Scope 3 pathway, our calculation will shift to supplier and product-specific emissions for categories 1 and 2, allowing for a more accurate analysis of progress over time.

This continuous refinement to ensure we use the best available data will lead to year on year volatility in reported emissions. We will re-baseline historic calculations to utilise improved data availability at least every five years.

(18) Intensity based on dry metric tonnes sold.

2023 Scope 3 emissions (Mt CO_2e)



* Further detail on the sources of Category 15 emissions can be found in our Methodology document.
✱Our Methodology also includes details on adjustments made for double counting.

Our pathway to Scope 3 reduction

To deliver on our ambition of reducing Scope 3 emissions, we are focused on collaborating with our highest emitting customers and supplier partners to work towards a common goal of emissions reduction through efficiency savings and technological advancements. We have identified seven prioritised initiatives for decarbonisation over four themes:

Observe and promote

What: Proactively shape policies and industry initiatives

Why: Gaining visibility and knowledge

01

Actively monitor industry developments and advocate for policy and regulation

2023 Progress

- Anglo American provided input into the development of the ICMM Scope 3 Methodology and Target Setting guidance.
- We continued to engage with industry initiatives such as Responsible Steel and Mission Possible Partnership with the aim of improving the granularity of Scope 3 reporting and allowing comparison for like type organisations, ultimately allowing industry value chains to decarbonize in the most practical and transparent way.

Next steps

- We will continue to monitor and contribute to developments in policy and regulation, and remain active participants in appropriate industry groups in order to increase transparency and standardise methodology in the most practical way possible.

02

Evolve Scope 3 methodology: proactively engaging with end customers to understand emissions

2023 Progress

- In 2023 we refined our use of emissions factors across all categories, with significant improvements made in categories 1 and 2 as we shifted to EEIO emissions factors. In addition, we continued to refine and increase our use of customer specific emissions factors where possible.

Next steps

- Engagements with our largest suppliers will continue to enable better understanding of the specific carbon footprint of goods and services purchased. We will also continue to improve our understanding and measurement of the emissions associated with the products we sell.

Product quality and customer strategy

What: Accelerate customers' decarbonisation by tailoring products to decarbonisation needs

Why: Lower Scope 3 by aligning products with lower emissions customers

03

Evolve understanding of customer and supplier footprints

2023 Progress

- MoUs and partnerships now cover c. 23% of our iron ore sales, 13% of copper sales, and 52% of ferro-nickel sales. These provide important insights into the use of our products downstream and the associated emissions.
- In 2023, we began to include decarbonisation pathway requirements when tendering for new suppliers.

Next steps

- We will continue engaging with customers to better understand their decarbonisation journeys. Where synergies and opportunities for collaboration exist, these will be pursued.

04

Prioritise production and sale of high-quality material to low carbon steelmaking routes

2023 Progress

- We continued our work with our MoU partners to better understand the chemical, metallurgical and physical properties our products require to be used in low carbon steelmaking routes.

Next steps

- We will also continue our collaborative work with our partners on suitable feed strategies for lower carbon steel technologies.

Partnerships to drive decarbonisation technology adoption

What: Accelerate customers' decarbonisation by accelerating technologies

Why: Creating conditions for our products to be used in lower emissions processing and products in the future

05

Pursue partnerships with customers working towards more efficient blast furnaces

2023 Progress

- We are partnering on a number of projects researching and piloting methods to improve the efficiency of steelmaking using blast furnace technology.

Next steps

- Continue to help support and scale Decarbonisation Ventures portfolio companies with relevant technology, including by connecting with customers.

06

Pursue partnerships with customers to reduce Scope 3 emissions

2023 Progress

- In 2023 we signed MoUs focused on collaborative efforts in sustainability with customers in the steel and base metals industries.

Next steps

- We will continue to push forward work on our existing collaborations and partnerships while also expanding the number of customers we engage with.

New green business building to drive industry decarbonisation

What: Accelerate industry decarbonisation by creating new solutions

Why: Profitable new business building

07

Create and grow internal business solutions to reduce carbon emissions

2023 Progress

- We are continuing to grow our innovative portfolio of solutions to support businesses reduce carbon emissions.
- We are proactively investing in technology and sectors where we see a potential for future value and decarbonisation of our value chains.

Next steps

- Through Decarbonisation Ventures and its venture-building partnerships, continue to identify potential spin-out opportunities.

Leveraging venture capital in Scope 3 emissions reduction

Our Decarbonisation Ventures team continues to support new technologies and pioneering thinking that will help reduce our Scope 3 emissions. These are primarily related to the products we sell into the steelmaking industry, which today accounts for 7–9% of global carbon emissions*. In addition to our existing investments in companies with steel decarbonisation technologies such as Helios and Limelight Steel, we are collaborating with a wide range of actors in the ecosystem to accelerate potential technological solutions.

In 2023, in conjunction with the European Institute of Innovation and Technology (EIT), we launched our 'Pathways to Steel Decarbonisation' innovation challenge. After assessing more than 40 applications from across the globe, we invited three finalists to meet our team and pitch their solution to a judging panel comprising representatives from Anglo American and other leaders active in the steel value chain, including BASF and Mitsui. The process led to the selection of D-CRBN as the top-ranked finalist.

D-CRBN is a Belgium-based start-up developing a plasma-based carbon capture and utilisation technology which recycles captured carbon into carbon feedstock for steelmaking. We are currently progressing conversations about further collaboration with D-CRBN, as it seeks to commercialise its technology.

We have also advanced our collaboration with the University of Birmingham, to help develop a perovskite material that could potentially enable decarbonisation of the blast-furnace.

* World Steel Association, Climate Change and the Production of Iron and Steel, 2021

The steel value chain

Steel is a critical foundational material for almost all infrastructure and will provide the backbone of the low carbon economy and wider, long term socio-economic development. In 2023, an estimated 1.9 billion tonnes of crude steel were produced globally. Despite increased interest in the use of recycled steel in the industry, c.70%[19] of steel production is dependent on primary iron ore supplies. This is expected to remain at around 60% out to 2050, according to analysis by Wood Mackenzie[20]. The steel industry is continuing to develop and grow new technologies to provide lower carbon steel and iron. This includes the use of more efficient processing, natural gas and hydrogen fuelled direct reduced iron (DRI) which, are reliant on high-quality iron ore feed. We are growing our share of high-quality pellet feed and premium lump ore to support the scaling of these technologies and lower emissions from the steelmaking industry.

In 2023, we agreed several MoUs with our customers, including H2 Green Steel, Meranti Green Steel and Baosteel, with a focus on reducing emissions within the steel value chain. These new MoUs join ongoing MoUs with counterparties including Nippon Steel, Salzgitter, and Thyssenkrupp. The collaborations focus on accelerating the adoption of less carbon intensive production technologies, such as in the DRI and electric arc furnace (EAF), using Anglo American's premium quality iron ore products from Kumba Iron Ore's mines in South Africa and Minas-Rio in Brazil.

The agreements include a focus on efficient product delivery by using Anglo American's ocean freight decarbonisation framework, built on co-ordinated efforts around route and vessel size optimisation and the introduction of alternative, more sustainable, fuel options.

In addition to our customer partnerships, we are committed to increasing the production and the sale of high-quality iron ore from our mines. We are working on projects at our Sishen and Kolomela operations in South Africa to increase the proportion of premium lump and premium fines produced. These beneficiation efforts will allow us to sell our product into more efficient steelmaking routes, including a portion to DRI production.

(19) World Steel Association, Sustainability Indicators Report, 2023
(20) Wood Mackenzie, Commodity Market Report, Global Steel investment Horizon Outlook Q4 2023, 2023

Driving emissions reduction across our supply chain

Our activities with suppliers and our operations contributed approximately 5% of Anglo American's Scope 3 footprint in 2023, predominantly through the procurement of mining equipment, services and capital goods.

Key to our decarbonisation strategy for Scope 3 is partnering with our suppliers globally, leveraging our relationships, influence and spend, to drive greater decarbonisation across our diverse value chain, all in support of our ambition to halve Scope 3 emissions by 2040.

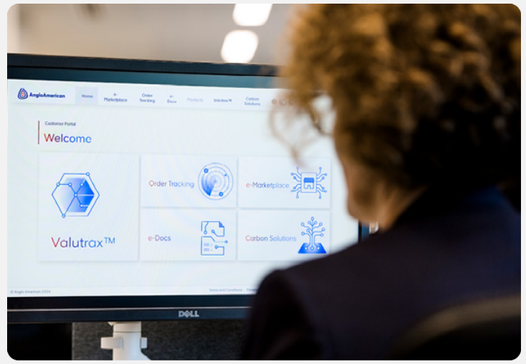
Partnering with strategic suppliers

Building on work undertaken in 2022 to identify the most significant contributors to our upstream Scope 3 emissions, in 2023, we began engaging with our top 100 strategic partners to better understand their footprints. Through this, we identified 25 that have public decarbonisation commitments.

Supplier partners represent a significant opportunity for collaboration to reduce emissions from complex manufacturing value chains. In 2023, we formalised 10 MoUs based on key principles from our Sustainable Mining Plan, establishing a series of commitments, targets and tracking mechanisms to demonstrate decarbonisation and climate change action. These MoUs signal new long term partnerships towards shared sustainability outcomes and include commitments to ethical value chains, reducing manufacturing-related emissions and the development of more energy-efficient equipment. This work will continue throughout 2024.

