AngloAmerican

Climate Change Report 2022

Re-imagining mining to improve people's lives

Tackling climate change is the defining challenge of our time.

Understanding the implications for Anglo American is a significant strategic matter for us. But being resilient as a company is not enough. We understand that mining has a critical enabling role to play in providing the metals and minerals needed for a low carbon world. In this context, we are working actively to be part of the solution to climate change, because it is the right thing for the long term sustainability of our business, and also the right thing for society.

Climate change performance*

2022 Scope 1 emissions

8.3 Mt CO_2e
2021: 8.9 Mt CO_2e

2022 Scope 2 emissions

5.0 Mt CO_2e
2021: 5.6 Mt CO_2e

2021 Scope 3 emissions**

98.5 Mt CO_2e
2020: 114.8 Mt CO_2e

2022 GHG emissions intensity for Scope 1 and 2

6.1 t CO_2e/t CuEq
2021: 6.7 t CO_2e/t CuEq

Scope 1 and 2 target

30%
reduction by 2030
(against a 2016 baseline)

Scope 1 and 2 target

Carbon neutral
by 2040

Scope 3 ambition

50%
reduction by 2040
(against a 2020 baseline)

Portfolio alignment

~85%
of portfolio focused on future-enabling products

* Scope 1 and 2 emissions data has been subject to high assurance, while our Scope 3 data has been subjected to limited assurance. All data presented includes only ongoing operations.

** 2021 Scope 3 data is based on updated Scope 3 methodology. Scope 3 emissions continue to be reported with a 12-month lag. This is due to the complexity involved in processing data at a granular level across our value chain, and continuous improvements to our methodology.

Cover image
General assistant James Kutumela assembling photo-voltaic (PV) panels for the solar-powered hydrogen plant under construction at our Mogalakwena PGMs mine.

Contents

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: **www.angloamerican.com/reporting**

FutureSmart Mining™

In order to live up to our Purpose, we are changing the way we operate through smart innovation that connects technology, digitalisation and a holistic approach to sustainability.

For more information, visit: **www.angloamerican.com/futuresmart**

Social channels

AngloAmerican | Anglo American | angloamericanplc | @angloamerican | angloamerican

This report provides our stakeholders with transparent disclosure of Anglo American's comprehensive approach to climate change. The report is aimed at investors, customers, suppliers, our communities, governments, non-governmental organisations (NGOs), and our employees and those who work with us. 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 business unit reports are also published and provide greater detail on 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 this report, which has been approved by the Board.

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' non-managed joint 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 Groupwide 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.

See more on page 44

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 more than 105,000 people working for us around the world.

Peru
Scope 1
0.16 Mt CO_2e
Scope 2
0.07 Mt CO_2e
Operations
1

Chile
Scope 1
0.39 Mt CO_2e
Scope 2
0 Mt CO_2e
Operations
3

Brazil
Scope 1
1.29 Mt CO_2e
Scope 2
0 Mt CO_2e
Operations
3

South Africa
Scope 1
1.14 Mt CO_2e
Scope 2
4.12 Mt CO_2e
Operations
9

Australia
Scope 1
5.11 Mt CO_2e
Scope 2
0.66 Mt CO_2e
Operations
6

Product groups*
- Diamonds
- Copper
- Nickel
- Platinum Group Metals
- Iron Ore
- Steelmaking Coal
- Manganese
- Crop Nutrients

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

Full disclosure of emissions can be found elsewhere in the report and on the Anglo American website.

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. And we do so in a way that not only generates sustainable returns for our shareholders, but that also strives to make a real and lasting positive contribution to society as a whole.

— Our overview video gives a complete introduction to what we do and our ambitions for the future
See https://youtu.be/cYUz_h97X0A

Diamonds

$1,417 million
Underlying EBITDA

10%
Group underlying EBITDA

34.6 Mct
Production (100% basis)*

Base Metals

Copper

$2,182 million
Underlying EBITDA

15%
Group underlying EBITDA

664 kt
Production

Nickel

$381 million
Underlying EBITDA

3%
Group underlying EBITDA

39.8 kt
Production: Nickel

PGMs

$4,417 million
Underlying EBITDA

30%
Group underlying EBITDA

4,024 koz
Production: PGMs

Bulk Commodities

Iron Ore

$3,455 million
Underlying EBITDA

24%
Group underlying EBITDA

37.7 Mt
Production: Iron ore – Kumba

21.6 Mt
Production: Iron ore – Minas-Rio

Steelmaking Coal

$2,749 million
Underlying EBITDA

19%
Group underlying EBITDA

15.0 Mt
Production: Steelmaking coal

Manganese

$378 million
Underlying EBITDA

3%
Group underlying EBITDA

3.7 Mt
Production: Manganese ore

— More detailed information and maps can be found in the business unit reviews
See pages 84–111 of the Integrated Annual Report

* Except for Gahcho Kué, which is on an attributable 51% basis.

Chairman's statement

Climate change is the defining issue of our time, without question. Notwithstanding the prevailing headwinds, the mining industry must move at pace along the pathway to carbon neutrality – while at the same time endeavouring to reduce its environmental footprint and help create socially sustainable employment so that the transition to a low carbon future is indeed a Just Transition. This document, our second stand-alone report on climate change, details the progress the Group is making to contribute to this crucial agenda.

Delivering on our commitments

At our 2022 Annual General Meeting, more than 94% of voting shareholders endorsed our 2021 Climate Change Report and the plan that it contained. Within that resolution was a commitment to report annually on the Group's delivery against this plan. This is our first such update, detailing progress made since our 2021 Report. Our Scope 1 and 2 emissions have reduced by both 9% from 2021 and 21% from their peak in 2019. Switching to renewable energy is a major part of our journey to carbon neutrality across our operations by 2040. The arrangements that we have in place in South America and Australia are expected to result in our drawing 60% of our global electricity requirements from renewable sources from 2025. South Africa will take longer, given the near total lack of existing renewable infrastructure, but we are progressing our plans with partners to build that capacity over the next decade.

Our well-established FutureSmart Mining™ programme is delivering the technology and sustainability innovation that keeps Anglo American at the forefront of responsible mining, including how we are reducing emissions. In July, at our Mogalakwena PGMs operation in South Africa, we launched the prototype for a fleet of hydrogen and battery hybrid powered mine haul trucks – a world-first at this scale.

In 2021, we also set out our ambition to halve our Scope 3 emissions by 2040. This report provides an update on that work, including reducing carbon emissions in our chartered shipping fleet through using vessels powered by liquefied natural gas. We are also working with several prominent steelmaking customers to develop ways of making cleaner steel and, ultimately, 'green' hydrogen-fuelled steelmaking.

Portfolio

The commissioning of Quellaveco has significantly increased our copper production profile, further aligning our portfolio with those metals and minerals that are critical to enabling a low carbon world, as well as to meet the demands – and improve the lives – of a growing and urbanising global population. Potential projects at Los Bronces and Collahuasi (copper); Sakatti (polymetallic); and at Mogalakwena (PGMs); plus the development of the Woodsmith mine (crop nutrients) are expected to add to this portfolio alignment as we continue to grow our business over the next decade.

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 will provide regular updates on our progress. The Board has supervision and direct oversight of the Group's strategy and risk management in relation to climate change and approved this report on 22 February 2023.

Stuart Chambers
Chairman

Chief Executive's statement

Warnings from the Intergovernmental Panel on Climate Change (IPCC) about the risks of climate change are no longer exclusively about the future. In 2022, we witnessed numerous extreme weather events around the world. At the same time, greenhouse gas (GHG) emissions resumed their upward trajectory as the global economy reopened following the pandemic. At COP27, adaptation was at the forefront, recognising that alongside reducing emissions, we must all prepare for the impacts of a changing climate. This report provides an update on Anglo American's work on these issues and, more broadly, the significant work we are undertaking related to climate change.

Resilience inside and outside the mine site

In our 2021 Climate Change Report we detailed the strategic resilience of Anglo American to shifting markets caused by the transition to a low carbon economy, not least since we produce many of the metals and minerals that are so critical to enabling that transition. This updated report builds on that analysis and includes more detail on the work we continue to do to ensure that our operations are resilient in the face of the physical risks of a changing climate. Crucially, as we think holistically about how we can preserve the natural environment and support host communities in terms of skills, jobs and helping catalyse new economic activity, this approach to resilience cannot stop at the mine gate. If the transition to a low carbon world is to be a Just Transition, then the resilience of communities must be an important part of the debate.

Progress towards our commitments

Delivering on our commitment to be carbon neutral by 2040 and our ambition to halve our Scope 3 emissions, are embedded in our strategic planning and decision making. This report demonstrates the progress we have made, and plans that we are firming up, which are designed to deliver both emissions reductions and generate sustainable value. This value will be realised in part by the innovative series of partnerships we are developing, including to deliver renewable energy in South Africa, hydrogen fuel cell and battery electric hybrid solutions to heavy haulage across our operations, and with our customers, to deliver lower carbon forms of production, most notably in the steel sector. Innovative forms of financing, such as our $100 million 10-year sustainability loan agreement with the International Finance Corporation (IFC), and our first sustainability-linked bond, a 10-year €745 million instrument which includes performance targets to reduce our operational emissions, are demonstrations of practical partnerships we have formed with the financial sector, which also have an important role to play. We see such partnerships as vital to deliver our shared endeavour of a low carbon transition, because we cannot do so alone. To achieve the transition to a low carbon world, everyone needs to play their part, from governments, to business, to civil society, to individuals.

Leadership changes

This is my first Climate Change Report as chief executive and we have seen several changes on the Board and Group Management Committee in the last year. Of those changes, I must put on record my thanks to Tony O'Neill, who has played a central role in the development and progress towards the delivery of our ambitions in relation to climate change, amongst many other achievements.

Duncan Wanblad
Chief Executive

Purpose to value

We are guided by our Purpose – re-imagining mining to improve people's lives – to deliver sustainable value for all our stakeholders.

Our Purpose

Re-imagining mining to improve people's lives

Transforming the very nature of mining for a safer, smarter, more sustainable future.

Our Values

Anglo American's Values and behaviours are at the heart of everything we do. Guided by our Purpose and our Values, we enable high performance and purposeful action. Our Values and the way in which we, as individuals, are expected to behave are the foundation of our Code of Conduct.

- Safety
- Care and Respect
- Accountability
- Collaboration
- Integrity
- Innovation

Our strategy

Guided by our Purpose, our strategy is to secure, develop and operate a portfolio of high quality and long life mineral assets, from which we will deliver leading shareholder returns. We achieve this through innovative practices and technologies – in the hands of our world class people.

Capital allocation

Underpinning our strategy, we have a value-focused approach to capital allocation, with clear prioritisation. Our Sustainable Mining Plan outlines ambitious targets that our projects must support to ensure a Healthy Environment, Thriving Communities and our position as a Trusted Corporate Leader.

— For more on capital allocation
See pages 64–66 of the Integrated Annual Report 2022

Measuring delivery of our strategy

We track our strategic progress holistically – spanning non-financial and financial performance using KPIs that are based on our seven pillars of value:

Safety and Health
To ensure our workforce is safe and healthier for working with us

Environment
To have a net positive and sustainable impact on climate change, water and the natural environment

Socio-political
To build thriving communities and develop trust as a corporate leader

People
To create a sustainable competitive advantage through capable people and an effective, purpose-led, high performance culture

Production
To sustainably produce and grow valuable product

Cost
To achieve optimal margins based on delivery of targeted growth

Financial
To deliver industry-leading sustainable returns to our shareholders

Value

Delivering sustainable value for all our stakeholders

We are working together to develop better jobs, better education and better businesses, building brighter and healthier futures around our operations in host countries and ultimately for billions of people who depend on our products every day.

- Investors
- Employees
- Communities
- Natural environment
- Suppliers
- Customers
- Host countries

Balanced reward

Anglo American's directors' remuneration policy is designed to encourage delivery of the Group's strategy and creation of stakeholder value in a responsible and sustainable manner, aligned to our Purpose.

The main elements of the remuneration package are basic salary, annual bonus and Long Term Incentive Plan (LTIP).

— For more on remuneration
See pages 160–203 of the Integrated Annual Report 2022

Our Sustainable Mining Plan

Our Sustainable Mining Plan, integral to FutureSmart Mining™, is built on our critical foundations and three Global Sustainability Pillars and sets out our commitment to stretching goals – driving sustainability outcomes through technology, digitilisation and our innovative approach to sustainable economic development.

Partnership and engagement

Environment

Healthy Environment

- Climate change
- Biodiversity
- Water

— For more information See page 53–71 of the Sustainability Report 2022

Social

Thriving Communities

- Education
- Health and well-being
- Livelihoods

— For more information See pages 72–81 of the Sustainability Report

Governance

Trusted Corporate Leader

- Accountability
- Policy advocacy
- Ethical value chains

— For more information See pages 82–92 of the Sustainability Report 2022

Partnership and engagement

Collaborative Regional Development

Our innovative partnership model to catalyse independent, scalable and sustainable economic development in regions around our operations – the objective being to improve lives by creating truly thriving communities that endure and prosper well beyond the life of the mine.

— For more information See pages 77–78 of the Sustainability Report 2022

Our Critical Foundations

These form the common and minimum requirements for each of our operations and our business as a whole. The Critical Foundations are essential to the long term credibility and success of both the Sustainable Mining Plan and to maintain our social licence to operate.

Zero Harm

— For more information See pages 24–33 of the Sustainability Report 2022

Leadership and Culture

— For more information See page 34–40 of the Sustainability Report 2022

Inclusion and Diversity

— For more information See pages 41–44 of the Sustainability Report 2022

Human Rights

— For more information See pages 45–48 of the Sustainability Report 2022

Group standards and processes

— For more information See pages 49–52 of the Sustainability Report 2022

Compliance with legal requirements

— For more information See pages 49–52 of the Sustainability Report 2022

2022 key highlights

Launch
of the world's largest hydrogen-powered mine haul truck – nuGen™ Zero Emissions Haulage Solution (ZEHS)

Combined Anglo American's nuGen™ ZEHS with First Mode. Additional $200m capital investment committed to help fund the ongoing development of the ZEHS

Partnership
with EDF Renewables to form Envusa Energy – launching 600 MW of wind and solar projects in first phase of the renewable energy ecosystem in South Africa

100%
renewable electricity supply agreements in place across all South American operations

Agreement
with Stanwell Corporation to supply 100% renewable energy to all Australian operations from 2025

Increased
production of future-enabling products with the start-up of Quellaveco copper mine in Peru

20% (by volume of iron ore sales) customers now covered by decarbonisation scoping agreements

New memorandum of understandings signed with Thyssenkrupp Steel AG and Nippon Steel to collaborate on developing new pathways for the decarbonisation of steelmaking

First sea trial using a blend of biofuel and very low sulphur fuel oil to reduce emissions from ocean freight

21%
reduction in Scope 1 and 2 emissions from our peak in 2019, demonstrating progress towards our target of 30% reduction by 2030 and carbon neutrality by 2040

14%
reduction in Scope 3 emissions compared with 2020 and creation of high level pathway to deliver our ambition of 50% reduction in Scope 3 emissions by 2040

Verified as in line with the expectations set out by the International Maritime Organization's goal of reducing shipping emissions by at least 50% by 2050 by the Sea Cargo Charter

Updated approach to assessing and mitigating the physical risks of climate change at our sites and in host communities

First of 10 Ubuntu LNG vessels christened, delivered, and entered service, resulting in a total of an estimated 35% reduction in CO_2 emissions

52%
of electricity derived from 100% renewable sources in 2022

€745 million sustainability-linked bond launched, including performance targets to reduce greenhouse gas emissions

94.3%
shareholder approval for climate change strategy at AGM

External verification of the alignment of our carbon neutrality goals with the 1.5°C ambition enshrined in the Paris Agreement

Towards a low carbon future – our strategy and approach

Tackling climate change is the defining challenge of our time.

Understanding the implications of climate change for our business is embedded in our strategy. But being resilient as a company is not enough. Mining's critical enabling role in providing the metals and minerals needed for a low carbon world is increasingly recognised. Against this backdrop, we 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. In achieving this, we are living our Purpose – Re-imagining mining to improve people's lives.