Integration of decarbonisation and circularity criteria in sourcing

Over the course of 2023, we ran a multi-billion dollar global Heavy Mining Equipment (HME) tender to secure the supply of critical machinery and associated services for our operations up to 2030. Included as part of the critical evaluation, we piloted specific requirements on decarbonisation and circularity performance – including performance targets for energy-efficient equipment and committed reductions of supplier-side emissions; for example, the recovery of materials from end-of-life equipment. As a result, integrated sustainability solutions have been successfully embedded into this contract and we intend to adopt this approach across all our global categories in due course. This will formalise our supply chain ambition of working with suppliers that are equally committed to sustainability and emissions reduction as part of doing business with Anglo American. We will monitor responses through our existing Supplier Relationship Management approach. Continuing to raise awareness and the capacity



Driving emissions transparency in value chains

To support our customers on their sustainability journeys, including promoting the transparency of emissions across the value chain, we launched Valutrax™, a proprietary digital traceability solution designed to provide customers with greater assurance about the provenance of the products they purchase.

Valutrax™ offers a single point of access to core information about such products, helping to trace metals and minerals from source to customer through a tailored selection of key provenance and sustainability indicators.

Valutrax™ is built on blockchain technology, a distributed database that allows for information to be securely stored in a digital format and gives participating customers access to a comprehensive, immutable view of a product's core information via a user-friendly portal. A digital label can be downloaded for each delivery, offering an at-a-glance view of key data – from provenance and carbon emissions intensity to safety and the social impact of our operations, along with an overview of the policies that underpin Anglo American's approach to driving safe and sustainable operations.

of our suppliers to reduce emissions in their value chains remains critical. To this end, further guidance is planned for publication in 2024 to support suppliers improve the understanding of their emissions and drive energy efficiency across their operations. These publications will complement our existing Responsible Sourcing Standard for Suppliers and will outline our ambition and business critical expectations for suppliers to manage environmental and other sustainability risks.

Digitisation and technology innovation

Responding to the challenge of publicly available information on company emissions and decarbonisation plans, we have undertaken an extensive market discovery exercise to identify best-in-class technology solutions to support sustainability innovation. Through this exercise, we identified a pioneering software solutions provider that can accurately map emissions reduction opportunities through interfacing global manufacturing, shipping, materials and product data against supply chain expenditure.

We began piloting this technology in late 2023 with our top 100 suppliers by emissions (which represent >50% of all supply chain attributed emissions). Once embedded, we will be able to generate supplier specific scorecards and product-level footprints, enabling targeted performance management with suppliers on reduction activities.

Driving emissions reduction across ocean freight transport

We have set an ambition to achieve carbon neutrality across our controlled ocean freight activities by 2040, with an interim 30% reduction in emissions by 2030. We are making progress towards achieving this, actively working to contribute to the long term sustainability of the shipping sector.

Progress towards 2030

Emissions reductions up to 2030 will largely come from existing or emerging technology. We anticipate a large proportion of the reductions will come from existing alternative fuels, such as LNG and biofuels, with the rest coming from energy-saving devices and commercial optimisation strategies, wherever applicable.

LNG

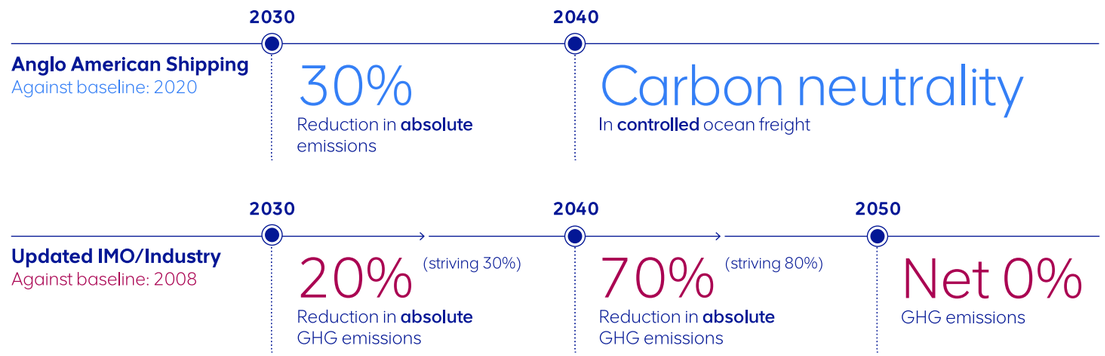
Anglo American was an early adopter of LNG-powered transport in the bulk carrier segment. In 2020, we announced the award of a 10-year charter contract for four LNG dual-fuelled 190,000 dwt Capesize+ vessels, introducing LNG into our chartered fleet for the first time. This was subsequently expanded to include six more, bringing the total to 10 LNG dual-fuelled Capesize+ vessels, making up the 'Ubuntu' fleet. Eight of these vessels are already in operation at the end of 2023 with the final two operationalised in the first quarter of 2024. The vessels place us in a market-leading position: we operate the largest LNG dual-fuelled dry-bulk fleet in the world today. Our expectation remains that in operating this new fleet we will achieve an estimated up to 35% reduction in CO_2 emissions compared with vessels fuelled by conventional marine oil. In addition, the adoption of new technologies eliminates the release of unburnt methane, as well as removing sulphur oxides and reducing the volume of nitrogen oxides and particulate matter, helping to improve air quality.

Biofuels

In 2021 and 2022, we conducted biofuel trials to evaluate the suitability and safety aspects of bunkering vessels with sustainable maritime biofuels. In 2021, we successfully trialled the use of sustainable biofuel to power a chartered Capesize ship during a voyage from Singapore to South Africa. The biodiesel blend, produced by converting waste cooking oil from Singapore's food and beverage industry, reduces CO_2 emissions compared to using 100% conventional marine fuel.

In 2022, we successfully completed a sea trial using biofuel blended with very low sulphur fuel oil, reducing CO_2 emissions by approximately 10%. The trial further demonstrates the potential for sustainable biofuel to be used as a 'drop-in' fuel i.e. that we can use blended fuel without any modifications to the powertrain, improving its viability to help reduce emissions in the shipping sector.

Anglo American Shipping climate ambitions



Building on these successful trials, in 2023, we started to use similar biofuel blends on voyages on chartered vessels with trusted partners, subject to fuel availability. While biofuels will be an important part of decarbonising maritime shipping, availability of supply and affordability, will remain a challenge due to competition for these fuels from both the maritime sector and other industries.

There is currently no industry-wide assurance framework that addresses concerns on the quantity, quality and GHG emissions abatement of biofuels, nor one that safeguards their premium and value. As a result, the Global Centre for Maritime Decarbonisation (GCMD), based in Singapore, is currently leading a pilot with consortium members that aims to establish an assurance framework to ensure supply chain transparency of drop-in biofuels, including future drop-in fuels, such as bio-LNG, bio-methanol and green ammonia. Anglo American is one of the consortium members supporting the GCMD in this effort.

Energy-saving devices

Trials across the industry of energy-saving devices (ESDs) have proven that it is possible to reduce GHG emissions through these technologies. Examples of ESDs include wind-assisted propulsion, lubrication systems and upgrades, weather and route optimisation software, as well as fuel additives.

Partnerships are critical to the future development and application of ESDs, as vessels are typically owned by third-party shipowners, who are ultimately responsible for operating the vessels safely and profitably and are also in control of the ships' lifecycle, including the planned maintenance periods during which retrofits can be installed on vessels. This requires close partnership and planning with users of vessels such as Anglo American. We are actively exploring ESDs, working to support feasibility studies to assess the efficacy and timing of installations.

Working together with wider industry

While we have established an industry-leading decarbonisation ambition at an organisational level, we also endeavour to meet the regulations set by the International Maritime Organization (IMO). In response to calls from the global community and some industry participants to increase the pace of decarbonisation in shipping, in 2023, the IMO revised its industry decarbonisation targets. The revised targets are now more closely aligned with our own ambition to achieve carbon neutrality for controlled ocean freight by 2040, which remains even more ambitious still.

We are also a founding signatory of the Sea Cargo Charter (SCC), which encourages industry participants to adopt a standardised accounting framework to ensure consistency, data quality and transparency via the publishing of reported emissions for a calendar year. The methodology ensures that Anglo American, as well as its customers, can be confident of the carbon data that is associated with voyages that we operate. It also ensures that we are able to continuously calibrate our approach to meeting the IMO regulatory targets on an annual basis at a minimum. In the SCC's second annual disclosure report, published in 2023 (reporting 2022 emissions), Anglo American is described as 'outperforming', putting us on track to meet the IMO's decarbonisation targets.

Progress to 2040

If partnership in this decade is important in achieving decarbonisation ambitions, it is ever more critical through to 2040. Decarbonisation in the 2030s is centred on the widespread adoption of alternative fuels, in significant quantities. Looking ahead to 2040, green methanol, ammonia and hydrogen derivatives will likely be the focus of the alternative fuel market. For these alternative fuels to be adopted successfully and sustainably, there must be steady demand for them in the maritime sector.

While the technology for combusting green methanol on board vessels exists, the manufacture of green methanol is currently both cost-prohibitive and not widespread. In the case of ammonia or hydrogen derivatives, the technology for production and combustion is still nascent, and its safety for use on board as a fuel still needs to be fully assessed. However, the industry continues to investigate the solution and much work is under way to develop the technology.

Green corridors

Maritime green corridors are routes between major port hubs where zero-emission solutions are conceptualised and are one way that the industry and governments can jointly explore the decarbonisation of the maritime sector.

To progress towards adoption, partnerships are vital. Not only do they serve to de-risk ventures into uncharted territory, but they also bring the best minds and combinations of expertise to explore the various aspects of developing a shipping supply chain built around green fuels.

In 2023, we became part of the first ever concept for a maritime green corridor, between South Africa and Europe. Co-ordinated by the Global Maritime Forum (GMF), this industry consortium, brings together multiple parties to unlock new opportunities for South Africa's sustainable development and contribute to the transition toward a zero-emission maritime system. The consortium brings together Anglo American, Tata Steel, CMB, VUKA Marine, Freeport Saldanha, and ENGIE – combining expertise and collaboration from across the value chain. Together with consortium members, we will look at bunkering and offtake arrangements, available green fuel supplies and financial and business model alternatives along this green corridor.

Supporting early-stage climate innovation

Leveraging the transformative power of venture capital as an avenue for fostering disruption and driving growth in climate positive innovation, our Decarbonisation Ventures team continues to lend flexibility to our overall climate approach.

Over the past year, the team has added seven companies within the climate technology ecosystem to its portfolio, forging new collaborations, ranging from government institutions such as the European Institute of Innovation and Technology (EIT) to academia including the University of Birmingham and venture-builders like Deep Science Ventures.

Building on Anglo American's longstanding experience in venture capital investments, the team has a mandate to explore and develop early-stage innovations with the potential to make a positive impact on the long term decarbonisation of hard-to-abate sectors, in particular those – such as steel production – that are directly linked to our Scope 3 emissions profile.

The team's investment thesis has three key criteria. The first targets start-ups with decarbonisation potential of greater than 0.5 Gt of carbon emissions per year. The second requires climate-positive technologies where Anglo American can reduce risk or add value through our network, knowledge and assets. The final criterion concerns opportunities that are closely aligned with Anglo American's strategic focus, whether in protecting its core capabilities or positively influencing the success of its future portfolio.

Our capital allocation model is broadly tripartite – investing; building and accelerating in our four focus areas of sustainable materials, carbon and nature, methane and agriculture; and clean energy. The team invests in existing ventures; builds companies with breakthrough technologies in innovation and investment neglected segments with decarbonisation potential; accelerates decarbonisation by engaging with the ecosystem; and helps to close the innovation loop through piloting and implementation.

Aligned with Anglo American's emissions reduction efforts, the team focuses not only on technologies that could help reduce our wider value chain emissions – with a particular emphasis on our efforts to deliver on our ambition to reduce our Scope 3 emissions by 50% – but also on opportunities beyond our own direct remit, in areas such as geothermal energy.

Peridotite rock formation in Oman, where Decarbonisation Ventures' portfolio company Eden GeoPower is trialling its electrical reservoir stimulation technology.

Unlocking new baseload energy sources

Heat generated by the earth is a reliable renewable resource that has been harnessed to generate electricity for more than a century. Current technology, however, means that the exploitation of geothermal energy is dependent upon locations that have suitable geological features, such as at the boundaries of tectonic plates and are limited by expensive drilling costs.

Decarbonisation Ventures has invested in two companies – GA Drilling and Eden GeoPower – that are seeking to reduce the geographic dependencies and drilling costs of geothermal energy. GA Drilling is developing plasma drilling technology to enable geothermal energy beyond existing locations, while Eden GeoPower is developing electrical reservoir stimulation to enable more efficient geothermal resource development.

By supporting these types of technologies, Decarbonisation Ventures is helping unlock the wider deployment of a potentional new critical baseload energy solution that may provide decarbonisation solutions to Anglo American and beyond.

Transitioning our operations: Sishen

The following is an illustrative example of key elements of the transition to becoming a lower carbon operation for Kumba's Sishen iron ore operation in South Africa.

Physical climate resilience
- Implementation of risk management controls around water, dust, rehabilitation and wildfire management strengthened on the basis of a physical climate change risk and resilience assessment.
- Updated water balances and flood risk models to inform the adaptive water management plan.
- Engagement with Transnet on the resilience of the Sishen–Saldanha rail line and Saldanha port to climate change.

Scope 1 emissions
- Implementing emissions reduction and fuel efficiency initiatives across haulage and loading fleet, including improving payloads for hauling trucks, optimising low-idle for drills and improved shovel truck matching.
- Working towards electrifying fleet of light delivery vehicles (LDVs) and introducing hybrid electric shovels.
- Exploring the implementation of a SmartRoads initiative to support greater reduction in diesel consumption across the operation.

Nature
- Improving land management practices through detailed invasive species control and bush encroachment management plans.
- Comprehensive land management strategy that includes agricultural ventures to optimise societal value and protect biodiversity.
- Deploying environmental DNA technology to allow the identification of individual species to measure biodiversity at site.
- Working with local partners to explore regional biodiversity offset programmes.
- Protecting and restoring functional features around the mine including the Gamagara river and ephemeral pans.

Just Transition
- Through our Zimele enterprise development programme, South Africa's largest, supporting enterprise and supplier development and youth across three programmes, this includes developing "solar entrepreneurs".
- Partnering with Northern Cape Impact Catalyst to facilitate collaborative regional development to ensure socio-economic resilience in the local communities.
- Supporting 45 schools in the local communities through the Anglo American education programme.

Scope 2 emissions
- 67 MW on-site solar project progressing towards execution in 2024/25.
- Once constructed, it will provide 30% to 35% of the operation's electricity (without storage).
- Maximising wheeled wind and blended solar to supply additional power and participation in the Regional Renewable Energy Ecosystem.

Water
- Developing and implementing an adaptive water management plan to reduce fresh water use.
- Ongoing projects to close gaps in stormwater management systems to support the diversion of fresh water to communities during periods of increased rainfall.
- Supporting community water security by diverting fresh water that could provide clean drinking water to more than 200,000 members of the community.

Scope 3 emissions
- Creation of the Value in Use programme working to optime Kumba Iron Ore's products, positioning them for use in a sustainable, green transition.
- Partnership with Nippon Steel testing premium lump from the operation for use in Blast Furnace of the future.
- Partnerships with TKS, Salzgitter and Baosteel looking at burden optimisation in DRI-SAF and BRI-EAF processes.

Just Transition

Just Transition

The 2015 Paris Agreement recognised the imperative of a Just Transition, while COP28 in Dubai committed countries to developing Just Transition work plans, demonstrating a growing recognition of the imperative of the low carbon transition being a just one. We remain committed to considering how Just Transition principles can be embedded in the conduct of all our business, including our approach to decarbonisation.

We remain aligned with the work of the Council for Inclusive Capitalism in developing a shared, company-focused framework in addressing the need for a just transition. That work, built on the thinking done by other organisations, including the International Labour Organization's (ILO) Just Transition guidelines, defines the just transition as:

"The transformation of the global energy sector from fossil-based to zero-carbon in a way that is underpinned by attention to the issues of equity and justice."[21]

Alongside this definition is a framework for action, which provides a pragmatic structure under which companies can think through their contribution to a just transition. Crucially, the framework recognises that context is critical and that each company's approach will need to reflect its own unique circumstance, taking into account sectoral and geographic differences, amongst others. The pillars of the framework are:

- Universal net zero energy – how to support access to energy and a net zero emissions world
- Workforce evolution – how to ensure the journey is a just one for the company's workforce
- Community resilience – how to ensure the journey is a just one for communities affected directly and indirectly by the company's transition
- Collaboration and transparency – how to bring everyone on the journey and support the just transition of other organisations.

[21] International Labour Organization, Guidelines for a just transition towards environmentally sustainable economies and societies for all, 2016.

Evolution of understanding

Since our work with the Council for Inclusive Capitalism in 2021, the discussion of, and understanding about, what a just transition means for societies has come to be widely understood as, '*a transition where no one gets left behind*'.

The ILO has undertaken considerable work to develop guidelines to a just transition towards environmentally sustainable economies and societies for all. These guidelines contain principles against which governments and businesses alike can judge, not only what they do to support the delivery of a just transition but, crucially, how governments and businesses act, including how we ensure procedural fairness in what we do.

In practical terms, for the mining sector, the discussion has focused on three key elements.

- How to ensure that no one is left behind when carbon-intensive assets (especially thermal coal assets) close before their expected end of life
- How to ensure that the additional mining required to support the transition to a low carbon future creates real value for those nearest to these new operations
- How the process of decarbonising mining companies' operations does not leave anyone behind.

Of these three, closing assets early and the additional mining required to support the transition are both directly related to the existing business of mining. Best practice in the mining sector in these areas is aligned with the principles of a just transition. Mining is, by its nature, a transitional activity. The key challenge for the sector is to ensure that industry best practice is adhered to throughout the lifecycle of any project, from discovery to closure and rehabilitation.

For Anglo American, our approach to responsible mining is defined in detail in our numerous policies and practices, but most pertinently to the concept of equity and justice, through the Anglo American Social Way and our Responsible Mine Closure toolkit.

▶ For more information on our Responsible Mine Closure Toolkit
visit angloamerican.com/mining-closure-toolbox

▶ For more information on our Anglo American Social Way
visit socialway.angloamerican.com/en

These demonstrate, in detail, our approach to leveraging mining lifecycle and related activities to enable long term socio-economic development and create resilience in communities around our operations, as well as how we plan and partner to achieve such outcomes. It is through these existing policies and practices detailed in these comprehensive documents that our thinking about and support for a just transition is evidenced. We believe that delivery against these standards remains our most significant contribution on this key issue. However, we continue to listen to and engage with the emerging policy debate on the just transition and ensure that our policies and practices remain aligned with best practice.

Decarbonising our operations: not leaving anyone behind

Our activities to decarbonise our operations and value chains is covered in detail elsewhere in this Report. Our approach is to embed within our decarbonisation project work the same principles that we apply to all of our socio-economic development programmes, as defined in the Social Way, while ensuring that the work is designed with an understanding of the wider transitional context in the country concerned.

While it is normal, in the course of business, for technologies to evolve so that different skills are needed, we have no evidence to suggest our current decarbonisation pathway has any material impact on our overall employment levels nor that our employment levels will differ markedly because of decarbonisation. The key question, therefore, is how we embed just transition principles into our specific decarbonisation projects and programmes.