Our climate change strategy is entrenched across the business. Informed by robust analysis and constant engagement with stakeholders, we continue to align our portfolio with the needs of a low carbon world; we are reorientating our operations towards carbon neutrality; 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.

Since setting our current Scope 1 and 2 emissions reduction targets in 2018, we have made considerable progress, including successfully demerging our thermal coal operations and achieving our first 2020 emissions reduction target a year early. 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 Report, this update provides more detail on the progress we are making. It considers each of our strategy's pillars in turn, outlining the progress made in 2022.

In Brazil, we are partnering with wind-energy specialist Casa dos Ventos to build the Rio do Vento wind farm. Our operations in South America are in the process of switching to renewable sources of power for all their grid-supplied energy requirements.

Climate Transition Plan

Our targets and ambition

30% target reduction in Scope 1 and 2 emissions **by 2030** against a 2016 baseline

8 of our assets carbon neutral **by 2030**

Carbon neutrality across our operations for Scope 1 and 2 **by 2040**

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

2040 target for carbon neutrality in controlled ocean freight

Evolving portfolio

90%+ of growth capital expenditure earmarked for future-enabling metals and minerals

Our portfolio is predominantly focused on future-enabling metals and minerals, many being fundamental to delivering a **cleaner, greener, more sustainable future**

New operations at Quellaveco (copper), early progress of greenfield development at Sakatti (polymetallic) and Woodsmith (crop nutrients)

Resilient profit pools under a 1.5°C pathway, analysis suggests

Decarbonising our operations (Scope 1 and 2)

FutureSmart Mining™ technologies, increasing energy efficiency to reduce energy demand, avoid emissions and capture and use fugitive methane

Developed and commercialising the world's largest hydrogen-powered mining truck technology to decarbonise high power transport using renewable energy

3–5 GW Regional Renewable Energy Ecosystem (RREE) being developed in South Africa by Envusa Energy, a new jointly owned company established with EDF Renewables

Deploying renewables sourcing 100% renewable electricity for all operations where possible

Investing in methane capture infrastructure and working on technology solutions to further reduce emissions, alongside industry partners

Decarbonising our value chains (Scope 3)

Working together with customers, especially steelmaking customers, to accelerate the transition to lower carbon production processes

Product quality prioritising the production of high-quality products which feed into more efficient and less carbon-intensive processes

Resilience in the face of a changing climate

Strengthening our response to physical climate change risks to enable/support adaptation of our business

Working with our wider value chain and communities to improve their resilience in the face of climate change

Just Transition

Sharing knowledge about Just Transitions by working with the Council for Inclusive Capitalism and others

Ensuring that our Collaborative Regional Development approach supports sustainable livelihoods and aims to catalyse low carbon industries

Effective governance and transparency

Alignment of climate-related disclosures with key standards and frameworks such as the Task Force on Climate-Related Financial Disclosures (TCFD).

Executive remuneration linked with the achievement of decarbonisation goals

Embedded climate and Just Transition principles into our company approach

Monitoring and review of industry associations to ensure lobbying and advocacy are conducted in line with the goals of the Paris Agreement

Board supervision and oversight of the Group's climate change strategy, risk management and associated disclosures

Delivering on our commitments

Resilience in the face of a changing climate

In the region around our new Quellaveco copper mine in the south of Peru, drone operator Helmer Vasquez monitors the movements of the Suri, a large flightless bird only found in South America.

Resilience to climate risk

The scientific evidence of human-induced climate change is clear. However, the longer term impacts to our business are, to a degree, unpredictable. As a consequence, our risk management processes embed climate change in the understanding, identification and mitigation of risk. We have aligned ourselves with the Task Force on Climate-Related Financial Disclosures (TCFD) recommendations on climate-related risks and we are committed to evolving our disclosure to meet the recommendations of the UK's Transition Plan Taskforce, as these are finalised.

Risk management at Anglo American

The Board establishes the system of risk management, setting risk appetite and overseeing the system of internal control to manage risk within the Group. The Group's system of risk management and internal control is monitored by the Audit Committee under delegation from the Board. The Board confirms that it has completed a robust assessment of the Group's emerging and principal risks.

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 all risks that prevent the achievement of objectives is undertaken. 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 impact should the risk materialise. These operational risk profiles contribute to the assessment of risks at the business unit level. Executive management at each business unit assesses risks that threaten achievement of the business unit 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 business unit 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 those risks deemed catastrophic in nature, 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, or 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 2022 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. 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.

Climate change – a principal risk

Climate change

Climate change is the defining challenge of our time and our commitment to being part of the global response presents both opportunities and risks.

Root cause: We are committed to the alignment of our portfolio with the needs of a low carbon world in a responsible manner; however, different stakeholder expectations continue to evolve and are not always aligned. Long term demand for metals and minerals mined and marketed by Anglo American may deviate from assumptions based on climate change abatement initiatives. Changing weather patterns and an increase in extreme weather events may impact operational stability and our local communities. Our Scope 1 and 2 carbon emission reduction targets are partly reliant on new technologies that are at various stages of development, and our Scope 3 reduction ambition is reliant on the adoption of greener technologies in the steelmaking industry.

Impact: Potential loss of stakeholder confidence, negative impact on reputation, financial performance and valuation.

Mitigation: We have articulated our climate change plans, policies and progress and engage with key stakeholders to ensure they understand them.
Our Sustainable Mining Plan includes operation-specific and Group targets for reductions in carbon emissions, power and water usage.

Risk appetite: Operating within the limits of our appetite.

Commentary: For more information on our Sustainable Mining Plan, see page 42 of the Integrated Annual Report 2022, and for further information on how we engage with key stakeholders, see pages 16–19 of the Integrated Annual Report 2022.

Pillars of value:

Pillars of value: Safety and health, Socio-political, Production, Financial, Environment, People, Cost

Managing transition risks through portfolio evolution

We have evolved our portfolio to help support the transition to a low carbon economy.

The evolution of our portfolio is informed by a full assessment of climate-related challenges. We assess our portfolio resilience to both economic and physical risks and opportunities across a range of climate change pathways. Leveraging our global scale and resources, we identify and deliver projects that will create value for our shareholders, the communities in which we operate, and the planet.

Strategic principles guide portfolio choices

Changes to the portfolio are guided by our strategic foundation, which can be distilled into a set of principles that drive portfolio choices. These principles also inform capital allocation and investment appraisal processes, ensuring consistency of strategic decision making across the Group and embedding climate-related considerations at all stages.

These principles are:

- High quality low-cost assets
- Long-life assets at scale
- Assets where we can generate differentiated returns by leveraging our internal capabilities

In addition to these principles, we also assess the alignment and resilience of our portfolio and opportunities to a range of long term trends including, critically, the implications of climate change. We explore how the world might develop under a range of climate change pathways and the potential outcomes for mining profit pools and for our business.

A significant majority of our portfolio comprises future-enabling products that support the transition to a more sustainable future.

Portfolio resilience in a 1.5°C world

Climate change has the potential for significant long term impact on our world and for our industry. We expect climate change to impact the mining industry through both risks and opportunities in two broad areas:

- Transition impacts: The potential impact on demand for different products, given assumptions on regulatory, technological, and behavioural changes in the transition to a low carbon economy.
- Physical impacts: The potential impact on our operations and surrounding communities from both acute extreme weather events and chronic shifts in climate patterns.

To consider potential transition impacts and inform our strategic choices, we developed a set of climate change scenarios as detailed in our 2021 Climate Change Report. The scenarios include a 1.5°C scenario and a 2°C scenario referencing the Wood Mackenzie Accelerated Energy Transition scenarios[1], and a ~3°C scenario, based on the Wood Mackenzie Energy Transition Outlook[2]. In addition, we incorporate pathways for AFOLU[3] greenhouse gas (GHG) emissions into the three scenarios, reflecting guidelines set by the Intergovernmental Panel on Climate Change (IPCC) *Special Report on Global Warming of 1.5°C*[4] for methane and nitrous oxide emissions.

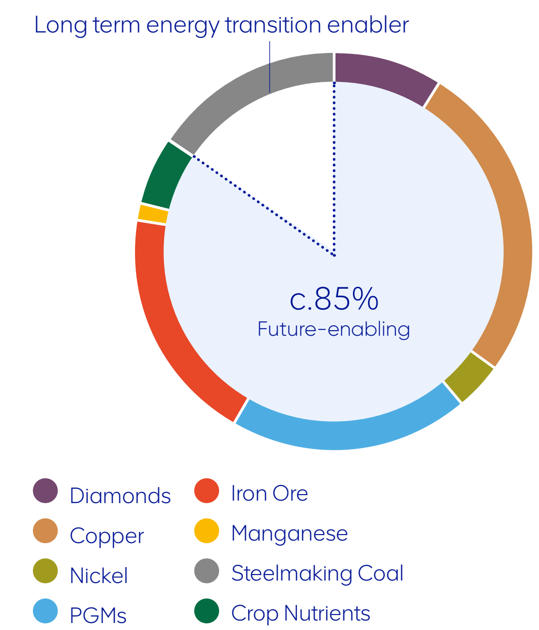
Across the scenarios, we assess Anglo American's resilience to transition impacts along key dimensions of financial strength and strategic robustness. Financially, we measure how our cash flow would evolve across scenarios, focusing on our existing assets and organic growth opportunities, to ensure consistency. This is overlaid with an assessment of the strategic risks and opportunities across each scenario, considering the evolution of our product profit pools, the life of our assets, as well as the quality and mix of our portfolio.

Limiting global warming to 1.5°C above pre-industrial levels by 2100 requires a rapid acceleration of global climate change efforts. This includes the deployment of low carbon technologies which will underpin an increase in demand for a range of mined products. As a result, we expect the overall extraction industry profit pool to be robust across the three scenarios. In addition, our analysis suggests that the profit pools in which Anglo American participates will remain broadly resilient under a 1.5°C scenario.

Our assessment that Anglo American remains resilient is based on the interrelationship between the quality of our endowments, the expected life of our assets, our exposure to commodities that support a green transition and the mix of products in our portfolio, as well as our strong organic growth optionality. Under the ~3°C scenario, with our current asset footprint and organic growth options, we expect stable cash flows to 2035. Similarly, we expect our cash flow to remain resilient under both the 2°C and 1.5°C scenarios, but with greater uncertainty given the broad range of potential pathways to achieve the low carbon outcomes. For example, in the next decade under the 1.5°C scenario, our cash flow could be up to 30% higher relative to the ~3°C scenario. In the subsequent decade, our cash flow could be 20–25% lower under the 1.5°C scenario, relative to the ~3°C scenario. This range of uncertainty falls within our risk tolerance. In addition, the optionality in our portfolio will allow us to further strengthen our resilience and offset any potential downside risks to our cash flow.

(1) The Wood Mackenzie Accelerated Energy Transition 1.5°C scenario is predicated on the carbon budget set by the IPCC SR-1.5 for a 67% chance of limiting warming to 1.5°C through rapid reduction in annual emissions, reaching net negative energy-related CO_2 emissions by 2050, and sustained net negative emissions from 2050 onwards
(2) http://bit.ly/3YJHZbf
(3) Agriculture, forestry and other land use
(4) The Intergovernmental Panel on Climate Change (IPCC) is the United Nations body for assessing the science related to climate change. For more information about the report, see: https://www.ipcc.ch/sr15

A future-enabling portfolio*



* Based on copper equivalent production, which is calculated including the equity share of De Beers' production and using long term consensus parameters. Future production levels, based on information available at December 2022, are indicative and subject to final approval.

Case study

Administrative secretary Terhi Svartsjö and geotechnician Tomas Karjalainen during winter-drilling activities at Sakatti.

Developing future-enabling metals and minerals in Europe

Building on the start-up of our Quellaveco copper operation in 2022, we are continuing to grow and evolve our portfolio through the potential development of Sakatti – a unique, polymetallic deposit including copper, nickel and platinum group metals, and Woodsmith – the world's largest deposit of polyhalite, a low carbon fertiliser, suitable for organic use.

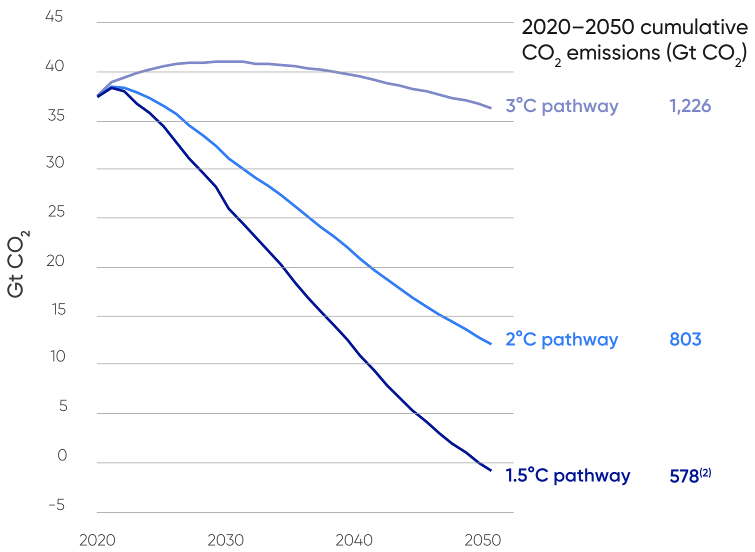
Situated in Finland and the United Kingdom respectively, both projects enable the building of innovative, modern, state-of-the-art and low impact mines within Europe. Showcasing Anglo American's technological and sustainability leadership, each mine, once developed, will occupy a small footprint above ground, whilst providing stable, secure, resource-efficient sources of the critical minerals needed for the world to both decarbonise and feed an ever-expanding population more sustainably.

As these scenarios are risk management tools only, no singular scenario should be taken as representative of management's view of the likely outcome.

— For more information on our climate scenario work
See our 2021 Climate Change Report, pages 15–19

We continue to monitor the evolving climate change context to refine our understanding of the potential impacts to our industry and our business. A full refresh and update of our climate change scenarios and the quantified transition impacts is conducted every two to three years. The frequency with which our scenarios are updated is based on a consideration of several factors, including shifts in climate-related policy and emerging technologies, updates in climate change and emissions projections, and materiality of the updated impact on our business. We expect to produce a revised scenario analysis for the 2023 iteration of this report.

Global CO_2 emissions (Gt CO_2), including energy-related and AFOLU CO_2 emissions[1]



[1] Charts based on data from Wood Mackenzie Energy Transition Service and McKinsey & Company.

[2] Sustained net negative CO_2 emissions post-2050 bring cumulative emissions back within the budget set by the IPCC to restrict warming to 1.5°C.

Allocating capital to achieve our targets

Portfolio

Anglo American's strategy seeks opportunities in the metal and mineral needs of the future, including the impacts of climate change and the energy transition. 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 of assets is predominantly towards future-enabling metals and minerals – accelerated by our exit from thermal coal operations and the addition of crop nutrients, through the acquisition of Woodsmith. More than 90% of our growth capital expenditure is allocated to projects in these future-enabling products.

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 managing water where it is expected to become scarcer, or where there is a risk of future disruption due to flooding. These investments are subject to the Group's robust investment evaluation criteria, and to independent technical and financial assurance.

Carbon pricing

Our major investments take into account the 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. The aim is to reflect our best estimate of the level of carbon pricing likely to prevail in the respective jurisdictions over time. These prices range between $10–60 per tonne* 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.

* On a 2022 real basis.

Low carbon transition risks and opportunities

Short term = 0–5 years

Medium term = 5–15 years

Long term = 15+ years*

Commodity	Low carbon transition risks and opportunities	Time frame	Anglo American's portfolio alignment and resilience
Copper	– Copper is a key material for enabling increased electrification across sectors (such as the shift from the internal combustion engine (ICE) to electric vehicles), the transition to renewable power generation, and the expansion of power grids and distribution systems	Short to long term upside risk	– Quellaveco came online in 2022 adding on average 300,000 tonnes per year of copper equivalent production (100% basis) into our portfolio in the first 10 years of operation – Our independently managed joint operation, Collahuasi, is a world-class copper resource, with additional capacity expected to ramp-up in the fourth quarter of 2023
	– Increasing environmental concerns – especially in major copper-producing countries – increase the risk of delays for new projects, with tight supply likely to support pricing	Medium to long term upside risk	
	– Accelerated use of scrap could offset some demand growth for primary copper	Long term downside risk	
Nickel	– Nickel sulphate is a critical input to lithium-ion batteries used in multiple carbon abatement technologies, including battery electric vehicles (BEVs)	Short to long term upside risk	– Our PGMs operations produce nickel sulphate and nickel cathode as by-products – Our Barro Alto operation produces ferronickel, the majority of which is used in the production of high quality stainless and heat resistant steels – Sakatti, our potential greenfield project in Finland, is a polymetallic deposit including copper, nickel, and PGMs
	– Nickel is also a key input for steel, a foundational material for many low carbon technologies, such as wind turbines	Short to long term upside risk	
	– Uncertainty of battery chemistry outlook introduces downside demand risk if non-nickel battery cathode chemistries increase share	Medium to long term downside risk	
	– Greater adoption of public transportation, ride sharing, and other mobility levers could limit demand for personal vehicles	Medium to long term downside risk	
	– As secondary battery supply reaches scale, demand growth for primary nickel could slow	Medium to long term downside risk	
Platinum Group Metals (PGMs)	– With potential further tightening of air quality legislation, PGMs play a crucial role in reducing pollution from ICE vehicles, through PGM-containing catalytic converters	Short to medium term upside risk	– Our high quality PGMs operations deliver world-class performance using innovative and sustainable methods through FutureSmart Mining™ – Our PGMs portfolio of Tier 1 assets are long life and have considerable organic growth optionality, which position us well as demand patterns evolve
	– 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	Short to long term upside risk	
	– PGMs will also play a major role in the development of the hydrogen economy, as a key material used in fuel cell electric vehicles (FCEVs), and supporting the process of hydrogen production via electrolysis through the polymer electrolyte membrane process	Medium to long term upside risk	
	– Increased demand for BEVs poses a downside risk demand for the PGM-containing catalytic converters used in ICE vehicles	Medium to long term downside risk	
	– An accelerated shift away from ICE vehicles towards BEVs and a delayed penetration of FCEVs introduces additional risk for PGMs demand	Medium to long term downside risk	

Commodity	Low carbon transition risks and opportunities	Time frame	Anglo American's portfolio alignment and resilience
Iron ore	– 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	Short to long term upside risk	– Our high quality iron ore supports efficient steelmaking today – We are growing our share of high quality pellet feed and premium lump ore, which is suitable for lower carbon, direct reduction processes of iron in steelmaking, resulting in materially lower emissions
	– Shift to low carbon direct reduced iron – electric arc furnace (DRI-EAF) routes will rapidly grow demand for higher quality iron ore pellet feed	Medium to long term upside risk	
	– However, an accelerated use of scrap steel will limit demand growth for primary iron	Medium to long term downside risk	
Steelmaking coal	– Even in low carbon pathways, steelmaking coal remains a key input into steel in the near term and potentially also the longer term with the addition of Carbon Capture and Storage (CCS) to capture emissions from blast furnaces	Short to long term upside risk	– Our product is high quality, with a high calorific content and low impurities, supporting carbon-efficient steelmaking today and through the transition period as steelmaking moves to less carbon-intensive production
	– Limited development of CCS could increase shifts towards DRI steelmaking routes and away from blast furnaces	Medium to long term downside risk	
	– An accelerated use of scrap steel will limit demand growth for primary iron	Medium to long term downside risk	
Polyhalite	– With growing population and food requirement increasing crop demand and limited available land, fertilisers will play a critical role in improving crop yield	Medium to long term upside risk	– The Woodsmith project – the world's largest known deposit of polyhalite – adds greater diversity to our portfolio and provides additional support to the low carbon world due to the minimal processing required compared to the vast majority of other fertilisers – Suitable for organic use, our polyhalite product maximises crop yields, supporting increased food needs. It also has properties which strengthen and support soil structure, which we believe brings a range of additional sustainability benefits, including with respect to carbon emissions. Polyhalite from Woodsmith will also have a manufacturing carbon footprint that is 85% less than comparable synthetic fertilisers
	– There is further potential upside in a 1.5°C scenario as diets shift away from meat consumption, reducing the availability of manure fertiliser	Medium to long term upside risk	
	– 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	Short to long term upside risk	
	– A reduction in crop demand could arise from efficiency improvements in the food system and new technology could optimise fertiliser use, lowering fertilisation rates	Short to long term downside risk	
	– New technical levers to reduce methane from livestock could maintain manure supply and limit upside for mineral fertilisers	Medium to long term downside risk	
Diamonds	– We expect little to no impact on the diamond profit pool outlook across climate change pathways		– Although diamonds have a less direct role in the transition to a low carbon economy, our mined diamond production is highly aligned with a low carbon future. De Beers has a longstanding commitment to sustainability and is targeting carbon neutrality across its operations by 2030

* Long term time frame of 15+ years chosen to align to typical time frame for commodity supply response to major demand shifts.

Case study

The distinctive Papujune dome covering Quellaveco's processing plant. The mine will draw all its electricity supply entirely from renewable energy sources from 2023.

A blueprint for FutureSmart Mining™

Earlier this year, we saw the start of production at our Quellaveco copper mine in Peru. Quellaveco is expected to produce 300,000 tonnes per year of copper equivalent volume on average over its first 10 years.

Our delivery of Quellaveco, a major new world class copper mine, is testament to the efforts of our workforce and our commitment to our stakeholders in Peru over many years. Quellaveco alone is expected to lift our total global output by 10% in copper equivalent terms and take our total copper production close to 1 million tonnes per year.

Quellaveco is one of Anglo American's and South America's most technologically advanced mines, incorporating autonomous drilling and haulage fleets – a first in Peru, a remote operations centre, as well as a number of Anglo American's digital and advanced processing technologies. Drawing its electricity supply entirely from renewables from 2023, Quellaveco is setting an example of a low emission mine producing a critical metal for decarbonising the global economy – copper. In Quellaveco, we can see FutureSmart Mining™ in action.

Allocating capital to achieve our targets

Our commitment to achieve carbon neutrality across our operations is embedded in company strategy and our medium term plan, including the allocation of capital. Through our work with the Carbon Trust, and recognising that with forecasts of any type there is a margin for error, we are confident that our 2040 ambition is broadly in the range of what is widely understood as a 1.5°C future (see page 26). We believe, therefore, that capital deployed to meet those targets is aligned with a contribution to achieving the goals of the Paris Agreement.

In many cases it is impossible to distinguish between capital deployed to continually improve our business and that which is deployed to achieve carbon neutrality. For example, our investments in FutureSmart Mining™ technologies, such as digitalisation, 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. This means that from 2023, all our South American operations will be 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, 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. In October 2022, we announced the creation of a jointly owned company with EDF Renewables, Envusa Energy, to create a regional renewable energy ecosystem (RREE). The ecosystem is expected to meet our operational electricity requirements in South Africa through the supply of 3–5 GW of renewable electricity (solar and wind) and storage by 2030, with excess electricity supplied to the grid to help improve its resilience. This investment 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, in turn supporting the country's development goals.

Other partnership models to deliver decarbonisation

We are taking a similar model of partnership and syndication with the development of our zero emissions haulage solution (ZEHS). In partnership with First Mode, a specialist engineering technology company, we developed the proof of concept that is now running in our Mogalakwena PGMs operation. To accelerate the development and commercialisation of nuGen™'s ZEHS, we have combined nuGen™ with First Mode and entered into a supply agreement to decarbonise our global fleet of ultra-class mine haul trucks. The creation of a new entity will allow strategic third parties to co-invest alongside Anglo American and First Mode, offering the opportunity to accelerate their own decarbonisation and participate in the potential offered by the clean ZEHS technology. The roll-out across Anglo American's haul truck fleet over the next ~15 years is subject to the completion of agreed and committed studies across seven mine sites, certain performance, and cost criteria, and relevant regulatory, corporate and shareholder approvals. We are contributing a further $0.2 billion in equity funding through the course of 2023 to help fund the ongoing development of the ZEHS. In addition, ~$0.3 billion of capex annually (2023–2025) is expected to be invested across the South African RREE and nuGen™ programmes*.

Investing in early-stage climate innovation

Recognising that financial and scaling support for innovation will be critical to developing the new transformational technologies needed for decarbonisation, we have recently established our Decarbonisation Ventures team.

This team uses both direct investments, bespoke commercial partnerships, and Anglo American's operational capabilities to build and accelerate early-stage companies developing climate positive innovations.

Aligned with our existing Scope 1, 2 and 3 emission reduction efforts, the team is focusing not only on technologies that could help reduce our operational and wider value chain emissions, but also on opportunities beyond our own direct remit.

Key focus areas include clean energy; methane abatement; steel decarbonisation; and materials innovation.

By investing in a wide range of cutting-edge technological advances and innovative thinking, this team will provide Anglo American with broad strategic flexibility to address the climate challenge.

* Includes the Group's proportionate share of capex incurred by Envusa Energy.

Physical climate risk: adapting to a changing climate

Our operations, communities and broader value chain, from the Arctic to the far South, are already experiencing the impacts of climate change.

Climate science and future predictions

For over 10 years, we have been working to ensure that our operations have the best available models to understand, assess, mitigate and adapt to the physical risks of climate change. We have drawn on the expertise of the UK Met Office, the South African Council for Scientific and Industrial Research (CSIR), Jupiter Intelligence and the Pontificia Universidad Católica de Chile to understand future climate projections and the vulnerability of our operations, host communities and host countries more broadly.

We recognise the importance and urgency of enhancing our resilience – in fact, our production in 2022 was affected by extreme weather, exacerbated by climate change, around the world. We have begun to use a climate change scenario analysis solution specifically for our assessment of physical climate change risks that uses multiple Global Climate Model (GCM) projections dynamically downscaled to a local level to provide projected changes in climate and hazard estimates for each of our assets and key shipping ports over the period 2020 to 2100. The modelling is based on three of the Shared Socioeconomic Pathways (SSPs) used in the IPCC Sixth Assessment report on climate change: SSP1–2.6, SSP2–4.5 and SSP5–8.5[1]. These scenarios project warming of ~1.8°C, ~2.7°C and ~4.4°C respectively by 2100. This analysis provides us with a top-down view of key physical climate change hazards across our portfolio. To complement this, we have defined a bottom-up approach to understand the climate context at a local and regional level, including understanding past weather trends and present emerging climate-related impacts, as well as vulnerabilities and adaptive capacities particular to each site.

Understanding short, medium and long term physical risks resulting from climate change

We assess our physical climate change risks over different time horizons. In our current operational planning we are focused on addressing the impacts of acute emerging and short term (0–5 years) physical climate change risks such as the heavy rains in southern Africa and Australia and wild fires in Brazil that we have experienced over the last few years. This approach is both top-down and bottom-up – assessing identified physical risks at each of our operations against current controls and future needs to plan appropriate mitigation. Physical risks emerge at different times and with different levels of severity depending on the site and its context. As a result, our approach is very site and impact specific.

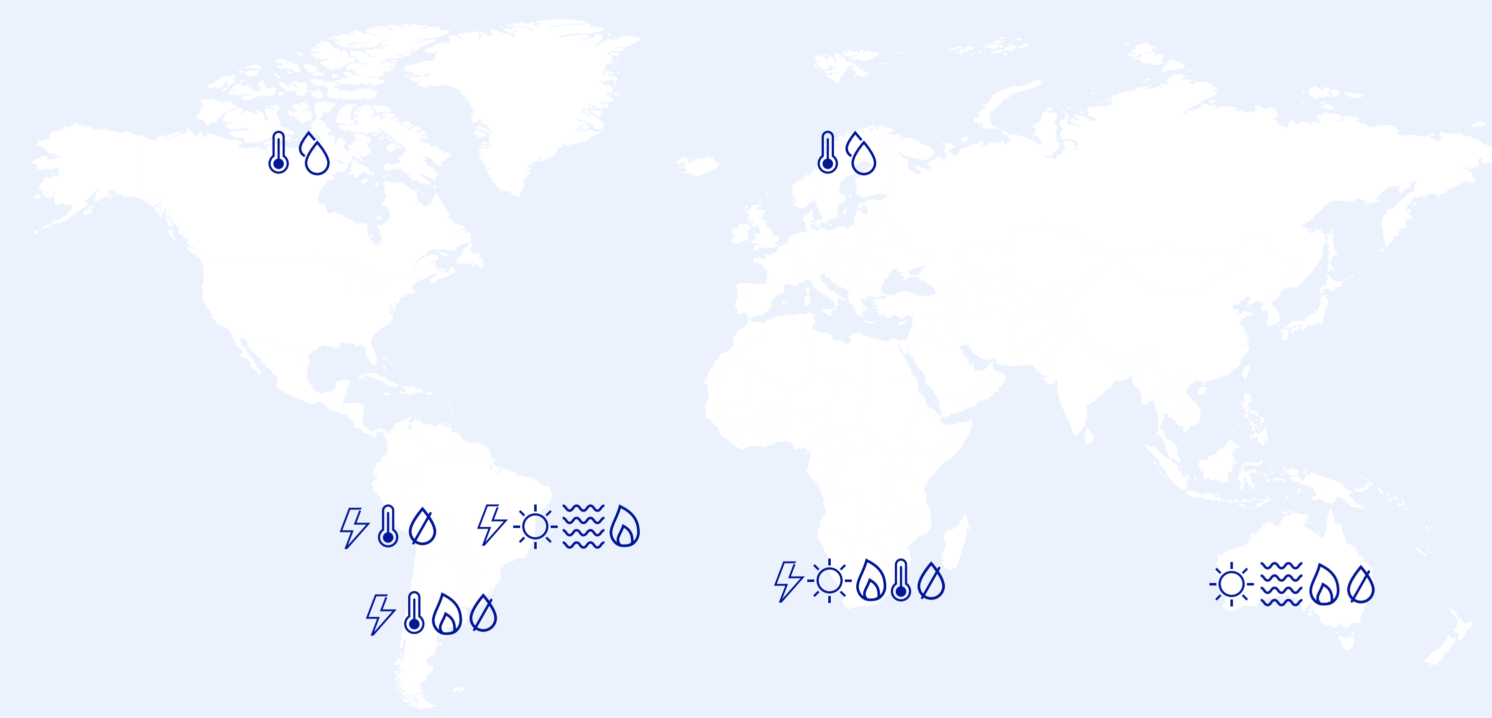
Risks emerging in the medium term (5–15 years) are an exacerbation of our short term risks such as the likelihood that future extreme weather events will become more intense or more frequent, thus potentially adding incremental risk to our operations. In addition, we expect to see a continued strengthening of the chronic decrease in precipitation and increase in annual temperatures which will exacerbate existing risks such as water stress in southern Africa, Chile and Peru. We also expect to see an introduction of some new chronic risks, such as the change in annual temperatures and precipitation causing a shift in seasons which, for example, will reduce the period that we can use ice roads for access in the Arctic.

Our long term time horizon covers the remainder of our operations life (15+ years) as well as the post-closure period. The projections for physical climate change risks in this time frame start to diverge considerably depending on the scenario chosen. We will continue to monitor the global trajectory and calibrate our long term predictions accordingly. Our work on long term risks is linked to our desire to have sustainable mine plans beyond the operational activities of an asset. Examples of this are ensuring rehabilitation strategies take into consideration future physical conditions that may impact plant or soil selection, through to water management activities or aspects related to the security of renewable energy supplies.

Our approach is evolving as we conduct further site-level bottom-up risk assessments and it is through this process we will connect our work in this area across all aspects of our operational activities.

(1) IPCC (2021). Masson-Delmotte V, Zhai P, Pirani A, Connors SL, Péan C, Berger S, Caud N, Chen Y, Goldfarb L, Gomis MI, Huang M, Leitzell K, Lonnoy E, Matthews JB, Maycock TK, Waterfield T, Yelekçi O, Yu R, Zhou B (eds.). Summary for Policymakers (PDF). *Climate Change 2021: The Physical Science Basis. Contribution of Working Group I to the Sixth Assessment Report of the Intergovernmental Panel on Climate Change. Cambridge (UK):* Cambridge University Press.