The most significant example of this approach can be seen in the design and implementation of our work to decarbonise our electricity supply in southern Africa. The just transition in South Africa has been a key consideration in the design of each stage. First, the structure of Envusa Energy, the company we have created in partnership with EDF Renewables, will include local equity partners, ensuring we continue a proud legacy of supporting broad-based black economic empowerment in South Africa. In some cases we will also include local equity partners at individual project level. Secondly, we are working hard to incentivise value chains in South Africa for the construction and operation phases of the wind and solar farms that the programme is developing. And, finally, we are working closely with government to ensure that the regulations and infrastructure are in place that not only allow Anglo American to benefit from reliable, affordable and sustainable electricity, but that the many energy-constrained communities in South Africa can also benefit from what we are developing. At each stage we are considering what we are doing but, crucially, also how we operate, in trying to ensure we contribute to the just transition of South Africa and its neighbours.

Effective governance and engagement

Effective governance and engagement

Anglo American applies a principled and consistent approach throughout our climate change governance and management systems.

Board climate change capability

Our directors contribute to the Board experience from a broad range of sectors, including mining, industrial, energy, finance and technology, reflecting the evolving nature of the business.

The Board's Nomination Committee oversees, on behalf of the Board, the succession process for directors. The Board's skills, experience and diversity matrix, which is overseen by the Nomination Committee includes capabilities and experience in climate change and clean energies. The Board's ongoing refreshment programme strives to maintain the right balance of skills, experience, knowledge and diversity to sustain the success of our business and meet the challenges posed by climate change. In the second half of 2022, the Nomination Committee led a process to recruit an additional non-executive director with a deep understanding of sustainability in its broadest sense, to ensure the composition of the Board continued to reflect an appropriate mix of skills, experience, diversity and perspectives.

In April 2023, Magali Anderson, the former chief sustainability and innovation officer at Holcim Group, joined the Board as a non-executive director and member of the Board's Sustainability Committee. As a champion for responsible business practices and the opportunities for innovation to solve the greatest sustainability challenges, she contributes to the Board highly relevant experience from an executive career in operational, commercial and business transformation roles.

The Governance section of our 2023 Integrated Annual Report sets out details of our Board and committee composition, the broad range of skills, experience and the diversity of our Board, and the processes for the appointment of new directors. At the date of this Report, 30% of our Board had direct experience or capabilities in climate change or clean energies, up from 22% at the date of our 2022 Integrated Annual Report.

Informing

Informing

Informing

Reporting

Reporting

Reporting

Anglo American Board

- The Board provides leadership to the Group on its strategy and is collectively responsible for promoting and safeguarding the long term success of the business.
- The Board focuses on workstreams that underpin our 2040 carbon neutrality targets and the consequences for the Group's strategy.
- Sign-off of Anglo American's climate-related disclosures as part of the Integrated Annual Report (including TCFD disclosures).

The Board delegates powers and oversight of climate-related considerations to its various committees

Remuneration Committee

Three members, all independent non-executive directors.

- Determines the remuneration of executive directors, the chairman and senior management.
- Oversees remuneration policy for all employees. This includes the Long Term Incentive Plan (LTIP), awarded to the most senior managers – around 400 people – and its elements linked directly to:
  - Operational GHG emissions
  - Increase in energy efficiency
  - Increase in renewable energy and
  - Reduction of fresh water extraction.

Sustainability Committee

Six members, majority independent non-executive directors, including the chair*.

The Sustainability Committee is responsible for addressing the Group's most material sustainability issues – including climate-related topics. The Committee oversees, on behalf of the Board, material policies, processes and strategies designed to manage climate-related risks and opportunities.

*Other non-executive directors regularly attend meetings at the invitation of the Committee chair

- Considers the Group's principal risks that fall within its oversight responsibility including risks related to climate change.
- Reviews Anglo American's annual Climate Change Report.
- Monitors the Group's carbon neutrality target, Scope 1 and 2 targets review and the Group's Scope 3 reduction ambition.
- Monitors the Group's roadmap for energy and decarbonisation.

Audit Committee

Three members, all independent non-executive directors.

- Monitors the integrity of the annual and interim financial statements.
- Reviews the Group's material risks, including those related to climate change, twice a year.
- Oversees the Group's relations with the external auditor.

Chief Executive and the Executive Leadership Team (ELT)

- The chief executive, who is advised and supported by the wider ELT, is responsible and accountable for aligning our business practices with our climate change commitments and ambitions.
- Sitting on the ELT, the strategy & sustainability director is responsible for overseeing the company's overall approach climate change, in addition to coordination of the work to meet our commitments.

Climate Change Steering Committee

- Previously chaired by the Group head of strategy, in 2023 leadership of this Committee was elevated to the new strategy & sustainability director.
- The Committee was established as a cross-functional body to draw together all workstreams across the Group related to climate change and to have collective oversight and scrutiny the associated workstreams.
- A cross-functional Climate Change Working Group exists to provide expert, working level support to executive and Board level leadership.

All directors have complete and timely access to the information required to discharge their responsibilities fully and effectively. In addition to the advice and service they receive from the Group's executives and external advisers, they may take independent professional advice in the furtherance of their duties, at the Company's expense. Following appointment and as required, directors receive training appropriate to their level of experience and knowledge. This includes the provision of a comprehensive, tailored induction programme and individual briefings with members of the ELT and their teams. The Board seeks input from key external and internal subject-matter experts on climate change to provide additional perspective and to challenge their thinking.

Governance and management structure

At Anglo American, the Board approves the Group's strategy on climate change. Climate-related activities, including decarbonisation plans are discussed by the Board throughout the year as standalone agenda items and as part of strategic discussions. The Board is updated on progress against our targets through management reports at each scheduled Board meeting.

The Board's Sustainability Committee is responsible for addressing climate change-related topics. The Committee oversees, on behalf of the Board, material policies, processes and strategies designed to manage safety, health, environment, social and climate-related risks and opportunities.

Matters relating to climate change are included in quarterly reports to the Committee at each of its meetings and as dedicated items on its agendas throughout the year. The chairman of the Sustainability Committee provides a summary of the Committee's discussions at Board meetings, which addresses the most material issues raised by the Committee. Other non-executive directors on the Board regularly attend meetings of the Committee, at the invitation of the chair.

The Audit Committee oversees, on behalf of the Board, internal controls and risk management for the Group. The Audit Committee reviews the Group's material risks, including those related to climate change, twice a year. The Sustainability Committee considers the Group's principal risks related to sustainability that fall within its oversight responsibility.

The Remuneration Committee addresses climate-related issues when considering environmental and sustainability performance measures in relation to the Group's incentive plans.

Pages 139–177 of our 2023 Integrated Annual Report details the role of the Board and its governance structure, the work of the Board and its committees, their membership, responsibilities and key activities during 2023.

At executive level, key management decisions are taken by the chief executive and his ELT, in accordance with their delegated authority. In 2023, we made a number of significant changes to the ELT, as part of a wider redesign of the organisation, bringing together both the experience of the past decade with new ideas and energy to take us to the next level. Sustainability, including climate change, is fundamental to our ability to deliver on our strategic ambitions. As such, it is now embedded alongside our strategy function, under the leadership of Helena Nonka, strategy & sustainability director.

The ELT is held accountable for a range of measures including climate-related performance, which are then cascaded through the Group. In 2023, the ELT was supported by the Climate Change Steering Committee, chaired by the strategy & sustainability director, which draws together all workstreams across the Group related to climate change.

Executive remuneration

For senior leaders, a proportion of their variable pay each year is tied to the delivery of climate-related goals. This is predominantly incorporated into the performance measures through the Group Long Term Incentive Plan (LTIP). The LTIP is awarded to our most senior leaders across Anglo American, in total around 400 employees across our jurisdictions.

We have linked 20% of the 2023 LTIP to environmental, social and governance (ESG) measures, specifically the delivery of our 2030 Sustainable Mining Plan goals. This is broken down as follows: renewable energy production from approved projects (8% of award); all mines assured against a recognised responsible mine certification (6% of award); social responsibility measure on the number of off site jobs we help to create in the communities where we operate (6% of award).

In addition to the measures as outlined above for the 2023 LTIP, a portion of our in-flight 2021 and 2022 LTIPs is also linked to climate-related measures. For 2021, this includes reducing our GHG emissions. For 2022, it includes a renewable energy production target, with three sites to have approved renewable energy projects in operation by the end of 2024.

Further details of the performance conditions attached to our executive remuneration incentive arrangements can be found in the directors' remuneration report within our 2023 Integrated Annual Report.

Disclosure and investor dialogue

We have been a formal supporter of the Task Force on Climate-Related Financial Disclosures (TCFD) since 2018 and continue to produce our climate-related disclosures, including this Report, in line with this framework. Our Integrated Annual Report also covers the key aspects of the disclosure each year. A TCFD-linked index is provided on page 49 of this Report.

Whilst we continue to produce our climate-related disclosures in line with the TCFD framework for 2023, we note that oversight of company climate-related financial reporting transfers from the Financial Stability Board (FSB) to the International Sustainability Standards Board (ISSB) and the International Financial Reporting Standards (IFRS) Foundation from 2024 onwards.

Material discussions related to climate change in 2023

Board

- The Group's roadmap to carbon neutrality, focusing on the underlying initiatives, workstreams and plans underpinning delivery of our target of carbon neutral operations by 2040.
- Initiatives towards delivering renewable energy in the Group's operations.
- The Board approved the acquisition, execution, and funding of the Koruson 2 renewable energy projects through Envusa Energy, the renewable energy joint venture partnership with EDF Renewables, enabling the acceleration of carbon neutral electricity in the Group's southern African businesses.
- Climate change discussions as part of the Board's dedicated strategy meeting, including external insights from two expert speakers on steel industry decarbonisation pathways and drivers.

Sustainability Committee

- Updates on the pathways to reduce the Group's Scope 3 emissions by 50% by 2040 and monitoring achievement of carbon neutrality targets.
- The management of physical climate change risks and resilience across the Group.
- Updates on the delivery of our Sustainable Mining Plan commitments, including those relating to climate change.
- Progress towards achieving our commitment to deliver net-positive impact on biodiversity across Anglo American by 2030.
- Climate and ESG-related litigation trends and global developments relevant to the exercise of the directors' statutory duties.

Over the course of 2022/23 we have actively engaged with the UK's Transition Plan Taskforce (TPT) as part of TPT's Sandbox process which tested its sector-neutral Disclosure Framework with large companies. In 2023, we also supported the Taskforce in the preparation of its Metals and Mining sector guidance. We acknowledge that the UK Government has signalled its intention to make the development of a Transition Plan mandatory for large, UK-listed businesses from 2025. We expect to publish a Transition Plan, guided by the principles of the TPT, by the time it becomes mandatory. We also acknowledge the final publication of the first two of the IFRS' new sustainability standards – S1 General Requirements for Disclosure of Sustainability-related Financial Information and S2 Climate-related Disclosures. We demonstrated our support for the S2 standard by aligning ourselves with IFRS' COP28 Declaration statement [(22)].

Beyond mandatory disclosures, we recognise the role of voluntary frameworks in supporting the evolving interests and expectations of investors in understanding our thinking on climate change. We have had a regular and constructive dialogue with the Climate Action 100+ group of investors for several years and value its perspectives. In 2020 and 2021, we worked with Climate Action 100+ to support the development of the Net Zero Company Benchmark and its application to the diversified mining sector. In 2022 and 2023, with the support of the ICMM, we continued to engage with Climate Action 100+ as it developed its Net Zero Diversified Mining Standard. Our Climate Action 100+ Net Zero Company Benchmark summary is provided on pages 51–53 of this Report.

Climate change continues to be an issue of particular interest to a wide range of our investors. Throughout 2023 we discussed our approach in detail both in broad-based investor engagements as well as in a series of meetings with individual investors. We continue to believe this dialogue is a helpful way to develop clear, mutual understanding on this critical issue.

(22) IFRS COP28 Declaration of Support, 2023: www.ifrs.org/ifrs-sustainability-disclosure-standards-around-the-world/cop28-declaration-of-support/

Policy and advocacy approach

In 2015, we demonstrated our commitment to the Paris Agreement by becoming a signatory to the Paris Pledge for Action. That pledge demonstrates our willingness to work to support efforts in meeting and exceeding the ambition of governments to keep the world on a trajectory that limits the global warming temperature rise to well-below 2°C and pursue efforts to limit it further to 1.5°C.

This pledge to support the aims of the Paris Agreement is one of the principles guiding our engagement with policymakers and our advocacy more broadly. Though we continue to take a cautious approach to proactive lobbying, including on climate-related issues, we are committed to conduct any lobbying activities in line with the goals of the Paris Agreement.

In line with this approach, our intention is that the industry associations of which we are a member work on a similar basis and similarly advocate for policies that support the achievement of the goals of the Paris Agreement.

To bring greater definition to our approach to any climate-related advocacy to which we might be party, we maintain a list of public policy positions. These define Anglo American's thinking on specific climate-related policy issues and provide a basis against which we can test the alignment of any third-party advocacy. In 2022, we updated our public policy positions significantly and redefined them across eight issues. These revisions reflected developments in the public discourse, policy environment and societal expectations. We published our updated policy positions in our 2022 Climate Change Report.

Alignment of advocacy through industry associations

We recognise stakeholder interest in advocacy undertaken by third parties on our behalf and the concern that some of that advocacy might not be aligned with our public policy positions on climate change. At best, any such advocacy might be misaligned with the goals of the Paris Agreement; at worst, it might suggest a third party is advocating against those goals. To mitigate this risk, we have rigorous internal governance procedures in respect of the management of the relationships with each of the industry associations of which we are a member. This governance is designed, in part, to ensure that misalignments in advocacy do not occur and, if they ever do, that appropriate action is taken.

Since 2021, we have also committed, to completing and disclosing an independent review of the alignment of our industry associations with our public policy positions every two years. The most recent review was published in 2023. The review was conducted using our updated public policy positions and demonstrated that, in the vast majority of cases, the industry associations of which we are a member are either aligned with our approach or do not take a position on climate change.

In a small number of cases, some potential misalignments were flagged and, in each of these cases, we have taken action with the relevant industry association.

The independent review sits alongside our annual disclosure of all associations of which we are a member, which is available on our website. This disclosure includes the rationale for our membership, any leadership positions we hold in each association and our associated financial contributions.

Alongside this information, we provide a dedicated email address for anyone wishing to ask questions, seek clarification or raise concerns about any of our memberships. Our aim through this disclosure is to be transparent in respect of our engagement with and through industry associations and to facilitate dialogue with any stakeholders with a particular interest in this subject.

▶ For more information
visit angloamerican.com/sustainable-mining-plan/trusted-corporate-leader/policy-advocacy

Annexe

Risk management

The scientific evidence of human-induced climate change is clear. However, the longer term impacts to our business remain subject to extreme uncertainty. As a consequence, our risk management processes embed climate change considerations in the understanding, identification and mitigation of risk. We have aligned ourselves with TCFD recommendations on climate-related risks and we are committed to developing our disclosure as expectations evolve.

Risk management at Anglo American

The Board establishes the system of risk management, setting risk appetite, embedding a culture of risk awareness into the development of strategic and operational objectives and overseeing the maintenance of our system of internal control to manage risks. The Group's system of risk management and internal control is monitored by the Audit Committee (a sub-committee of the Board) and Corporate Committee (a sub-committee of the ELT) under delegation from the Board.

The Board confirms that it has completed a robust assessment of the Group's emerging and principal risks in 2023.

Risk assessment

Anglo American classifies and prioritises risks according to the following categories:

- Principal Risks: a risk or combination of risks that would threaten the business model, future performance, solvency, or liquidity. Some Principal Risks are termed Catastrophic Risks, which is defined as "a risk or series of related risks potentially generating financial, operational and/or reputational impacts of such significance as to result in an unplanned fundamental change to the organisation's strategy, the way it operates or its financial viability"
- Other Material Risks – risks that should be recognised as having potentially negative consequences but are not expected individually to threaten the business model, future performance, solvency or liquidity of Anglo American.
- Emerging Risks – risks that should be monitored as they may become Principal Risks or Other Material Risks in time.

The process for identification and assessment of the Principal Risks combines a top-down and bottom-up approach. At the operations level, a process to identify risks that could prevent the achievement of objectives is undertaken. Across our assets, which are organised into regional businesses, detailed analysis of the Material Risks at each location is performed to ensure management understanding of the risk and controls that reduce likelihood of occurrence and/or impact should the risk materialise. These operational risk profiles contribute to the assessment of risks at the business/country level. Executive management at each business/country assesses risks that threaten achievement of the business/country objectives and the status of controls, or actions, that mitigate those risks. At the Group level, risks are identified through assessment of global factors affecting the industry and the Group specifically, as well as the risks arising from the businesses' assessments. Consideration is given to the views and interests of Anglo American stakeholders. Materiality of risk is determined through assessment of the various impacts that may arise and likelihood of occurrence. An exception relates to Catastrophic Risks, where the focus of assessment is on impact and status of internal controls, given the very low likelihood of occurrence. When considering the impact of any risk, we assess safety, environmental, financial, legal and regulatory, social and reputational consequences.

Regular reports on the status of risks and controls are presented to executive management teams throughout the year. The Audit Committee reviewed reports on Anglo American's overall risk profile on two occasions during 2023 and conducted in-depth reviews of specific risks during its meetings over the course of the year. Each Principal Risk is assigned to either the Board or the relevant Board committee to oversee executive management actions in response to that risk. The Audit Committee reviews that oversight process on an annual basis.

Risk appetite

We define risk appetite as 'the nature and extent of risk that Anglo American is willing to accept in relation to the pursuit of its objectives'. Each Principal Risk is assessed as to whether it is operating within the limit of appetite for the Group. This is based on review of the external factors influencing that risk, the status of management actions to mitigate or control the risk and the potential impact should the risk materialise. A scale is used to help determine the limit of appetite for each risk, recognising that risk appetite will change over time. For risks operating beyond the limit of appetite, a change in strategy may be required. For risks operating within, but approaching the limit of appetite, specific management actions may be required to ensure the risk remains within the limit of appetite.

Risk governance

Three lines model

We use the 'three lines model' to define the role of different teams across the organisation in managing risk. This approach sets clear accountabilities for risk management and provides appropriate 'checks and balances to support us in protecting and growing value. The first line owns and controls risk by identifying, assessing and owning risks in daily operational activities, acting within standards and continuously developing and refining controls provided by our frontline staff and operational and functional management. The second line designs, monitors and supports by setting standards and critical processes and controls, providing risk management frameworks and monitoring and supporting the first line, provided by Group and countries functional roles. The third line, our Internal Audit team, audits and reports on the adequacy and effectiveness of the design and implementation of governance, risk management and internal control processes. The assurance model also relies on external assurance providers.

Risk management support to climate change initiatives

In Anglo American we perform periodical risk assessments in several layers of the organisation ranging from the site operations to corporate strategy. Climate change and associated topics such as carbon neutrality strategy are part of the overall assessed risks. The assessments support the definition and prioritisation of strategies and action plans.

Anglo American relies on medium and long term initiatives and projects to reach carbon neutrality targets. Following the embedded Integrated Risk Management process, these projects are subject to detailed risk identification, analysis and mitigation strategies to enable their implementation.

Assurance statement: Scope 3

▶ For the assurance statement relating to Scope 1, Scope 2, energy consumption and tonnes copper equivalent
See pages 102–103 of the Sustainability Report 2023

Scope 3

Independent Assurance Statement to the directors of Anglo American Plc related to its Scope 3 GHG Emissions

Introduction

IBIS ESG Consulting Africa (Pty) Ltd (IBIS) has been engaged by Anglo American Plc (Anglo American) to perform an independent assurance engagement in respect of Anglo American's Scope 3 Greenhouse Gas (GHG) Emissions for the years ended 31 December 2022 and 31 December 2023 respectively.