Identified hazards in the regions in which we operate



Examples of the resulting potential risks/impacts on our operations:

Flood
- Disruption of operations due to flooding of operational areas
- Infrastructure damage
- Supply chain disruption

Water stress/ drought
- Compromised viability of vegetation on rehabilitation
- Impact on ecosystems
- Reduced community access to water

Increase in annual precipitation
- Inadequate capacity of water management infrastructure (dams, dewatering water treatment, etc)

Annual increase in temperature
- Impact on ecosystems

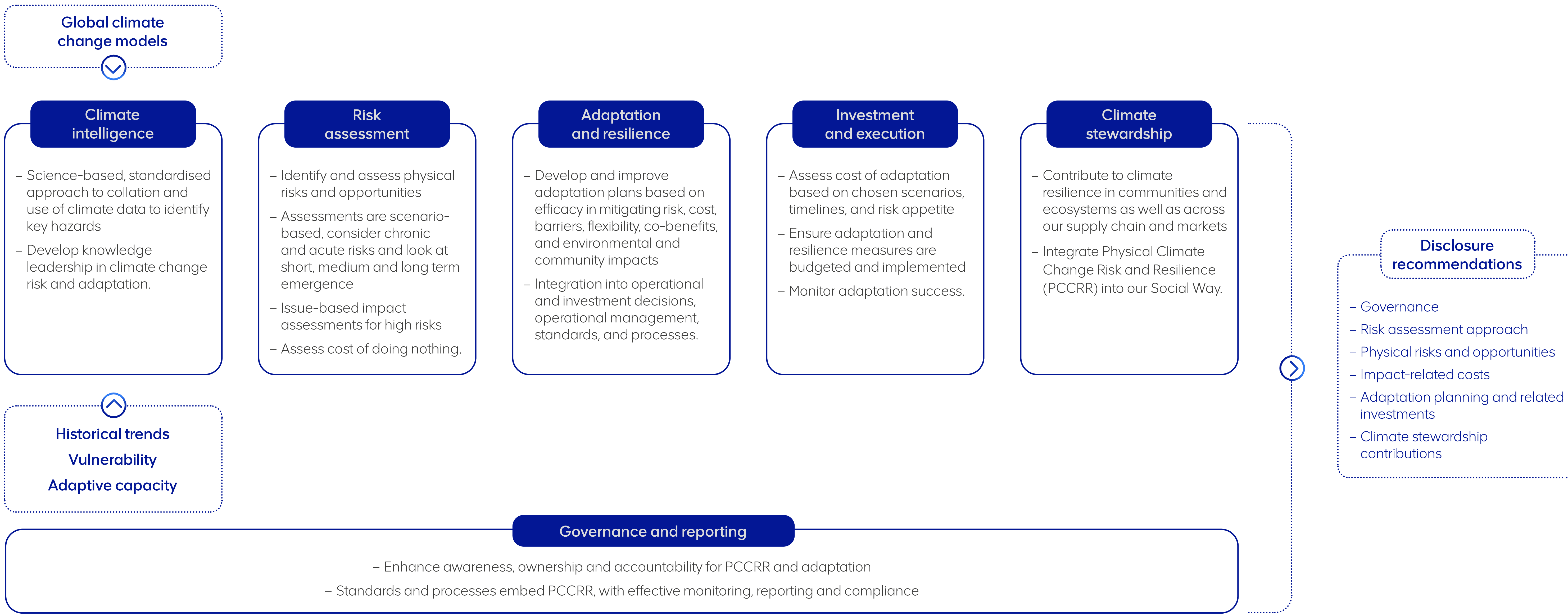
Annual increase in temperature
- Impact on ecosystems

Wildfires
- Safety and health risks
- Impact on biodiversity and communities

Extreme weather events
- Operational disruption from heavy winds, lightning, heavy rains
- Inadequate design parameters on key infrastructure (tailings, dams, etc)
- Rehabilitation stability impacted through intense rains

Acute heat
- Increased heat exposure leading to reduction in workforce efficiency
- Exceeding equipment design criteria
- Increase in energy consumption for ventilation and cooling
- Impact on railway (rail buckling)

Climate change risk and resilience



Assessing physical climate change risks

We use two key processes to guide how we manage physical climate change risks – our Operational Risk Management (ORM) programme for mining operations, and the Investment Development Model (IDM) for projects. The ORM guides operations on how to assess and integrate climate risk management at each level of activity. The IDM process and evaluation criteria ensure that physical and market-related climate change risks and opportunities are embedded in the investment design.

Climate change may introduce a new risk to an operation's baseline assessment. More commonly, climate change will exacerbate, or in some cases reduce, the risk of an existing priority unwanted event. Where significant or high risks and priority unwanted events are identified in the baseline risk assessments, more detailed issue-based risk assessments are undertaken to understand the causes and potential impacts. In some cases, it is necessary to undertake in-depth studies to properly understand the impact pathways and explore potential adaptation mechanisms.

All our sites have conducted initial assessments to understand their key climate change hazards and have, thus far, focused on managing current acute climate change-related impacts. We are now working to move to a more standardised and systematic process that will ensure that all our operations have a consistent physical climate change risk baseline and that our response to risks which have longer timescales of emergence is improved. Kumba Iron Ore's 2022 Climate Change Report provides some good examples of how that part of our business is developing this work.

Adaptation and resilience

We are already experiencing the impacts of a changing climate at our operations. The forecasts are clear that these impacts will increase over the operational life of our assets. It is vital that we identify the potential changes and adapt to them to ensure that our business remains resilient.

Our aim is to reduce the risks from the harmful effects of climate change to an acceptable level in addition to identifying and capitalising on any opportunities arising from the changes. Identified risks which may only emerge in the long term under an SSP5 (~4.4°C warming by 2100) scenario will be monitored, as it may not be necessary to invest in mitigation or adaptation in the short term. Where response actions are identified, these are built into the operations' business plans to ensure that resources and responsibilities are allocated appropriately.

It is imperative that we also understand the climate change risks and opportunities across our broader value chain. Where these risks exist in areas not within our control, we will seek to collaborate with our stakeholders to address them.

Climate change impacts on host communities

The impacts of a changing climate do not stop at the mine fence, but will be felt by host communities, host regions and ecosystems in which we operate. We recognise our responsibility to support host communities to become more resilient to physical climate risk.

As climate change intensifies, we are witnessing substantial and non-linear increases in biophysical and socio-economic impacts, which disproportionately impact disadvantaged and vulnerable populations, especially in less developed countries, including Indigenous Peoples and rural communities dependent on land-based livelihoods and ecosystem services. Impacts could include reduced access to water, lower crop yields and reduced food security, as well as increased risks to health and physical security. Furthermore, in many jurisdictions, the impacts may be felt disproportionately by women and girls.

The proactive, integrated, and strategic approach we take to social performance at all our sites means that we have been considering the changing climate in that work for some time. The understanding drawn from climate modelling through our updated PCCRR work will ensure global consistency and that the latest available analysis is used in inputs for our site-level social performance management systems. Climate change projections will also be considered when developing the geospatial analysis stage of our Collaborative Regional Development (CRD) approach, detailed in the Just Transition section of this report.

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 to build community resilience builds on physical climate change modelling to:

- Mitigate future impacts on communities to manage business risk
- Pre-empt potential conflict with stakeholders in relation to permitting/land take/water use, etc.
- Manage increasing expectations from communities, civil society, governments, investors, and customers
- Support greater accountability and transparency in reporting on impact management
- Leverage the Social Way 3.0 management system to promote thought leadership
- Support accurate and effective capital allocation
- Differentiate Anglo American as a 'partner of choice'.

Adaptation is a dynamic social process and mining operations may support the creation of an enabling environment to develop adaptive capacities: in the longer term, communities' security and well-being will depend on building their capacity to identify and respond appropriately to change. By defining a holistic approach to community resilience to climate change, grounded in proactive collaboration with stakeholders and meaningful cross-functional integration, we can strive to support host communities in an uncertain future aligned with our Purpose to re-imagine mining to improve people's lives.

Policy and regulation

As the impacts of a changing climate become more apparent around the world, we expect to see a stronger policy focus on understanding physical climate change impacts and investing in adaptation and resilience.

COP27 was the first United Nations Framework Convention on Climate Change (UNFCCC) meeting where the issue of adaptation had as much prominence as the issue of mitigation. This reflects the evidence of the changing climate we are experiencing and will, we believe, drive further focus on physical climate risk from governments, regulators, investors, communities and other stakeholders.

> "Achieving net-zero emissions by 2050 is only possible if we also act now to deliver a nature-positive society."
>
> **Paris Agreement Champions**

— For more information
Call from Paris Agreement Champions: Secure a strong sister agreement for biodiversity or risk undermining climate action

The interdependency between nature and climate

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 negative consequences for human well-being. Science also demonstrates, however, 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 10 years have been absorbed by soils, plants and water bodies.

We will work to protect what we have already where possible, within and beyond our fence, as well as helping to protect other landscapes upstream and downstream through positive biodiversity outcomes, active conservation and partnerships, including reducing societal impacts, repairing ecosystem function, partially recovering native ecosystems, improving ecosystem management, initiating native recovery and fully recovering native ecosystems.

Case study

Effective fire management has benefits for community health and safety, biodiversity, carbon emissions, cultural heritage and operational efficiency.

Adaptation to increasing wild fires in Brazil

Minas-Rio, Anglo American's iron ore operation in Brazil, maintains approximately 15,000 hectares of protected areas in the Espinhaço Mountain region. As part of mining licensing commitments, Minas-Rio has a responsibility to support the municipality in forest fire management on its own property and in the neighbouring State Park, Serra do Intendente.

Forest fires have become increasingly frequent, with the potential to impact the mine's operations, to pose risks to community safety and health, local biodiversity, and have a negative impact on carbon emissions, as well as cultural heritage in the area. Climate change projections for the area indicate that the number of wild fires expected per square kilometre is likely to increase by 17–30% (medium–worst case scenario) by 2040.

2019 was a bad year for forest fires and during September alone, a total of 1,373 hectares were burnt in the protected area and its buffer zone. Of this, 93% was on land owned by Anglo American. This has led to the development of a more intensive and proactive fire management strategy that also focuses on the causes of wild fires, such as biomass, human behaviour and topography.

Preventative action undertaken on a routine basis includes making firebreaks and biomass clearing and implementing access controls. In addition, an extensive fire prevention, safety awareness and educational programme is now available for Anglo American employees, as well as for communities across the municipality. After every fire an investigation is undertaken according to the Learning from Incidents process to identify the cause of the fire and obtain learnings that can be implemented to prevent similar events in future.

Proactive monitoring and the ability to detect fires early and precisely are critical for good fire management. A new automated fire detection system which utilises artificial intelligence (AI), satellite imagery and cameras to identify daily fire risk levels and detect fires as they start is being implemented to improve response time. The system also allows the tracking of fire brigade response efficiency and measurement of CO_2 emissions from fires.

Case study

Native species currently used for seed collection at our Steelmaking Coal operations in Australia.

Climate-adapted seed sourcing to improve resilience

In Australia, we expect a continuation of the increases in the annual average temperature, as well as in the number of hot days per year, alongside greater rainfall intensity. A range of climate change impacts are already being seen on hundreds of species and ecosystems across large parts of Australia. This is expected to continue as the climate continues to change.

Our rehabilitation programmes are site-specific and designed for the long term using landform evolution modelling (e.g. WEPP and SIBERIA) to simulate weather events. We are looking at how we can incorporate long term climate change projections into this modelling. We recognise a need to investigate whether the changing climate requires us to update our rehabilitation programmes.

Therefore, we are supporting a CRC-TiME research project led by the Commonwealth Scientific and Industrial Research Organisation (CSIRO) to provide evidence for the effectiveness of climate-adapted seed-sourcing strategies. These include 'predictive provenancing' (using seed from an area expected to reflect the future climate of the planting site), and 'climate-adjusted provenancing', which aims to mix locally sourced seed with seed collected along a climate gradient in the expected direction of climate change.

The project will incorporate assessment of the social acceptability of choosing an alternative seed-sourcing strategy by using learnings from a parallel project. This will be through engaging with regulators and Indigenous groups to explore the acceptability of climate-adapted seed-sourcing strategies.

Finding appropriate climate resilient species for rehabilitation is one key element in ensuring we have an adaptive approach to rehabilitation.

Our Sustainable Mining Plan targets on water and biodiversity are aligned with the adaptation agenda. We seek to use less fresh water, which will make us more resilient in a water scarce context and, at the same time, we can leave more in the natural system and for communities. We are also incorporating climate change scenarios into our water balances to assess potential implications so that we can adjust our water management as required.

At our Los Bronces operation in Chile, the integration of climate change scenarios into our water balances has enabled the production of long term projections on water availability. These, in turn, have been used to justify investments into resilience solutions, such as the integrated water solution project, which enables a transition from fresh water to desalinated water and treated wastewater. To ensure that our tailings management is adaptive to the changing climate, we are embedding physical climate change risk into our internal tailings management guidelines, including identification of vulnerabilities and potential impacts that would require any changes to infrastructure or adjustments to the operational management of the facilities.

Many of our planned and ongoing activities fall under the rubric of Nature Based Solutions (NbS) – actions to protect, sustainably manage, and restore natural and modified ecosystems that address societal challenges effectively and adaptively, simultaneously providing human well-being and biodiversity benefits. Anglo American is focusing NbS work on both operational sites and conservation landholdings. Key applications include landscape rehabilitation with native species as part of closure requirements, improving catchment level water security, and enhanced groundwater recharge combined with ecological connectivity and habitat restoration. One practical example of an NbS with multiple benefits is De Beers' recent investment in the start-up Kelp Blue, which plants kelp forests off the coast of Namibia to boost the health of the oceans and lock away CO_2, while creating local employment.

We are therefore looking beyond what we can achieve alone, collaborating globally with a diverse range of partners to develop and implement sophisticated solutions that support our climate and sustainability goals. Our commitment to delivering positive outcomes for nature drives us to continuously review and update our approach. Harnessing innovation and digitalisation, we are building a future where we take a holistic approach to how we care for the nature around us, in partnership with our stakeholders. Our approach under the Sustainable Mining Plan is to prioritise nature throughout the lifespan of our mines. We look at the entire ecosystem to understand the intertwining relationships of people, biodiversity, climate, water, and the economy as factors interconnected and bound by nature.

A full report on our approach to water and biodiversity, which includes but is not limited to the overlap with climate change, forms part of our 2022 Sustainability Report.

Case study

Integrated approach to managing physical climate change risks in Chile

Understanding the interdependencies between climate, water, communities and ecosystems is critical to ensure that any work that we do in the environment or communities avoids unintended consequences. Our Los Bronces copper operation in Chile has taken an integrated approach to understanding climate change impacts, with the aim of using the learnings to better design response plans aligned to meeting our Sustainable Mining Plan commitments.

Working with the Pontificia Universidad Católica de Chile's Center for Global Change, a study was undertaken to assess the risks and analyse the effects of climate change on socio-economic and cultural dimensions that determine the livelihoods of the local communities around the mine and Las Tórtolas tailings facility. Another study, undertaken by Wildlife Conservation Society (WCS) Chile, evaluated the vulnerability of six conservation targets representing priority components of biodiversity in the same area to climate change.

The community-facing work projected different physical climate change risks to communities nearby. Some of the risks assessed indicate a direct connection with climate change, like the impacts of heat waves on mortality and morbidity. Most impacts on the community are more indirect, resulting from changes in availability of water, crop yield, or wildfires. The WCS analysis meanwhile identified different levels of biodiversity vulnerability to climate change based on spatial distributions, characteristics, and climatic and non-climatic threats.

These studies demonstrate the complexities of the effects of climate change on the socio-ecological systems. The identified synergies and interdependencies between biodiversity conservation and community management, will be used to inform decisions and promote more holistic and integrated climate change mitigation and adaptation solutions.

Decarbonising our operations

The launch in May 2022 of a prototype hydrogen-powered mine haul truck using our proprietary nuGen™ Zero Emission Haulage Solution at Mogalakwena PGMs mine in South Africa marks a major step towards our goal of being carbon neutral across our operations by 2040. Our subsequent combination of nuGen™ with our technology partner, First Mode, is designed to accelerate the development of this breakthrough zero-emissions solution to commercial roll-out, both for our business and more broadly.

Decarbonising our operations (Scope 1 and 2)

We are delivering on our ambition to become carbon neutral across our operations by 2040. At the end of 2022, our Scope 1 and 2 emissions were 21% below the peak levels of 2019 – putting us ahead of our planned trajectory.

— For the assurance statement relating to Scope 1, Scope 2, energy consumption and tonnes copper equivalent.
See pages 93–94 in the Sustainability Report 2022

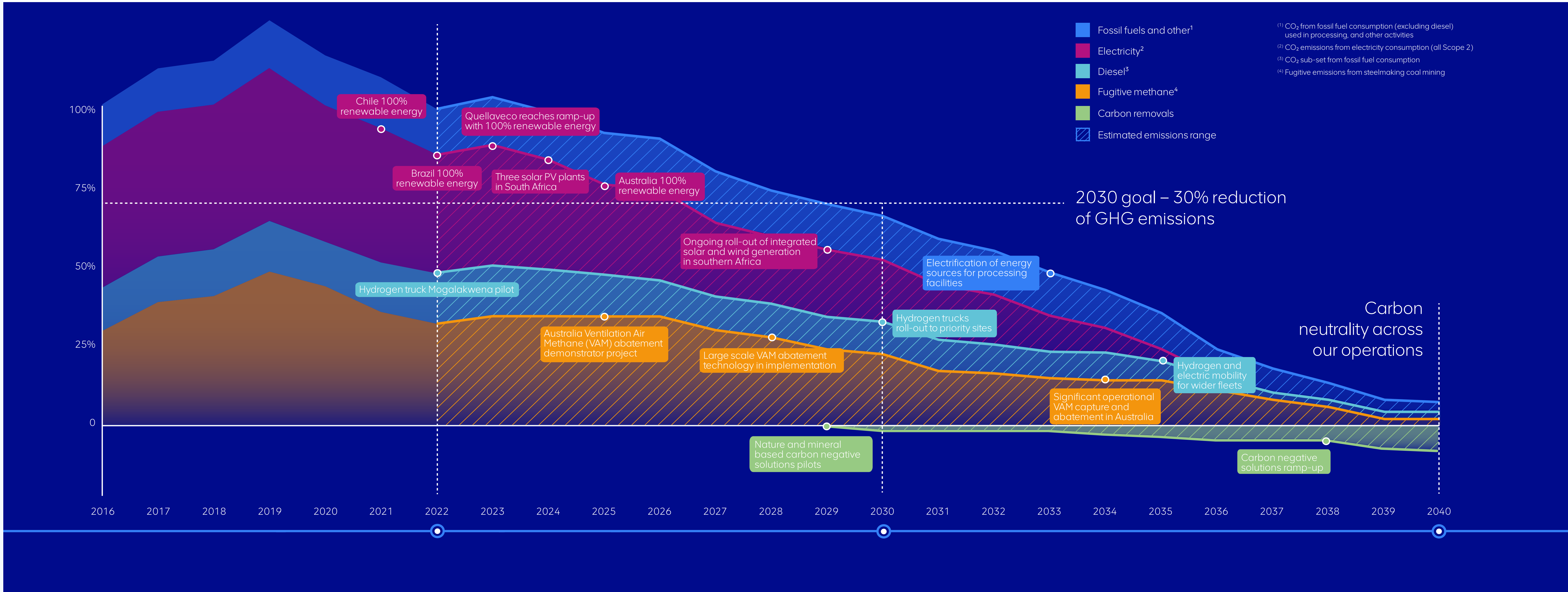
Scope 1 and 2 abatement

Our Scope 1 and 2 emissions reduced 9% year-on-year in 2022 (2022: 8.3 Mt CO_2e and 5.0 Mt CO_2e respectively, 2021: 8.9 Mt CO_2e and 5.6 Mt CO_2e respectively). Compared with our emissions peak in 2019, we have delivered a 21% reduction in our Scope 1 and 2 emissions (2022: 13.3 Mt CO_2e and 2019: 16.8 Mt CO_2e respectively) and a 1% reduction compared with the 2016 baseline on which our 2030 target is set. The emissions intensity of our production decreased to: 6.1 t CO_2e/t CuEq in 2022, compared with 7.2 t CO_2e/t CuEq in 2019.

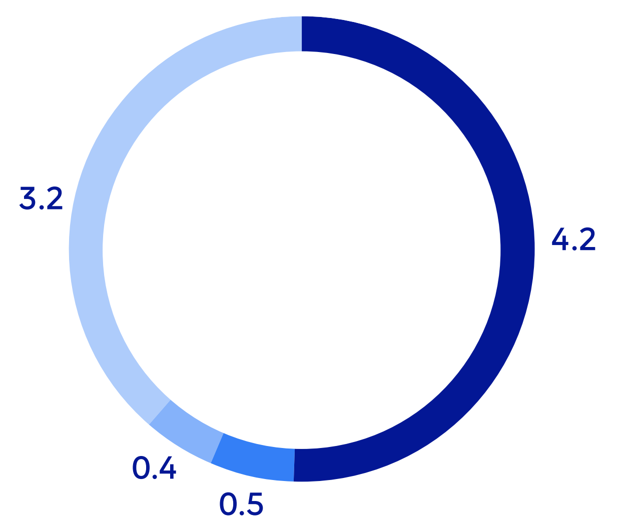
These reductions have been driven primarily by the continued execution of our FutureSmart Mining™ programme, particularly with regard to diesel efficiency, other energy efficiency improvements and renewable energy roll-out, predominantly in South America. Operational decisions also play a significant role. For example, in the last year, our Steelmaking Coal business has transitioned production to new mining areas that generate lower methane concentrations. Given the significance of methane emissions to the Group's overall Scope 1 emissions, these operational changes contributed significantly to emissions reduction.

Our understanding of how we will reach our targets continues to mature. Our plan, set out in detail in our 2021 Climate Change Report, includes increasing energy efficiency, switching to low carbon energy sourcing and significantly increasing the role of renewables in our energy mix. Where necessary, we are also developing, often with partners, solutions to technologically challenging but key emissions-intensive elements of our operations and processing. Pulling each decarbonisation lever moves us closer to our target of a 30% reduction in GHG emissions and eight sites carbon neutral by 2030, as a stepping stone to carbon neutral operations by 2040.

The following section details this year's progress across our key decarbonisation levers.

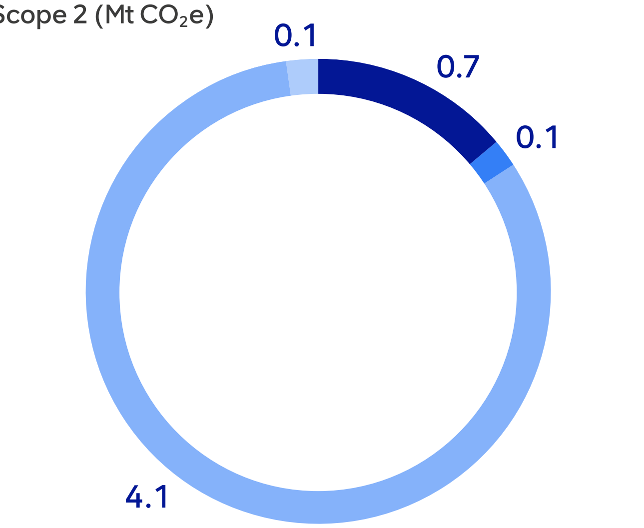


Anglo American GHG emissions 2022
Scope 1 (Mt CO_2e)



- CO_2e from fugitive emissions from coal mining
- CO_2e from methane flaring
- CO_2e from processes
- CO_2e from fossil fuel consumption

Scope 2 (Mt CO_2e)



- Australia
- Peru
- South Africa
- Other

Progress to 2030

Powered by renewables

In 2022, we sourced 52% of our electricity supply from renewable sources. We are committed to working towards the decarbonisation of the balance of our electricity supply via the use of power purchase agreements and self-developed generation at site.

From 2023, all our South America operations (Brazil, Chile and Peru) will be powered by 100% renewable energy. Building on this progress, we have secured 100% renewable energy 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 in Australia. 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.

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.

Partnering to create a regional renewable energy ecosystem in South Africa

We are working to decarbonise the largest single source of our Scope 2 emissions, our use of South Africa's electricity grid. Given South Africa's context and coal dependency, our approach has necessarily been different to that employed elsewhere and developed in such a way as to support the country's decarbonisation journey as well as our own. This decarbonisation journey will require all parts of the political and economic system to play their role.

To do so, we have partnered with EDF Renewables to form a new jointly owned company, Envusa Energy, to develop a regional renewable energy ecosystem (RREE) in South Africa.

In October 2022, we formalised the relationship to explore the ecosystem's development, designed to meet 100% of our operational power requirements in South Africa and support the resilience of the local electricity supply systems and the country's wider decarbonisation. The RREE is also expected to catalyse economic activity in South Africa's renewable energy sector, supporting the country's broader Just Transition.

As part of the agreement, Envusa Energy will launch a mature pipeline of more than 600 MW of wind and solar projects in 2023. We expect that these projects will displace more than 1.5 Mt of CO_2e by the end of 2025 – a significant first step towards developing an ecosystem that is intended to generate 3–5 GW of renewable energy by 2030.

Envusa Energy is expected to supply Anglo American with a blend of renewable energy generated on Anglo American's sites and renewable energy transmitted via the national grid. This energy portfolio approach will aggregate the energy from the geographically dispersed renewable generating assets and allocate the energy optimally to meet load demand and maximise the renewable energy for Anglo American's sites.

nuGen™ – Anglo American's Zero Emissions Haulage Solution

Eliminating the use of diesel at our mine sites is fundamental to decarbonising our operations around the world. nuGen™ represents a different way of thinking about mining; one that, developed as part of our FutureSmart Mining™ programme, brings together technology, digitalisation, and sustainability, with step-change innovation intended to transform the very nature of mining. This broader objective is behind the nuGen™ Zero Emissions Haulage Solution (ZEHS) project, an end-to-end integrated green hydrogen production, fuelling, and haulage system for mine sites.

Following three years of extensive development, in 2022 we launched nuGen™ ZEHS at our Mogalakwena PGMs mine in South Africa – marking the first time a 220-tonne truck with a 290-tonne payload has run on hydrogen. Retrofitted from a diesel-powered vehicle, the nuGen™ truck uses a hybrid hydrogen fuel cell to provide roughly half of the power, and a battery pack the other half. The 2 MW hybrid battery/hydrogen fuel cell powerplant, was designed by Anglo American and its partner First Mode. The power management and battery systems in the truck have been developed to improve overall efficiency by recovering energy when the haul trucks travel downhill, through regenerative braking. This energy stored in the battery extends the truck's range and reduces its out of cycle time. As part of the integrated nuGen™ solution, we are constructing a zero emission hydrogen production, storage, and refuelling complex for vehicles at Mogalakwena, which incorporates the largest electrolyser in Africa and a solar photo-voltaic (PV) field.

The launch of nuGen™ provides a real-world case for the wider adoption and use of hydrogen across the heaviest duty forms of transport. With haul trucks representing up to 80% of diesel emissions at our mine sites, this technology will make a major contribution towards our operational carbon neutrality target. The truck is a tangible example of the technology advances that are needed to enable the global shift towards more sustainable, affordable hydrogen power, and of the way investment in infrastructure and innovation can deliver a clear vision for the future.

To capitalise on the success of this initial project and accelerate the technology's commercialisation, Anglo American has combined nuGen™ with First Mode. We have also entered into a supply agreement with First Mode to decarbonise our global fleet of ultra-class mine haul trucks, of which more than 400 are currently in operation. The roll-out across Anglo American's haul truck fleet over the next ~15 years is subject to the completion of agreed and committed studies across seven mine sites, certain performance, and cost criteria, and relevant regulatory, corporate and shareholder approvals. The supply agreement also includes the appropriate provision of critical supporting infrastructure such as refuelling, recharging, and facilitation of hydrogen production.

2019

Brazil
Signed Agreement: 2019
Supplier(s): Casa dos Ventos, AES Tietê, Atlas Renewable Energy
Technology: Wind, solar
Total electricity: 100% from 2022

Chile*
Signed Agreement: 2019
Supplier(s): Enel Generación Chile
Technology: Wind, solar, hydroelectric
Total electricity: 100% from 2021

* Our 44% owned copper joint operation, Collahuasi, also signed agreements with both Enel Generación Chile and solar power producer Sonnedix to provide 100% renewable electricity from 2020.

2021

Peru
Signed Agreement: 2021
Supplier(s): Engie Energía Perú
Technology: Wind, hydroelectric
Total electricity: 100% from 2023

2022

South Africa
Signed Agreement: 2022
Supplier(s): EDF Renewables to form a new jointly owned company, Envusa Energy, to develop a regional renewable energy ecosystem (RREE) in South Africa.
Technology: Wind, solar
Total electricity: 100% by 2030

Australia
Signed Agreement: 2022
Supplier(s): Stanwell Corporation
Technology: Wind, solar
Total electricity: 100% from 2025

Taking diesel emissions out of the equation would not only take us a long way along the path towards achieving carbon neutrality across the Group by 2040, but replacing diesel with hydrogen in South Africa would also support the development of South Africa's hydrogen valley, a principal component of an eventual hydrogen economy in the country that is intended to further support the Just Transition through stimulating a myriad new economic opportunities.

Energy efficiency

Our Energy and CO_2 Management (ECO_2MAN) programme has been a central part of the way we have understood and driven reductions in our operational GHG emissions since 2011. The programme continues to enable us to analyse our activities and identify operational levers for reducing energy consumption and GHG emissions, complementing our other initiatives. In 2022, our energy consumption reduced by 1% when compared to 2021 (2022: 82.7 mGJ and 2021: 83.7 mGJ respectively).

FutureSmart Mining™, our innovation-led approach to sustainable mining, seeks to fundamentally change our operations, from how we evaluate the orebody to how we mine, sort and process the ore. Technologies developed as part of this programme also continue to play a role within our energy efficiency and abatement pathways.

Progress to 2040

Ventilation air methane

Methane emissions represent the largest component of our Scope 1 emissions. We have two predominant sources of methane emissions: rich gas, which we capture and use for power generation, and ventilation air methane (VAM). The low concentrations of VAM make it more difficult to capture and use safely than rich gas. Through pre-drainage, we shift VAM into rich gas for use, but this is not always possible with existing technology in a way which aligns with our commitment to safety. As we mine deeper, we are producing more gas, including both rich gas and VAM.

We are developing a VAM abatement project for our underground steelmaking coal mines. Initial concept studies have been undertaken to identify the best approaches to VAM abatement and methane emission reduction. We are working with technology vendors and engineering partners to progress a first VAM abatement project which, once successful, will provide the template for further deployment at all of our underground steelmaking coal mines.

Since the technology implementation design is not yet fully defined and forms a longer term part of the Group's climate ambitions, we are not yet in a position to disclose the related cost and benefit for the project as a whole.

(Left to right) Group director – South Africa, Nolitha Fakude; Anglo American chief executive, Duncan Wanblad; President of South Africa, Cyril Ramaphosa; CEO of our PGMs business, Natascha Viljoen; South Africa's Minister of Mineral and Energy Resources, Gwede Mantashe; and Anglo American technical director at the time, Tony O'Neill.

nuGen™ tangibly demonstrates the step-change innovation in technology, digitalisation, and sustainability encapsulating our FutureSmart Mining™ programme. Furthermore, it signals our continued commitment to achieving our carbon neutrality goals while showcasing the role of PGMs in driving a greener, cleaner future and our support for the just energy transition through our participation in the hydrogen economy.

The 2022 launch of the ZEHS was attended by over 2,400 online and in-person community representatives, civil society, academia, representatives from business and members of governments, including the South African President and Minister of Energy and Mineral Resources, who witnessed the truck in operation at our Mogalakwena PGMs operation.

"This is one of the first projects of South Africa's hydrogen valley – an industrial cluster that brings various hydrogen applications to form an integrated hydrogen ecosystem. The launch of the hydrogen-powered mine haul truck is a source of pride for the mining industry in the African continent."