Scope and subject matter

The scope of the subject matter for limited assurance in line with the ISAE3000 (Revised) assurance standard, as captured in the agreement with Anglo American, includes the following Scope 3 GHG emission categories:

Category 1: Purchased Goods & Services

Category 2: Capital Goods

Category 3: Fuel & Energy Related Activities

Category 4: Upstream Transport & Distribution

Category 5: Waste generated in operations

Category 6: Business Travel

Category 7: Employee Travel

Category 8: Upstream Leased Assets

Category 9: Downstream Transport & Distribution

Category 10: Processing of sold products

Category 11: Use of sold product

Category 12: End-of-life treatment of sold products

Category 13: Downstream Leased Assets

Category 14: Franchises

Category 15: Investments

IBIS' responsibilities do not extend to any other disclosures or assertions.

Respective responsibilities

Anglo American

The Directors of Anglo American are responsible for the generation, collection and presentation of the identified Scope 3 GHG emission categories. Anglo American is also responsible for maintaining adequate records and internal controls that support the reporting process during the disclosure periods notwithstanding any support from third parties.

IBIS consulting

IBIS' responsibilities were to conduct an assurance engagement and to report its conclusions to the Directors in accordance with the assurance procedures followed. IBIS conducted the engagement based on the International Standard on Assurance Engagements (ISAE) 3000 (Revised), Assurance engagements other than audits or reviews of historical financial information issued by the International Auditing and Assurance Standards Board, which Standard inter alia requires that the assurance practitioner follows due process and comply with ethical requirements.

Summary of work performed

Anglo American provided IBIS with the relevant supporting information and documentation related to the select Scope 3 GHG emission categories. IBIS applied the Anglo American Scope 3 GHG Emissions Methodology and the GHG Protocol as audit criteria in respect of the underlying data in the scope of the assurance engagement. IBIS' limited assurance procedures, based on our professional judgement, consisted of:

Testing, on a sample basis, the measurement, collection, aggregation and reporting processes in place

Interviews with relevant functional managers at Anglo American and the Carbon Trust to understand and test the processes in place for maintaining the Scope 3 GHG emission information

Inspection and corroboration of supporting evidence to evaluate the data generation and reporting processes against the assurance criteria

Assessing the disclosure of Scope 3 GHG emission information for consistency with the assurance observations

Reporting the assurance observations to management as they arose to provide an opportunity for corrective action prior to completion of the assurance process

Inherent limitations

The reliability of the reported sustainability data is subject to inherent uncertainty, given the available methods for determining, calculating or estimating the underlying information related to Scope 3 GHG emissions calculation methodologies prevalent at the time as applied between the two reporting years differed in certain categories leading to significant movements of reported numbers between the reporting years ended 31 December 2022 and 31 December 2023, respectively. It is important to understand our assurance conclusion in this context.

Evidence to support information reported was obtained electronically for review and assessment as a basis for our assurance conclusion. In addition, the evidence gathering procedures performed in a limited assurance engagement vary in nature from, and are less in extent than for, a reasonable assurance engagement. As a result, the level of assurance obtained in a limited assurance engagement is lower than the assurance that would have been obtained had we performed a reasonable assurance engagement.

Restriction of liability

Our work has been undertaken to enable us to express the assurance conclusion on the select Scope 3 GHG emission categories to the Directors of Anglo American in accordance with the terms of our engagement, and for no other purpose. We do not accept or assume responsibility to any third parties i.e. other than the Directors and the company, for our work or for this report to the fullest extent permitted by law, save where such third parties have obtained our prior written consent.

Assurance conclusion

We believe that the information provided by Anglo American and the work performed by IBIS are sufficient and appropriate to form a basis for our limited assurance conclusion.

In our opinion, and based on our limited assurance procedures, nothing has come to our attention that causes us to believe that the Anglo American Scope 3 GHG emissions prepared for the years ended 31 December 2022 and 31 December 2023 respectively, and as presented below, are not fairly represented in all material respects.

		Total GHG Emissions excl. Biogenics (tCO_2e)	
Category		**Financial Year 2022**	**Financial Year 2023**
Upstream	1:Purchased Goods & Services	7,891,777	3,234,661
	2: Capital Goods	8,670,923	1,565,027
	3: Fuel & Energy Related Activities	2,807,017	2,438,802
	4: Upstream Transport & Distribution	665,199	1,176,842
	5: Waste Generated in Operations	22,186	46,659
	6: Business Travel	64,972	58,481
	7: Employee Travel	49,010	47,218
	8: Upstream Leased Assets	Excluded	Excluded
Downstream	9: Downstream Transport & Distribution	2,291,548	2,628,388
	10: Processing of Sold Products	48,741,739	54,077,673
	11: Use of Sold Products	22,773,736	22,159,370
	12: End-of-life Treatment of Sold Products	5,308	4,251
	13: Downstream Leased Assets	Excluded	Excluded
	14: Franchises	107	95
	15: Investments	10,550,965	8,384,795
Total Scope 3 GHG Emissions		**104,534,487**	**95,822,263**

Petrus Gildenhuys
Director, IBIS ESG Consulting Africa (Pty) Ltd
Johannesburg, 28 February 2024

TCFD disclosure

Anglo American's response to climate change is multi-disciplinary and is detailed throughout our reporting suite – including the Integrated Annual Report, the Sustainability Report and this Climate Change Report. We continue to produce our climate-related disclosures in line with the TCFD framework for 2023, but note oversight monitoring of company climate-related financial reporting transfers from the Financial Stability Board to the International Sustainability Standards Board and the International Financial Reporting Standards Foundation from 2024 onward. A full TCFD disclosure table can be found on pages 132–137 of our 2023 Integrated Annual Report.

▶ For more on our Integrated Annual Report 2023
visit angloamerican.com/annual-report-2023

▶ For more on our Sustainability Report 2023
visit angloamerican.com/sustainability-report-2023

Governance

Disclosure the organisations governance around climate-related risks and opportunities.

Recommended disclosures	References
a) Describe the Board's oversight of climate-related risks and opportunities.	Effective governance and engagement, pages 42–43 Integrated Annual Report, pages 14, 20–23, 24–28, 76–78, 79–85 – specifically risks 7 and 10, 49, 154, 165
b) Describe management's role in assessing and managing climate-related risks and opportunities.	Effective governance and engagement, pages 42–43 Integrated Annual Report, pages 14, 20–23, 24–28, 76–78, 79–85, 49, 194

Strategy

Disclose the actual and potential impacts of climate-related risks and opportunities on the organisation business, strategy and financial planning where such information is material.

Recommended disclosures	References
a) Describe the climate-related risks and opportunities the organisation has identified over the short, medium and long term.	Resilience to climate risk, page 46 Resilience in the face of a changing climate pages 11–23 Physical climate risk: adapting to a changing climate, pages 18–23 Integrated Annual Report, pages 30–39, 44–48, 50–54, 83–84.
b) Describe the impact of climate-related risks and opportunities on the organisation's businesses, strategy and financial planning.	Resilience in the face of a changing climate 11–23 Integrated Annual Report, pages 30–39, 44–48, 50–54, 76–78.
c) Describe the resilience of the organisation's strategy, taking into consideration different climate-related scenarios, including a 2°C or lower scenario.	Resilience in the face of a changing climate, pages 11–23 Integrated Annual Report, pages 44–48, 50–54, 76–78

Risk management

Disclose how the organisation identifies, assesses and manages climate-related risks

Recommended disclosures	References
a) Describe the organisation's processes for identifying and assessing climate-related risks.	Resilience to climate risk, page 46 Resilience in the face of a changing climate 11–23 Physical climate risk: adapting to a changing climate, pages 18–23 Integrated Annual Report, pages 49–53, 79–85
b) Describe the organisation's process for managing climate-related risks.	Resilience to climate risk, page 46 Resilience in the face of a changing climate 11–23 Physical climate risk: adapting to a changing climate, pages 18–23 Effective governance and engagement: pages 42–43 Integrated Annual Report, pages 30–39, 42–65, 79–85
c) Describe how processes for identifying, assessing and managing climate-related risks are integrated into the organisation's overall risk management.	Resilience to climate risk, page 46 Resilience in the face of a changing climate 11–23 Physical climate risk: adapting to a changing climate, pages 18–23 Effective governance and engagement: pages 42–43 Integrated Annual Report, pages 49–53, 79–85

Metrics and targets

Disclose the metrics and targets used to assess and manage relevant climate-related risks and opportunities where such information is material.