Gwede Mantashe, South Africa's Minister of Energy and Mineral Resources

Methane emissions occur with all coal mining; so, the challenge we face is one that all other coal mining companies share. Recognising this fact, we have partnered with Low Emission Technology Australia to study possible solutions. We are also part of the Metcoal Methane Partnership, alongside industry partners, the UN's Environment Programme, the European Commission, the Environmental Defense Fund, Responsible Steel, and others, looking to bring the experience of tackling methane leakage in the oil and gas sector to steelmaking coal.

Residual emission abatement

We do not yet see a pathway to absolute zero for our Scope 1 and 2 emissions – so, negative emissions will play a role to offset any residual emissions. We are developing our approach to negative emissions and recognise that what we do must be transparent, independently verifiable, and have real-world carbon impact. We will use the mitigation hierarchy as a guide: Avoid – Reduce – Substitute – Sequester – Offset, and likely favour self-managed carbon projects (otherwise known as insets) with a focus on nature-based solutions. However, following the agreements at COP26 and COP27 on Article 6, we expect the international market for voluntary carbon to develop quickly, and we are following that evolution closely, looking to build on the knowledge and experience we have developed trading carbon in compliance markets in Australia and the European Union. Our Marketing business will enable us to participate in the key global emissions markets.

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 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 has submitted its targets, a sub-set of the wider Group targets, for SBTi verification. Nevertheless, we considered it important to assess whether our Scope 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 due to production growth outpacing emissions reductions. Therefore, the Group's target reduction of 30% by 2030 against a 2016 baseline was equivalent to a ~45% reduction in absolute terms against the Group's reported 2020 emissions.

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 UN's Intergovernmental Panel on Climate Change (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.

Decarbonising our value chain

Our Shipping team has successfully trialled the use of sustainable biofuel to power a chartered Capesize vessel from Singapore to South Africa – a voyage that also demonstrated a reduction in CO_2 emissions compared with conventional fuel.

Decarbonising our value chain (Scope 3)

We are committed to playing our part to mitigate the impact of our value chain emissions, while recognising that the nature of Scope 3 emissions is such that most remain outside our direct control. We continue to build on our understanding of both the levers we can pull, and the influence each of those levers can have, over our Scope 3 emissions. We are committed to our ambition of reducing our Scope 3 emissions by 50% by 2040.

Our Scope 3 emissions saw a 14% year-on-year fall in 2021 to 98.5 Mt CO_2e (2020: 114.8 Mt CO_2e). The reduction was primarily driven by an increase in the proportion of iron ore sales to direct reduced iron – electric arc furnace (DRI-EAF) steel production (~20% in 2021 vs ~10% in 2020) with a corresponding decrease in the share of sales to blast furnace – basic oxygen furnace (BF-BOF) steel production. Emissions from the DRI-EAF route are significantly lower than emissions from the BF-BOF route. The detailed methodology that we developed in 2020 for measuring our Scope 3 emissions, which included differentiating emissions by customers, provides the basis on which this reduction has been realised and can be measured.

Our commitment

The emissions in our value chain (Scope 3) are always the emissions of another enterprise. Consequently, most of our Scope 3 emissions are outside our direct control.

Our work in understanding our Scope 3 emissions and the pathway to reducing them has reinforced the importance of our customers in the steel sector setting and delivering on clear decarbonisation pathways, allied with the existence of a consistent and supportive global policy environment. With the right policy framework, we believe steelmakers will be able to accelerate towards less carbon-intensive methods of production, which would translate into a reduction of our Scope 3 emissions by at least 50% by 2040, against a 2020 baseline.

Achieving this reduction will, therefore, mean going beyond how we market our products and commercialise our solutions. It will be dependent on our success in collaborating effectively with customers, other industry participants and industry bodies to actively channel society's increasing demand for essential metals and minerals into more transparent, ethical and sustainable value chains. We believe that this approach will translate into mutually beneficial relationships that redefine the way the steel industry operates, helping the sector to meet its sustainability targets and the evolving expectations of consumers and society more broadly.

Measuring Scope 3 emissions

Anglo American published its first detailed Scope 3 emissions assessment in 2019. Recognising growing stakeholder interest and a lack of consistency in how Scope 3 is assessed across companies, industries, and geographies, we published the full methodology we used at that time.

Our methodology builds on the Scope 3 elements of the Greenhouse Gas Protocol, which were conceived as a means for businesses to understand the carbon intensity of their value chains and identify means to reduce that intensity; not for direct comparison between companies. The diversity of approach that has resulted, renders comparisons between companies difficult. In this context, we welcome and are engaged with the International Council for Metals and Mining (ICMM) work to agree principles for Scope 3 reporting across the mining sector.

Since publishing our initial methodology, our thinking on value chain emissions has matured, and we have continued to develop our knowledge and understanding of Scope 3. Continuing our partnership with the Carbon Trust, we have built on our previous work, identifying areas in which we could be more specific in our assessment of our emissions, reducing, where practical, double counting and reflecting the contribution that our specific activities make to Scope 3 emissions. We continue to build and develop a more granular inventory of emissions to allow us to track progress against our emission reduction activities.

— Section 1.3 details 2021 updates to our Scope 3 methodology
See here: www.angloamerican.com/scope-3-methodology-report

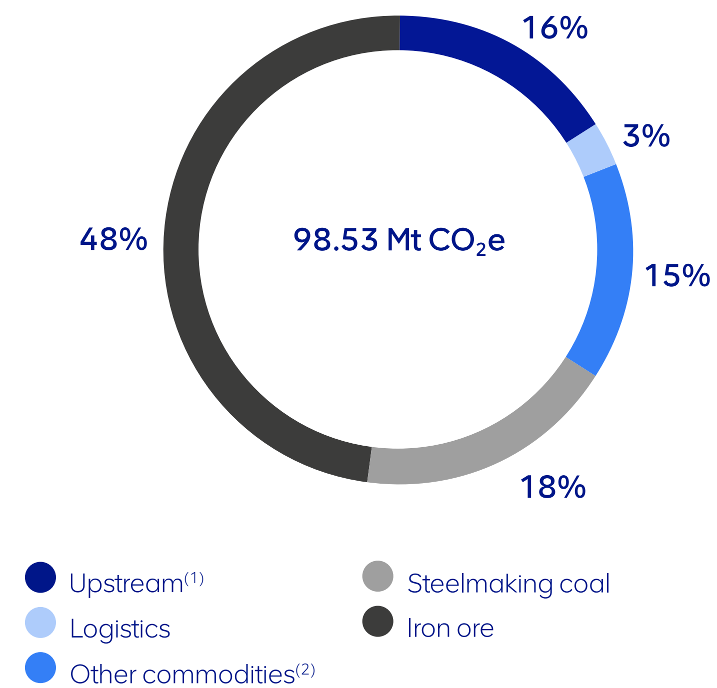
The four main areas in which we have evolved our approach for the 2021 calculation are:

1. Increased specificity of emissions, replacing industry average emission factors with factors relevant to our customers' emissions and the use of a more comprehensive database of emissions factors.
2. An enhanced approach to convergent value chains in the steel industry to apportion the emissions between iron ore and steelmaking coal appropriately and reduce double counting of those emissions.
3. An adjustment of the boundary for inclusion, removing those emissions attributed to the first use after production in recognition of the lack of influence we have further down the value chain.
4. Introduction of a spend-based methodology for categories 1 and 2, refined to reflect capex and opex and improve the overall accuracy of the calculation.

Details of our Scope 3 emissions across the 15 categories are shown in the chart below. The majority of our Scope 3 emissions sit in Categories 10 and 11: the processing and end-use of our products. More specifically, they relate mostly to our iron ore and steelmaking coal sales into the steel value chain.

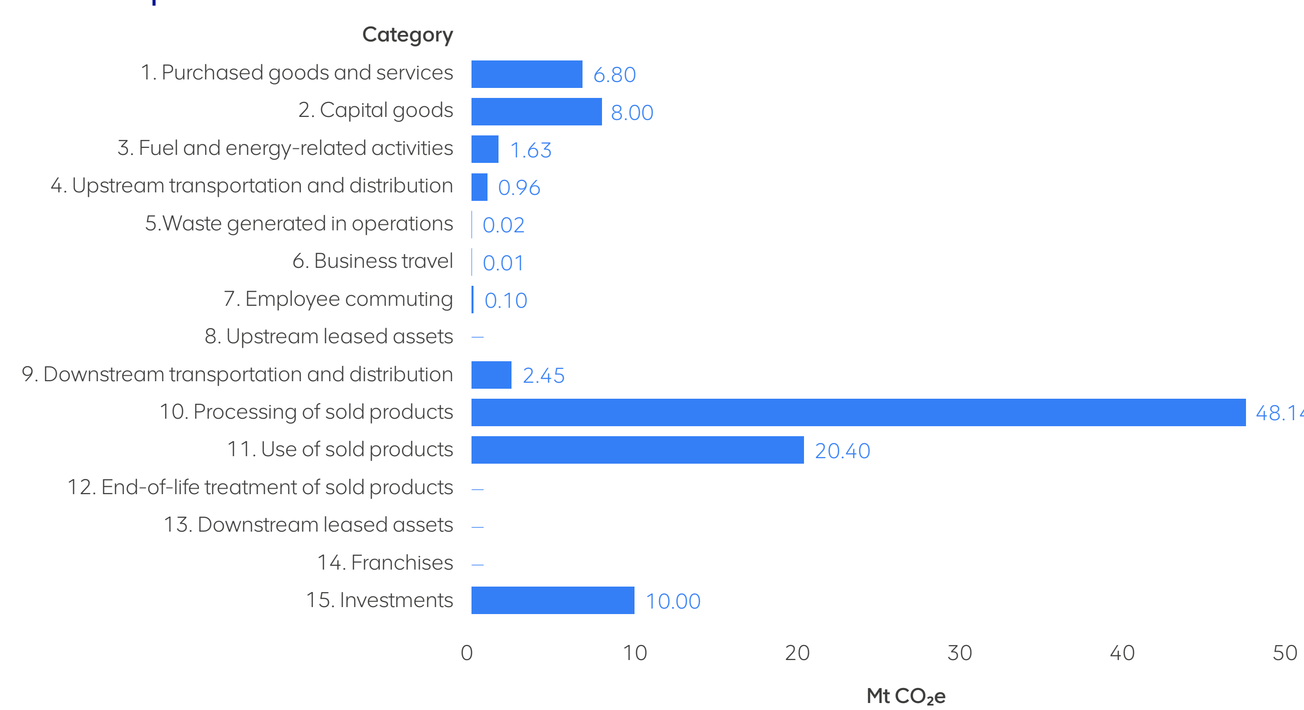
Scope 3 emissions continue to be reported with a 12-month lag. This is due to the complexity involved in processing data at a granular level across our value chain, and continuous improvements to our methodology.

2021 Scope 3 emissions



(1) Includes purchased goods and services, capital goods, upstream transport and distribution.
(2) Includes copper, exploration, manganese, nickel, PGMs, polyhalite, thermal coal and traded product.

2021 Scope 3 emissions*



* Data included up to the second decimal

Our strategy: from ambition to pathway

Since setting our ambition to reduce our Scope 3 emissions by 50% by 2040, we have worked to turn that ambition into a pathway.

Our work has been concentrated under four key pillars:

	Observe and promote	Product quality and customer strategy	Partnerships to drive decarbonisation technology adoption	New green business solutions to drive industry decarbonisation
What	Proactively shape policies and industry initiatives	Accelerate customers' decarbonisation by tailoring products to decarbonisation needs	Accelerate customers' decarbonisation by accelerating technologies	Accelerate industry decarbonisation by creating new solutions
Why	Gaining visibility and knowledge	Lower Scope 3 by aligning products with lower emissions customers	Creating conditions for gaining share of wallet with lower emission customers in the future	Profitable new business solution
Prioritised themes	1 Actively monitor industry developments and advocate for policy and regulation 2 Evolve Scope 3 methodology: proactively engaging with end-customers to understand emissions	3 Evolve understanding of customer footprint 4 Prioritise production and sale of high quality material	5 Pursue partnerships with customers to pilot carbon reduction technologies 6 Pursue partnerships with customers to reduce Scope 3 emissions	7 Create and grow internal business solutions to reduce carbon emissions

The focus of our Scope 3 work so far has been on the processing and use of our products (categories 10 and 11), our supply chain (categories 1 and 2) and our ocean-controlled freight (category 9).

Given the importance of the steel sector in our value chain, understanding the sector's likely pace of decarbonisation is critical. Our base case assumption is that the 2020s will be a decade of transition and steel production will outpace technologically driven reductions in GHG emissions until 2030. Against this backdrop – and given the profile of production at our assets and our expectations for the sourcing of third-party product for our customers – we expect our Scope 3 emissions to increase to 2030, before reducing rapidly once investments in steel value chain decarbonisation begin to take effect.

In defining the context, it is important to position Anglo American's contribution to the steel sector. Our iron ore and steelmaking coal sales accounted for approximately 3% and 2%, respectively, of inputs into the steel industry in 2020. As a consequence, while we have some influence, we must continue to partner with others in order to deliver change at scale.

We estimate that using the levers to reduce emissions intensity from our iron ore products from Kumba and Minas-Rio and our steelmaking coal assets could reduce our Scope 3 emissions by 40–50% from our 2020 baseline. Reduction in Scope 3 emissions across other metals and minerals could reduce emissions by an additional 10–15%.

Driving emissions reduction within our sphere of influence and control

High quality products

Focusing on providing high quality products that can feed into more efficient and less carbon-intensive processes is vital to support the steel industry's decarbonisation efforts and to achieving our Scope 3 reduction ambition.

Iron ore from our Minas-Rio operation in Brazil, for example, presents the opportunity to produce DRI-grade pellet feed. The DRI production method generates significantly lower emissions than the integrated steelmaking route using blast furnaces and basic oxygen furnaces. By 2040, we believe DRI will be even more efficient, including through the greater use of renewable power and hydrogen as a reductant.

The quality of the steelmaking coal we produce facilitates more efficient operation of the blast furnace, allowing for the production of steel with a lower overall carbon intensity.

Scrap recycling

Demand for scrap metal is rising at a faster rate than that for primary material, driven by society's evolving expectations. The scrap share of total steel production is expected to rise from approximately 32% today to more than 40% over the next 10 years.

With a mindset of providing material solutions to our customers, Anglo American has a role to play in this growing market. Our Marketing business has developed in-depth knowledge of metal recycling segments and identified potential opportunities to apply the expertise and core competencies within the business to contribute to the circular economy.

Joining forces with like-minded players devoted to shaping a collective path towards a low carbon future, and taking a leadership role to enable industry-wide decarbonisation is integral to our approach.

Our participation in industry forums, working indirectly with our customers and other stakeholders at a value chain level, is crucial in enabling systemic change. We are a member of Responsible Steel, the steel industry's first global multi-stakeholder standard and certification initiative, which seeks to enhance the responsible sourcing, production, use and recycling of steel. Initiatives such as this provide a platform to engage with other like-minded players on low carbon technological innovation, share knowledge and find greater co-operation opportunities. They also allow us to advocate through a common voice to enhance global policy and industry response to climate change. We also participated in the Mission Possible Partnership's Net Zero Steel Initiative.

Beyond these areas, we believe that there are further opportunities for us to create 'ecosystems' for emissions reductions. For example, we are researching ways to support low carbon technologies in host communities, including hydrogen and direct air capture.

Our ability to reduce our Scope 3 emissions within a given timeframe is dependent on the speed at which the associated levers can be deployed. This is not always within our influence or control, and the materiality of the emissions reduction that could result can be difficult to determine.

Pathways to decarbonising the steel industry

Memorandums of Understanding (MOUs) are a key aspect of our Scope 3 decarbonisation strategy. Our MOUs support collaboration in joint research with our MOU partners to accelerate the development and use of high quality feedstock for lower carbon steel production. They also help build strong relationships with our customer base.

We have publicly announced three MOUs since 2021, including those with Salzgitter AG, Nippon Steel and Thyssenkrupp AG, which cover c.20% of our iron ore sales. We continue to progress work on further MOUs within the steel industry and in non-ferrous metals.

Levering innovation challenges in Scope 3 reduction

As part of our Decarbonisation Ventures team's work, we are exploring a range of novel partnerships to encourage new technologies and pioneering thinking that will help reduce our Scope 3 emissions.

One such partnership is with the European Institute of Innovation and Technology (EIT), a European Union institution that seeks to create platforms where advanced research and business can collaborate to support innovation.

In early 2023, we launched 'Pathways to Steel Decarbonisation', an innovation challenge that calls upon start-ups and SMEs to present technologies to reduce the carbon emissions of the steel manufacturing industry.

This may include decarbonisation technologies in areas such as mine-based beneficiation for DRI; the reduction or removal of high temperature heat in the pre-processing stages of iron ore; or blast furnace adaptations.

Submissions will be jointly assessed by Anglo American and EIT, with shortlisted entries competing for support in the commercial piloting of their technologies, and the potential for investment from the Decarbonisation Ventures team.

Supply chain

Our activities with suppliers and our operations contribute approximately 18% of the overall Anglo American Scope 3 footprint, predominantly through the procurement of equipment and capital goods. In support of our Scope 3 decarbonisation target and objectives, working with over 17,000 suppliers across the world, we are considering how best to position ourselves to leverage both our influence and, critically, our spend, to reduce emissions across our shared value chains.

Understanding our footprint and impact

In 2022, we analysed our upstream value chain, identifying the 'top 100' suppliers who contribute more than 50 % of our upstream Scope 3 emissions. Through this process we began to engage and to track progress with many of these suppliers to reduce the overall footprint.

Supplier engagement

Alongside our Responsible Sourcing Standard for Suppliers, which contains guidance and several requirements for suppliers on climate change and decarbonisation practices, working with the Carbon Trust we are developing a supplier measurement tool. This engagement tool, once rolled out, will capture current and future decarbonisation commitments from suppliers, and be used to identify opportunities for collaboration.

During 2022, we also started formalising MOUs with our strategic suppliers – these MOUs are based on key commitments from our Sustainable Mining Plan, establishing a series of commitments, targets and tracking mechanisms to demonstrate decarbonisation and climate change action. For 2022, we have engaged with 10 major global manufacturers of mining equipment to agree mutual goals towards decarbonisation – this includes commitments to reduce manufacturing-related emissions and the development of more energy efficient equipment. Our continued engagement with suppliers remains a priority into 2023.

Measures to reduce climate impact

Anglo American's supply chain function reviews potential risk in our value chains and is actively supporting the development of alternative, ethical, and traceable sources of renewable energy components and equipment to enable Anglo American's wider renewable energy strategy. To support this work, Supply Chain has started a feasibility study on the localised production of polysilicon in South Africa. Polysilicon is a critical input material for solar panels and development of local, responsible sources offer significant opportunities for local employment, while reducing the reliance on ocean freight and related emissions.

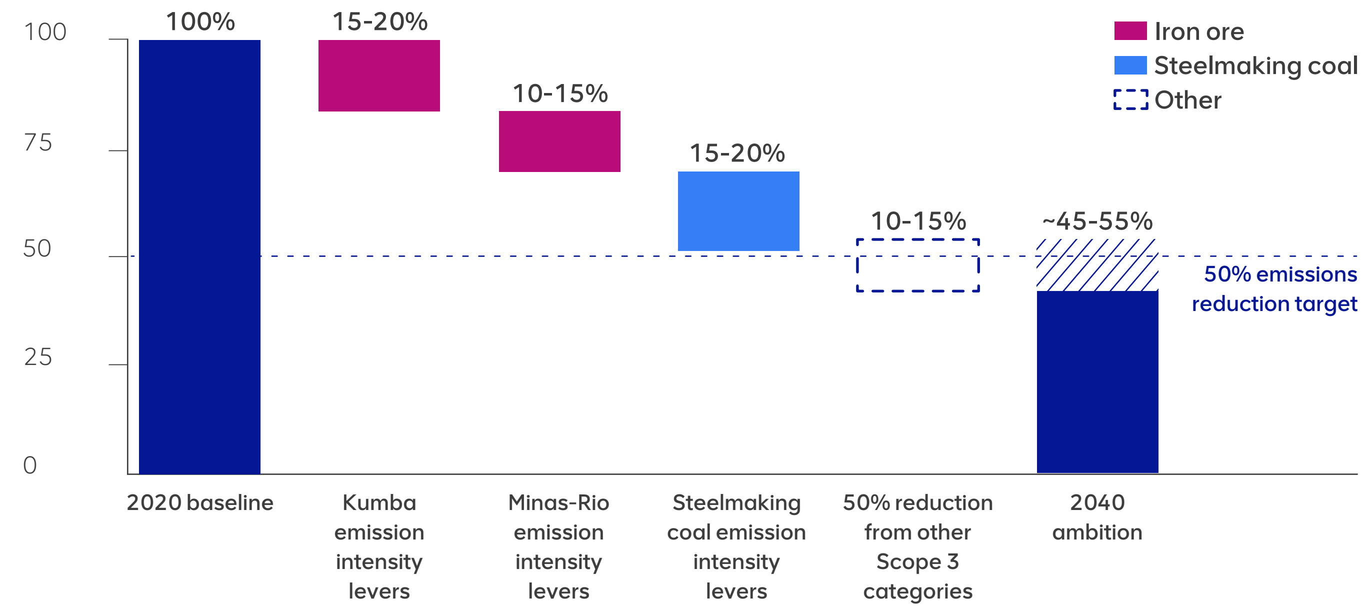
Supply chain innovation and the circular economy

Supply Chain has embarked on several projects linked to the circular economy – examples include reverse logistics optimisation within our warehouses, which significantly reduces the emissions footprint. In 2022, we concluded work with Accenture to rationalise our strategy – including defining future opportunities linked to the circular economy. This will enable Supply Chain to identify further opportunities, including equipment life extension, recycling, materials recovery and remanufacture – all of which will reduce the dependency on virgin input materials, new equipment manufacture, and global logistics.

Inclusive procurement

Through the incubation of localised suppliers, we are able to access people, maintenance and production facilities from mining host communities – significantly reducing the reliance on transportation to our sites.

Driving emissions reduction within our sphere of influence and control



At a warehouse at our Minas-Rio iron ore operation in Brazil, warehouse operation assistant Railan Kennedy da Silva Oliveira digitally tracks items. Such facilities are becoming increasingly digitalised across the Anglo American Group.

Driving emissions reduction across ocean freight transport

We are targeting carbon neutrality in our controlled ocean freight by 2040 and, aligned with our Scope 1 and 2 targets, are aiming for a 30% reduction by 2030. We are making progress towards achieving this goal, actively working to contribute to the long term sustainability of the shipping sector.

We are accelerating the shift to decarbonising the transport of our products. Improving vessel efficiency through the installation of energy-saving devices, the use of voyage optimisation software, and support for technology development to help enable the switch from conventional fuel oil to sustainable marine fuels are all part of our efforts to decarbonise ocean freight activities.

Exploring and trialling alternative fuel options

Alternative marine fuels have an important role to play in the decarbonisation journey, with a number of potential options being explored – from liquefied natural gas (LNG), and biofuel, to hydrogen and ammonia.

LNG

LNG has an important role to play in the decarbonisation of the maritime industry. We are introducing 10 LNG dual-fuelled new-build Capesize+ 190,000 dwt chartered bulk carriers – the Ubuntu fleet – during the course of 2023 and 2024, delivering an estimated 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. Construction of the vessels started in 2021 and the first two ships – Ubuntu Harmony and Ubuntu Equality – were delivered ahead of schedule in December 2022 and January 2023, respectively. Ubuntu Harmony loaded its first cargo from Kumba Iron Ore at Saldanha Bay in January 2023.

Sustainable biofuels

The suitability of sustainable biofuel as an effective alternative to marine fossil fuel is increasingly being demonstrated through the growing number of trials taking place across the industry.

In 2021, we successfully trialled the use of a sustainable biofuel blend, produced by converting waste cooking oil, which reduced CO_2 emissions by ~5% compared with using 100% conventional marine fuel. In 2022, we completed a second, larger successful trial using a blend composed of Very Low Sulphur Fuel Oil (VLSFO) – the industry's most widely used conventional marine fuel – mixed with 10% second-generation biofuel originating from used cooking oil, resulting in a reduction of ~10% of CO_2 emissions compared to using 100% VLSFO. A functional equivalent to existing liquid fuels, this blend meets the specification requirements of the International Sustainability and Carbon Certification (ISCC), is compatible with existing vessel engines and requires no infrastructure modification.

Applying our learnings, we are now working with the Global Centre for Maritime Decarbonisation in Singapore on biofuel implementation, regulation, and transparency.

Green ammonia and hydrogen

Hydrogen and ammonia have a promising future. As an early supporter of the hydrogen economy, we have invested significantly in this space.

We are partnering with Hydrogenious Maritime AS to explore the use of innovative Liquid Organic Hydrogen Carrier (LOHC) technology. By chemically bonding hydrogen to a diesel-like liquid with a high-storage density, which can be stored under ambient conditions (pressure and temperature), this solution can help propel hydrogen's viability for marine transportation.

Ammonia, which emits no CO_2 when combusted, has potential both as a fuel in its own right and as a hydrogen carrier. However, there is significant work that still needs to be done to ensure green ammonia is brought to market in a safe and sustainable way. To examine its prospects, we are working with industry partners to study possible solutions for more widespread adoption.

Sea Cargo Charter

Anglo American is one of the founding signatories of the Sea Cargo Charter. It was formed by some of the world's largest energy, agriculture, mining and commodity trading companies with the aim of establishing a standard methodology and reporting framework to allow charterers to measure and align their emissions from ocean transportation activities.
The first Annual Disclosure Report of the Sea Cargo Charter was released in June 2022, reporting Anglo American's shipping operations' climate score as in line with the expectations set out by the International Maritime Organization's (IMO) goal of reducing shipping emissions by at least 50% by 2050. Anglo American is the only mining company reporting under the Sea Cargo Charter along with over 30 maritime industry participants.

[1] The switch to LNG alone is generally estimated to allow a reduction of 25% of CO_2 emissions. When supported by the right technology, it enables our chartered fleet to reach an overall estimated emissions reduction of 35%.

The newly launched LNG dual-fuelled Capesize+ vessel, the Ubuntu Harmony, the inaugural ship in a planned fleet of 10 vessels, with its first cargo of iron ore from Kumba in South Africa. The ships offer significant environmental benefits, with the potential to reach an overall CO_2 emissions reduction of an estimated 35% in comparison with vessels fuelled by conventional marine oil.

Just Transition

A key aim of Anglo American's Sustainable Mining Plan is to create five jobs off site for each one we create on site. Here, a construction contractor assembles steelwork at Kumba Iron Ore's Kapstevel South project in South Africa.

Just Transition

The 2015 Paris Agreement recognised the imperative of the transition to a low carbon economy being a Just Transition. Numerous organisations have attempted to define what exactly a Just Transition is, and what it means for business, with a particular focus on those businesses, largely in the energy sector, whose business models will change fundamentally as they decarbonise.

To help bring structure and pragmatism to how businesses should think about this theme, in 2021 we joined the Council for Inclusive Capitalism in its work on 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, and defined 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."

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 their 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 workers
- 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.

Direct and indirect implications for Anglo American

The Council for Inclusive Capitalism definition and framework remain the basis for assessing what a Just Transition means for Anglo American. However, we have evolved our thinking, including through engagement with thought leaders around the world. Through that work, it has become clear that there are direct implications for us: for example, what the social implications are for the evolution of our portfolio and our decarbonisation strategy. There are also indirect implications: for example, how is our business affected by the transition in the countries where we operate, and is there a role for us in shaping that transition?

Just Transition as context

The transition to low carbon is an economy-wide prerogative. It is a transition that requires government to work with every sector of the economy, as well as with civil society. In other words, the transition is a context within which we as a business are operating.

What role can and should we play to help ensure that the wider transition, outside our direct control or influence, is 'just'?

We believe our responsibility is to understand fully each context and ensure that that understanding is embedded in the design and implementation of our strategic sustainability programmes. In this context, implementation of our Sustainable Mining Plan will recognise the context created by the need for a Just Transition, and that context will be considered as we work towards our environmental, social and governance goals.

In addition, Just Transition principles will form the context within which strategic planning for both the Anglo American Social Way and our Collaborative Regional Development (CRD) programmes will be undertaken. The nature of this work means that the exact focus will differ by locality, reflecting the needs of a given place. But, crucially, the work will be underpinned by an understanding of what the Just Transition implies for the areas of influence.

In practical terms, this will lead to projects and programmes designed to mitigate, alleviate, or benefit from the transition through which host communities are impacted, by helping to build long term socio-economic resilience in those communities and the wider regions of influence around our sites.

Direct implications: policy evolution

The global transition to a low carbon world will be metals and minerals intensive and, while resource efficiency will play a role, primary production through mining will be vital. This context is important when considering what the Just Transition means for the diversified mining sector.

Since the demerger of Thungela Resources in June 2021, our portfolio is predominantly focused on future-enabling metals and minerals. As a consequence, the transition does not assume a fundamental change in our business, unlike the change required in, for example, the energy sector. Therefore, our challenge has two, interlocking elements: to decarbonise our operations and our value chains in such a way that we minimise the negative consequences for our employees and other stakeholders and maximise the benefits; and to practise and advocate for responsible mining, so that the development of new mines, and the production of the metals and minerals the world needs to transition, is done in such a way as to produce real, sustainable benefit for those communities closest to the developments.

What we are doing to decarbonise our operations and value chains is covered in detail elsewhere in this report, however, it is worth highlighting two examples of how Just Transition principles are being embedded in the design of key programmes.

1. The South Africa RREE. The main aim of this programme is to displace the fossil-fuel based electricity that we draw across South Africa through the development of 3–5 GW of renewable power generation. However, several aspects of the programme have been adapted to support Just Transition principles. 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 empowerment in South Africa; second, we are considering procurement of goods and services in such a way as we can incentivise the development of South African value chains linked to renewable power; and finally, as we secure the rights to construct the wind turbines and solar plants, we are considering carefully local benefits. In other words, how communities closest to the renewable energy installations gain benefit from the clean, reliable, and affordable energy being generated.
2. The nuGen™ programme and our wider support for the development of a hydrogen valley in South Africa is another example. The proof of concept of the ZEHS demonstrated our commitment to using green hydrogen as part of our decarbonisation solution. Through the South Africa RREE, our intention is that hydrogen is produced using renewable energy sources. We also recognise the wider benefits that could be accrued in South Africa through the development of linked hydrogen-related investments. An ENGIE Impact study, which we supported alongside other businesses and the South African government, considered the development of a hydrogen valley linking PGMs operations in Limpopo province with Durban, via Johannesburg. That study identified nine specific projects along the valley as anchor projects, including our ZEHS, and suggested that the hydrogen valley could add $4–9 billion to South Africa's GDP, creating 14,000–30,000 direct and indirect jobs each year.

Our Sustainable Mining Plan has committed us to supporting five jobs off site for every job in our operations through our CRD approach. The investments in the South Africa RREE and the development of green hydrogen have the potential to contribute significantly to bringing us closer to achieving our livelihoods ambition. Through CRD, further investments with our partners are being made in agriculture, agro processing, municipal capability and partnership, and education to ensure the positive impacts of our operations are felt beyond the life of mine and help catalyse diversification within local economies.

Responsible closure

Mine closure planning is both an important tool for us in thinking about transition and ensuring that the transition to post-mining is 'just'. It is also potentially a useful starting point when considering aspects of the Just Transition in other sectors.

The Anglo American Mine Closure Toolbox is publicly available. It is based on the concept of a 'cradle-to-cradle' approach to mine closure and rehabilitation, with initial thoughts on closure developed while still conducting exploration. Central to our thinking is how to ensure that sustainable value is created that will endure after mine closure and what can, and should, be done through the life of the mine to ensure sustainability after the working mine has been closed. To put this thinking into practice, a process of stakeholder identification and engagement is a required part of all mine closure planning from the very beginning of the process, ideally 25 years before closure. 'Social Transition' is a central element of this, broken down between the mine's 'employees and stakeholders', 'interested and affected parties', and 'authorities'. Overall, the toolbox helps guide what we must do when closing an operation.