Recommended disclosures	References
a) Disclose the metrics used by the organisation to assess climate-related risks and opportunities in line with its strategy and risk management process.	Resilience to climate risk, page 46 Integrated Annual Report, page 55, 57
b) Disclose Scope 1, Scope 2 and, if appropriate, Scope 3 greenhouse gas (GHG) emissions and the related risks.	Decarbonising our operations, pages 28–31 Decarbonising our value chain, pages 33–38 Integrated Annual Report, pages page 55, 57, 330
c) Describe the targets used by the organisation to manage climate-related risks and opportunities and performance against targets.	Decarbonising our operations, pages 28–31 Decarbonising our value chain, pages 33–38 Integrated Annual Report, pages 54–57

Climate Action 100+ Net Zero Company Benchmark disclosure*

Indicators and sub-indicators	References
Indicator 1 – Net zero GHG emissions by 2050 (or sooner)	
Metric 1.1.a – The Company has made a qualitative net zero GHG emissions ambition statement that explicitly includes at least 95% of its Scope 1 and 2 emissions.	Decarbonising our operations, pages 28–31 Decarbonising our value chain, pages 33–38 Transition Pillars, page 7
Metric 1.1.b – The Company's net zero GHG emissions ambition covers the most relevant Scope 3 GHG emissions categories for the company's sector, where applicable.	
Indicator 2 – Long term (2036–2050) GHG emissions target(s)	
Metric 2.1 – The Company has set a target for reducing its GHG emissions.	
Sub-indicator 2.2 – The long term (2036 to 2050) GHG reduction target covers at least 95% of Scope 1 and 2 emissions and the most relevant Scope 3 emissions (where applicable).	
Metric 2.2.a – The Company has specified that the target covers at least 95% of its total Scope 1 and 2 emissions.	
Metric 2.2.b – Where applicable, the Company's Scope 3 GHG emissions target covers at least the most relevant Scope 3 emissions categories for the sector and the company has published the methodology used to establish the Scope 3 target.	Decarbonising our operations, pages 28–31 Decarbonising our value chain, pages 33–38 FY2023 Scope 3 Methodology – Technical Report
Metric 2.3 – The expected carbon intensity derived from the Company's long term GHG emissions reduction target (or in the absence of a long-term target, the company's last disclosed carbon intensity or the intensity derived from its short or medium term target) is aligned with or below the relevant sector trajectory needed to achieve the Paris Agreement goal of limiting global temperature increase to 1.5°C with low or no overshoot in 2050. This is equivalent to IPCC Special Report on 1.5°C pathway P1 or net zero emissions by 2050.	

Indicators and sub-indicators	References
Indicator 3 – Medium term (2026 to 2035) emissions targets	
Metric 3.1 – The Company has set a target for reducing its GHG emissions.	Decarbonising our operations, pages 28–31 Decarbonising our value chain, pages 33–38 FY2023 Scope 3 Methodology – Technical Report
Sub-indicator 3.2 – The medium term (2026 to 2035) GHG reduction target covers at least 95% of Scope 1 and 2 emissions and the most relevant Scope 3 emissions (where applicable).	
Metric 3.2.a – The Company has specified that the target covers at least 95% of its total Scope 1 and 2 emissions.	
Metric 3.2.b – Where applicable, the company's Scope 3 GHG emissions target covers at least the most relevant Scope 3 emissions categories for the sector and the company has published the methodology used to establish the Scope 3 target.	
Metric 3.3 – The expected carbon intensity derived from the Company's medium term GHG emissions reduction target (or, in the absence of a medium term target, the company's last disclosed carbon intensity or the intensity derived from its short term target) is aligned with or below the relevant sector trajectory needed to achieve the Paris Agreement goal of limiting global temperature increase to 1.5°Celsius with low or no overshoot in 2035. This is equivalent to IPCC Special Report on 1.5°Celsius pathway P1 or net zero emissions by 2050.	
Indicator 4 – Short-term (2022 to 2025) emissions target(s)	
Metric 4.1 – The Company has set a target for reducing its GHG emissions.	Decarbonising our operations, pages 28–31 Effective governance and engagement, pages 42–43 FY2023 Scope 3 Methodology – Technical Report
Sub-indicator 4.2 – The short term (up to 2025) GHG reduction target covers at least 95% of Scope 1 and 2 emissions and the most relevant Scope 3 emissions (where applicable).	
Metric 4.2.a – The Company has specified that the target covers at least 95% of its total Scope 1 and 2 emissions.	
Metric 4.2.b – Where applicable, the Company's Scope 3 GHG emissions target covers at least the most relevant Scope 3 emissions categories for the sector, and the company has published the methodology used to establish the Scope 3 target.	
Metric 4.3 – The Company's expected carbon intensity derived from their short-term GHG target (or, in the absence of a short-term target, the company's last disclosed carbon intensity) is aligned with or below the relevant sector trajectory needed to achieve the Paris Agreement goal of limiting global temperature increase to 1.5°Celsius with low or no overshoot in 2025.This is equivalent to IPCC Special Report on 1.5°C pathway P1 or net zero emissions by 2050.	

* Climate Action 100+ provides its own view of Anglo American's progress on the 10 key indicators outlined here: https://www.climateaction100.org/company/anglo-american/

Indicators and sub-indicators	References
Indicator 5 – Decarbonisation strategy (Target Delivery)	
Sub-indicator 5.1 – The Company has a decarbonisation strategy that explains how it intends to meet its long and medium term GHG reduction targets.	Resilience in the face of a changing climate 11–23 Decarbonising our operations, pages 28–31 Decarbonising our value chain, pages 33–38
Metric 5.1.a – The Company identifies the set of actions it intends to take to achieve its GHG reduction targets over the targeted timeframe. These measures clearly refer to the main sources of its GHG emissions, including Scope 3 emissions where applicable.	
Metric 5.1.b – The Company quantifies key elements of this strategy with respect to the major sources of its emissions,including Scope 3 emissions where applicable (e.g. changing technology or product mix, supply chain measures, R&D spending).	
Sub-indicator 5.2 – The Company's decarbonisation (target delivery) strategy specifies the role of 'green revenues' from low carbon products and services.	
Metric 5.2.a – The Company already generates' green revenues' and discloses their share in overall sales.	
Metric 5.2.b – The Company has set a target to increase the share of 'green revenues' in its overall sales OR discloses the 'green revenue' share that is above sector average.	
Indicator 6 – Capital alignment	
Sub-indicator 6.1 – The Company is working to decarbonise its capital expenditures.	Resilience in the face of a changing climate 11–23
Metric 6.1.a – The Company explicitly commits to align its capital expenditure plans with its long term GHG reduction target OR to phase out planned expenditure in unabated carbon intensive assets or products.	
Metric 6.1.b – The Company explicitly commits to align future capital expenditure plans with the Paris Agreement's objective of limiting global warming to 1.5°C AND to phase out investment in unabated carbon intensive assets or products.	
Sub-indicator 6.2 – The Company discloses the methodology used to determine the Paris Agreement alignment of its future capital expenditures.	
Metric 6.2.a – The company discloses the methodology and criteria it uses to assess the alignment of its capital expenditure plans with decarbonisation goals, including key assumptions and key performance indicators (KPIs).	
Metric 6.2.b – The methodology quantifies key outcomes, including the percentage share of its capital expenditures that is invested in carbon intensive assets or products, and the year in which capital expenditures in such assets will peak.	

Indicators and sub-indicators	References
Indicator 7 – Climate policy engagement	
Sub-indicator 7.1 – The Company has a Paris Agreement-aligned climate lobbying position and all of its direct lobbying activities are aligned with this.	Effective governance and engagement, pages 42–43 Industry Associations: 2023 Review Anglo American 2022 Industry Association Review (ERM) See: www.angloamerican.com/policy-advocacy
Metric 7.1.a – The Company has a specific commitment/position statement to conduct all of its lobbying in line with the goals of the Paris Agreement.	
Metric 7.1.b – The company lists its climate-related lobbying activities, e.g. meetings, policy submissions, etc.	
Sub-indicator 7.2 – The Company has Paris Agreement-aligned lobbying expectations for its trade associations, and discloses its trade association memberships.	
Metric 7.2.a – The Company has a specific commitment to ensure that the trade associations the company is a member of lobby in line with the goals of the Paris Agreement.	
Metric 7.2.b – The Company discloses its trade associations memberships.	
Sub-indicator 7.3 – The Company has a process to ensure its trade associations lobby in accordance with the Paris Agreement.	
Metric 7.3.a – The Company conducts and publishes a review of its trade associations' climate positions/alignment with the Paris Agreement.	
Metric 7.3.b – The Company explains what actions it took as a result of this review.	
Indicator 8 – Climate governance	
Sub-indicator 8.1 – The Company's board has clear oversight of climate change.	Effective governance and engagement, pages 42–43 Governance, Integrated Annual Report, pages 139–177
Metric 8.1.a – The Company discloses evidence of board or board committee oversight of the management of climate change risks.	
Metric 8.1.b – The Company has named a position at the board level with responsibility for climate change.	
Sub-indicator 8.2 – The Company's executive remuneration arrangements incorporate climate change performance elements.	
Metric 8.2.a – The Company's CEO and/or at least one other senior executive's remuneration arrangements specifically incorporate climate change performance as a KPI determining performance-linked compensation (reference to 'ESG' or 'sustainability performance' are insufficient).	
Metric 8.2.b – The Company's CEO and/or at least one other senior executive's remuneration arrangements incorporate progress towards achieving the company's GHG reduction targets as a KPI determining performance-linked compensation (requires meeting relevant target indicators 2, 3, and/or 4).	
Sub-indicator 8.3 – The Board has sufficient capabilities/competencies to assess and manage climate related risks and opportunities. (not currently assessed)	
Metric 8.3.a – The Company has assessed its board competencies with respect to managing climate risks and discloses the results of the assessment.	
Metric 8.3.b – The Company provides details on the criteria it uses to assess the board competencies with respect to managing climate risks and/or the measures it is taking to enhance these competencies.	