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's experience from a broad range of sectors, including mining, industrial, energy transition, 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. In 2020, the Committee updated the Board's skills, experience and diversity matrix to include 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 2021, the Board appointed two independent non-executive directors with a strong track record in climate change reduction and energy transition. Following changes to the Board's composition in 2022, the Nomination Committee led a process to recruit an additional non-executive director, to ensure the composition of the Board continues to reflect an appropriate mix of skills, capabilities, experience and diversity.

Following the Group's 2022 preliminary results announcement on 23 February 2023, on 28 February 2023 we announced that Magali Anderson will join the Board as a non-executive director and member of the Board's Sustainability Committee from 1 April 2023. Magali is chief sustainability and innovation officer at Holcim Group, and will bring to Anglo American highly relevant business experience and a deep understanding of sustainability in its broadest sense.

The Governance section of our 2022 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.

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

Informing

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, in addition to, circular economy trends, and the consequences for the Group's strategy.

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 450 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

Five 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 change-related topics. The Committee oversees, on behalf of the Board, material policies, processes and strategies designed to manage climate-related risks and opportunities.

- Considers the Group's principal risks that fall within its oversight responsibility including risks related to climate change.
- Sign-off of Anglo American's annual Climate Change Report (including TCFD disclosure) and Sustainability 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.

Informing

Reporting

Chief Executive and Group Management Committee (GMC)

- The chief executive, who is advised and supported by the GMC, is accountable for aligning our business practices with our climate change commitments and ambitions.
- Alongside the chief executive, the GMC includes business unit CEOs, Group directors of corporate functions, and the Group general counsel and company secretary. It is supported by the Climate Change Steering Committee.

Informing

Reporting

Climate Change Steering Committee

- Chaired by the Group head of strategy and includes the Group heads of carbon neutrality, sustainable development, corporate finance, international, government and sustainability relations, and the Chief Executive's Office.
- The Committee draws together all workstreams across the Group related to climate change and proposes priority workstreams annually.
- It has both oversight and scrutiny of Group-wide work on climate change on behalf of the GMC.
- The Committee meets on a monthly basis to drive implementation of the company's climate transition plan and regularly reports to the GMC.

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 Group Management Committee (GMC) 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, and holds regular discussions on material climate-related activities and energy efficiency targets. 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, and as stand-alone items on the agenda where necessary. The chairman of the Sustainability Committee provides a summary of the Committee's discussions at the Board, which addresses the most material issues raised by the Committee.

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 121–203 of our 2022 Integrated Annual Report detail the role of the Board and its governance structure, the work of the Board and its committees, their membership, responsibilities, and key activities during 2022.

At executive level, key management decisions are taken by the chief executive and his leadership team, in accordance with their delegated authority. Our GMC is held accountable for a range of measures including climate-related performance, which are then cascaded through the Group. The GMC is supported by the Climate Change Steering Committee, chaired by the Group head of strategy, 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 for the Group Long Term Incentive Plan (LTIP). The LTIP is awarded to our most senior leaders across Anglo American, in total around 450 employees across our jurisdictions.

We have linked 20% of the 2022 LTIP to environmental, social and governance (ESG) measures, specifically the delivery of our 2030 Sustainable Mining Plan (SMP) goals. This is broken down as follows: 14% is linked to climate-related measures that support the delivery of our 2030 GHG emissions reduction target of 30% (Scope 1 and 2), against a 2016 baseline; (6% of award); achieving a 50% net reduction in fresh water abstraction in water scarce areas (8% 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 2022 LTIP, a portion of our in-flight 2020 and 2021 LTIPs are also linked to climate-related measures. For 2020, these include reducing our GHG emissions and improving our operational energy efficiency. For 2021, this is based on reduction of our GHG emissions.

Further details of the performance conditions attached to our executive remuneration incentive arrangements can be found in the Directors' remuneration report within our 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 in line with this framework. Our Integrated Annual Report and our Sustainability Report cover the key aspects of the disclosure each year. This report is aligned with the expectations of the TCFD, and a TCFD-linked index is provided on page 39.

We welcomed the UK Government's implementation of mandatory TCFD disclosure for premium listed businesses and have engaged with feedback offered by both the Financial Conduct Authority and the Financial Reporting Council. Continuing its implementation of climate-related disclosures, we have actively engaged in the development of the UK's Transition Plan guidance, including contributing to public consultations on the forthcoming framework.

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, with the support of the ICMM, we continue to engage with Climate Action 100+ as it develops a Net Zero Diversified Mining Standard. Our Climate Action 100+ summary is provided on pages 40–42 of this report.

We will continue to monitor and engage with evolving standards; for example, the International Sustainability Standards Board (ISSB) climate-related disclosures and adjacent, but relevant, areas such as the Taskforce for Nature-Related Financial Disclosure (TNFD), on which Anglo American is the only sitting mining company.

Discussions related to climate change in 2022:

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 achieving carbon neutral energy in the Group's operations.

– Climate change discussions as part of the Board's dedicated strategy meeting, including external perspectives, the Group's resilience to 1.5°C pathways, hydrogen economy and the circular economy.

Sustainability Committee

– Updates on the decarbonisation programme for the Group's Scope 1 and 2 GHG emissions and monitoring achievement of carbon neutrality targets.

– The management of physical climate change risks and resilience across the Group.

Case study

Anglo American at COP27

The ambition of COP27 in Sharm El-Sheikh (November 2022) was to be the 'implementation COP' – focused on the delivery of agreements made by countries at previous conferences. In this context, and being African COP, Anglo American chose to participate to play a policy advocacy role. Our team at COP27 was led by Group director – South Africa, Nolitha Fakude and the CEO of our Bulk Commodities business, Themba Mkhwanazi. We focused on three topics: the role of critical minerals in the low carbon transition; hydrogen; and the Just Transition. On each of these topics we contributed to debates, shared our own experiences and we listened and learnt from others. We were also invited to contribute to discussions by the British Government, the Carbon Trust, the World Bank Group, and the International Labour Organization, amongst others. We believe that business' role in delivering a low carbon future means that there must be a strong, positive business voice in policy discussions about climate change, and the periphery of the COP process provides the ideal platform for this.

Joanne Yawitch, CEO, National Business Initiative (South Africa); Lebogang Mulaisi, Head of Policy, Congress of South African Trade Unions; Barbara Creecy, Minister for Environment, Forestry and Fisheries, South African Government; Wendy Dobson, Group Corporate Citizenship Head, Standard Bank; Nolitha Fakude, Group director – South Africa; Daniel Mminele, Head of the South African Presidential Climate Finance Task Team; and Nazmeera Moola, Chief Sustainability Officer, Ninety One.

Policy and advocacy approach

In 2015, we demonstrated our commitment to the Paris Agreement through our signature of 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 our approach to third-party lobbying, our intention is that the industry associations of which we are a member support 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 that we might be party to, 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 significantly updated our public policy positions and redefined them across eight issues. These revisions reflected developments in the public discourse, policy environment and societal expectations. The updated policy positions are listed in full below.

Climate change policy positions

The science
We support the mainstream climate science assessed by the IPCC, which forms the foundation for our approach to climate change.

Paris Agreement/Scope 1 and 2
We support the Paris Agreement and the subsequent Glasgow Climate Pact, in which governments aimed to limit the global temperature increase to 1.5°C. Achieving these aims requires significant reductions in carbon emissions by all, including businesses.

Scope 3
We recognise the role we have to play in stimulating decarbonisation in our value chain and thereby reducing our Scope 3 emissions, working with our supply chain and, crucially, our customers to support their own decarbonisation efforts.

Offsetting
We support the principles of the mitigation hierarchy in considering emissions reductions. High-quality or high-integrity offsets should be utilised only after avoidance, reduction and restoration measures.

Carbon pricing/market mechanisms
We believe that carbon pricing has an important role to play in delivering a lower carbon world. We support the development of consistent carbon pricing policies across jurisdictions and the use of fair and well-designed market-based instruments to incentivise investment in low emission technologies.

Transparency/disclosure
We welcome increased transparency on climate reporting and climate advocacy. We support the development of well-designed disclosure frameworks, such as TCFD, and advocate for consistency across standards and metrics.

Adaptation
We recognise the impact of a changing climate. We acknowledge the importance of increased adaptation and resilience for both businesses and wider society.

Just Transition
We support an approach to climate transition which considers the societal impacts, aiming to ensure that a transition is 'just'.

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 action is taken.

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 and our response to its findings has been published alongside this report. The latest 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 have been 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
www.angloamerican.com/sustainable-mining-plan/trusted-corporate-leader/policy-advocacy

International and sustainability relations principal, Khule Duma (right), discusses Anglo American's approach to the Just Transition at the International Labour Organization pavilion at COP27 in Sharm El-Sheikh in November 2022.

Assurance statement

Scope 3

Independent Assurance Report to the Directors of Anglo American Plc

Introduction

IBIS ESG Consulting Africa (Pty) Ltd (IBIS) has been engaged by the Directors of 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 year ended 31 December 2021. This assurance report is produced in accordance with the terms of our engagement letter dated 12 October 2022.

IBIS is an independent provider of sustainability assurance services. This engagement was conducted by a multidisciplinary team of assurance specialists with extensive experience in sustainability reporting. The assurance team was led by Petrus Gildenhuys who has more than 25 years' experience in sustainability performance measurement involving both advisory and assurance work.

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.

Anglo American

The Directors of Anglo American are responsible for the generation, collection and presentation of the selected sustainability information within the Report. Anglo American is also responsible for maintaining adequate records and internal controls that support the reporting process during the disclosure period.

IBIS

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 selected sustainability information reported. 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

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

Interviews

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

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

Assessing

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

Reporting

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. It is important to understand our assurance conclusions 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

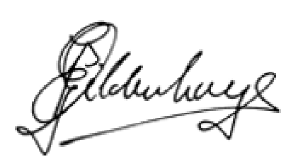
Our work has been undertaken to enable us to express the opinion and conclusions on the selected sustainability information to the Directors of Anglo American in accordance with the terms of our engagement, and for no other purpose. We do not accept or assume responsibility to any third parties i.e. 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 view, 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 year ended 31 December 2021, and as presented below, are not fairly represented in all material respects.

Category			Total GHG Emissions excl. Biogenics (tCO^{2}e)
Upstream	1:	Purchased Goods & Services	6,834,277
	2:	Capital Goods	8,047,396
	3:	Fuel & Energy Related Activities	1,630,710
	4:	Upstream Transport & Distribution	963,330
	5:	Waste Generated in Operations	19,188
	6:	Business Travel	6,312
	7:	Employee Travel	95,524
	8:	Upstream Leased Assets	1
Downstream	9:	Downstream Transport & Distribution	2,446,725
	10:	Processing of Sold Products	48,138,794
	11:	Use of Sold Products	20,360,275
	12:	End-of-life Treatment of Sold Products	6,510
	13:	Downstream Leased Assets	109
	14:	Franchises	103
	15:	Investments	9,981,278
Total Scope 3 GHG Emissions			**98,530,530**



Petrus Gildenhuys
Director, IBIS ESG Consulting Africa (Pty) Ltd
Johannesburg, 3 March 2023

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. A full TCFD disclosure table can be found on page 114–119 of the Integrated Annual Report.

— For our Integrated Annual Report 2022
see: www.angloamerican.com/annual-report-2022
— For our Sustainability Report 2022
see: www.angloamerican.com/sustainability-report-2022

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 35–37 Integrated Annual Report, pages 14, 20–24, 26–27, 49, 64–66, 69–73 (specifically risks 9 and 12), 135
b) Describe management's role in assessing and managing climate-related risks and opportunities	Effective governance and engagement, pages 35–37 Integrated Annual Report, pages 14, 20–24, 64–66, 69–73, 185

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 14 Managing transition risks through portfolio evolution, pages 15–18 Physical climate risk: adapting to a changing climate, pages 19–22 Integrated Annual Report, pages 28–35, 40–41, 43–44 , 45–49, 72–73
b) Describe the impact of climate-related risks and opportunities on the organisation's businesses, strategy and financial planning.	Managing transition risks through portfolio evolution, pages 15–18 Integrated Annual Report, pages, 28–35, 40–41, 43–44, 45–47, 64–66
c) Describe the resilience of the organisation's strategy, taking into consideration different climate-related scenarios, including a 2°C or lower scenario.	Managing transition risks through portfolio evolution, pages 15–18 Integrated Annual Report, pages 28–35, 40–41, 43–46, 64–66

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 14 Managing transition risks through portfolio evolution, pages 15–18 Physical climate risk: adapting to a changing climate, pages 19–22 Integrated Annual Report, pages 45–46, 67–73
b) Describe the organisation's process for managing climate-related risks.	Resilience to climate risk, page 14 Managing transition risks through portfolio evolution, pages 15–18 Physical climate risk: adapting to a changing climate, pages 19–22 Integrated Annual Report, pages 28–55, 69–73
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 14 Integrated Annual Report, pages 45–46, 69–73

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 14 Integrated Annual Report, page 48
b) Disclose Scope 1, Scope 2 and, if appropriate, Scope 3 greenhouse gas (GHG) emissions and the related risks	Decarbonising our operations, pages 24–26 Decarbonising our value chain, pages 28–31 Integrated Annual Report, pages page 48, 323
c) Describe the targets used by the organisation to manage climate-related risks and opportunities and performance against targets.	Decarbonising our operations, pages 24–26 Decarbonising our value chain, pages 28–31 Integrated Annual Report, pages 47–49

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 24–26 Decarbonising our value chain, pages 28–31 Climate Transition Plan, page 11
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.	Decarbonising our operations, pages 24–26 Decarbonising our value chain, pages 28–31 Scope 3: Technical Report FY2021
Sub-indicator 2.2 – The long-term (2036 to 2050) GHG reduction target covers at least 95% of Scope 1 & 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.	
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°Celsius with low or no overshoot in 2050. This is equivalent to IPCC Special Report on 1.5°Celsius 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 24–26 Decarbonising our value chain, pages 28–31 Scope 3: Technical Report FY2021
Sub-indicator 3.2 – The medium-term (2026 to 2035) GHG reduction target covers at least 95% of Scope 1 & 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 24–26 Effective governance and engagement, pages 35–37 Scope 3: Technical Report FY2021
Sub-indicator 4.2 – The short-term (up to 2025) GHG reduction target covers at least 95% of Scope 1 & 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°Celsius 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, based on an analysis of company disclosure documents: https://bit.ly/3k8NTUC

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.	Managing transition risks through portfolio evolution, pages 15–18 Decarbonising our operations, pages 24–26 Decarbonising our value chain, pages 28–21
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.	Managing transition risks through portfolio evolution, pages 15–18
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°Celsius 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 35–37 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 35–37 Governance, Integrated Annual Report, pages 121–204
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	Just Transition, page 33
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 Organisation'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.	
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).	TCFD disclosure, page 40 Resilience to climate risk, page 14 Effective governance and engagement, pages 35–37 TCFD table, Integrated Annual Report, pages 114–119
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.	
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.	Managing transition risks through portfolio evolution, pages 15–18 Physical climate risk: adapting to a changing climate, pages 19–22
Metric 10.2.a – The company has conducted a climate-related scenario analysis including quantitative elements and disclosed its results.	
Metric 10.2.b – The quantitative scenario analysis explicitly includes a 1.5°Celsius 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

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 purchase 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 about Anglo American included in this document is sourced from publicly available third-party sources. 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.

Comments or queries related to this report

— Contact us
Visit www.angloamerican.com/contact-us

Other Anglo American reports

Integrated Annual Report

Tax and Economic Contribution Report

Sustainability Report

UK Modern Slavery Act statement

Voluntary Principles on Security and Human Rights

UK Gender Pay Gap Report

Transformation Performance Report

Ore Reserves and Mineral Resources Report

Business units

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
Fax +44 (0)20 7968 8500
Registered number 03564138

www.angloamerican.com

Find us on Facebook
Follow us on Twitter

Content developed in association with Corporate Citizenship.

Designed and produced by
SALTERBAXTER
www.salterbaxter.com