Indicators and sub-indicators	References
Indicator 9 – Just Transition (not currently assessed)	
Sub-indicator 9.1	
Metric 9.1.a – The Company has made a formal statement recognising the social impacts of their climate change strategy—the Just Transition—as a relevant issue for its business	
Metric 9.1.b – The Company has explicitly referenced the Paris Agreement on Climate Change and/or the International Labour Organization's (ILO's) Just Transition Guidelines.	
Sub-indicator 9.2 – The Company has committed to Just Transition principles.	
Metric 9.2.a – The Company has published a policy committing it to decarbonise in line with Just Transition principles.	
Metric 9.2.b – The Company has committed to retain, retrain, redeploy and/or compensate workers affected by decarbonisation.	
Sub-indicator 9.3 – The Company engages with its stakeholders on Just Transition.	Just Transition, page 40 Social Way: socialway.angloamerican.com/en
Metric 9.3.a – The Company, in partnership with its workers, unions, communities and suppliers has developed a Just Transition Plan.	
Sub-indicator 9.4 – The Company implements its decarbonisation strategy in line with Just Transition principles.	
Metric 9.4.a – The Company supports low-carbon initiatives (e.g. regeneration, access to clean and affordable energy, site repurposing) in regions affected by decarbonisation.	
Metric 9.4.b – The Company ensures that its decarbonisation efforts and new projects are developed in consultation with and seek the consent of affected communities.	
Metric 9.4.c – The Company takes action to support financially vulnerable customers that are adversely affected by the company's decarbonisation strategy	

Indicators and sub-indicators	References
Indicator 10 – TCFD alignment	
Sub-indicator 10.1 – The Company has committed to implement the recommendations of the Task Force on Climate related Financial Disclosures (TCFD). Metric 10.1.a – The Company explicitly commits to align its disclosures with the TCFD recommendations OR it is listed as a supporter on the TCFD website.	TCFD disclosure, page 50; Integrated Annual Report pages 132–137 Resilience to climate risk, page 46 Effective governance and engagement, pages 42–43
Metric 10.1.b – The Company explicitly sign-posts TCFD aligned disclosures in its annual reporting OR publishes them in a TCFD report.	
Sub-indicator 10.2 – The Company employs climate-scenario planning to test its strategic and operational resilience.	
Metric 10.2.a – The Company has conducted a climate-related scenario analysis including quantitative elements and disclosed its results.	Resilience in the face of a changing climate 11–23 Physical climate risk: adapting to a changing climate, pages 18–23
Metric 10.2.b – The quantitative scenario analysis explicitly includes a 1.5°C scenario, covers the entire company, discloses key assumptions and variables used, and reports on the key risks and opportunities identified.	

Glossary

Ambition
Refers to an objective we are aiming to achieve, for which we have not yet developed a pathway to delivery.

Basic Oxygen Furnace (BOF)
A stage of an integrated steelmaking process where a furnace blows oxygen through a mixture of molten iron, some cold metallics (like scrap or direct reduction iron), and basic fluxes to remove unwanted carbon and other elements.

Business as usual (BAU)
The projected impact under a baseline scenario in which no additional mitigation policies or measures are implemented beyond those that are already in force, legislated or planned to be adopted.

Carbon
'Carbon' is used in this report as shorthand for greenhouse gases.

Carbon dioxide equivalent (CO_2e)
The standard metric measure used by the UN's Intergovernmental Panel on Climate Change to compare the emissions from various greenhouse gases on the basis of their global warming potential against a common basis.

Carbon neutral(ity)
Carbon neutral(ity) is a condition in which during a specified period there has been no net increase in the global emission of greenhouse gases to the atmosphere as a result of the greenhouse gas emissions associated with the subject during the same period.

Decarbonisation
Reducing the carbon emissions associated with electricity, industry and transport.

Direct emissions
Emissions from sources that the reporting company owns or controls.

Direct reduced iron (DRI)
Direct reduced iron is produced from the direct reduction of iron ore into iron by a reducing gas or elemental carbon produced from natural gas or coal.

Electric Arc Furnace (EAF)
A stage of steelmaking where a furnace heats, smelts and partially refines iron rich material – mostly scrap with some direct reduction iron and/or pig iron – using an electric arc.

Fugitive emissions
Emissions that are not produced intentionally and are not physically controlled.

Future-enabling
Products, technologies and strategies that support the transition to a low carbon economy and that meet the consumer-driven demand trends of a growing global population.

Goal
Refers to an objective we are aiming to achieve, for which we have developed a pathway or a series of possible pathways to delivery.

Greenhouse gas (GHG) emissions
For our reporting purposes, GHG emissions are the combined anthropogenic emissions of carbon dioxide (CO_2), hydrofluorocarbons (HFCs), methane (CH_4), nitrous oxide (N_2O), perfluorocarbons (PFCs) and sulphur hexafluoride (SF_6). They are measured in carbon dioxide equivalent (CO_2e).

Greenhouse Gas (GHG) Protocol
The GHG Protocol Corporate Accounting and Reporting Standard provides requirements and guidance for companies and other organisations preparing a corporate-level GHG emissions inventory.

Indirect emissions
Emissions that result from the reporting company's activities but occur at sources that another party owns or controls.

Liquefied natural gas (LNG)
A natural gas mostly composed of methane that has been cooled to a liquid state for the safety of non-pressurised storage or transport.

Low carbon
'Low carbon' is used in the report as shorthand for low levels of greenhouse gas emissions.

Net zero
Net zero emissions is reached when anthropogenic emissions of greenhouse gases to the atmosphere are balanced by anthropogenic removals over a specified period.

Paris Agreement
A legally binding international treaty on climate change that aims to limit global warming to well below 2°C, preferably to 1.5°C, compared with pre-industrial levels.

Target
Refers to an objective we are aiming for, for which we have developed a plan for delivery.

Contacts and other information

Disclaimer

This document is for information purposes only and does not constitute, nor is to be construed as, an offer to sell or the recommendation, solicitation, inducement or offer to buy, subscribe for or sell shares in Anglo American or any other securities by Anglo American or any other party. Further, it should not be treated as giving investment, legal, accounting, regulatory, taxation or other advice and has no regard to the specific investment or other objectives, financial situation or particular needs of any recipient.

Forward-looking statements and third party information

This document includes forward-looking statements. All statements other than statements of historical facts included in this document, including, without limitation, those regarding Anglo American's financial position, business, acquisition and divestment strategy, dividend policy, plans and objectives of management for future operations, prospects and projects (including development plans and objectives relating to Anglo American's products, production forecasts and Ore Reserve and Mineral Resource positions) and sustainability performance related (including environmental, social and governance) goals, ambitions, targets, visions, milestones and aspirations, are forward-looking statements. By their nature, such forward-looking statements involve known and unknown risks, uncertainties and other factors which may cause the actual results, performance or achievements of Anglo American or industry results to be materially different from any future results, performance or achievements expressed or implied by such forward-looking statements.

Such forward-looking statements are based on numerous assumptions regarding Anglo American's present and future business strategies and the environment in which Anglo American will operate in the future. Important factors that could cause Anglo American's actual results, performance or achievements to differ materially from those in the forward-looking statements include, among others, levels of actual production during any period, levels of global demand and commodity market prices, unanticipated downturns in business relationships with customers or their purchases from Anglo American, mineral resource exploration and project development capabilities and delivery, recovery rates and other operational capabilities, safety, health or environmental incidents, the effects of global pandemics and outbreaks of infectious diseases, the impact of attacks from third parties on our information systems, natural catastrophes or adverse geological conditions, climate change and extreme weather events, the outcome of litigation or regulatory proceedings, the availability of mining and processing equipment, the ability to obtain key inputs in a timely manner, the ability to produce and transport products profitably, the availability of necessary infrastructure (including transportation) services, the development, efficacy and adoption of new or competing technology, challenges in realising resource estimates or discovering new economic mineralisation, the impact of foreign currency exchange rates on market prices and operating costs, the availability of sufficient credit, liquidity and counterparty risks, the effects of inflation, terrorism, war, conflict, political or civil unrest, uncertainty, tensions and disputes and economic and financial conditions around the world, evolving societal and stakeholder requirements and expectations, shortages of skilled employees, unexpected difficulties relating to acquisitions or divestitures, competitive pressures and the actions of competitors, activities by courts, regulators and governmental authorities such as in relation to permitting or forcing closure of mines and ceasing of operations or maintenance of Anglo American's assets and changes in taxation or safety, health, environmental or other types of regulation in the countries where Anglo American operates, conflicts over land and resource ownership rights and such other risk factors identified in Anglo American's most recent Annual Report. Forward-looking statements should, therefore, be construed in light of such risk factors and undue reliance should not be placed on forward-looking statements. These forward-looking statements speak only as of the date of this document. Anglo American expressly disclaims any obligation or undertaking (except as required by applicable law, the City Code on Takeovers and Mergers, the UK Listing Rules, the Disclosure and Transparency Rules of the Financial Conduct Authority, the Listings Requirements of the securities exchange of the JSE Limited in South Africa, the SIX Swiss Exchange, the Botswana Stock Exchange and the Namibian Stock Exchange and any other applicable regulations) to release publicly any updates or revisions to any forward-looking statement contained herein to reflect any change in Anglo American's expectations with regard thereto or any change in events, conditions or circumstances on which any such statement is based.

Nothing in this document should be interpreted to mean that future earnings per share of Anglo American will necessarily match or exceed its historical published earnings per share. Certain statistical and other information included in this document is sourced from third party sources (including, but not limited to, externally conducted studies and trials). As such it has not been independently verified and presents the views of those third parties, but may not necessarily correspond to the views held by Anglo American and Anglo American expressly disclaims any responsibility for, or liability in respect of, such information.

©Anglo American Services (UK) Ltd 2024. AngloAmerican™ and ™ are trademarks of Anglo American Services (UK) Ltd.

Comments or queries related to this report

▶ Contact us
Visit angloamerican.com/contact-us

Other Anglo American publications

Integrated Annual Report

Tax and Economic Contribution Report

Sustainability Report

Modern Slavery Statement

Voluntary Principles on Security and Human Rights

UK Gender Pay Gap Report

Transformation Performance Report

Ore Reserves and Mineral Resources Report

Business reports

Building Forever at www.debeersgroup.com

Anglo American Platinum Integrated and ESG Report

Copper Chile Sustainability Report

Kumba Iron Ore Integrated Report and Sustainable Development Review

For the latest reports, visit:
www.angloamerican.com/reporting

Anglo American plc
17 Charterhouse Street
London
EC1N 6RA
England

Tel +44 (0)20 7968 8888
Registered number 03564138

www.angloamerican.com

Find us on Facebook
Follow us on X

Designed and produced by
SALTERBAXTER
www.salterbaxter.com